

# Proposal to Provide Consultant Support and to Prepare an Environmental Impact Report for the **Avila Point Project**

## Specific Plan Amendment/ Coastal Plan Amendment/ Development Plan/Remediation DRC2012-00048; LRP2012-00003, ED12-129

Presented to:



Prepared by:



May 24, 2013



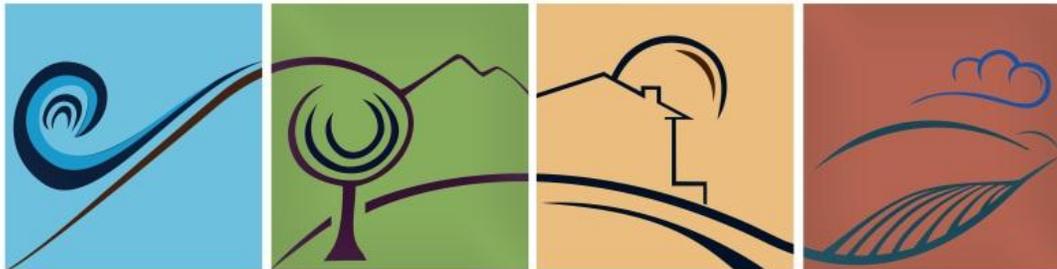
# Proposal

for the

## Avila Point Project

Specific Plan Amendment/Coastal Plan Amendment/  
Development Plan/Remediation  
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*Presented to:*



PLANNING & BUILDING  
COUNTY OF SAN LUIS OBISPO

*Prepared by:*

### Aspen Environmental Group

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May 24, 2013

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## Introduction

Aspen Environmental Group (Aspen) appreciates this opportunity to submit this proposal to the County of San Luis Obispo (County) Department of Planning and Building to provide consultant services and prepare an Environmental Impact Report (EIR) for the proposed Avila Point Project (“proposed project” or “project”). Aspen brings more than 20 years of experience providing environmental services to our public agency clients. We have unparalleled experience working on complex and controversial projects and are expert in managing high-profile EIRs. Our staff includes land use planners, public involvement specialists, scientists and engineers; we have identified the right mix of management and technical resources at Aspen and through our team subcontractors to effectively and efficiently execute this project for the County.

The proposed project includes remediation activities associated with the Avila Tank Farm property, proposed land use and coastal plan amendments and a redevelopment project. This proposal has been prepared in response to the County RFP for the proposed project, and it addresses all issues identified in the RFP. The proposal is divided into six main sections. Section A, Aspen Team Qualifications, provides detail on Aspen’s and our subcontractor’s qualifications to carry out this project for the County.

Section 3 of the RFP (Proposal Content) identifies 10 areas of experience that firms should demonstrate that they have in the proposal. Sections A through F demonstrate our experience and understanding of these areas of experience. We have highlighted the Aspen Team’s expertise and capabilities in these ten areas below. Please refer to the proposal for more detail on our team’s qualifications.

- **Remediation Activities and Techniques.** The Aspen Team has extensive experience in site remediation, including the identification and development of project-specific remedial techniques. Our team includes Aspen staff and Ninyo & Moore for the provision of remediation expertise, as well as hazardous materials and risk assessment expertise. Ninyo & Moore’s relevant project experience includes but is not limited to the Monarch Point – Ellwood Mesa Site Assessment and Remedial Planning Project in Goleta, where they identified and assessed remedial actions for environmental issues associated with a land exchange proposed to secure a coastal property on the mesa as part of an existing ecological preserve. Their work involved issues associated with historic oil exploration and development, and a Remedial Action Plan was subsequently developed for the property.
- **Specific Plans and Community Planning.** Aspen’s experience as a consultant to dozens of cities and counties throughout California has given us exceptional land use and comprehensive planning, and policy assessment/consistency qualifications as well as a broad range of problem-solving abilities. For this project, Aspen has also partnered with Pacific Municipal Consultants (PMC) to provide a valuable combination of experience and qualifications to the comprehensive planning, coastal planning, and policy planning process. Among other relevant projects, PMC has managed the preparation of an update to San Luis Obispo County’s General Plan Conservation Element and the associated Program EIR, and also provided an update of the City of Seaside’s 1983 Local Coastal Program document and associated environmental review.

### *PROPOSAL ORGANIZATION*

*A. Aspen Team Qualifications*

*B. Project Team*

*C. Project Understanding and Type of EIR*

*D. Work Plan*

*E. Technical Approach to Environmental Analyses*

*F. Schedule and Cost*

- **Consultation with Responsible Agencies, Trustee Agencies, and Community Groups.** Aspen commonly works on controversial projects, and through this experience we have gained an excellent reputation in working and coordinating with all levels of government. Our capabilities in this area have been demonstrated through successful completion of numerous projects for San Luis Obispo County, including the Topaz Solar Farm Project and the California Valley Solar Ranch. We have consistently demonstrated our ability to facilitate and streamline permitting processes. In addition, Aspen has significant and relevant experience working with community and interest groups, homeowner groups, environmental groups and other stakeholders as well as effectively engaging these groups in the environmental review or other outreach process. Aspen has extensive experience with planning and implementing public involvement programs for controversial projects. For instance, in working for the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) to evaluate oil well drilling practices in Kern County, Aspen developed and facilitated a series of workshops to inform and coordinate with public interest and industry groups; this process went beyond the requirements of CEQA to ensure thorough involvement of all stakeholders.
- **Coastal Plans and Permitting.** Aspen has worked on numerous coastal projects in California, including preparation of a multi-disciplinary “Environmental Information document” and ten Coastal Consistency Determinations for the U.S. Department of the Interior (DOI), Minerals Management Service (MMS) for federal oil and gas leases offshore of San Luis Obispo, Santa Barbara, and Ventura Counties. Aspen has also worked on multiple projects within the Ports of Long Beach and Los Angeles (POLB and POLA, respectively) which provides us the familiarity and experience necessary to navigate applicable coastal plans and permitting requirements. In addition, as noted above, Aspen has partnered with PMC for this project; PMC also complements our abilities relevant to coastal plans and permitting. For instance, PMC has been providing ongoing contract staffing services to Sand City since the late 1990s, including preparation of a number of Local Coastal Program amendments, and processing coastal development permits through the Coastal Commission.
- **Coastal Regulatory Framework and Process.** As noted above, Aspen has extensive experience with coastal projects; this includes familiarity with coastal regulatory framework issues and processes. Both Aspen’s in-house specialists and through our subcontractor, PMC, we understand legal issues, best practices, and special considerations to develop innovative, appropriate, and legally defensible policy solutions. We partner with local governments, regional agencies, and special districts to ensure that local policies are consistent with the larger framework.
- **Subdivision Process.** The Aspen Team includes Aspen land use specialists with familiarity in the subdivision process and additional subcontractor resources in an effort to provide any expertise the County may require in evaluation of the Avila Point project. For instance, PMC served as an extension of City staff for the Church Street Subdivision Initial Study in Half Moon Bay, where primary issues addressed in PMC’s analysis included heavy restriction of the site by the Pilarcitos Creek riparian area setback requirements, as well as Local Coastal Program consistency and water quality assurances.
- **Drainage Issues.** The Aspen Team’s hydrology and water resources specialists will thoroughly assess site drainage plans for potential issues, particularly those associated with bluff-top development. Aspen has prepared analyses of numerous flood control projects with major drainage issues, including but not limited to the Thousand Palms Flood Control Project in Riverside County, Santa Maria Levee Project in Santa Barbara County, and Sespe Creek Levee Project in Ventura County. Aspen’s experience with these and other projects with major drainage issues provide our water resources specialists with the expertise required to understand and assess any potential drainage

issues on the Avila Point site. In addition, the Aspen Team includes specialists from Ninyo & Moore who will provide engineering expertise in the assessment of drainage issues. Ninyo & Moore water specialists have prepared analyses for the Ascon Landfill EIR, a remedial action project in Huntington Beach, as well as assessment of redevelopment of a commercial site in Santa Fe Springs.

- **Visual and Scenic Resources.** The project's location on a coastal bluff area is particularly sensitive for visual and scenic resources, and it will be important to carefully assess how existing viewsheds and viewing opportunities may be affected by the project. Aspen has provided visual resources analyses for coastal projects including the Morrow Bay Power Plant, the Environmental Information Document and Coastal Consistency Determinations for Federal Oil and Gas Leases Offshore San Luis Obispo, Santa Barbara, and Ventura Counties, and several coastal power plant projects assessed for the California Energy Commission. In addition, PMC's visual resources experts will support the Aspen Team in this issue area, with project experience including visual impact analyses for the Ocean View Plaza EIR in the City of Monterey and the Conservation Element Update and Consolidation EIR for San Luis Obispo County.
- **Cultural Resources and Senate Bill 18 Consultation.** Aspen's team includes cultural resources experts with experience throughout California, including familiarity with the requirements of Senate Bill 18 (SB18), which requires cities and counties to consult with Native American tribes when adopting and amending their general plans and specific plans. Applied Earthworks will supplement the Aspen Team for this project. Applied Earthworks has provided extensive cultural resources analyses for the City and County of San Luis Obispo's Chevron Tank Farm Restoration and Development EIR, including conducting cultural resources background research, consulting with the local Native American community, and performing a peer review of applicant-supplied cultural resource inventory and evaluation reports. Applied Earthworks also prepared a Cultural Resources Management Plan for the Avila Beach Remediation Project.
- **Biological Resources and Coastal Wetland Issues.** Aspen has conducted analysis of biological resources and developed project-specific mitigation plans, as needed, for multiple complex infrastructure projects in San Luis Obispo County, including the Topaz Solar Farm Project and the California Valley Solar Ranch. Aspen has also provided analysis of coastal biological resources, such as for the aforementioned Environmental Information Document (U.S. DOI, MMS). Aspen's biologists specializing in wetland issues have completed advanced wetland management training programs and U.S. Army Corps of Engineers' wetland delineations training. Aspen biologists have extensive experience working with resources in the project area and have an excellent reputation in effectively working with resource agencies. We have also included an Aspen marine biologist with extensive remediation and risk assessment experience to support our biological team and to address any potential impacts to the tidelands in the project area.

Aspen is fully committed to working closely with County staff in the pre-EIR and EIR portions of this project. We will prepare objective analyses of all issues and prepare written documents that effectively address environmental issues. We will take every effort to ensure that we give you sufficient information to make an informed decision, while ensuring a streamlined and efficient environmental review process. We thoroughly understand the decision-making process in local government, and regularly support agency staff, including participation at public hearings for the Planning Commission and Board of Supervisors. As demonstrated in this proposal, Aspen has identified the best team to support the County on this project.

## A. Aspen Team Qualifications

Aspen was founded in 1991 and celebrated its 20th anniversary in 2011. Since the company's inception, Aspen has served as prime contractor for the preparation of nearly 200 California Environmental Quality Act and National Environmental Policy Act documents. Aspen is California-based with offices in Agoura Hills, Sacramento, Davis, San Francisco, Upland, Las Vegas, and a new office in Palm Springs.

Aspen has consistently demonstrated the capability to produce defensible and objective environmental impact reports, often including the full range of environmental and supporting studies that may be required as part of the local, State, or federal environmental and regulatory processes. Most of these projects have been highly visible and controversial projects, involving extensive public participation programs and competing responsible and trustee agencies. This section provides examples of this project-specific experience and demonstrates our team's capability to effectively and expeditiously complete this project for the County of San Luis Obispo Department of Planning and Building (County).

### RFP Criteria

- 4.3A (Qualifications)
- 4.4B (Experience with Local Government)

**The Aspen Team.** In order to provide the County with the best possible service, we have assembled an outstanding team composed of Aspen's internal staff and four highly qualified and recognized subcontractors, collectively "the Aspen Team." Aspen has extensive experience completing all aspects of the environmental review process under CEQA, and frequently act on behalf of agency personnel. Aspen was founded on the principle that we can best meet the needs of our clients by developing and managing technical teams that are specific to the attributes of a proposed project. To that end, we are fully accustomed to functioning as the prime contractor for both large and small teams of specialists. We have worked extensively with all of the subcontractors that we have selected for our team, and each of them understand our internal working structure, report templates, and invoicing requirements to ensure that their work products and contributions are fully integrated and seamless.

In recent years, Aspen has established an excellent working relationship with the County's planning staff, particularly through preparation of the EIRs and implementation of the Mitigation Monitoring and Reporting Programs for the Topaz Solar Farm Project and the California Valley Solar Ranch Project. Our subcontractors also have extensive experience providing environmental analyses either for site remediation and redevelopment, development within the County, or both.

The Aspen Team is uniquely qualified to support the County with all tasks identified in the RFP for the Avila Point Project. Aspen has worked on a number of large, controversial EIRs and are experts in developing and conducting public participation programs for projects of all sizes. We have in-house technical experts in air quality, noise, biological resources, recreation, public services and utilities, and energy. We also routinely coordinate and consult with State and federal resource agencies on behalf of our clients. In addition, we have worked on numerous oil and gas development projects and are very familiar with this land use and the issues that may be encountered at the site during remediation activities, especially as these issues may relate to future redevelopment of the site. Our subcontractor Ninyo & Moore are experts in site remediation and have extensive experience with remediation and redevelopment projects. Aspen will supplement our in-house planning and land use specialists with Pacific Municipal Consultants, who bring considerable local experience to the team in the areas of general and specific plan development, coastal permitting and planning, and technical analyses for visual

resources and aesthetics. Fehr & Peers is a preeminent firm specializing in transportation planning and traffic engineering services, and will be providing all transportation and traffic analyses. Applied Earthworks specializes in cultural and paleontological resources and Native American consultations, and has extensive experience working in San Luis Obispo County.

This section details the corporate qualifications of Aspen and the selected subcontractors. Exhibit 1 summarizes the project roles of each member of the Aspen Team. The following subsections describe each firm’s qualifications and experience.

| <b>Exhibit 1. Aspen Team Firms</b> |   |
|------------------------------------|---|
| <b>Firm Name</b>                   | <b>Project Role</b>   |
| Aspen Environmental Group          | Prime Contractor, Project Management, Air Quality, Noise, Biological Resources, Marine Biology, Land Use Planning, Recreation, Public Services and Utilities, Energy, Document Production, Technical Oversight, Quality Assurance |
| Ninyo & Moore                      | Remediation and Remedial Alternatives, Hazardous Materials, Risk Assessment, Groundwater, Geology   |
| Pacific Municipal Consultants      | Land Use, Coastal Permitting and Planning, Specific Plans, Community Planning, Subdivision Process, Aesthetics  |
| Fehr & Peers                       | Transportation, Circulation, Traffic, Parking   |
| Applied Earthworks                 | Cultural and Paleontological Resources, Native American Consultation  |

## A.1 Aspen Environmental Group

Aspen is well qualified to provide consultant services to support the preparation of the Specific Plan and other plan amendments, and to prepare the EIR for the proposed project. Over the past 22 years, Aspen has specialized in assisting clients with the planning and development of projects and the environmental programs and in environmental review of complex and controversial projects. Often times these projects required coordination with multiple jurisdictions and involved comprehensive public notification and involvement. The following are selected details of projects that Aspen has completed that demonstrate our depth and breadth of experience with government agencies, and similar types of projects.

Aspen focuses on planning and policy review, development and the analysis of infrastructure projects for public agencies, with a particular emphasis on energy-related projects, including pipelines, oil and gas exploration and development, power plants, marine terminals, transmission lines, and renewable energy. This discussion presents a tailored list of Aspen’s relevant experience.

- Pre-EIR Coordination
- Controversial EIRs
- Remediation of Contaminated Sites
- Health Risk Assessments/Air Toxics
- Land Use Compatibility
- CEQA Noticing and Community Outreach
- Mitigation Monitoring Program
- Agency coordination
- CEQA Findings of Fact

## Representative Projects in San Luis Obispo County

### *Topaz Solar Farm Project EIR*

Aspen managed the preparation of an EIR for the Topaz Solar Farm proposed by Topaz Solar Farms LLC, a wholly owned subsidiary of First Solar, Inc. The project consisted of the construction and operation of a 550-megawatt photovoltaic solar power plant in Carrizo Plain, an unincorporated portion of eastern San Luis Obispo County. The applicant applied to the County of San Luis Obispo for a Conditional Use Permit to allow a solar power plant as a permitted use on the site. This project also included a Tentative Tract Map application to address several illegally created parcels on the project site as well as evaluation of PG&E proposed transmission upgrades and switching station, and consideration of a land swap with the US Bureau of Land Management. Aspen also prepared a wildlife corridor study, a fiscal impact study, SB 610 water assessment, and construction traffic assessment.

Aspen carried out a full public participation program for this EIR and supported the County at multiple public hearings. Currently, Aspen is serving as the County's construction-phase mitigation monitoring staff for this project.

### *California Valley Solar Ranch Project EIR*

Aspen prepared an EIR for the project on behalf of San Luis Obispo County for the California Valley Solar Ranch Project. Sunpower Corporation proposed to construct and operate a 250-megawatt solar photovoltaic power plant on approximately 4,000 acres of rangeland in the Carrizo Plain, an unincorporated portion of eastern San Luis Obispo County. Sunpower's proposal also included an electrical substation, a 2.8-mile transmission line, and an aggregate mine north of the project site. As a part of the whole of the action under the CEQA, Aspen concurrently evaluated re-conductoring of 35 miles of Pacific Gas and Electric Company's Morro Bay-Midway 230-kV transmission line, which is a necessary action for delivery of the project's power to the regional grid.

This controversial project is located within core habitat for protected wildlife species, and its primary construction route is located in close proximity to a small community and elementary school. The key issues included: greenhouse gas emissions; agriculture; visual impacts; noise; traffic; and biological impacts. Aspen also coordinated with the County Administrative Office to identify and quantify the fiscal impacts associated with the construction and operation of the project. The Socioeconomic and Fiscal Impact Report was included as an appendix to the EIR.

Aspen carried out a full public participation program for this EIR and supported the County at multiple public hearings. Aspen is currently monitoring project construction for compliance with mitigation measures.

### *Carrizo Energy Solar Farm (CESF) Project Staff Assessment*

Aspen supported the California Energy Commission (CEC) during preparation of its Staff Assessment, and evaluated impacts associated with waste management, land use, traffic, socioeconomics, and project alternatives for the proposed CESF in San Luis Obispo County. The project consisted of approximately 195 Compact Linear Fresnel Reflector solar concentrating lines and associated steam drums, steam turbine generators, air-cooled condensers, and infrastructure, to produce up to a nominal 177-MW net. Aspen staff additionally worked closely with County staff to develop appropriate approaches to the analyses of the project's alternatives and contribution to cumulative impacts. The CESF project was canceled after publication of the Preliminary Staff Assessment, and the project site was acquired by First Solar for the Topaz Solar Farm Project.

### ***PG&E's Diablo Canyon Nuclear Power Plant Steam Generator Replacement Project EIR***

Aspen prepared the EIR for the Diablo Canyon Nuclear Power Plant Steam Generator Replacement Project. The CPUC, as the lead agency for this project, decided whether the project cost of over \$800 million should be covered by PG&E's rate-payers. For the nuclear power plant to continue operation, replacement of the original steam generators was needed because of premature degradation from stress and corrosion cracking. Project activities involved a large workforce at the remote coastal plant in central San Luis Obispo County and delivering massive replacement steam generators by barge. Major issues of concern included impacts to San Luis Harbor and potential inconsistencies with the California Coastal Act.

The EIR discussed the baseline conditions of the nuclear power plant (such as present-day safety risks of reactor core accidents or terrorist acts and ongoing ocean life damage from the once-through cooling water system), Nuclear Regulatory Commission (NRC) oversight of nuclear power plants, and the possibility that the NRC licenses would be extended.

### ***Morro Bay Harbor Sediment Sampling, Testing, and Reporting***

Aspen oversaw completion of a chemical sampling evaluation of Morro Bay in San Luis Obispo County. The purpose of the project was to evaluate potential contaminants that could be released during dredging operations conducted by the U.S. Army Corps of Engineers (Corps) within the bay. The project involved development of a Sampling and Analysis Plan (Plan) for Corps and U.S. Environmental Protection Agency (EPA) review and approval, implementation of the Plan, oversight of the chemical testing of the samples taken, and preparation of a final document detailing the results of the chemical testing.

### ***Morro Bay Power Plant Project***

The Morro Bay Power Plant Project proposed to "modernize" the Morro Bay Power Plant. The project is located at the existing 1,002-MW Morro Bay Power Plant site that is currently owned and operated by Duke Energy. The old plant was replaced by a 1,200-MW facility. The site is located within the City of Morro Bay in San Luis Obispo County, near Morro Bay Harbor, bordered on the west by Embarcadero Road and on the east by Highway 1. Duke Energy Morro Bay, LLC proposed construction of two new generating units to replace the existing operating generation of Units 1 and 2 (326-MW, 1950s technology) and Units 3 and 4 (676-MW, 1960s technology) with two state-of-the-art 600-MW combined cycle units. Aspen was responsible for preparing an in-depth Alternatives Assessment, and the impact evaluations for efficiency and reliability, facility design, geology and paleontology, hazardous materials, land use, noise, vapor plume modeling, socioeconomic, traffic/transportation, transmission system engineering, visual resources, waste management, water and soil resources (groundwater), and worker safety.

### **Programmatic or Planning Projects**

#### ***Program EIR for the Los Angeles Unified School District New School Construction Program***

Under a separate contract with LAUSD, Aspen was selected as the CEQA consultant to prepare the Program EIR for Phases II, III, and IV of the LAUSD's new school construction program intended to meet projected seat needs through the year 2020. Phases I through IV of the LAUSD School Construction Program represented the largest school facilities improvement project in the country, and was intended to create approximately 200,000 new seats by the year 2020 for schools within the LAUSD boundary, which includes the City of Los Angeles and 27 contiguous jurisdictions (704 square-mile area). The

Program EIR addressed all environmental issue areas and documented site selection, design, construction, and operation measures that the LAUSD agreed to implement, as applicable, on all school projects. The report evaluated potential environmental impacts associated with the construction and operation of new schools before specific sites were identified. Preparation of this document required extensive and planned coordination with regulatory agencies and the public. This Program EIR received the Environmental Award from the Los Angeles Section of the American Planning Association. This document was managed by Sandra Alarcón-Lopez, the proposed Project Manager for the Avila Point project.

### ***Review of County of Los Angeles Draft EIR for the Baldwin Hills Community Standards District and Preparation of a City Drilling Ordinance***

Under contract to the City of Culver City, Aspen reviewed the Draft EIR for the Baldwin Hills Community Standards District (CSD) prepared by the County of Los Angeles. The EIR considered the preparation and establishment of a CSD for the Inglewood Oil Field, which included standards and measures that would be applied to any future oil and gas drilling project within the oil field. PXP, the operator of the Inglewood Oil Field, submitted an application to the County to establish a CSD for the portion of the field located in the Baldwin Hills Zoned District in unincorporated Los Angeles County (a portion of the field is within the jurisdiction of the City of Culver City). The EIR evaluated existing and future oil operations in the Inglewood Oil Field and identified additional development standards and regulations that should be included in the CSD to mitigate the impacts of drilling on the surrounding communities. Aspen reviewed the Draft EIR for technical accuracy and CEQA compliance, and the results of the EIR review were provided to the City as comments suitable for submission to the County. As part of this review Aspen also evaluated the regulations and standards proposed in the CSD. Some of the key community concerns were noise, air quality, odor, visual impacts and concerns with past gas releases. Therefore, the comments addressed the need to implement measures such as the use of low-profile rigs, electrified rigs (where feasible), noise reducing equipment, an emergency response notification system, and odor control measures. In addition, Aspen reviewed the City's existing oil and gas requirements and prepared a draft oil and gas drilling ordinance for the City. This task also included a review and comparison of the type of well drilling permits, application fees, oil production taxes, bonds, and insurance requirements adopted by other jurisdictions within Southern California. Aspen continues to work with the City of Culver City in the development of an oil and gas drilling ordinance and on other issues or studies related to the portion of the Inglewood oil field within the City's jurisdiction.

### ***California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) CEQA Compliance Assessment, Data Gap Analysis, and Initial Study (IS)***

Aspen completed a CEQA Compliance Analysis of DOGGR's well drilling practices in Kern County. Interest groups expressed concern that DOGGR, as Lead Agency, had not considered cumulative environmental impacts in evaluating well-drilling permits. For this reason, DOGGR requested an assessment of its CEQA practices to determine what options were available to improve its CEQA compliance in Kern County.

Aspen collected and reviewed over 37 environmental, policy, and permitting documents for projects or policy decisions in Kern County. Aspen's team also evaluated DOGGR's role as a lead and responsible agency, evaluated key definitions such as exploratory versus production wells, considered surface and subsurface issues, and assessed the current review process from a legal adequacy standpoint. Aspen identified and evaluated alternative approaches to CEQA compliance including a Program EIR and coordinated/facilitated five informational meetings for this project.

Aspen also prepared a work plan which included preparation of revised regulations, preparation of a project description, a data gap analysis, and comprehensive environmental review. The data gap analy-

sis was compiled into a white paper that was shared with oil and gas industry groups as requested. Aspen also evaluated current state regulations regarding implementation of CEQA on well permits and recommended revisions to current regulations. Comments were incorporated into the document and a final version of the revised regulations was prepared. A project description for regulation revisions presented different well-drilling projects that would be permitted by DOGGR under the program. Aspen worked with DOGGR and legal staff to refine this description.

Aspen also prepared a Draft Initial Study (IS) to establish a standard process for review of CEQA on well-drilling projects, justify those actions that are ministerial by assessing all potential cumulative impacts associated with well drilling, and identify the best mechanism for tiering-off environmental review in an effort to streamline CEQA review of well-drilling projects. The IS provided an evaluation of the revised regulations, developed a preliminary baseline for western Kern County, and identified impact levels by issue area. The IS also evaluated the technical adequacy of the project-specific and cumulative information available in existing reports.

### ***South Coast Resource Management Plan Revision and Final Environmental Impact Statement***

Aspen is assisting the Bureau of Land Management's (BLM) Palm Springs-South Coast Field Office in revising, noticing, and publishing its Draft Resource Management Plan and Environmental Impact Statement (RMP/EIS), and will prepare the Final RMP/EIS.

The BLM completed an administrative draft of its RMP/EIS in May 2009. Since beginning the plan revision, the Palm Springs-South Coast Field Office has experienced a significant increase in applications for renewable energy projects on public lands. To support the President's Energy Plan, and state and local renewable energy initiatives, the BLM has made processing these applications a high priority. BLM staff have been redirected to work on energy applications, with a resulting delay in completing the South Coast RMP Revision. Aspen is assisting BLM in revising, noticing, and publishing its RMP/EIS.

### ***Pacific Gas and Electric Company Valuation & Divestiture of Hydroelectric Generation and Related Assets***

In 1999, the PG&E Company (PG&E) submitted an application to the CPUC requesting that it be permitted to break its hydroelectric system into several different lots or "bundles," and to auction off these bundles to the highest bidder. In addition, PG&E proposed to auction its interest in all the land associated with the hydroelectric facilities. Auctioning the system in this manner is one way of determining its market value.

Aspen managed preparation of an EIR analyzed PG&E's proposal, as required by the CEQA for the CPUC's decision on the divestiture application. The Draft EIR listed the environmental impacts PG&E's auction proposal is likely to produce. The EIR found that the auction and transfer of ownership would likely produce changes to the way the hydroelectric facilities are operated. The EIR's study of the way the hydroelectric facilities would be operated under new ownership raised concerns about the exercise of market power in California's electricity markets. The EIR also concluded that the sale of 88,000 acres of "watershed land" outside the FERC licensed land would likely spur logging, mining, and other land development.

The EIR analyzed the range of operational changes that could occur under new ownership, including complex integrated models that analyze power generation and water management. The EIR also identified sixteen alternatives to the auction and ranked these alternatives according to how many impacts the alternative would avoid or mitigate.

## Remediation, Risk Assessment and Redevelopment Experience

### *On-Call Environmental Services Contract for Los Angeles Unified School District (LAUSD)*

Aspen provided CEQA support services to the Los Angeles Unified School District (the nation's second largest school district) under a Master Services Agreement in support of a major new school construction program. Aspen completed CEQA documentation under 59 separate Work Authorizations including 38 new school projects. A major component of this contract was to help LAUSD develop templates for all of its EIRs. Aspen's CEQA review documents incorporated LAUSD design standards and measures employed to minimize environmental impacts. Because new schools were being proposed in densely populated areas or communities that were built-out, most of the school sites were in non-traditional locations such as former big box retail store or industrial sites. This resulted in complex EIRs that needed to consider a wide range of issues as well as required fast-track assessment and extensive coordination with regulatory agencies and the public. Some of these issues included:

- **Soil Contamination.** Many of the sites involved properties that had existing soil contamination (e.g. VOCs, metals, petroleum hydrocarbons, pesticides) from past land uses. Aspen reviewed remediation strategies and prepared the analyses for the EIRs.
- **Demolition.** Some sites included buildings that were built prior to the 1950s. The environmental review had to consider removal of buildings or structures with asbestos-containing materials and lead-based paint (and often lead-based paint in the soil).
- **Health Risk Assessments/Air Toxics.** All of the school environmental documents included review and analysis of the project-specific health risk assessment and air toxic assessment.
- **Traffic/Transportation.** The new schools would add significant traffic to already congested areas, which resulted in substantial public concern. During the environmental review process, Aspen managed the preparation of the Traffic Impact Analysis reports, prepared the EIR traffic analysis chapter, and coordinated with the Los Angeles Department of Transportation to minimize project traffic impacts through mitigation options including mitigation fees.
- **Built Environment.** Some of the school sites included significant historic structures that required coordination with local homeowner and special interest groups to ensure effective mitigation.

### *City of Hermosa Beach Oil and Gas Site Risk Analysis*

Aspen performed a critical review of the project's Risk Analysis and summarized the latest scientific findings of effects of low concentrations of H<sub>2</sub>S on human health. Aspen evaluated the public risks associated with the Macpherson Oil Project, including a review of the previous risk assessments prepared for the subject project. Aspen's (with Bercha Group as our Subconsultant) tasks included the preparation of an Integrated Risk Assessment (IRA), and preparation of a bibliography and summary of findings of studies on the health effects of chronic, low level H<sub>2</sub>S exposure.

The principal objective of the IRA was to determine whether the risks associated with the Macpherson Oil Company project were addressed at an adequate level of detail utilizing acceptable methodologies, and to point out any remaining areas of concern from the point of view of public safety.

A site visit was conducted on February 26, 1998 which included a detailed inspection of the future facility site, the tank farm site, and the pipeline route, during which numerous photographs were taken. The IRA was limited to an inspection of the site and a critique of available documents based on current risk assessment methodologies. Document review covered the choice of scenarios, methodologies, level of detail, risk acceptability criteria and their application, and a few individual parameter assessments through comparison with data from other sources.

### ***City and County of San Francisco, Planning Department, 75 Howard Street***

Aspen is providing technical reports and CEQA documentation for development of a high-rise residential tower on the San Francisco waterfront. The 31-story project would include nearly 200 residential units in a potential mixed use with a hotel and ground-level open space at The Embarcadero. Aspen's role is related to air quality, noise and vibration impacts, with primary issues being proximity to light rail, traffic on the Bay Bridge, and construction of a deep excavated foundation. Aspen produced an Air Quality Technical Memo with emission calculations, an environmental noise and vibration assessment in conjunction with subcontractor (Brown-Buntin Associates) with ambient noise field measurements, and the two EIR sections.

### ***City and County of San Francisco, Planning Department, Parkmerced Project***

Aspen prepared the technical approaches and technical analyses for air quality, climate change, and noise impacts for an EIR, certified and approved by the City and County of San Francisco in May 2011. This controversial EIR covered a large mixed-use development of approximately 5,700 housing units, retail, and rail transit, with approximately 20 years of demolition and reconstruction in a dense urban setting. The proposed development featured a sustainability plan and on-site renewable energy facilities. The combined effects of these proposals were found to sufficiently reduce the impacts from greenhouse gas emissions to a level of insignificance. The rail transit component was to re-route an existing light-rail line into the heart of the neighborhood, which triggered detailed discussion of noise and vibration in the EIR.

### ***City and County of San Francisco, Planning Department, 706 Mission Street–Mexican Museum***

Aspen is preparing technical studies to support the CEQA review of a major new downtown development in San Francisco. Aspen is responsible for the air quality and climate change analyses and is partnered with Brown-Buntin Associates for a noise impact assessment for the 706 Mission Street project, which would include a new 500-foot highrise skyscraper. The tower would include a new cultural use (Mexican Museum) and a residential tower in an extremely dense urban environment. Aspen is developing an Air Quality Technical Report with detailed dispersion modeling to identify the health risk and hazards of placing new residences in the midst of heavy traffic emissions and other sources of toxic air contaminants, like diesel backup generator engines.

### ***San Joaquin Refining Company Health Risk Assessment***

Aspen updated a previously performed Health Risk Assessment (HRA) for the San Joaquin Refinery in Bakersfield, Kern County, CA to comply with requirements of the San Joaquin Valley Unified Air Pollution Control District. The HRA included a table indicating maximum calculated risk for 15 sensitive receptors based on output of the ACE2588 model. The HRA included analysis of polycyclic aromatic hydrocarbon (PAH), formaldehyde and manganese emissions, and a written description of the toxicology for each listed substance. The dispersion modeling used the ISCST model. The risk analysis performed included pathway specific data files for plant products, animal products, mothers' milk, and water ingestion. In addition, an offsite workers risk evaluation was performed.

## **Coastal Development Experience**

### ***Coastal Power Plant Projects in Southern California***

In response to California's power shortage, Aspen has assisted the CEC in evaluating the environmental and engineering aspects of new power plant (including natural gas-fired plants) applications throughout

the State under five separate contracts (since 1999). Projects at coastal power plants include the following.

**Coastal Plant Study.** Under Aspen’s contract with the California Energy Commission, Aspen prepared a multi-part study of California’s coastal power plants to be used as a resource by Energy Commission staff in evaluating future applications to expand or modernize these plants. The information presented in the study also assisted Energy Commission staff in preparing the 2003 Environmental Performance Report. The study included an Issues Report that examined the environmental and permitting issues associated with coastal power plants, including a description of issues that substantially delayed or otherwise complicated recent applications for expansion or modernization of coastal power plants. The study also included a detailed inventory of information on each of the existing power plants on the California coast, including information on plant facilities, engineering and design, operations, and environmental conditions.

The study included identification and evaluation of potential issues associated with the possible modernization, re-tooling, or expansion of California’s 25 coastal power plants including: northern California power plants such as Humboldt, Potrero, Hunter’s Point, Pittsburg, and Oakland; central coast power plants such as Contra Costa, Diablo Canyon Nuclear, Morro Bay, Moss Landing, Elwood, Mandalay, and Ormond Power Plants; and southern California power plants such as the Alamitos, Long Beach, Los Angeles Harbor, Haynes, Redondo Beach, Scattergood, El Segundo, Huntington Beach, Encina, Silver Gate, South Bay, and San Onofre Nuclear.

The study included identification of potential political, social, community, and physical land use impacts that may arise from the potential increased output of energy from plants in highly sensitive coastal communities. The intent of the study was to identify red flag items for the Energy Commission in order to streamline future licensing processes. The study also included a thorough review of applicable Local Coastal Plans, and Coastal Commission regulations associated with Coastal Development Permits and Consistency Determinations.

**Carlsbad Energy Center Project (CECP).** The approximately 23-acre CECP site is located in the City of Carlsbad, in San Diego County and is a 558-MW gross combined-cycle generating facility configured using two units with one natural-gas-fired combustion turbine and one steam turbine per unit. As

- CEQA-equivalent Staff Assessment and expert witness testimony
- Analysis of:
  - *Waste Management,*
  - *Geology and Paleontology,*
  - *Cultural Resources,*
  - *Air Quality,*
  - *Socioeconomics,*
  - *Traffic and Transportation,*
  - *Water and Soil Resources,*
  - *Worker Safety,*
  - *Hazardous Materials,*
  - *Public Health,*
  - *Land Use,*
  - *Biological Resources, and*
  - *Alternatives.*

part of the Carlsbad Project, existing steam boiler Units 1, 2, and 3 at the Encina Power Station would be retired upon the successful commercial operations of the new CECP. Aspen prepared the CEQA-equivalent Staff Assessments and provided Expert Witness testimony for the following issues: Waste Management, Geology and Paleontology, Cultural Resources, Air Quality, Socioeconomics, Traffic and Transportation, Water and Soil Resources, Worker Safety, Hazardous Materials, Public Health, Land Use, Biological Resources, and Alternatives.

The criteria pollutant analysis included careful review of project emissions estimates and air dispersion modeling analyses. Aspen air quality specialist discovered that the applicant’s initial modeling analysis was performed with an incorrect site plan and with a stack configuration that would not meet minimum USEPA design requirements for stack testing. Aspen air quality specialists worked closely with the San Diego Air Pollution Control District (SDAPCD) to evaluate critical issues of emis-

sions baseline and net emissions increases, as well as, reviewing emissions offset sources, other SDAPCD rule compliance and the SDAPCD's proposed permit conditions.

In conducting the GHG emissions analysis for this project, Aspen considered construction-phase GHG emissions and direct GHG emissions during operation. Additionally, the GHG emissions analysis also included the potential emission reductions that would be achieved across the electricity system by replacing older and less efficient fossil-fuel fired electricity generating facilities with higher GHG emission rates. Therefore, Aspen air quality specialists concluded that the project would result in cumulative overall reduction in GHG emissions from power plants, and the short-term minor GHG emissions during construction are necessary to create new lower GHG-emitting power generating facility.

The project was determined to be subject to ARB's mandatory reporting requirements and potentially other future requirements mandating compliance with AB 32 that are being determined by ARB. The project, as a peaking or mid-merit project with an enforceable operating limitation less than 60 percent of capacity, is not subject to the requirements of SB 1368 (Perata, Chapter 598, Statutes of 2006) and the Emission Performance Standard.

The Staff Assessment included a comprehensive and complex land use compatibility and policy analysis component. Over the five years that the project was in review, land use staff worked closely with the City of Carlsbad to resolve project conflicts with seven separate city planning documents. Aspen Land Use Staff conducted the California Coast Act Consistency Determination in lieu of the California Coastal Commission (CCC), because the CCC opted to have the CEC conduct the consistency analysis with the Coastal Act.

The Visual Staff Assessment included an analysis of power plant development impacts on the scenic Interstate 5 corridor and residential uses across the freeway. The visual analyst coordinated efforts with Caltrans and the City of Carlsbad. The Alternatives Staff Assessment included detailed analysis of three off-site locations for the power plant and the associated transmission line interconnections. The Traffic Staff Assessment included coordination with Caltrans and Palomar Airport Authority for impacts to aviation from stacks and thermal plumes.

**Redondo Beach Energy Project (RBEP).** The RBEP is located at 1100 North Harbor Drive in the City of Redondo Beach. The site for the proposed project is southeast of and adjacent to the North Harbor Drive and Herondo Street intersection and would utilize 10.5 acres in addition to, a 2.2-acre existing switchyard located entirely within the approximately 50-acre footprint of the existing Redondo Beach Generating Station (RBGS), an operating power plant.

The RBEP is a proposed natural-gas fired, combined-cycle, air-cooled electrical generating facility with a net generating capacity of 496 megawatt (MW), which will replace, and be constructed on the site of the AES Redondo Beach Generating Station. RBEP will consist of one three-on-one, combined-cycle gas turbine power block with three natural-gas-fired combustion turbine generators (CTG), three supplemental-fired heat recovery steam generators (HRSG), one steam turbine generator (STG), an air-cooled condenser, and related ancillary equipment, including natural gas compressors, water treatment facilities, emergency services, and administration and maintenance buildings. Aspen is preparing the CEQA-equivalent Staff Assessments and will provide Expert Witness testimony for the following issues: Air Quality and Alternatives.

**Huntington Beach Energy Project (HBEP).** The HBEP is located in the City of Huntington Beach just north of the intersection of the Pacific Coast Highway and Newland Street. The project will be located entirely within the footprint of the existing Huntington Beach Generating Station (HBGS), an operating power plant. The HBEP is a proposed natural-gas fired, combined-cycle, air-cooled, 939-megawatt (MW) electrical generating facility that will replace the AES HBGS. HBEP will consist of two independently operat-

ing, three-on-one, combined-cycle gas turbine power blocks. Each power block will consist of three gas-fired combustion turbine generators (CTG), three supplemental fired heat recovery steam generators (HRSG), one steam turbine generator (STG), an air-cooled condenser, and related ancillary equipment. Other equipment and facilities to be constructed and shared by both power blocks include natural gas compressors, water treatment facilities, emergency services, and administration and maintenance buildings. Aspen is preparing the CEQA-equivalent Staff Assessment and will provide Expert Witness testimony for the Alternatives analysis.

### ***Environmental Information Document and Coastal Consistency Determinations for Federal Oil and Gas Leases Offshore Santa Barbara, Ventura, and San Luis Obispo Counties prepared for US DOI, Minerals Management Service***

Aspen prepared a multi-disciplinary “Environmental Information Document” (EID) and ten Coastal Consistency Determinations (CDs) for the U.S. Department of the Interior, Minerals Management Service (MMS). The documents were prepared to address a suite of hypothetical oil and gas exploration and development scenarios of nine undeveloped “Units” and one undeveloped lease in federal waters offshore of Ventura, Santa Barbara, and San Luis Obispo Counties. The documents were prepared for submittal to the California Coastal Commission for review under the Coastal Zone Management Act.

The EID addressed 15 separate resource/issue-areas and included the preparation of comprehensive text for “baseline” conditions and identified direct, indirect, and cumulative impacts over a 24-year period from 2006 to 2030. These scenarios included the use of existing off- and onshore oil and gas infrastructure, as well as new infrastructure, including offshore platforms, off- to onshore pipelines, and onshore oil and gas processing facilities. All phases of potential development were included in the evaluation, including construction, development and operation, and decommissioning. Key technical areas of the EID included oil spill risk and movement, marine biological resources, recreation, visual resources, and non-residential land use and infrastructure.

### ***Old San Jose Creek Ecosystem Restoration Report/Environmental Assessment***

This project included vegetation mapping and soil sampling to assess the suitability of soil for restoration of the creek, and an historical evaluation of how the creek has changed over time through the use of aerial photography. A creek restoration plan was developed for this project that included three alternative scenarios. A Habitat Evaluation Procedure Plan was prepared to compare the habitat value of each restoration alternative and was evaluated by the U.S. Fish and Wildlife Service. This project also required a real estate evaluation for all properties along the creek and the development of landscape costs for the implementation of each restoration alternative. Hydrological, geotechnical, and economic evaluations of the project area prepared by the U.S. Army Corps of Engineers were used in the preparation of the Detailed Project Report and the Environmental Assessment (EA). The EA of the Recommended Plan addressed the environmental impacts associated with the restoration project. The EA, part of the Detailed Project Report, was prepared to describe the costs and benefits associated with the restoration project. In addition, a Coastal Consistency Determination was prepared to address the Federal Coastal Zone Management Act of 1972, which was included as an appendix to the Detailed Project Report. One of the key issues for this project was the evaluation of whether past and existing land uses along the creek had contaminated the creek bed and if this potential contamination had an effect on the restoration of the creek.

## Oil and Gas and other CEQA Experience

### *PXP Tranquillon Ridge Oil and Gas Development Project EIR*

Aspen prepared an EIR for the Santa Barbara County Energy Division on the proposed PXP Tranquillon Ridge Project, which involved the development of oil and gas wells from Platform Irene into the Tranquillon Ridge Field, located in State waters, using extended reach drilling technology. Platform Irene is located in federal waters and is currently used to develop and produce the Point Pedernales Field also located in federal waters. At Platform Irene, the produced oil and gas from the Tranquillon Ridge Field was proposed to be commingled with the Point Pedernales oil and gas, and sent ashore via existing pipelines from Platform Irene to the Lompoc Oil and Gas Plant (LOGP), located just north of Lompoc. The project description expected a total life of 30 years and as a result, the EIR analysis addressed the extension of life of Platform Irene, existing pipelines, and LOGP, including offshore oil spill impacts. In addition, the EIR included an analysis of an onshore drilling alternative.



Development and production of the Tranquillon Ridge Field would result in the drilling of 22 to 30 oil and gas production wells from Platform Irene into the Tranquillon Ridge Field. It would increase oil and gas throughput in the existing Point Pedernales facilities, but within the limits allowed under the existing Final Development Plan. Peak production from Platform Irene with the Tranquillon Ridge Project was estimated to be about 30,000 bopd and six million standard cubic feet per day of gas.

### **Cabrillo Port LNG Deepwater Port Project EIR/S Review**

The City of Oxnard retained Aspen to provide expert EIS/EIR review services for the Cabrillo Port LNG Deepwater Port Project. Due to a high level of local concern regarding the proposed project and its impacts, the City decided to retain the services of an environmental consulting firm familiar with the local area and highly knowledgeable of energy infrastructure projects. Cabrillo Port was a proposed floating storage and regasification unit (FSRU) that would be moored in federal waters approximately 14 miles offshore of Ventura County, California. LNG from the Pacific basin would be delivered to the deepwater port by LNG carrier and then offloaded onto the FSRU. The LNG would be re-gasified at the FSRU and delivered onshore via two new 21.5-mile, 24-inch-diameter natural gas pipelines laid on the ocean floor. These pipelines would come onshore at Ormond Beach near Oxnard. At the City's direction, Aspen reviewed the Draft EIS/EIR, paying particular attention to issues of concern to the City, including system safety and construction impacts. Aspen prepared a brief report summarizing its review of the document and presented the findings of the review to the Oxnard City Council. Aspen's report, which identified various deficiencies in the Draft EIR/EIS and the need for additional information and analysis, was appended to the City's official comment letter on the Draft EIR/EIS. Aspen also prepared a separate report describing how well the Draft EIR/EIS addressed the City's comments submitted in response to the Notice of Preparation and Notice of Intent.

### **City of Long Beach LNG Import Project Environmental Document Review.**

Aspen reviewed the Draft EIS/EIR for the Long Beach LNG Import Project and provided comments to the City of Long Beach on the content of the document. Aspen's review evaluated the adequacy of the Draft

EIS/EIR in terms of compliance with the requirements of the NEPA and CEQA. The review included an evaluation of the adequacy of the document's discussion and analysis of topics required by NEPA and/or CEQA, including the: (a) reasonableness of the range of alternatives analyzed; (b) completeness of the description of the proposed action; (c) consideration of both direct and indirect effects; (d) consideration of cumulative and growth-inducing impacts; (e) conclusions regarding impact significance; and (f) adequacy and effectiveness of proposed mitigation measures. In addition to general NEPA/CEQA adequacy, the review focused on issues of concern to the City of Long Beach and its citizens and provided comment on the completeness, accuracy, and technical adequacy of the Draft EIS/EIR evaluation of these issues.

### Level 3 Communications Fiber Optic Network

Level 3 Communications installed a 2,000-mile fiber optic network throughout California, which will connect to a nationwide and, ultimately, worldwide network. Aspen supported the CPUC by providing mitigation monitoring for eleven construction segments in California, as well as supplemental CEQA compliance review (Subsequent MND) for 21 proposed network support stations across the length and breadth of the State, and four route changes.

Monitoring was based on a blanket Mitigated Negative Declaration (MND) thereby requiring extensive coordination with the applicant and its contractors, and affected agencies (federal, State, and local). Shutdowns of construction activities and subsequent mitigation plans (e.g., Cultural Resource Procedures and Frac-Out Contingency Plan) were developed as a result of non-compliance activities. Aspen conducted on-going coordination and initiated bi-weekly inter-agency meetings including Vandenberg Air Force Base representatives and Santa Barbara City and County representatives pertinent to biological and cultural resource issues encountered during construction.

### References

Aspen's outstanding performance record and dedication to our clients lends credibility to our ability to execute our proposed scopes of work as promised. We encourage the County to call our suggested references, as provided below. Each of our references has worked directly with members of Aspen's Agoura Hills office, as well as with our proposed Project Manager, Ms. Sandra Alarcon-Lopez.

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## Assurance of Professional Capability and Objectivity

We have carefully selected an exceptional team combining Aspen's planning and CEQA experience with our subcontractors' specific areas of expertise to address all of the potential issues associated with implementation of the proposed project. Nearly all of the team members have local experience within the County, and all are noted experts in their respective fields of study.

Aspen Environmental Group certifies that our principals, staff, and subcontractors have the capacity to, and will submit, a neutral and unbiased EIR that is an independent and objective work product. In addition, no member of the Aspen Team has a conflict of interest.

## A.2 Subcontractor Experience

To complement Aspen's experience, we have identified key subcontractors that bring specific technical expertise in planning, land use, remediation, and redevelopment projects. These firms are also experienced with coastal projects, and most have worked in San Luis Obispo County and surrounding areas. Aspen has a successful history of assembling and managing technical teams for complex projects; our goal is to bring together the best team based on the issues specific to each project and project area. This is the approach we take on this project. The discussion below provides a brief description of the subcontractor firms that we have identified for this project, along with key project experience to demonstrate the extensive qualifications that the Aspen Team collectively brings to the Avila Point Project.

### Ninyo & Moore

**Role: Remediation and Remedial Alternatives, Hazardous Materials, Risk Assessment, Groundwater, Geology**

Ninyo & Moore is a professional geotechnical and environmental sciences consulting firm providing services in geotechnical engineering, engineering geology, engineering geophysics, hydrogeology, soil and materials testing, and environmental sciences. Our environmental division has extensive experience with Phase I and II environmental site assessments and audits, asbestos and lead paint surveys, underground storage tank assessments, hazardous waste investigations, regulatory compliance, water resource development, soil and groundwater contamination studies, and remediation services. Our staff consists of more than 400 professionals with experience on projects throughout the western United States. This experience includes evaluations for municipal and commercial developments, medical and educational facilities, industrial developments, highways and roadways, bridges, railroads, light rail transit lines, airports, dams, harbor and offshore structures, landfills, pipelines, power stations, residential developments, reservoirs and tanks, transmission lines, tunnels, water and wastewater treatment plants, and other public and private works. We have provided geotechnical services during the planning, design, value engineering, construction and post-construction phases of projects.

Relevant project experience includes:

- **Monarch Point – Ellwood Mesa Site Assessment and Remedial Planning, Goleta, California.** The Gaviota Coast of central California is the last undeveloped coastline in Southern California. Ellwood Mesa lies along the eastern edge of the Gaviota Coast, and comprises nearly 140 acres of native grasslands, vernal ponds, and eucalyptus groves along a coastal bluff with stunning views from the Channel Islands to the Santa Ynez Mountains. The eucalyptus groves on the mesa host one of the western United States' most impressive monarch-butterfly winter roosting areas, which attracts

tens of thousands of the brilliantly colored insects annually as they migrate over the Sierra Nevada Mountains from as far away as Canada.

Ninyo & Moore was retained to identify, assess, and select remedial actions for any environmental issues on Ellwood Mesa and a nearby 36-acre property owned by the City of Goleta. The City of Goleta's property was part of a land exchange structured by Trust for Public Land (TPL) and others to secure Ellwood Mesa as a central element of the ecological preserve. The oil exploration and development of the Ellwood Oilfield from the late 1920s to the mid-1940s created several environmental issues that Ninyo & Moore identified on these properties. Historically, some of the Ellwood Mesa property, the southern portion of the Santa Barbara Shores Park property, and the property located farther northwest of these properties was used for oil production and refining purposes. Due to this historical land use, many environmental investigations and related remedial actions had been completed on these properties.



The environmental investigations and remedial actions conducted on the Ellwood Mesa property were completed during the time the land was planned to be developed for residential purposes. Based on the type of contaminants discovered (petroleum hydrocarbons, metals, and polycyclic aromatic hydrocarbons) and the results of an ecological risk assessment, it was concluded that, for the most part, none of the contaminants associated with the sites would be considered an ecological or environmental risk. Only shallow soils at one site were considered a possible health risk based on the planned site use as an ecological reserve.

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Ninyo & Moore's scope of work included the collection, indexing and review of more than 420 documents, totaling more than 6,000 pages that chronicled petroleum exploration/extraction and previous environmental assessments conducted since 1985 in support of a number of efforts to develop the mesa. Ninyo & Moore also completed a Phase I Environmental Site Assessment of the 36-acre property owned by the City of Goleta and conducted field investigations of the recognized environmental concerns, including a:

- Geophysical survey using ground-penetrating radar, magnetic survey, and electro-magnetic induction to locate former oil wells, oil pipelines, and former oil-field and residential structures,
- Soil-gas survey to evaluate areas planned for residential development on the 36-acre property owned by the City of Goleta,
- Soil boring and sampling at the former locations of oil wells, drilling sumps, and along pipelines to quantify the presence (or demonstrate the absence) of residual petroleum, polycyclic aromatic hydrocarbons, and PCBs.

Ninyo & Moore's services also included evaluation of ecological risk, negotiation with local and state regulatory agencies, development of a Remedial Action Plan based on the site assessment results, and collection of abandonment requirements from the California Division of Oil and Gas and Geothermal Resources for three abandoned oil wells.

- **Coastal Bluff Evaluation, Ritz-Carlton Resort Expansion – Dana Point, California.** Ninyo & Moore provided geotechnical services for the Ritz-Carlton Laguna Niguel hotel property during the planning phases of hotel expansion. The Ritz Carlton Laguna Niguel facility is situated on a 17 ½ acre coastal

bluff site overlooking the Pacific Ocean in Dana Point. The project site is subject to development standards of the Dana Point Coastal Overlay District and the California Coastal Commission.

Our initial services included a geologic evaluation of the property with regard to planned additions and the proximity to the coastal bluff, and historical review of the hotel development, past grading and site alterations. Existing geotechnical data and project plans were evaluated. Historical aerial photographs were researched to evaluate bluff erosion rates. Detailed geologic mapping was performed to assess bluff stability and geologic cross sections were prepared utilizing exploratory boring data for stability analysis. Bluff stability analysis



was performed for static and pseudo-static conditions to evaluate the feasibility of planned hotel expansions. We also performed detailed mapping and analysis of the coastal bluff edge in accordance with the Dana Point guidelines and the California Coastal Commission definitions in order to establish baseline information for development setbacks. The results of our geologic evaluation were presented in a detailed geologic report including geologic maps, seismic hazard evaluations, and bluff edge delineation.

Subsequent services have included subsurface exploration consisting of five borings at the existing hotel site, laboratory testing, and development of updated recommendations based on the results of our additional study.

- **Bixby Oil Production Site: Assessment of Remedial Needs and Costs for Wetlands Restoration, Long Beach, California.** Ninyo & Moore developed a detailed cost estimate for the remediation of 83 acres of oil field property in Long Beach, California. This property had been an operating oil field since 1928 and contained approximately 82 wells of which 34 were still actively producing. Bixby intended to enter into an agreement with the Trust for Public Land (TPL) to convert most of the property into wetlands. As part of this agreement with TPL, Bixby would fund, through an escrow account, surface and subsurface structure demolition (including the abandonment of active wells and the re-abandonment of former wells), and any remediation that is required to a level defined as suitable for residential development. Ninyo & Moore's role in the project was to prepare a detailed and defensible cost estimate for the completion of surface and subsurface structure demolition and required remediation. The estimate was provided to both Bixby and the TPL to be used as the basis of the escrow account funding negotiations.



Through the years, Bixby has leased the property to oil operators who typically used mud pits to contain spent drilling fluids, drill cuttings, and crude oil. After well construction was complete, the oil operators generally covered the mud pits with site soils. These activities left potential

hydrocarbon contaminants in the ground leading to a portion of Ninyo & Moore's scope of work. In order to prepare the cost estimate Ninyo & Moore developed a scope that included 1) Location, sampling, and sample analysis of the mud pits to determine the extent of remaining hydrocarbon contaminants; 2) Inventory of above and underground facilities, structures, and pipelines to identify additional chemicals and building materials of concern, and to estimate demolition costs of existing structures; 3) Application of Ninyo & Moore's geographic information system (GIS) expertise to manage and understand existing and yet-to-be determined site data; and finally, 4) Preparation of a work plan and the detailed cost estimate to demolish existing structures and remediate the property to residential development standards.

The mud pits were located by trenching and soil sampling in areas identified by Ninyo & Moore during aerial photograph review. Trenching was conducted using a backhoe to depths and dimensions determined in the field. The inventory of above and underground facilities, structures, and pipelines included analysis of appropriate samples taken from areas that contained, or had contained, tank batteries, compressor stations, wastewater treatment and disposal facilities, vapor recovery units, underground storage tanks, and field offices. Constituents of concern included asbestos-containing materials, lead-based paint, TPH, PCBs, and metals including organic lead.

Once the site contaminants had been quantified, inventory of above and below surface structures was complete, well abandonment costs had been estimated, and all data were compiled for analysis, Ninyo & Moore provided Bixby with a cost estimate for the remedial activities required to clean the property to residential standards for future use as a wetlands. These costs included the expected expenditures for the removal of site structures, the abandonment of wells, the removal of pipelines, tanks, transformers, utility poles, etc., and for the environmental remediation portion of the project (excavation and/or treatment of impacted soils). These costs also included a deduction for the salvage value of a number of the items with recycling or reuse value (metals, utility poles, etc.). The estimate was accepted by Bixby and used in their negotiations with TPL.

- **Bloomfield Business Center Assessment, Soil Management Plans, Remediation and Construction Oversight – Santa Fe Springs, California.** Ninyo & Moore completed a Phase I Environmental Site Assessment (ESA) and regulatory agency file review on a 20-acre property in the City of Santa Fe Springs, California. The site was used to store oil and petroleum hydrocarbon products since the early-1900s. The property was vacant for over 15 years while numerous environmental investigations were completed. The property was deemed undesirable by many developers due to the amount of contamination discovered and the strict regulatory cleanup standards set by local and State regulatory agencies.



Following completion of the Phase I ESA and regulatory file review, Ninyo & Moore negotiated a less stringent cleanup standard with the Santa Fe Springs Fire Department (SFSFD) based on the types of contaminants reported, the results of a previously completed risk assessment, and regulatory closures of the property by the Regional Water Quality Control Board, Los Angeles Region (RWQCB) and the California Department of Toxic Substances Control (DTSC). Once the property was acquired, Ninyo & Moore

obtained permission from the RWQCB to abandon three on-site groundwater monitoring wells that were located within the footprints of proposed buildings, and completed soil sampling in the vicinity of seven former underground storage tanks (USTs) for methyl tertiary butyl ether (MTBE) and other oxygenates. This sampling was completed to obtain UST closure from the RWQCB and SFSFD.

Prior to redevelopment, Ninyo & Moore prepared a Soil Management Plan (SMP) for the SFSFD that outlined the procedures for managing impacted soil during grading activities. The SFSFD has used Ninyo & Moore's SMP as a model to develop a City requirement for the preparation of SMPs by prospective developers of contaminated properties in the City of Santa Fe Springs.

Ninyo & Moore also prepared a Pipeline Removal Plan that presented the procedures to remove existing underground petroleum hydrocarbon pipelines at the site under the jurisdiction of the SFSFD. Once the pipelines were removed, Ninyo & Moore conducted air monitoring during grading activities in accordance with the South Coast Air Quality Management District (SCAQMD) Rule 1166 and visually monitored grading activities for possible environmental concerns. During grading, four septic sumps, a historical agricultural well, and an additional UST were discovered. These issues were subsequently investigated and impacted soil was remediated under the direction of the SFSFD. Ninyo & Moore prepared and submitted documentation reports to the SFSFD for complete site closure. The property is developed as commercial warehouses.

- **Confidential Client, Southern California Oil Producer - Long Beach, La Habra Heights, and Carson, California.** Ninyo & Moore provides environmental site assessment, remedial action planning, and geotechnical services to a confidential oil company client in Southern California for several of its oil exploration, production, storage, and distribution facilities in Long Beach, La Habra Heights, and Carson. Our projects have included Phase I Environmental Site Assessments (ESAs), Phase II ESAs, remedial action plans (RAPs), remedial design, remedial excavations, free oil removal from both soil and groundwater, oil recovery system designs and installations, groundwater monitoring and sampling events, emergency clean-up response, geotechnical evaluations, materials testing services, and regulatory communication and coordination.



The types of facilities evaluated include tank farms; stock consolidation areas; oil/water separation, storage, and pipeline distribution centers; active oil fields with pumping oil wells and sumps; subsurface pipeline zones; a laboratory; pumping oil wells, storage, and pipeline distribution facilities; and exploration drilling sites.

## Pacific Municipal Consultants

**Role: Land Use, Coastal Permitting and Planning, Specific Plans, Community Planning, Subdivision Process, Aesthetics**

Pacific Municipal Consultants (PMC) is a California corporation that provides planning, environmental, and municipal services to public agencies, special districts, and public-oriented organizations. PMC has successfully completed over 2,100 projects providing services to more than 750 public agencies since our establishment in 1995 (over 18 years in business). PMC brings a valuable combination of experience and qualifications to the comprehensive planning, coastal planning, and policy planning process. Our

experience as a consultant to dozens of cities and counties throughout California has given us exceptional general plan qualifications and a broad range of problem-solving abilities. PMC's approach to preparing a general plan or Local Coastal Plan (LCP) focuses on providing a complete, workable policy document that reflects the vision and desires of the community. PMC partners with local governments, regional agencies, and special districts to ensure that local policies are consistent with the larger framework. In-house experts understand legal issues, best practices, and special considerations to develop innovative, appropriate, and legally defensible policy solutions. Finally, as contract planning staff, PMC has working knowledge of the implementation of the policies we write and the planning issues faced by the staff interpreting and administering policy documents on a daily basis.

PMC also prepares a wide variety of preliminary environmental analysis reports, opportunities and constraints analyses, and initial studies, which often form the basis of later CEQA and NEPA documentation; EIRs and environmental impact statements (as prime contractor and project manager to oversee the environmental review process from beginning to end); independent review of environmental documents prepared by agency staff or other consultants; and line-of-sight analyses, viewshed analyses, drive experience studies, project simulations, videos, and general plan policy related to scenic routes.

The following projects are examples of PMC's local and coastal experience in providing planning and environmental assistance on projects and programs that encompass the range of land use policy and development issues anticipated for the Avila Point Project.

- **Conservation Element Update and Consolidation EIR, San Luis Obispo County.** PMC managed the preparation of an update to the County's General Plan Conservation Element and its associated program EIR. The update is a consolidation of existing elements, including the Environmental Plan (Conservation Element, Historical Element, and Esthetic Element), Agriculture and Open Space Element, and Energy Element, with updates to existing policies. Key issues addressed in chapters of the plan included air quality, climate change, biological resources, cultural resources, energy and green building, visual resources, water resources, agricultural resources, offshore energy, mineral resources, soil resources, and open space resources. New policies were drafted based on the Smart Growth Guidelines and principles of sustainability.
- **Energywise Plan and GHG Emissions Baseline Inventory and CEQA Document, San Luis Obispo County.** PMC prepared the County's Greenhouse Gas Emissions (GHG) Baseline Inventory using the ICLEI Clean Air and Climate Protection (CACP) software tool. The project required data collection and analysis for the baseline year of 2006 and a business-as-usual forecast of 2020 GHG emissions from County operations and community-wide sources. The inventory analyzed emissions from energy, transportation, and waste generation in addition to agriculture (livestock and off-road emissions). It is included as an appendix in the County's Conservation and Open Space Element as it informed development of the County's early responses to climate change, specifically as goals, policies, and strategies in the element. The inventory will serve as the foundation for the County's Climate Action Plan.
- **Bob Jones Pathway EIR, San Luis Obispo County.** The proposed project will result in a separated Class I trail, where possible, for a distance of approximately 4.5 miles between the Octagon Barn in south San Luis Obispo and the existing Bob Jones Trail at the Ontario staging area (near the Salisbury Winery at the intersection of Ontario Road and San Luis Obispo Creek). The existing route places bicyclists immediately adjacent to motorists and requires a physically dangerous at-grade crossing that places riders adjacent to queued motor vehicles and their associated fumes. The proposed project will provide an improved and safer route for bicyclists and new opportunities for pedestrians, which will encourage greater use by families and users of all ages and abilities.

- **Local Coastal Program Update, City of Seaside.** PMC updated the City of Seaside's 1983 Local Coastal Program (LCP) document and conducted associated environmental review. The update serves to advance the planning goals of the City, address community needs, and provide compliance with state law and the Coastal Act. Key City planning goals addressed by the update include improving community connectivity via the Monterey Bay Coastal bikeway/pedestrian trail, which accommodates an estimated 2 million users annually, and the preservation of the renowned scenic views of the Pacific Ocean viewable from the City's segment of the Monterey Bay Coastal bikeway/pedestrian trail. The update also incorporates key sea level rise adaptation, wetland conservation, and habitat restoration policies. The LCP was unanimously approved by the Coastal Commission in December 2012.
- **Sand City – Local Coastal Program Update and Contract Staffing Assistance.** PMC has been providing ongoing contract staffing services to Sand City since the late 1990s. As part of those services, PMC staff has prepared a number of Local Coastal Program amendments and processed several coastal development permits through the Coastal Commission. Specific projects have included amendments to redesignate areas in the Coastal Zone and coastal development permits allowing for the construction of the Regional Bike Trail, installation of new water lines, dune enhancement activities in coordination with state and regional parks, the review and processing of large coastal resort projects (the Sterling Project and the Monterey Bay Shores Project), and the processing of a regional shopping center (Edgewater Center).

PMC has participated in regional projects involving multiple agency coordination on behalf of Sand City. These efforts have included the management of the preparation of a Project Study Report (PSR) for State Route 1 and Habitat Conservation Plans (HCPs) for the coastal areas of the city, as well as coordination of the implementation of the HCP for the Sand Dollar and Edgewater shopping centers, both of which included areas located within the Coastal Zone. PMC also prepared the successful grant application for the city's recently permitted seawater desalination plant. Ongoing contact with local Coastal Commission staff and interpretation of LCP and Coastal Act policies has been required for these assignments.

- **General Plan Update and Program EIR, Mendocino County.** This project involved a comprehensive update to the County of Mendocino's General Plan, last updated in 1981, and the preparation of a program EIR. Based on input received at the workshops, priorities set by the Board of Supervisors, and policies contained in the existing County General Plan, PMC and County staff prepared a Draft Framework Goals and Policies document intended to serve as the basis for the revised General Plan. Community Planning Area documents were prepared for eight rural communities in the county to identify objectives unique to each community. The Framework Goals and Policies emphasized focused development in community areas, sustainable planning practices, and economic development, while protecting Mendocino County's natural resources, coastal areas, agricultural lands, and rural character.
- **Stormwater Outfall Removal Project IS/EA, Fort Ord Reuse Authority (FORA).** This project at the former Fort Ord is an example of multi-jurisdictional agency coordination for a series of federal, state, and local permits. The project involved the removal of four massive ocean outfall pipes on federal land to be deeded to the California Department of Parks and Recreation. To remove the outfall structures, all stormwater required diversion into a series of percolation basins designed within natural dune formations. In addition to preparing the CEQA/NEPA documentation (a joint Initial Study/Environmental Assessment), PMC outlined each permit required to remove the stormwater outfall pipes. By identifying the required permits early in the process and estimating their timelines, FORA was able to plan for potential permit delays within the overall construction schedule. Understanding and coordinating this aspect of the project was critical, as the construction

schedules had to be coordinated around both the winter storm season and the spring/summer snowy plover nesting season.

- **Local Coastal Program Implementation Plan, City of Monterey.** PMC assisted City staff in preparing the implementation plan for three of the City's five coastal segments. The implementation plan is a geographically focused zoning document for those areas of the city within the Coastal Zone, which enables permit authority for development within the Coastal Zone.
- **Ocean View Plaza EIR, City of Monterey.** This EIR evaluated a controversial 3.5-acre mixed-use waterfront development on Cannery Row, including an on-site desalination plant as its water source. Extensive technical studies were prepared, including a detailed historic resource evaluation, visual simulations, and traffic modeling to accurately document traffic and parking conditions in this area of extensive tourist visitation. Perhaps the most unique studies were underwater dive surveys of kelp forests and marine life in the area near the proposed desalination plant brine outfall. This project and the Final EIR were the culmination of a multiyear process of project design, redesign, committee review, and negotiation.
- **Monterey County Redevelopment and Housing Office – Castroville Community Plan and EIR.** PMC prepared the final version of this community plan and its associated program-level EIR. The Castroville Community Plan is a long-range planning effort designed to direct growth and development in a manner that avoids environmental constraints and enhances the quality of life in the agricultural community of Castroville. The major environmental issues addressed in the EIR included aesthetics, agricultural resources and farmland conversion, coastal zone impacts, water supply, biological and wetland resources, hydrology and flood control, and resolution of traffic impacts at the junction of three state highways.
- **Morro Bay – Former Texaco Morro Bay Sales Terminal Pipeline Removal and Remediation Project IS/MND.** As part of PMC's contract staff assignment to Monterey County Planning and Building Inspection, we prepared a detailed IS/MND for the removal and disposal of a series of remnant oil terminal facilities on a 10-acre site, including remaining pipelines, tank pads, underground concrete clarifier, and other debris.

## Fehr & Peers

**Role:** *Transportation, Circulation, Traffic, Parking*

Fehr & Peers specializes in providing transportation planning and traffic engineering services to public and private sector clients. They emphasize the development of creative, cost-effective, and results-oriented solutions to planning and design problems associated with all modes of transportation. Rather than trying to offer a multi-disciplined approach, Fehr & Peers choose to focus on being the best traffic engineering and transportation planning consulting firm. Maintaining this singular focus on transportation enables us to provide state-of-the-practice expertise to our clients. We are nationally recognized experts in these areas as evidenced by the fact that we routinely publish many professional papers, serve on national committees, and teach courses to others in the industry. The following are a selection of projects that demonstrate our relevant experience.

- **California Valley Solar Ranch, San Luis Obispo County.** Fehr & Peers, as part of the team led by Aspen, completed a transportation assessment of the proposed California Valley Solar Ranch Project located in San Luis Obispo County. The transportation analysis was used as a technical document for the environmental impact analysis and traffic operations analysis. Specifically the assessment consisted of the following:
  - Review of roadway width and intersection approaches near the project site.

- Evaluation of potential construction traffic routes.
- Level of service assessment under Existing, Construction, Project and Construction plus Topaz Conditions. Construction traffic from the proposed Topaz Solar Farm Project located north east of the SR 58 and Bitterwater Road intersection is included under Construction plus Topaz Conditions.

This analysis determined the day-to-day operations of the California Valley Solar Ranch and Topaz Solar Farm projects operating simultaneously will generate less than ten percent of the construction phase project traffic and have less of an effect on the local roadway system than the Construction plus Topaz Conditions.

- **San Luis Obispo Council of Governments (SLOCOG) Regional Traffic Model Improvement.** Fehr & Peers provided consulting services to update and enhance the SLOCOG travel demand model to meet near term needs and address continued maintenance and improvements, as defined under SB 375. Fehr & Peers met and exceeded the 2010 RTP Guideline requirements by utilizing staff knowledge and experience with the unique characteristics of the Central Coast and capitalized on the modeling capabilities of MPO staff. Through our experiences as a leading innovator in model enhancements Fehr & Peers:
  - Conducted peak and off-peak GPS travel time runs to calibrate speeds on major facilities as requested by Caltrans,
  - Utilized cell phone data to determine Origin-Destination patterns and travel speeds for use in validation,
  - Enhanced the Graphical User Interface and Master Network to implement an “any year, any scenario” alternative management system,
  - Calibrated model sensitivities to local conditions related to the 4D land use and Best Management Practices as described in SB 375,
  - Included truck trips generated by land use for more accurate speed and GHG reporting, and
  - Added zonal detail, sensitivity to parking and other costs, transit system, congestion, additional analysis time periods, and other factors that more accurately reflect travel behavior.
- **San Luis Obispo County Climate Action Plan.** Fehr & Peers' analysis included developing existing and projected vehicle miles traveled (VMT) estimates, calculating greenhouse gas (GHG) emissions, and reviewing and quantifying GHG reductions strategies for the unincorporated portion of San Luis Obispo County. Fehr & Peers used the base year (2008) and future years (2020 and 2035) SLOCOG travel demand model to develop transportation-related data. Emissions reduction strategies were identified, quantified, and documented. Strategies considered by the Climate Action Plan include transit and rideshare programs, current general plan density and mixed-use land development, bicycle and pedestrian facilities, vehicle fleet performance, parking policies, and transit services. The effectiveness of these strategies was quantified to highlight the strategies with the highest levels of effectiveness. This information was used in the San Luis Obispo County Climate Action Plan to assist County staff in planning to meet GHG reduction targets set by SLOCOG.
- **University of California, Santa Barbara Long Range Development Plan (LRDP) EIR.** Fehr & Peers prepared the transportation and circulation section for the UCSB LRDP EIR. Traffic impacts of the proposed campus growth were analyzed on campus and throughout the City of Goleta and adjacent area of Santa Barbara County. A key component of the study was developing campus trip generation rates and analyzing the benefit of providing more housing close to campus for students, faculty, and

staff. On-campus parking, bicycle, pedestrian, and transit facilities were also evaluated with respect to existing conditions and future needs.

- **Warner Center Rocketdyne.** The project will involve the redevelopment of a 47-acre parcel inside the Warner Center Specific Plan area in the City of Los Angeles, California. The current project's concept plan includes a broad range of mixed uses. Fehr & Peers is responsible for preparing the automobile, transit, and alternative mode sections for the transportation element of the EIR. Fehr & Peers is providing input to the project team on development issues for the project site, including advice on circulation issues and constraints, potential access schemes and coordination with the City of Los Angeles. This analysis includes details on the traffic-related impacts, mitigations proposed to minimize those impacts and a calculation of the impact fees associated with the final project.

## Applied Earthworks

### **Role: Cultural and Paleontological Resources, Native American Consultation**

Applied EarthWorks, Inc. (Æ) is one of the largest and most capable cultural resources consulting firms in California. Incorporated in 1995, Æ has successfully completed more than 2,000 projects for 450 clients. Our forte is a proven ability to convene diverse specialists and focus their efforts toward the achievement of project goals. The company's highest priority is to ensure client satisfaction through skilled consultation and the timely delivery of high-quality products that satisfy all client needs and regulatory requirements. They have completed jobs of modest size as well as large, complex projects requiring many years of sustained effort. Æ are particularly adept at managing complex projects with multiple regulatory constraints that must be resolved timely and under aggressive schedules.

Æ's regular, full-time staff includes nearly 50 archaeologists, historians, paleontologists, and other professionals distributed among six offices (San Luis Obispo, Lompoc, Fresno, Pasadena, and Hemet, California, and Albany, Oregon). Our team offers comprehensive consultation that allows clients to make informed decisions about the treatment of cultural resources. Æ staff possesses a thorough understanding of CEQA regulations and guidelines; Section 106 of the National Historic Preservation Act (NHPA), and its implementing regulations found at 36 CFR 800; and National Environmental Policy Act (NEPA) statute and regulations. We employ state-of-the-art field and laboratory procedures to ensure the highest quality data acquisition and analysis. Senior personnel offer decades of experience managing cultural resources in both the public and private sectors and enjoy excellent working relationships with local Native American communities, local governments, state and federal land-management agencies, the California Office of Historic Preservation (OHP), Caltrans, and local historical societies. We understand that effective communication, economical and efficient project management, and technical know-how are the cornerstones upon which projects are successfully completed.

Æ has completed numerous projects in the region, many of which are directly relevant to the Avila Point EIR. Several of these projects are summarized below.

- **Chevron Tank Farm Restoration and Development EIR, City and County of San Luis Obispo.** The San Luis Obispo Tank Farm was built by Unocal in 1910 to serve as the tidewater accumulation point for a major petroleum pipeline from the San Joaquin Valley. From 1910 until the early 1980s, the Tank Farm stored crude oil in six large earthen reservoirs and 21 steel aboveground storage tanks. A catastrophic fire in 1926 fueled the release of stored oil onto the ground; most oil was burned to coke and spread across the site. Unocal subsequently resumed operations, but the property was slowly withdrawn from operation during the later decades of the twentieth century, and by the late 1990s it was formally decommissioned.

Chevron now intends to remediate the site to manage identified human health and ecological risks, restore and improve the ecological function of the habitat, and develop portions of the site consistent with a proposed land use plan. The project consists of two principal components: remediation and development. The remediation and restoration component includes several activities to occur over a three year period: demolishing existing buildings, excavating top soil, site recontouring, capping, and mitigating existing impacts to cultural and biological resources. The second component of the project involves developing portions of the site through entitlements for commercial or industrial uses. Chevron's goal is to develop a portion of the site with approximately 800,000 square feet of business park and service commercial. The Chevron Tank Farm contains numerous recorded cultural resources related to early ranching and the rise of the oil industry in California.

To support this effort Æ, a subcontractor to MRS, conducted cultural resources background research, consulted with the local Native American community, and performed a peer review of applicant-supplied cultural resource inventory and evaluation reports. Æ filled data gaps and prepared the cultural resource sections of the EIR for the proposed project. As part of this effort, Æ monitored archaeological field testing and evaluation of numerous cultural resources that would be impacted. This EIR evaluated direct, indirect, and cumulative impacts related to both the City and County development options and alternatives. Mitigation measures were developed that reduced project related impacts to less-than-significant levels.

- **Avila Beach Remediation Project.** Æ provided services to JE Remediation Technologies, Inc./UNOCAL for the Avila Beach Remediation Project in San Luis Obispo County, California. For years petroleum products were transported through the storage facility and marine terminal at Avila Beach. As part of the necessary remediation to alleviate soil contamination, standing structures were removed from portions of the town site and affected soils were replaced with clean fill used in recontouring the beachfront property. Prior to soil remediation, Æ conducted test excavation to locate and evaluate archaeological resources representing Avila Beach's history from the 1880s through 1945 and to mitigate impacts on significant resources. The archaeological investigations were performed to achieve compliance with CEQA and San Luis Obispo County cultural resources management guidelines. Æ prepared a Cultural Resources Management Plan that defined a research orientation, outlined a field work strategy, and described methods for mitigation of impacts to historical archaeological deposits that were anticipated within the study areas. Archaeological excavations resulted in the identification of 16 historic deposits with artifacts dating from the early 1870s through the 1940s. These materials represent recreation and tourism, residential and early commercial development, the fishing industry, and Depression-era public works projects at Avila Beach. Because archaeological mitigation efforts were carried out concurrently with building demolition and removal, Æ implemented a flexible work plan to accommodate the demolition schedule while still assuring proper treatment of the historical resources.
- **Chevron/Venoco Carpinteria Soil Remediation Project, Santa Barbara County.** Since August 2011, under contract with Padre Associates, Æ has provided archaeological and Native American consultation services in support of the CEMC/Venoco soil remediation project at the former Chevron Oil and Gas Processing Facility in Carpinteria, California. The project lies within a zone of archaeological sensitivity; portions of the work areas are within the recorded boundaries of site CA-SBA-6. Monitors have identified intact archaeological deposits in two areas. In close coordination with project staff, impacts to these potentially significant archaeological deposits have thus far been avoided—ensuring compliance with project conditions of approval and avoiding additional, costly archaeological studies that would delay project schedules. Æ has prepared several memos explaining the archaeological requirements necessary in the event that project-related disturbances

cannot be avoided. This project is also subject to stringent safety requirements imposed by CEMC and Padre—requirements with which Æ has complied successfully.

- **Santa Barbara I Manufactured Gas Plant Remediation Project.** Historic operation of the Santa Barbara I Manufactured Gas Plant in old town Santa Barbara resulted in soil contamination at the current site of the Santa Barbara Historical Museum. Æ worked closely with Southern California Edison and URS Corporation to identify the probable locations of important archaeological deposits on the project site, formulate plans for mitigating impacts to these resources during soil remediation, and perform the archaeological studies safely under hazardous conditions. Accomplishing the goals of the scope of work required the coordinated effort of historians, archaeologists, the project remediation team, and numerous technical analysts working in the field and laboratory. More than 40 historical features, many of which are associated with the manufactured gas plant, were identified during the investigations. These features provided important new information about the history of manufactured gas plant operations, a pivotal industry in the United States.
- **Santa Margarita Ranch Agricultural Residential Cluster Subdivision Project and Future Development Program EIR, San Luis Obispo County.** As a subcontractor to Rincon Consultants, Æ prepared the cultural resource sections of the EIR for the complex and controversial Santa Margarita Ranch Agricultural Residential Cluster Subdivision Project and Future Development Program. Æ performed a series of intensive cultural resources inventories covering approximately 5,000 acres on the 14,000-acre Santa Margarita Ranch in San Luis Obispo County. The work was intended to identify archaeological sites and culturally sensitive areas for avoidance during agricultural and residential development of the property. Æ conducted background research, performed field surveys, documented 60 prehistoric and historical sites and 51 isolates, and prepared several technical reports of findings. Discovered sites spanned the full range of history and prehistory from as much as 10,000 years ago to the 1950s, with a preponderance of early millingstone, protohistoric, and Mission-era resources. The boundaries of each site were marked with stakes and flagging, and GPS equipment was used to record all site locations and boundaries. Additionally, Æ performed a landmark cultural landscape analysis which is cited by the California SHPO as the industry standard, as well as geoarchaeological studies to predict the locations of buried cultural resources. Native American coordination, consultation, and negotiation also were primary components of the project, with tribal monitors participating as crew members during the field surveys and providing input into the EIR impact analysis and development of mitigation measures.
- **City of San Luis Obispo Chinatown Project EIR.** The proposed Chinatown Project is located within both the Chinatown and Downtown Historic Districts, among the largest concentration of pre-1900, multi-storied commercial, residential and public buildings in the City of San Luis Obispo's downtown core. Æ served on the team selected by the City to prepare the EIR for this project, which is near or next to several of the City's most historically and architecturally significant buildings, including Mission San Luis Obispo de Tolosa. In addition, the potential for archaeologically significant sites, including a Native American cemetery, exists in the area. Because the project is located immediately adjacent to the former Mission cemetery, where thousands of Chumash Indian converts were buried, consultation with the local Native American community was a key task, and Æ designed a program for in-depth outreach and communication with the tribal communities. Æ completed all other required technical studies, including background archival research, field inventories, preparation of cultural resource sections of the EIR, and development of a mitigation plan that emphasized sensitivity to both archaeological resources and the built environment, and the unique requirements of archaeological excavation in an active urban setting.

- **Nipomo Creek Remediation Project, San Luis Obispo County.** In coordination with the Regional Water Quality Control Board and San Luis Obispo County, ConocoPhillips prepared and implemented a Corrective Action Plan (CAP) to mitigate potential exposure from impacted soil resulting from a release of crude oil from a pipeline adjacent to Nipomo Creek in Nipomo, San Luis Obispo County. The proposed remediation entailed excavation within the creek banks, stream bed lining, and bank stabilization. As a subcontractor to Terra Pacific Group, Æ conducted Phase 1 archaeological and historical surveys and supplied archaeological and a Native American monitors during ground disturbance and implementation of the CAP. All monitors were 40-hour HAZWOPER certified. Prior to beginning fieldwork, all monitors reviewed ConocoPhillips’ Contractor Safety Handbook, training videos, and Personal Health and Safety Commitment forms.
- **On-Call Cultural Resources Consulting Services, County of San Luis Obispo Public Works Department.** Since 2008, Æ has held two consecutive three-year on-call contracts to supply cultural resource services to the San Luis Obispo County Department of Public Works. Under these contracts Æ has completed 10 cultural resource studies for highway improvements, transportation enhancements, and other projects to ensure compliance with federal and State regulatory requirements. The work has included site surveys and inventories, testing and significance evaluations, construction monitoring, tribal consultation, and regulatory compliance management. All work was completed on time and within budget.

### A.3 Summary of Relevant Aspen Team Qualifications

Exhibit 2 summarizes the key experience of each member of the Aspen Team. Our solid and well-rounded Team is capable of performing any and all tasks that would be required to provide consultant support services to the County, and to prepare the EIR for the Avila Point Project.

| Exhibit 2. Summary of Relevant Aspen Team Experience |   |                                    |   |                                      |                          |  |  |                                      |                               |
|--|---|------------------------------------|---|--------------------------------------|--------------------------|--|--|--------------------------------------|-------------------------------|
| Team Member  | Previous Experience & Working Knowledge of: |                                    |   |                                      |                          |  |  |                                      |                               |
|  | San Luis Obispo County                      | Site Remediation and Redevelopment | Land Use, Policy Analysis, and Planning | California Environmental Quality Act | Alternatives Development | Mitigation Measures and Mitigation Monitoring and Reporting Programs | Development, Peer Review, and Use of Technical Studies | Decision Support and Public Hearings | Resource Agency Consultations |
| Aspen Environmental Group                            | ■   | ■                                  | ■                                       | ■                                    | ■                        | ■  | ■  | ■                                    | ■                             |
| Ninyo & Moore  |   | ■                                  |   | ■                                    | ■                        |  | ■  | ■                                    | ■                             |
| Pacific Municipal Consultants                        | ■   | ■                                  | ■                                       | ■                                    | ■                        | ■  | ■  | ■                                    | ■                             |
| Fehr & Peers   | ■   | ■                                  | ■                                       | ■                                    |                          | ■  | ■  | ■                                    |                               |
| Applied Earthworks                                   | ■   | ■                                  |   | ■                                    | ■                        | ■  | ■  | ■                                    | ■                             |

## B. Project Team

### B.1 Project Management and Coordination

Aspen has assembled an exceptionally strong team for the Avila Point Project EIR, which is built on two primary strengths. First, Aspen is well-known for our CEQA work, our ability to manage complex EIRs, and our long-term work in San Luis Obispo County and surrounding coastal areas. Secondly, we have assembled an unparalleled resource of technical expertise with our specialists in coastal permitting and planning, site remediation, land use, and community planning. Aspen has a long history of successfully assembling and managing technical teams for complex energy, infrastructure, and development projects; our goal is to assemble the ideal team based on the specific issues of each project. Unlike some of our large competitors, which receive significant corporate pressure to use internal staff resources in lieu of outside specialists, Aspen has always prioritized the development of the *best* team, regardless of firm affiliation.

#### RFP Criteria

- 4.3B (Experience and Performance)
- 4.4A (Coordination with County)
- 4.4B (Experience with Local Government)

The Aspen Team, presented in Exhibit 3, will be managed by **Sandra Alarcón-Lopez, MA**, who offers extensive experience in both the preparation of CEQA-related documents and the management and execution of the CEQA environmental review process. She is an accomplished project manager with more than 28 years of experience managing complex and high profile CEQA projects and has worked on development projects in San Luis Obispo County and other coastal areas. Ms. Alarcón-Lopez is one of Aspen’s Senior Project Managers and will be the primary point of contact with the County during the contract performance period. The Deputy Project Manager, **Susanne Huerta, MUP**, will support Ms. Alarcón-Lopez in matters related to public involvement and coordination of the EIR process. **Jon Davidson, MURP**, Vice President of our Agoura Hills office, will support Ms. Alarcón-Lopez as our Team’s Principal-In-Charge. He will ensure that Ms. Alarcón-Lopez is provided with all of the in-house resources and staff required to complete all project-related tasks and efforts.

Aspen routinely works with subcontractors, and also relies on internal teams that are comprised of staff located in our three main offices (Agoura Hills, San Francisco, and Sacramento), as well as over eight “remote” (e.g., telecommuting) offices. As a consequence, Aspen has established communication systems and protocols in place that allows rapid and efficient communication and coordination between Aspen staff, subcontractors, and our clients. We are fully integrated and routinely communicate via phone, conference calls and three-way calls, online meetings, email, and instant messaging.

Aspen’s Project Manager and other selected Team members will communicate and coordinate with the County Project Manager and other staff at regular intervals as prescribed by the County Project Manager, or on an “as needed” basis. The Aspen Team has worked closely with the County throughout the EIR and compliance stages of the ongoing Topaz Solar Farm and California Valley Solar Ranch Projects. Therefore, Aspen, in particular the Aspen’s management team, has developed solid working relationships with the County’s management team, which will allow for immediate and efficient delegation of tasks.

Our approach to completing Phase 1 (Staff Support Services and Project Scoping) and Phase 2 (Preparation of Environmental Impact Report and Related Support Documents) is based on the following critical elements:

- Communication protocols that will enable Aspen to maintain frequent contact with the County, such as regular conference calls, personal calls, or emailed weekly progress reports (in a format and schedule agreeable to the County) to ensure the County Project Manager is always up to date on our progress.
- Use of specific contractual agreements with subcontractors (scopes of work, well-defined schedules, document templates, page limitations/expectations and document nomenclature, mutually agreed upon budgets) to guarantee achievement of project objectives and high quality work products.
- Early planning of interdependent tasks and subtasks, data collection, and analyses and making maximum appropriate use of reliable, existing information so that redundant efforts and analytical gaps are avoided.
- Early definition of the Project Description, alternatives, and EIR outline to ensure that the County is fully satisfied with the document's content and that each issue area analysis is completed thoroughly and efficiently.
- Provision of a detailed style guide and report production instructions to the Team to enhance quality. Aspen has created templates and style guides for the two solar project EIRs that we recently completed and can readily adjust them for the proposed project or any other format preferred by the County.
- Use of a highly effective, automated cost control system that provides clear tabular summaries of the status of individual tasks and the overall project so that management can track progress in "real time," and predict problems and correct them before they pose serious difficulties.
- Implementation of a well-developed quality assurance/quality control program that includes technical review and editing of all documents for clarity and consistency.

## Project Support Resources

Aspen will direct and manage this contract from our office in Agoura Hills. Aspen's office provides extensive project support, in terms of computers, telecommunications, website services, word processing and editing, document production and distribution, finance and accounting, and contract administration and purchasing. Aspen's Project Manager, Sandra Alarcón-Lopez, has direct access to all support services and works with graphics, document production, and GIS resources effectively to ensure the efficient completion of project deliverables. In addition, if desired by the County, Ms. Alarcón-Lopez can set up a secure, project-specific collaboration site to allow for all team members to share information and web conferencing (when needed) to reduce travel costs and allow more team members to participate in meetings.

Aspen has a dedicated staff of highly experienced GIS specialists that will work closely with Ms. Alarcón-Lopez and technical specialists for the issue-specific baseline information needed. All GIS data developed for this project will be in accordance with ESRI Geodatabase format for Version 10, Arc F=GIS.

## B.2 Key Personnel

Exhibit 4 presents a summary of the experience for the key personnel identified for this contract including our subconsultant team. The Appendix includes resumes for all personnel listed on the organization chart and also includes resumes for additional team members that will work on the project and have been included in the proposed project budget.

### Exhibit 3: Organization Chart



**County of San Luis Obispo**  
Department of Planning and Building  
Ryan Hostetter  
County Project Manager

**Principal-in-Charge**  
Jon Davidson, MURP



**Project Management**  
Project Manager | Sandra Alarcón-Lopez, MA  
Deputy Project Manager | Susanne Huerta, MUP

**Project Support**  
Document Coordinator | Judy Spicer  
GIS | Anton Kozhevnikov, GISP  
Tracy Valentovich  
Graphics | Kati Simpson

**Phase I  
Project Support and Project Scoping**

|   |  |
|---|--|
| <b>Project Description/ Specific Plan</b> | Sandra Alarcón-Lopez, MA<br>Tad Stearn (PMC)<br>Tammy Seale, MSP (PMC) |
| <b>NOP/ Initial Study</b>                 | Susanne Huerta, MUP<br>Technical Specialists noted in Phase 2          |
| <b>EIR Scoping Meeting</b>                | Sandra Alarcón-Lopez, MA<br>Susanne Huerta, MUP                        |
| <b>Meeting Support</b>                    | Sandra Alarcón-Lopez, MA<br>Other Technical Specialists As Needed      |

**Phase 2 EIR Preparation  
Physical Sciences, Natural Resources, and Social Sciences**

|   |  |                                      |   |
|---|--|--------------------------------------|---|
| <b>Remediation/ Hazardous Materials</b> | Suzanne Phinney, D.Env.<br>Walter Crone, PG, QSD/QSP (NM)                            | <b>Aesthetics</b>                    | Scott Debauche, CEP<br>Martti Phillip Eckert, MCRP (PMC)                      |
| <b>Human Health and Risk Assessment</b> | Suzanne Phinney, D.Env.<br>Heriberto Robles, PhD. DABT (NM)                          | <b>Geology and Mineral Resources</b> | Aubrey Mescher, MESM<br>Michael E. Rogers, PG, CEG (NM)                       |
| <b>Air Quality/GHG</b>                  | Will Walters, PE<br>Brewster Birdsall, PE, QEP<br>Leanne Singleton, LEED AP (PMC)    | <b>Recreation</b>                    | Susanne Huerta, MUP   |
| <b>Transportation/ Traffic</b>          | John Muggridge, AICP (F&P)<br>Michael Kennedy, AICP (F&P)<br>Spencer Reed, EIT (F&P) | <b>Land Use</b>                      | Tammy Seale, MSP (PMC)<br>Jeffrey S. Beiswenger, AICP (PMC)                   |
| <b>Noise</b>                            | Brewster Birdsall, PE, QEP<br>Lisa Blewitt   | <b>Population and Housing</b>        | Scott Debauche, CEP   |
| <b>Biological Resources</b>             | Chris Huntley<br>Jared Varonin, CFP<br>William Haas, MS<br>Michael F. McGowan, Ph.D. | <b>Cultural/ Paleontology</b>        | Beth Bagwell, PhD, RPA<br>Barry Price, MA, RPA (AE)<br>Jessica L. Debusk (AE) |
| <b>Hydrology and Groundwater</b>        | Aubrey Mescher, MESM<br>John Jay Roberts, PG, CEG (NM)                               | <b>Public Services and Utilities</b> | Stanley Yeh, MPA  |
|   |  | <b>Other CEQA Energy</b>             | Stanley Yeh, MPA<br>Tammy Seale, MSP (PMC)                                    |

#### Exhibit 4. Qualifications Summary of Key Personnel

| Role and Qualifications   | Area of Expertise, Knowledge, and Experience   |
|---|--|
| <p><b>Jon Davidson, MURP</b></p> <p><i>Role</i><br/>Principal-In-Charge</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>Master of Urban and Regional Planning<br/>BA, Urban Planning</p> <p><i>Experience</i><br/>Total: 30 years<br/>Aspen: 15 years</p>   | <p>Mr. Davidson has over <b>30 years of experience</b> in providing consulting services to government agencies. Mr. Davidson has managed or had a major role in the preparation of more than 135 EIRs, EISs, and EAs, and has prepared over 30 plans and planning studies, including land use studies, general plans, specific plans, redevelopment plans, and site plans. Key highlights of his experience include:</p> <ul style="list-style-type: none"> <li>■ Project Manager for <b>Tehachapi Renewable Transmission Project EIR/EIS</b> in Kern, Los Angeles, and San Bernardino Counties;</li> <li>■ Project Manager for <b>Ocotillo Wind Energy Facility EIS/EIR</b> in Imperial County;</li> <li>■ Project Manager for <b>Antelope-Pardee 500-kV Transmission Project</b> in Kern and Los Angeles Counties; and</li> <li>■ Program Manager for <b>three consecutive multi-year environmental services contracts</b> with US Army Corps of Engineers Los Angeles District.</li> </ul>  |
| <p><b>Sandra Alarcón-Lopez, MA</b></p> <p><i>Role</i><br/>Project Manager</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>M.A. Architecture and Urban Planning<br/>B.A. Speech and Hearing Sciences</p> <p><i>Experience</i><br/>Total: 30 years<br/>Aspen: 14 years</p>  | <p>Ms. Alarcón-Lopez is a Project Manager with <b>30 years of experience</b> managing environmental documents (CEQA and NEPA) and policy-related studies. She is an accomplished land use planner with significant local government experience. She has worked on many controversial and complex projects, including major remediation efforts. Selected experience includes:</p> <ul style="list-style-type: none"> <li>■ Project manager for the preparation of an EIR for the <b>Topaz Solar Farm Project</b> in San Luis Obispo County. Supported the County in preparing staff reports, CEQA Findings, and responding to written and oral comments received during the public hearing process.</li> <li>■ Project Manager for 13 school projects in the City of Los Angeles. Completed <b>5 EIRs</b> on controversial new schools and 8 MNDS for school expansions or additions. All (EIR) projects included redevelopment on non-traditional sites, many of which required <b>site remediation</b>.</li> <li>■ Project Manager for <b>two EIRs</b> for the Los Angeles Department of Water and Power that addressed the lower and upper reach of a major <b>water pipeline project</b> that crossed different jurisdictions and included jacking under major traffic intersections and tunneling under a major utility corridor.</li> <li>■ Program Manager for a nationwide contract with ARCO as an employee of Jacobs Engineering Group. Managed <b>site characterization</b> and risk assessments/<b>remediation</b> studies.</li> <li>■ Land use and energy planner for <b>offshore oil and gas development</b> projects as an employee of the County of Santa Barbara. Worked on application and environmental review of complex oil and gas development projects proposed by major oil companies. Interfaced with other County departments and State and federal agencies in the review and permitting of these facilities including extensive interaction with the California Coastal Commission.</li> </ul> |
| <p><b>Susanne Huerta, MUP</b></p> <p><i>Role</i><br/>Deputy Project Manager; Recreation</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>Master of Urban Planning<br/>B.A. Geography</p> <p><i>Certification</i><br/>AICP Candidate (official certification is pending)</p> <p><i>Experience</i><br/>Total: 7 years<br/>Aspen: 6 years</p> | <p>Ms. Huerta is an environmental planner with <b>7 years of experience</b> preparing a variety of federal and state environmental, planning, and analytical documents for large-scale infrastructure and development projects. Some of her key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Currently serving as <b>Deputy Project Manager</b> for conditions compliance review of the <b>Topaz Solar Farm Project EIR</b></li> <li>■ Currently serving as a technical specialist for review of the environmental documents for Los Angeles County's Baldwin Hills Community Standards District and preparation of an <b>oil and gas drilling ordinance</b> for the City of Culver City in Los Angeles County</li> <li>■ Served as <b>Deputy Project Manager</b> for the <b>Morgan Hills Wind Energy Project EIR</b></li> <li>■ Coordinated <b>public involvement</b> efforts for the following projects:             <ul style="list-style-type: none"> <li>– Topaz Solar Farm Project</li> <li>– California Valley Solar Ranch Project</li> <li>– Carrizo Energy Solar Farm</li> <li>– Tehachapi Renewable Transmission Project</li> </ul> </li> <li>■ Prepared recreation analysis for eight separate projects, including the following: Sespe Creek Levee Improvements Project, Ocotillo Express Wind Project, Calico Solar Project, Imperial Valley Solar Project, and the Rimforest Storm Drain Project.</li> </ul>   |

**Exhibit 4. Qualifications Summary of Key Personnel**

| Role and Qualifications  | Area of Expertise, Knowledge, and Experience   |
|--|--|
| <p><b>Elizabeth A. Bagwell, PhD, RPA</b></p> <p><i>Role</i><br/>Cultural Resources</p> <p><i>Location</i><br/>Sacramento, CA</p> <p><i>Education</i><br/>PhD, Anthropology<br/>MA, Anthropology Certificate of Archaeological Technology<br/>BA, Anthropology and Creative Writing</p> <p><i>Experience</i><br/>Total: 21 years<br/>Aspen: 3 years</p> | <p>Dr. Bagwell is a Registered Professional Archaeologist (RPA) with over <b>21 years</b> of professional experience in cultural resource management.</p> <ul style="list-style-type: none"> <li>■ Meets the Secretary of the Interior’s qualification criteria as a <b>prehistoric archaeologist</b>.</li> <li>■ Responsible for oversight of all Aspen cultural resources services.</li> <li>■ Specialization in NEPA and CEQA analyses, cumulative analyses, and third party review of compliance documents for large infrastructure projects in California, Arizona and Nevada.</li> <li>■ <b>Project Manager and Field Director for large data recovery projects</b> including the Phoenix Sky Harbor International Airport Automated Train Project and the Palo Verde to Pinal West 500 kV Transmission Line Project.</li> </ul>   |
| <p><b>Brewster Birdsall, PE, QEP</b></p> <p><i>Role</i><br/>Noise; Energy;<br/>Air Quality/GHG</p> <p><i>Location</i><br/>San Francisco, CA</p> <p><i>Education</i><br/>M.S. Civil Engineering<br/>B.S. Mechanical Engineering</p> <p><i>Experience</i><br/>Total: 18 years<br/>Aspen: 11 years</p>  | <p>Mr. Birdsall is an engineer and environmental scientist with <b>18 years of experience</b> who specializes in energy infrastructure and land development projects as an analyst of noise, air quality, and greenhouse gas (GHG) issues. Some of his recent relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Noise, air quality, and climate change EIR analysis for <b>California Valley Solar Ranch</b> and <b>Topaz Solar Farm</b> on Carrizo Plain</li> <li>■ Deputy project manager for EIR on <b>Diablo Canyon nuclear power plant steam generator replacement</b></li> <li>■ Energy use and energy conservation analysis in the CEQA process for municipal solid waste landfills in Kern County</li> <li>■ Energy production and transmission assessment, coupled with GHG, air quality, and noise impact analysis, for major new electric infrastructure, renewable power plants, and offshore drilling</li> </ul> <p><b>Air quality, health risk, and noise impact analysis</b> for urban infill development</p>  |
| <p><b>Lisa Blewitt</b></p> <p><i>Role</i><br/>Noise</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>B.S. Chemical Engineering</p> <p><i>Experience</i><br/>Total: 16 years<br/>Aspen: 11 years</p>   | <p>Ms. Blewitt is a Senior Associate with <b>16 years of experience</b>. Her most relevant noise experience includes:</p> <ul style="list-style-type: none"> <li>■ Prepared noise analyses for four solar projects, including the <b>Topaz Solar Farm Project</b> and <b>California Valley Solar Ranch</b> in San Luis Obispo County, <b>Panoche Valley Solar Farm Project</b> in San Benito County, and the <b>Desert Harvest Solar Project</b> in Riverside County</li> <li>■ Prepared noise analyses for four wind projects in Kern and Imperial Counties, including Pacific Wind Energy Project, North Sky River and Jawbone Wind Energy Project, Morgan Hills Wind Energy Project, and Ocotillo Wind Energy Facility</li> <li>■ <b>Prepared noise analyses for 18 additional projects</b>, including Initial Study, EIR, and EIS-level analyses. Example projects include: Sespe Creek Levee Improvements Project IS/MND and EA, California River Parkways Trailhead Project IS/MND, Upper San Antonio Creek Watershed Giant Reed Removal Project IS, Total Terminals International Grain Export Terminal Installation Project IS, Eagle Rock Aggregate Terminal Project EIS/EIR, and Sulex Demolition Project IS</li> </ul>        |
| <p><b>Scott Debauche, CEP</b></p> <p><i>Role</i><br/>Aesthetics; Population &amp; Housing</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>B.S. Urban Planning</p> <p><i>Experience</i><br/>Total: 18 years<br/>Aspen: 12 years</p>   | <p>Mr. Debauche is a board certified environmental planner (U.S. Council of Engineering and Scientific Specialty Board/ABCEP) with <b>17 years of experience</b> preparing CEQA and NEPA documents, planning reports, and analytical technical studies for a variety of large-scale infrastructure and development projects. A summary of key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Preparation of over fifty (50) Population/Housing and Visual Resources (Aesthetics) analyses for <b>public works and infrastructure projects</b> within California, including a number of coastal projects within both central and southern California</li> <li>■ Experience with <b>San Luis Obispo County CEQA evaluations</b>, including: the Santa Margarita Quarry Expansion Project EIR, Topaz Solar Farm Project EIR, California Valley Solar Ranch Project EIR, and Diablo Canyon Power Plant (DCPP) Steam Generator Replacement Project EIR</li> <li>■ Certified senior technical specialist and CEQA expert witness for the California Energy Commission regarding Visual Resources and Socioeconomics (including Population and Housing) issues of new power plant licensing applications</li> </ul> |

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|---|--|
| <p><b>William E. Haas, MS</b></p> <p><i>Role</i><br/>Biological Resources</p> <p><i>Location</i><br/>Paso Robles, CA</p> <p><i>Education</i><br/>MS, Zoology<br/>BA, Biology</p> <p><i>Experience</i><br/>Total: Over 20 years</p>                                      | <p>Mr. Haas has <b>over 20 years of experience</b> working as a wildlife biologist in the western United States supporting and managing a variety of large scale construction and infrastructure projects. Key highlights of her recent experience include:</p> <ul style="list-style-type: none"> <li>■ <b>Design and implementation of a long-term (6-year) study</b> of the federal endangered arroyo toad and the state species of special concern Coast Range newt within the San Diego river watershed in order to ascertain the effects of water transfers on breeding success of these two protected species.</li> <li>■ Station-wide surveys for the federal threatened California gnatcatcher (<i>Poliopitilla californica</i>) on Marine Corps Air Station Miramar. Project tasks included not only the survey for and enumeration of occurring gnatcatchers but also an <b>analysis of the effects of wildfire</b> on their habitat use, home range size, and post-fire dispersal and recovery.</li> <li>■ Responsible for the design and implementation of the initial (1999) study and the 10-year follow-up study (2009) for <b>long-term ecosystem monitoring</b> at the Marine Corps Air Station Miramar. The study entailed comprehensive field methods and a variety of study methods to determine the locations and habitat use by reptiles, amphibians, small mammal, and birds and the statistical analysis of diversity changes over time as they relate to military training as well as 10 years of stochastic events including wildfire and weather.</li> </ul> |
| <p><b>Chris Huntley</b></p> <p><i>Role</i><br/>Biological Resources/Permitting</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>Graduate Studies, Biology<br/>B.A., Biology</p> <p><i>Experience</i><br/>Total: 20 years<br/>Aspen: 15 years</p> | <p>Mr. Huntley is an experienced biologist with <b>15 years of experience</b> conducting biological surveys and preparing technical sections to support CEQA/NEPA, Clean Water Act, Section 1600 and Endangered Species Act compliance. He has extensive experience in coastal regions and supporting power plant and development projects. Some of his key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Currently serving as a technical expert for large scale power generation projects for the California Energy Commission. Provided biological and management support for multiple projects requiring <b>soil testing, remediation, or hazardous material removal</b> for the USACE and CPUC.</li> <li>■ Prepared technical documents to support recent San Luis Obispo County projects including:           <ul style="list-style-type: none"> <li>- <b>Topaz Solar Farm Project EIR</b></li> <li>- <b>California Valley Solar Ranch Project EIR</b></li> </ul> </li> <li>■ Primary author for multiple energy projects including power plants, transmission lines, and pipelines.</li> </ul>   |
| <p><b>Michael McGowan, PhD</b></p> <p><i>Role</i><br/>Marine Biology</p> <p><i>Location</i><br/>Berkeley, CA</p> <p><i>Education</i><br/>Ph.D. Biological Oceanography<br/>M.A. Marine Biology<br/>B.A. Biology</p> <p><i>Experience</i><br/>Total: 20-30 years</p>     | <p>Mr. McGowan has <b>over 15 years of experience</b> managing biological research, regulatory compliance, and environmental projects, and is the author or coauthor of 24 peer-review articles and chapters and more than 50 project technical reports. He provides ecological and biological consulting services including technical and compliance review, design and conduct of surveys and monitoring, mitigation and restoration. Highlights of his remediation and marine biology experience include:</p> <ul style="list-style-type: none"> <li>■ Reviewed and analyzed CERCLA technical documents about the <b>cleanup of contaminants at the Hunters Point Shipyard Superfund site</b> and communicated results to the affected local community.</li> <li>■ Reviewed for US Dept. of Transportation a <b>NOAA study of contaminants</b> (metals, PCB, lead paint, asbestos, petroleum) surrounding the reserve ships in Suisun Bay (Mothball Fleet).</li> <li>■ Conducted "the most comprehensive site-specific account of San Francisco Bay fishes ever completed," per NOAA Independent Peer Review Panel comment on study for San Francisco Airport Runway Project EIR/EIS.</li> <li>■ Wrote several biological assessments of impacts of marina dredging to CESA-listed longfin smelt.</li> <li>■ Participated with EPA, DTSC, Regional Water Board, and San Francisco Department of Public Health staff to review technical and regulatory documents prepared by consultants for the Navy.</li> </ul>   |

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| Role and Qualifications  | Area of Expertise, Knowledge, and Experience  |
|--|---|
| <p><b>Aubrey Mescher, MESM</b></p> <p><i>Role</i><br/>Hydrology and Groundwater; Geology and Mineral Resources</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>Master of Environmental Science and Management<br/>B.A. Environmental Studies and Film Theory</p> <p><i>Experience</i><br/>Total: 8 years<br/>Aspen: 7 years</p>                | <p>Ms. Mescher is an Associate Planner and Water Resources Specialist with <b>8 years of experience</b> preparing analyses in compliance with CEQA, NEPA, and other applicable state and federal laws and regulations. Her recent experience include:</p> <ul style="list-style-type: none"> <li>■ Technical specialist for review of an <b>oil and gas drilling ordinance</b> affecting the Baldwin Hills Community Standards District for the City of Culver City in Los Angeles County</li> <li>■ Project Manager and technical specialist for the Thousand Palms Flood Control Project EIR/EIS in the Coachella Valley area of Riverside County</li> <li>■ Author and technical review specialist for numerous <b>Water Supply Assessments</b> for renewable energy projects throughout California, per Senate Bills 610 and 267</li> <li>■ Technical specialist and author of the Hydrology / Water Quality analyses for infrastructure projects throughout California, including but not limited to: Ocotillo Express Wind Project (Imperial County), Desert Harvest Solar Project (Riverside County), <b>California Valley Solar Ranch EIR (San Luis Obispo County)</b>, <b>Topaz Solar Farm Project EIR (San Luis Obispo County)</b>, and Panoche Solar Project (San Benito County)</li> </ul>  |
| <p><b>Suzanne Phinney, D.Env</b></p> <p><i>Role</i><br/>Remediation/Hazardous Materials; Human Health and Risk Assessment</p> <p><i>Location</i><br/>Sacramento, CA</p> <p><i>Education</i><br/>D.Env. Environmental Science and Engineering<br/>M.A. Marine Biology<br/>B.A. Biological Sciences</p> <p><i>Experience</i><br/>Total: 35 years<br/>Aspen: 12 years</p> | <p>Dr. Phinney is an environmental scientist with <b>35 years of experience</b> in CEQA analysis, complicated soil and water investigation and remediation, and development of contaminated properties. Some of her key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Prepared the <b>waste management analyses</b> for more than a dozen power plants, including review of <b>RI/FS studies</b> to determine whether soil or groundwater contamination could impede development</li> <li>■ Project Manager for the CEC's Petroleum Infrastructure Environmental Performance Report</li> <li>■ Direct responsibility for investigation and remediation of an <b>8,500-acre Superfund site</b> <ul style="list-style-type: none"> <li>– Oversaw development of seven groundwater remediation facilities and cleanup of more than 50 billion gallons of contaminated groundwater</li> <li>– Removed 1,500 acres from within site boundary, allowing <b>land to be developed free of regulatory encumbrances</b></li> </ul> </li> <li>■ Conducted toxicological and ecological analyses and <b>risk assessments</b></li> </ul> <p><b>Evaluated potentially carcinogenic pesticides</b> under Rebuttable Presumption against Regulation (RPAR) review by EPA</p>   |
| <p><b>Jared Varonin, CFP</b></p> <p><i>Role</i><br/>Biological Resources</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>B.S. Ecology &amp; Systematic Biology</p> <p><i>Experience</i><br/>Total: 11½ years<br/>Aspen: 4 years</p>  | <p>Mr. Varonin has <b>over 11 years of experience</b> as a consulting biologist and will be supporting and managing CEQA/NEPA projects including EIR/EIS, IS/MND, EA, BE/BA, and BA. Mr. Varonin has proven experience working with the sensitive biological resources that occur throughout California. Key highlights of his recent experience include:</p> <ul style="list-style-type: none"> <li>■ Biological resource analysis and section author for the <b>Topaz Solar Farm EIR</b> in San Luis Obispo County. Lead biologist responsible for compliance review for all biological resource-related conditions of approval. Testified at the Planning Commission and Board of Supervisors hearings.</li> <li>■ Mr. Varonin is one of the lead biologists responsible for preparing the biological resources section of the Draft EIR being prepared for the proposed expansion of the <b>Hanson Aggregates Santa Margarita Quarry</b> in northern San Luis Obispo County.</li> <li>■ Biological resource analysis and one of the lead authors for the <b>California Valley Solar Ranch EIR</b> in San Luis Obispo County. One of the lead biologists responsible for compliance review for all biological resource related conditions of approval.</li> <li>■ Mr. Varonin is part of the team conducting field surveys and preparing the biological resources section of the joint EIS/EIR for the Littlerock Reservoir and Dam, evaluating the impacts of sediment removal alternatives in this reservoir on USFS Angeles National Forest lands in Los Angeles County.</li> </ul> <p>Served as Project Manager/Lead Biologist for the USACE <b>Santa Paula Creek Sediment Removal Project</b> which included pre-construction surveys, biological monitoring, and focused steelhead trout surveys. Mr. Varonin is also overseeing 5 years of post-project monitoring including steelhead trout habitat assessments.</p> |

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|--|---|
| <p><b>William Walters, PE</b></p> <p><i>Role</i><br/>Air Quality/GHG</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>B.S., Chemical Engineering</p> <p><i>Experience</i><br/>Total: 27 years<br/>Aspen: 12 years</p>   | <p>Mr. Walters is a chemical engineer with <b>27 years of experience</b>. His most relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Served as the <b>air quality, health risk, and greenhouse gas technical specialist</b> for review of the environmental documents for Los Angeles County's Baldwin Hills Community Standards District EIR and for the preparation of an oil and gas drilling ordinance for the City of Culver City in Los Angeles County;</li> <li>■ Prepared air quality and greenhouse gas impact assessments for two Port of Long Beach development projects, and prepared or assisted in the preparation of the <b>health risk assessments</b> for those two projects.</li> <li>■ Prepared air quality and greenhouse gas impact assessments for numerous CEC power plant siting case projects, including several solar thermal energy projects and one geothermal energy project; as well as for over two dozen natural gas fired energy generation projects.</li> <li>■ Prepared several renewable energy project <b>air quality and greenhouse gas impact assessments</b> for County Planning Departments, including several wind energy projects in Kern County, one wind energy project in Imperial County; and two geothermal energy projects in Sonoma County.</li> </ul> <p>Prepared <b>cadmium telluride hazardous materials assessment</b> for the <b>Topaz Solar Farm Project</b> and attended and answered questions at the County hearings for the project. After project approval, reviewed and commented on the project owner's solar module inspection and handling plan compliance submittal.</p> |
| <p><b>Stanley Yeh, MPA</b></p> <p><i>Role</i><br/>Public Services &amp; Utilities;<br/>Other CEQA Energy</p> <p><i>Location</i><br/>Agoura Hills, CA</p> <p><i>Education</i><br/>M.P.A. Environmental Policy<br/>B.S. Environmental Studies</p> <p><i>Experience</i><br/>Total: 14 years<br/>Aspen: 6½ years</p> | <p>Mr. Yeh is a Senior Environmental Scientist with <b>14 years of experience</b>, with expertise in the management of CEQA and NEPA documents. Some key highlights of his experience include:</p> <ul style="list-style-type: none"> <li>■ Population and Housing analysis for the <b>Topaz Solar Farm Project</b>, San Luis Obispo County</li> <li>■ Utilities, fire protection services, and emergency services sections for the Sespe Creek Levee Improvements Project, Ventura County Watershed Protection District</li> <li>■ Baseline utilities analysis for the Upper Santa Ana River Wash, beneath the Seven Oaks Dam</li> <li>■ Deputy Project Manager/Socioeconomics author for the Eagle Rock Aggregate Terminal Project, Port of Long Beach; programmatic analysis of future development of berths 243-245 for the Port of Los Angeles Channel Deepening Project</li> <li>■ Project Manager of the Rimforest Storm Drain and Donnell Basin Projects in San Bernardino County, and 5 flood control projects for the USACE</li> <li>■ Previous employment included: Coordination of special studies related to the <b>safety of new schools</b> including pipeline safety studies and rail safety studies; researched, wrote and edited <b>Phase I environmental site assessments</b> for commercial, residential, industrial, and school properties</li> </ul>  |
| <b>SUBCONTRACTORS</b>  |   |
| <b>Ninyo &amp; Moore</b>   |   |
| <p><b>Walter Crone, MS, PG, QSD/QSP</b></p> <p><i>Role</i><br/>Remediation</p> <p><i>Location</i><br/>Los Angeles</p> <p><i>Education</i><br/>M.S. Geology<br/>B.A. Geology</p> <p><i>Experience</i><br/>Total: 36 years<br/>Ninyo &amp; Moore: 19 years</p>   | <p>Mr. Crone is a Principal Environmental Geologist. He plans, directs, and performs surface and subsurface geologic mapping and geochemical characterization; provides senior technical guidance to staff performing environmental projects; and plans and directs Phase I and II ESAs through remediation of soil and groundwater. Some of his key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Technical Expert to counsel representing an owner of three Avila Beach, CA commercial and residential properties, located over and near a subsurface plume of refined and crude petroleum.</li> <li>■ Principal-in-Charge of a project to develop a detailed cost estimate for the remediation of approximately 83-acres of the Bixby Oil Production Site in Long Beach, California</li> <li>■ Principal Technical lead to identify, assess, and select remedial actions for any environmental issues on Ellwood Mesa and a nearby 36-acre property owned by the City of Goleta.</li> </ul> <p>Project Manager and Technical Lead, representing attorneys for the buyer of an 11-acre site in an Oxnard oil field that included an oil well and former aboveground storage tanks.</p>   |

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| Role and Qualifications  | Area of Expertise, Knowledge, and Experience  |
|--|---|
| <p><b>John Jay Roberts, PG, CEG</b></p> <p><i>Role</i><br/>Hydrology and Groundwater</p> <p><i>Location</i><br/>Los Angeles</p> <p><i>Education</i><br/>B.S. Geology</p> <p><i>Experience</i><br/>Total: 39 years<br/>Ninyo &amp; Moore: 5 years</p>   | <p>Mr. Jay Roberts is a Senior Geologist, with extensive experience performing environmental and geotechnical investigations of commercial and industrial properties and environmental site assessments of school sites throughout California. Projects have included CEQA technical studies; EIR document support; and Phase I, PEA, SSI, RAW, RAP, and O&amp;M plans. Characterization, remediation, and human health assessments were completed on numerous properties. He has prepared successful applications for Brownfields clean-up grants and managed and performed hydrogeologic investigations, groundwater resource evaluations, and water supply studies. He also provides expert witness and litigation support for environmental, geotechnical, and mining matters.</p> <ul style="list-style-type: none"> <li>■ Project Manager and principal author of the Water Quality chapter for the Ascon Landfill EIR, Huntington Beach California (remedial action project). The landfill contained oil well drilling muds, petroleum hydrocarbons, and construction debris from the historic oil production activities in the surrounding area.</li> <li>■ Project Manager for environmental assessment of Redevelopment of a Commercial Site, Santa Fe Springs, California: Managed Phase I and Phase II environmental investigations for an approximately 8-acre parcel, which contained 5 previously abandoned oil wells.</li> <li>■ Managed and conducted an Hydrogeological Assessment Report at the Newhall Refinery to demonstrate whether or not liquids in the on-site holding ponds had impacted the underlying native soils and bedrock.</li> <li>■ Project Manager and Professional of Record for implementation of remedial action for Central Region Middle School No. 7, LAUSD, Los Angeles, California.</li> </ul> |
| <p><b>Heriberto Robles, Ph.D, DABT</b></p> <p><i>Role</i><br/>Human Health and Risk Assessment</p> <p><i>Location</i><br/>Los Angeles</p> <p><i>Education</i><br/>Ph.D. Animal Science and Toxicology<br/>M.S. Animal Science and Toxicology<br/>B.A. Animal Science</p> <p><i>Experience</i><br/>Total: 31 years<br/>Ninyo &amp; Moore: 5 years</p> | <p>Dr. Robles is a Diplomate of the American Board of Toxicology (DABT) with 31 years of experience in environmental toxicology and human health and environmental risk assessment for industrial, real estate, and governmental clients. He has conducted, managed, and/or collaborated on numerous risk assessment projects including mining and military facilities, proposed public school sites, hazardous waste landfills, and oil fields, as well as commercial and industrial facilities. Selected experience includes:</p> <ul style="list-style-type: none"> <li>■ Project Director for Human Health Risk Assessment for a former landfill (California Superfund Site) in Huntington Beach, California. The assessment included consideration of petroleum production wastes as well as other industrial chemicals, waste drilling muds, and construction debris</li> <li>■ Project Manager for a Human Health and Ecological Risk Assessment for a former military facility, San Francisco Bay Area.</li> <li>■ Project Manager for a Human Health and Ecological Risk Assessment for an active military research facility located in central California. The assessment considered impacts to soil and groundwater.</li> </ul> <p>Project Manager for a Risk Assessment of a California Superfund Site in Santa Fe Springs, California. The site was used for disposal of oil well drilling wastes, and was contaminated with asbestos, petroleum hydrocarbons, and other contaminants.</p>   |
| <p><b>Michael E. Rogers, PG, CEG</b></p> <p><i>Role</i><br/>Geology and Mineral Resources</p> <p><i>Location</i><br/>Los Angeles</p> <p><i>Education</i><br/>B.S. Geology</p> <p><i>Experience</i><br/>Total: 25 years<br/>Ninyo &amp; Moore: 7 years</p>  | <p>Mr. Rogers is a Senior Project Geologist with over 20 years of experience providing geotechnical consulting services and project management for public works, commercial and residential projects. He has performed geologic and seismic hazard evaluations, provided geotechnical design services, and conducted forensic evaluations for a variety of projects throughout California. Selected experience includes:</p> <ul style="list-style-type: none"> <li>■ Project Manager responsible for a geotechnical study for the proposed expansion of the Ritz Carlton Laguna Niguel Hotel located in Dana Point, California.</li> <li>■ Project Manager for a geologic and seismic hazards evaluation in support of preparation of the EIR for the 2nd &amp; PCH Project in Long Beach, California.</li> </ul> <p>Project Manager for a geologic and seismic hazards evaluation for the Angel's Gate Park and Cultural Center in San Pedro, California. The project involved developing a master plan and Environmental Impact Report for future expansion of park facilities.</p>  |

**Exhibit 4. Qualifications Summary of Key Personnel**

**Role and Qualifications**

**Area of Expertise, Knowledge, and Experience**

**Applied Earthworks**

**Barry A. Price, MA, RPA**

*Role*  
 Cultural Resources

*Location*  
 San Luis Obispo, CA

*Education*  
 M.A. Cultural Resource Management  
 B.A. Anthropology

*Experience*  
 Total: 38 years  
 Applied EarthWorks: 18 years

Mr. Price has **38 years of experience** as a professional cultural resource manager. As Vice President, Principal Archaeologist, and Western Division Manager for Applied EarthWorks, Mr. Price is responsible for project administration and technical management on projects throughout the Western United States. He ensures compliance with local, state, and federal laws and regulations, and certifies the technical quality of reports and other documents. He serves as principal liaison with clients, government agencies, and Native American tribes; manages budgets and workscopes; and directs the work of technical staff and subcontractors. Some of his key relevant experience includes:

- Currently serving as a Principal Archaeologist for the Chevron San Luis Obispo Tank Farm Restoration and Development EIR and City of Santa Monica Downtown Specific Plan EIR
  - Directed cultural resource studies, including Native American outreach and SB 18 consultation, for scores of projects including:
    - Chevron Tank Farm Restoration and Development EIR
    - Santa Monica Downtown Specific Plan EIR
    - City of Lompoc General Plan Update EIR
    - Bailey Avenue Specific Plan EIR
    - Shandon Community Plan Update EIR
    - Santa Ynez Valley Community Plan Update EIR
    - Rancho Maria Estates Specific Plan EIR
    - City of Reedley General Plan Update EIR
    - Santa Margarita Ranch Agricultural Residential Cluster Subdivision EIR and Future Development Program EIR
    - San Luis Obispo Chinatown Project EIR
    - Court Street Development Project EIR
    - Central Coastal California Seismic Imaging Project EIR
    - Panoche Valley Solar Farm EIR
    - Paradiso del Mare Ocean and Inland Estates EIR
- Rancho San Marcos Golf Course Expansion Supplemental EIR

**Jessica DeBusk**

*Role*  
 Paleontological Resources

*Location*  
 Pasadena, CA

*Education*  
 B.S. Geology, emphasis in Paleobiology

*Experience*  
 Total: 10 years  
 Applied EarthWorks: 1 year

Ms. DeBusk has **10 years of field experience** in both paleontology and archaeology, including extensive experience conducting and coordinating paleontological resources inventory and compliance monitoring projects throughout California and the western United States. She routinely conducts or directs paleontological field surveys and assessments, fossil salvage, specimen identification, laboratory preparation and analysis of micro- and macrofossils, and preparation of technical documentation and final reports. She has field and laboratory experience in paleobotany, micropaleontology, invertebrate paleontology, and vertebrate paleontology. Some of her key relevant experience includes:

- Currently serving as Project Paleontologist for review of applicant supplied data and preparation of the paleontological resource sections of the EIR for the City of Santa Monica Downtown Specific Plan
  - Currently serving or has served as Project Paleontologist for:
    - Santa Monica Downtown Specific Plan EIR
    - Topaz Solar Farm
    - California Flats Solar Project
    - Carson Terminal Redevelopment Project
- Line 109 External Corrosion Direct Assessment Project

**Exhibit 4. Qualifications Summary of Key Personnel**

| Role and Qualifications  | Area of Expertise, Knowledge, and Experience  |
|--|---|
| <i>Pacific Municipal Consultants</i>   |   |
| <p><b>Jeffrey S. Beiswenger</b></p> <p><i>Role</i><br/>Land Use</p> <p><i>Location</i><br/>Rancho Cordova, CA</p> <p><i>Education</i><br/>Master of Urban Planning<br/>Bachelor of Architecture</p> <p><i>Experience</i><br/>Total: 18 years</p>   | <p>Mr. Beiswenger has over 18 years of specialized work experience related to zoning and development codes and other planning implementation documents. He has maintained his professional focus on creating the planning tools necessary to bring community visions to reality. Working in both public agencies and private consulting firms throughout the United States, He has prepared several comprehensive plans, zoning ordinances, development codes, vision plans, master plans, and design guideline documents in 11 different states. His degrees in both architecture and urban planning and experience developing policy documents, land use regulations, design guidelines, and site plans result in a unique skill set advantageous for a wide range of planning services.</p>  |
| <p><b>Martti Phillip Eckert</b></p> <p><i>Role</i><br/>Aesthetics</p> <p><i>Location</i><br/>Rancho Cordova, CA</p> <p><i>Education</i><br/>Master of City and Regional Planning<br/>B.S. Architecture</p> <p><i>Experience</i><br/>Total: 6 years</p>   | <p>Mr. Eckert has 6 years of experience working on numerous advance planning projects, including general, specific, and downtown plans, zoning ordinances, design guidelines, and community visioning efforts. He has acquired expertise working on all phases of these projects, including facilitating charrettes and workshops, leading discussions with decision-makers, researching background resources and innovative planning concepts, drafting provision, guidelines, and other content for project deliverables, and preparing maps and illustrations. He has also gained experience working as a staff planner for a suburban community in the Sacramento region.</p> <ul style="list-style-type: none"> <li>■ Prepared visual simulations for the following projects: <ul style="list-style-type: none"> <li>- City of Peoria, AZ, Central Peoria Revitalization Plan</li> <li>- City of Sand City, West End Planning Area</li> <li>- City of Laguna Beach, Aliso Creek EIR</li> <li>- City of South Lake Tahoe, Tahoe Valley Community Plan EIR</li> <li>- Monterey County, Ferrini Ranch Subdivision EIR</li> </ul> </li> <li>■ Participated in the conceptual design process for the following projects: <ul style="list-style-type: none"> <li>- Town of Frederick, CO, Downtown Development Study</li> <li>- City of Compton, Downtown Specific Plan</li> <li>- City of Chico, General Plan Update</li> </ul> </li> </ul> |
| <p><b>Tammy L. Seale, MSP</b></p> <p><i>Role</i><br/>Project Description/Specific Plan; Land Use; Other CEQA Energy</p> <p><i>Location</i><br/>San Luis Obispo, CA</p> <p><i>Education</i><br/>M.S.P. Urban and Regional Planning<br/>B.A. Environmental Conservation</p> <p><i>Experience</i><br/>Total: 17 years</p> | <p>Ms. Seale manages PMC’s regional office in San Luis Obispo and leads PMC’s Sustainability and Climate Change Services Team. She is a leader in the field of climate action planning. She serves as a project director, manager, or advisor for comprehensive planning projects, specifically in the areas of sustainability, climate action planning, and conservation planning. Ms. Seale has been a planner serving public agencies for more than 17 years.</p> <p>Ms. Seale collaborates with professional associations, PMC staff, and academic institutions to pursue research, publication, and curriculum development focused on local climate action planning. She is a member of the AEP Climate Change Committee and has contributed to the committee’s recent white papers: California Community-wide Greenhouse Gas Baseline Inventory Protocol White Paper (May 2011) and Forecasting Community-wide Greenhouse Gas Emissions and Setting Reduction Targets (May 2012). Ms. Seale is also a co-author, with Michael R. Boswell II and Adrienne I. Greve, of <i>Local Climate Action Planning</i>, the first guidebook for preparation of local climate action plans. She is a frequent presenter at local, regional, state, and national conferences, seminars, courses, and special lectures on local climate action planning.</p>   |
| <p><b>Leanne M. Singleton</b></p> <p><i>Role</i><br/>Air Quality/GHG</p> <p><i>Location</i><br/>San Luis Obispo, CA</p> <p><i>Education</i><br/>B.S. City &amp; Regional Planning; Minor, Sustainable Environments</p> <p><i>Experience</i><br/>Total: 4 years</p>   | <p>Ms. Singleton is an associate planner with PMC specializing in sustainability policy development and greenhouse gas (GHG) emissions analysis. She is experienced in developing climate action plans, GHG reduction strategies, GHG inventories, and grant applications for sustainability projects. Ms. Singleton offers a wide variety of technical capabilities and experience in sustainability tools and analysis by leading the development of PMC’s tools to assist local governments with monitoring and implementing CAPs. She is a LEED Accredited Professional and leads the Sustainability and Climate Change team’s efforts toward integration of sustainability principles into work products companywide.</p>  |

## Exhibit 4. Qualifications Summary of Key Personnel

| Role and Qualifications  | Area of Expertise, Knowledge, and Experience  |
|--|---|
| <p><b>Tad Stearn</b></p> <p><i>Role</i><br/>Project Description/Specific Plan</p> <p><i>Location</i><br/>Monterey, CA</p> <p><i>Education</i><br/>BA, Environmental Studies</p> <p><i>Experience</i><br/>Total: 20 years</p>   | <p>Mr. Stearn is a principal with the firm and one of PMC's charter staff members. He manages PMC's Monterey office and is responsible for project management and business development in Northern California and the Central Coast region. Management duties include the oversight of PMC staff for all planning and environmental compliance projects, as well as hands-on project management and on-call consultation service for local clients. Mr. Stearn has over 20 years of professional planning experience, including the preparation of CEQA/NEPA compliance documents, review and processing of current planning applications, advance planning projects (general plans, general plan amendments, specific plans, and area/community plans), visual impact analyses, coastal permits and special projects.</p>  |
| <p><b>Fehr &amp; Peers</b></p>   |   |
| <p><b>Michael Kennedy, MURP, AICP</b></p> <p><i>Role</i><br/>Transportation</p> <p><i>Location</i><br/>Los Angeles, CA</p> <p><i>Education</i><br/>Master of Urban &amp; Regional Planning<br/>B.A. Music</p> <p><i>Experience</i><br/>Total: 7 years<br/>Fehr &amp; Peers: 6 years</p>                                    | <p>Mr. Kennedy's areas of expertise include campus master plans, mobility plans, specific plans, pedestrian and bicycle plans, transit station area plans, and sustainability. Michael is project manager for Fehr &amp; Peers on the Union Station Master Plan, focusing particularly on transit, bicycle, and pedestrian access planning. He was Fehr &amp; Peers' project manager for several campus master plan projects, including the Loyola Marymount University Master Plan, the Biola University Master Plan, the Jet Propulsion Laboratory Master Plan, and the Tzu Chi Master Plan. He has also led campus pedestrian and bicycle safety studies for Loyola Marymount University, an ongoing bicycle and transit study for the University of California, Santa Barbara, and several elementary and high school projects of the Los Angeles Unified School District. He also recently prepared a Transportation Demand Management (TDM) plan for Loyola Marymount University. Some of his key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Shade Hotel Traffic Impact Study, Redondo Beach, CA</li> <li>■ Manhattan Beach Mobility Element</li> <li>■ Loyola Marymount University Master Plan</li> <li>■ Los Angeles Union Station Master Plan</li> <li>■ Biola University Campus Master Plan EIR, La Mirada, CA</li> <li>■ Buddhist Tzu Chi Foundation Master Plan, San Dimas, CA</li> </ul> |
| <p><b>John Muggridge, MS, AICP</b></p> <p><i>Role</i><br/>Transportation</p> <p><i>Location</i><br/>Los Angeles, CA</p> <p><i>Education</i><br/>M.S. Transportation Planning and Engineering<br/>B.E. Mechanical &amp; Process Engineering</p> <p><i>Experience</i><br/>Total: 17 years<br/>Fehr &amp; Peers: 10 years</p> | <p>Mr. Muggridge has over 16 years of experience in transportation planning and engineering, both in England and in the United States. As a transport planner, he has research and analysis experience in both the private and academic sectors. He is experienced in multi-disciplinary transportation and research projects, including multi-modal transportation planning projects and travel demand forecasting. Mr. Muggridge has authored numerous reports, managed and participated in a large range of transportation planning, traffic engineering, and parking studies for both private and public clients in Southern California and Hawaii. He also has extensive experience in conducting parking and circulation studies, traffic impact studies, downtown parking studies, long-range transportation plans, corridor studies and specific plans. He has worked with interdisciplinary teams to develop consensus on a wide range of transportation improvements. Some of his key relevant experience includes:</p> <ul style="list-style-type: none"> <li>■ Warner Center Rocketdyne Master Plan</li> <li>■ Mandalay Beach Hotel Traffic and Parking Study, Oxnard, CA</li> <li>■ Expo and Crenshaw Transit Neighborhood Plans</li> <li>■ LAX Model Development and Specific Plan Amendment Study<br/>Cornfields/Arroyo Seco Specific Plan Travel Demand Model and Analysis</li> </ul>                                 |
| <p><b>Spencer Reed</b></p> <p><i>Role</i><br/>Transportation</p> <p><i>Location</i><br/>Los Angeles, CA</p> <p><i>Education</i><br/>B.S. Civil Engineering</p> <p><i>Experience</i><br/>Fehr &amp; Peers: 2 years</p>  | <p>Mr. Reed's project experience includes microsimulation modeling and analysis, traffic impact studies, travel demand modeling, and bicycle planning. He has conducted field data collection for projects throughout of the greater Los Angeles area and southern California. He is proficient in a variety of analysis and design software platforms including VISSIM, Synchro, Traffix, and AutoCAD. He has actively been involved in the LAX Model Development and Specific Plan Amendment Study, the NFL Rose Bowl Study, and Apple Campus 2 Transportation Impact Analysis.</p> <ul style="list-style-type: none"> <li>■ University of California, Santa Barbara San Joaquin EIR</li> <li>■ LAX Model Development and Specific Plan Amendment Study, Los Angeles, CA</li> <li>■ Apple Campus 2, Cupertino, CA</li> <li>■ NFL Rose Bowl Study, Pasadena, CA</li> </ul>   |

## C. Project Understanding and Type of EIR

In response to the RFP, this discussion addresses the Aspen Team's understanding of the proposed project. This discussion is based on review of the RFP and 2012 Application Package as well as participation in April 18, 2013, pre-bid meeting and site visit. This section also includes our recommendation for the type of EIR that we recommend the County implement to address this project. Both of these topics are presented before our scope of work, cost and schedule, as this information forms the basis of our overall management and technical approach to the proposed project.

### Overview

The proposed project would remediate the Avila Tank Farm on the San Luis Obispo County coast, and subsequently redevelop the property as a resort and wellness center, with open space and habitat preservation, as well as public amenities for passive recreation and social gatherings and meetings. The 95-acre site is located at 1717 Cave Landing Road in the community of Avila Beach. Approximately 56 percent of the site, or 53 acres, was previously used for tanks and related industrial facilities, which required substantial grading. The site is currently owned by the Union Oil Company of California (Union Oil).

#### RFP Criteria

- 4.1A (Understanding of Project Objectives)

On behalf of the landowner, Chevron Land and Development Company (Chevron) is seeking approval of: a Development Plan for remediation of the Tank Farm; a General Plan and Local Coastal Plan (LCP) amendment to rezone the site from Industrial to Recreation, including specific standards and guidelines for redevelopment of the site as a resort and wellness center; and a Development Plan for future recreational and resort uses. Entitlements for redevelopment of the site are also sought as part of the proposed project, although it is understood that actual redevelopment would be undertaken by an outside developer. The entitlement applications would be processed primarily through the County of San Luis Obispo (County) and the California Coastal Commission.

To understand the environmental conditions of the site and identify appropriate remediation actions, an Avila Tank Farm Collaborative Assessment Team (ATCAT) was formed in 2005, which is comprised of the Central Coast Regional Water Quality Control Board (RWQCB), the County's Department of Planning and Building, Air Pollution Control District, and Environmental Health Services, California Department of Fish and Game, California Coastal Commission, U.S. Army Corps of Engineers, Chevron and Union Oil.

### Location

The site sits on a promontory west of Shell Beach and immediately south and east of the unincorporated community of Avila Beach in the San Luis Bay Coastal planning area and Avila Beach Specific Plan area. It is bound by Cave Landing Road and an undeveloped hillside to the northeast, 4,000 feet of coastline to the south, and Avila Beach Drive and the San Luis Obispo Creek valley to the north. The valley contains resorts and the Avila Beach Golf Course, as well as residences.

### History

Union Oil purchased the land that would become the Avila Tank Farm in 1906, and used the site overlooking San Luis Obispo Bay to store, transfer, and partially refined petroleum products, including gasoline and diesel. The site piped crude from the Santa Maria and San Joaquin oil fields for shipment to

refineries; from the site, pipelines ran through Avila Beach to the end of a pier for loading onto tankers. The tank farm was the largest volume shipping port in the world in the 1920s and 1930s. The site supplied fuel to the U.S. Pacific Naval Fleet during World War II, and continued operating into the 1980s, when operations were transferred to other facilities in California. The site was decommissioned in 1998 with the dismantling of the last of the above-ground petroleum storage tanks and has remained idle since that time.

### **Previous Studies**

Since decommissioning in 1998, the site has been subject to extensive environmental assessment, including archaeological, ecological, jurisdictional wetlands, and industrial impacts, as follows:

- **Cultural Resources:** Archaeological field surveys – conducted in 1992 and 2012 – identified three prehistoric cultural sites, SLO -1482, SLO-2067, and SLO-2634. A 2012 report was prepared for the assessment and treatment of the site’s cultural resources, in anticipation of the proposed project.
- **Ecological Evaluation:** A 2003 consultant report was prepared to assess the site’s existing biological condition, with Supplement I in 2004 and Supplement II in 2005. Associated field work included: a floristic inventory and rare plant survey; fairy shrimp surveys; special-status aquatic vertebrate surveys, and wetland assessment for potential federal and State criteria.
- **Wetlands:** The U.S. Army Corps of Engineers recently determined that seven potential wetland areas were not jurisdictional. A State jurisdictional determination has not yet been made.
- **Water Monitoring:** On-site monitoring wells and data collection from soil borings have investigated ground water, surface water, soil gas, and soils for more than 12 years. Data has been provided to RWQCB and other appropriate agencies.
- **Soil Assessments and Characterizations:** Shallow soil site characterizations and soil gas investigations have been ongoing since the early 1990s in support of numerous Human Health Risk Assessments and the 2008 Draft Risk Management Plan.

Aspen routinely peer reviews existing technical reports and studies for incorporation into environmental review documents, and will comprehensively assess the proposed project’s existing data for adequacy and inclusion in the EIR, as appropriate. In the event that our experts identify data gaps, clear and concise data requests, including explanations for need, will be provided to the County for consideration and further coordination with Chevron.

### **Current Site Condition**

The graded areas of the project area (0 to 15 percent slope) are in the central plateau portion of the site, which slopes down on all sides to its borders. The slopes to the north and south have grades of more than 30 percent. Elevation at the site ranges from five feet by the beach to 240 feet near the center.

Over twenty oil tanks of varying diameter have been removed. However, significant existing industrial infrastructure remains, including pipelines, buildings, concrete pads, water tanks (five), and a scout house. Under the proposed project “vision,” this infrastructure would be removed, abandoned in place, or relocated. Aspen will work closely with the County and ATCAT to establish the most appropriate removal and/or abandonment techniques for these existing features for the purposes of the EIR’s Project Description and environmental analyses.

### **Land Use**

Site topography, visibility, character, and its adjacency to the downtown area of Avila Beach will play significantly into the physical changes in land use conditions from site remediation and subsequent development of recreational uses. The proposed range of recreational uses associated with the “vision package” would alter, enhance, intensify, and impact the interplay of existing land uses in Avila Beach. Future development of the site will need to show consistency with the land use plan provisions that address the preservation of the funky and eclectic character and image of Avila Beach as well as other provisions that address the maintenance of the economic mix and a mix of uses to appeal to local residents and tourists.

The proposed project site is currently zoned Industrial under the San Luis Obispo County General Plan and is located within the urban reserve line/Avila Beach Community Services District (ABCSD) boundary, Coastal Zone boundary (appealable area), and Avila Beach Specific Plan planning area. Both the County General Plan and the Avila Beach Specific Plan would require land use designation amendments (e.g. rezones) to Recreation. A Recreation designation would allow for the proposed future uses of the project site.

In addition to the General Plan and Specific Plan amendments for rezoning and development standards, proposed remediation and redevelopment would require a LCP amendment, a vesting tentative tract map, entitlements, and Conditional Use Permits (CUPs) for approval of Development Plans.

### **Site Remediation**

Chevron plans to detail the remediation program and methodology in a Remedial Action Plan (RAP), which would require approval by the Central Coast RWQCB in consultation with other ATCAT participants. The potential direct, indirect and cumulative impacts of the RAP will be evaluated in the EIR, and may include activities such as soil excavation and backfilling, soil removal, capping impacted soils with clean fill, and active hydrocarbon recovery, among others.

Aspen understands that Chevron has already prepared numerous technical studies and completed several investigations and monitoring programs in support of site remediation. Section 7 of the “Avila Point 2012 Application Package” lists these past and on-going efforts. It is also understood that site characterization is still underway and that potential remediation impacts are contained in a Site Conceptual Model (SCM) that is currently being reviewed by the RWQCB and other ATCAT representatives. Chevron has indicated that impacts evaluated in the SCM are typically limited to the former operational areas of the site and related to crude oil refinement. These areas include the site’s former pump house and loading rack, the former refinery area and along the pipelines and beneath the former tanks. Aspen will make full use of the SCM and related technical studies and reports to avoid redundancy of effort and streamline the EIR process.

### **Hazards, Hazardous Materials, and Remediation**

Two documents have been prepared which evaluate site risks to selected receptors: the Draft Risk Management Plan (RMP) by Arcadis and the “Supplemental Human Health Risk Assessment” (SHHRA) prepared by McDaniel Lambert, Inc. The RMP provides recommendations from the ATCAT to agencies and Chevron for management of potentially unacceptable risks to human and ecological receptors or other resources at the site. The SHHRA presents estimated risks to a variety of future potential receptors in specific site areas identified in the Development Plan. It is our understanding that the results of these reports, previous investigations, and possibly additional risk analyses, were used in the development of the Draft Remedial Action Plan (RAP). The need for, and degree of, site remediation is linked to the risks the site contamination poses to potential receptors. The risk to receptors is linked to how people will

interact with the site; in other words, how the site will be developed. The Central Coast RWQCB is currently being considering the Draft RAP to consider the risk information in their evaluation of the proposed remediation methods and results.

The applicant's Feasibility Study (FS) and RAP will evaluate alternative remedial actions in accordance with federal, State and local guidelines. The Aspen Team will peer review the RAP, as described in Task 1-5 (Phase 1), according to these guidelines and will evaluate the RAP for completeness in addressing impacts both during implementation of a remedial action and future development. Aspen has identified a highly experienced team to address this issue area, including Aspen personnel with remediation and hazards/hazardous materials experience and professional engineers, geologists and certified engineering geologists from our proposed subcontractor **Ninyo & Moore**, who are one of only a handful of Diplomats of the American Board of Toxicology (DABTs) in California

### **Coastal Geology**

Development at the project site will require compliance with the guidelines of the California Coastal Commission and Local Coastal Plan. Evaluation of bluff stability and bluff retreat rates will guide the establishment of appropriate bluff setback for the project. The California Coastal Commission considers evaluation of the anticipated bluff retreat considering an estimated project life of 75 years. The State Coastal Conservancy Act of 1976 (Division 21 of the Public Resources Code) established the State Coastal Conservancy (Conservancy) to work cooperatively to protect and restore natural resources, agricultural lands, and to provide public access to and along the coast. The Aspen Team for this specific issue includes engineering geologists and geotechnical engineers from Ninyo & Moore with extensive relevant experience, and Aspen staff with significant relevant experience in San Luis Obispo County.

### **Project "Vision"**

Chevron envisions the proposed project to be accessed primarily from the north, at the intersection of Avila Beach Drive and Cave Landing Road. Emergency and service access would be located from the west and east. Water would be obtained from a local purveyor such as the ABCSD or the San Miguelito Mutual Water Company (SMMWD), and distributed onsite from a main line piping network following the general alignment of the project's internal roadways. The proposed wastewater system would also generally follow the project's road network and connect to offsite conveyance systems operated by the ABCSD or SMMWC. Development of both piping distribution networks would require compliance with the County of San Luis Obispo's engineering standards. As part of redevelopment, Chevron also proposes to remove the existing ABCSD tanks and related appurtenances and relocate this water storage element to an offsite location. The project proposes to implement various water conservation measures to minimize water use. Chevron has additionally committed to providing details for the future resort's water conservation measures both on-site (such as high-efficiency fixtures, enhanced water use systems and gray water systems) and, potentially, at regional scales (such as participation in waste water treatment improvements to reclaim gray water).

Aspen understands that the RWQCB has indicated that site's existing drainage system, or any new system for drainage must not foster internal ponding due to post-remediation storm water management. Outside of the development area, storm water would be managed through continuous, gravity drained, open swales with a design that avoids ponding. Within the development area, a combination of open channels and piping would be used to convey water to the open channel system. Throughout the entire drainage system Best Management Practices would be implemented to ensure that discharges meet applicable water quality standards.

The footprint of the previously disturbed area of the project site would be reduced from 53 acres to 38.3 acres for buildings, roads, and resort landscaping. Open space would increase to 60 percent of the site's total acreage, including 10.5 acres of maintained revegetated space and 46.2 acres of open space, coastal scrub and oak woodland. Redevelopment would also include construction of an estimated 0.6-mile coastal bluff trail to connect the California Coastal Trail between terminus of Front and San Rafael Streets to Cave Landing Road. This trail would be open to the public.

Avila Point is envisioned as an "intimate resort retreat that embraces sustainability, luxury and the natural beauty of the coastal setting." Resort features are envisioned to include a hotel, cottages, restaurants, wellness center, gather and meeting facilities, amphitheater, nature and cultural interpretive features, and open space preservation. Guests would largely use walking trails, bikes, and electric carts to get around the site and neighboring Avila Beach. Aspen understands that Chevron is committed to working with the County to create a Development Plan for the resort that is consistent with a land use equivalency program.

### ***Recommended CEQA Documentation***

The proposed project involves three actions:

1. Development Plan and Conditional Use Permit (CUP) for remediation.
2. General Plan/Specific Plan/Local Coastal Plan amendment for zoning/land use designation changes from Industrial (current) to Recreation (proposed).
3. Development Plan and CUP for development of resort, spa and public recreational amenities.

The rezone/land use re-designation is specific the proposed project property (95 acres), with no other lands to be amended. The County has indicated its preference is to have an EIR that is flexible enough to allow for a range of project options and alternatives, and which covers entitlements for individual buildings and related service and infrastructure improvements.

The use of a Master EIR is not recommended by Aspen for the proposed project as CEQA Guidelines Section 15179 states that future environmental approvals should not be granted if the Master EIR was certified more than five years prior to the filing of an application for a later project. Therefore, the Master EIR will require updating every five-years until the project is fully completed.

Based on Aspen's review of the project, some of the project activities have been clearly defined, while future activities currently lack sufficient information to analyze them at a Project EIR level. However, any area of the proposed project lacking sufficient detail for a project-level analysis can be analyzed at a programmatic level. As such, Aspen recommends the preparation of a Program EIR with project-level details to limit the amount of additional environmental work needed by the County while addressing all of the programmatic aspects of the project.

Consistent with CEQA Section 15165 (C)(5), a Program EIR with project-level details will be most helpful for dealing with subsequent activities if it deals with the effects of the program as specifically and comprehensively as possible. For purposes of the proposed project, a Program EIR can be prepared for the whole of the action at an individual level. No program across the entire County or portions thereof would occur. With a thorough and detailed analysis of the proposed activities within the Program EIR, many subsequent activities could be found to be within the scope of the project described in the Program EIR, and no further environmental documents would be required. Aspen has significant experience preparing both project and program-level documents and can provide significant expertise in outlining the format and content of this type of document.

Exhibit 5 below provides the County with a brief comparison of advantages and disadvantages between a Program, Project, and Master EIR.

**Exhibit 5. EIR Types and Applications**

| Program EIR  | Project EIR  | Master EIR  |
|--|--|---|
| For multiple and phased projects; prepared for a series of actions   | Common type of EIR; examines impacts of specific development project   | Prepared for general plan or planning documents   |
| <b>Advantages</b>  | <b>Advantages</b>  | <b>Advantages</b>   |
| <ul style="list-style-type: none"> <li>• Provides flexibility if some element of remediation or future development can't be fully defined.</li> <li>• Impacts can still be evaluated at project-specific level where available.</li> <li>• Broad flexibility of mitigation measures.</li> </ul>                | <ul style="list-style-type: none"> <li>• All impacts disclosed and mitigated – no future tiering needed.</li> </ul>  | <ul style="list-style-type: none"> <li>• Technically allowable without having to treat "whole of action" as a redevelopment project.</li> </ul>   |
| <b>Disadvantages</b>   | <b>Disadvantages</b>   | <b>Disadvantages</b>  |
| <ul style="list-style-type: none"> <li>• Could potentially be challenged for not being programmatic in nature (e.g., rezone action is specific to individual APNs and not broadly applied) throughout County).</li> <li>• "Study Area" would be much broader than a project-specific or Master EIR.</li> </ul> | <ul style="list-style-type: none"> <li>• Not as much flexibility if subsequent environmental review is needed.</li> <li>• Could potentially be challenged for not using a Master EIR approach.</li> <li>• Application treats project as requiring a Development Plan, not a Redevelopment Plan</li> <li>• "Redevelopment Plans" are complex and must conform with redevelopment law as well as land use law – typically a public/community action and not a private action.</li> </ul> | <ul style="list-style-type: none"> <li>• Five-year limitation of Master EIR (if remediation takes longer) has some flexibility (Section 15179(b)).</li> <li>• Not done very frequently and may be poorly understood by public and reviewing agencies if programmatic-like mitigations need, ultimately, to be addressed.</li> </ul> |

## D. Work Plan

Aspen has prepared this Work Plan to outline the key tasks that we propose in providing consulting services to the County prior to the start of the environmental review process and then based on the information gained from this first phase, the tasks that will be completed to prepare an Environmental Impact Report (EIR) for the project. As stated in the RFP, Aspen will assist the County in developing the appropriate type of environmental document. With the available information, Aspen has considered the options for an environmental document and concluded that a Program EIR with project-level details will be the best approach for the proposed project. Section C (Project Understanding) of this proposal provides a summary of the different types of EIRs that could be applied to this project and provides our recommendation based on the advantages and disadvantages of each document. Section 15160 of the CEQA Guidelines allows for tailoring of EIRs to meet the needs of a specific project as long as the content requirements are met (Section 15120).

Aspen’s overall approach for the Avila Point Project will be to work closely with the County to clearly define the technical and management objectives of both phases of the project, establish specifics regarding the format and content of deliverables; integrate our technical, schedule, and cost requirements to effectively meet those objectives; and ultimately, develop a comprehensive and defensible document that fully serves the purposes of CEQA and its process.

### RFP Criteria

- 4.1B (Approach to Project)
- 4.2 (Methods and Procedures)
- 4.4 (Coordination with County)

Based on the requirements of the RFP, we are presenting our scope of work under two phases. Phase 1 is the pre-EIR period, which will consist of extensive public outreach to the community of Avila Beach and building collaboration amongst the public agencies that are involved, the Applicant, the County, and the Aspen Team. Development of the Project Description will be an ongoing task during this phase, and the CEQA requirements for scoping and the Notice of Preparation (NOP) will be fulfilled. Phase 2 of this project will include the CEQA process for preparation of a concise and comprehensive EIR.

Our approach to both phases of the project is outlined below in Sections D.1 and D.2. Exhibit 6 below provides a summary of the key deliverables by task.

### Exhibit 6. Project Deliverables and Meetings

| Task   | Deliverables or Assumptions   |
|--|---|
| <b>Phase 1 – Staff Support Services and Project Scoping</b>              |   |
| Task 1-1<br>Develop Project Description and Language for Plan Amendments | Draft Project Description: 4 hard copies and 1 electronic copy  |
| Task 1-2<br>Prepare Initial Study and Notice of Preparation              | 4 hard copies and 1 electronic copy (additional copies upon request)  |
| Task 1-3<br>Public Outreach and EIR Scoping                              | Public Outreach: Participation in 2 public meetings/workshops; summary memorandums of meetings<br>EIR Scoping: Participation in 2 public scoping meetings; scoping report (Electronic Copy) |
| Task 1-4<br>Agency Coordination/ATCAT Meetings                           | Attendance at 12 monthly meetings   |
| Task 1-5<br>Senate Bill 18 Native American Consultation                  | Notification/invitation to consult with 6 regional tribes. Ten 4-hour meetings for consultation.  |
| Task 1-6<br>Staff Meetings   | kick-off meeting and site visit; attend 2 meetings with County and two meetings with the Applicant  |

## Exhibit 6. Project Deliverables and Meetings

| Task  | Deliverables or Assumptions  |
|---|--|
| <b>G8Phase 2 – Preparation of Environmental Impact Report and Related Support Documents</b> |  |
| Task 2-1<br>Project Description (refine), Alternatives and EIR Outline                      | Project Description and EIR Outline: 5 hard copies and 1 electronic copy<br>Alternatives Development: To be included as an EIR appendix  |
| Task 2-2<br>Prepare Administrative Draft EIR  | Admin Draft EIR: 4 hard copies in three ring binders and 1 CD in Word format   |
| Task 2-3<br>Prepare Draft EIR   | Draft EIR: 45 copies (5 hard copies with appendices in 3-ring binders; 15 bound copies with CD of appendices in envelope; 25 CDs in searchable PDF format; 10 separately bound copies of appendices; 1 electronic copy in original Word format; 1 copy in HTML or web-friendly format); 45 accompanying Notices of Availability        |
| Task 2-4<br>Prepare Administrative Final EIR  | Admin Final EIR: 5 copies (2 hard copies in 3-ring binders; 2 bound copies; 1 CD)<br>Mitigation Monitoring and Reporting Program: stand-alone document - 5 bound copies, 1 unbound copy (single-sided), 1 CD in searchable PDF format, and 1 CD in original Word format  |
| Task 2-5<br>Prepare Final EIR   | Final EIR: 55 copies (5 hard copies with appendices in 3-ring binders; 25 bound copies with CD of appendices in envelope; 25 CDs in searchable PDF format; 15 separately bound copies of appendices; 1 CD in original Word format)<br>Mitigation Monitoring and Reporting Program: stand-alone document in same quantities noted above |
| Task 2-6<br>Prepare Findings of Fact  | Findings of Fact: 2 unbound copies and 1 electronic copy   |
| Task 2-7<br>Meetings  | 2 public workshops Draft EIR<br>4 internal staff meetings  |
| Task 2-8<br>Public Hearings   | Attendance at up to 6 public hearings  |

## D.1 Phase 1 – Staff Support Services and Project Scoping

### Task 1-1. Develop Project Description and Language for Plan Amendments

Aspen will develop a comprehensive description of the proposed project, which will include the development plan for remediation; the future development plan for the project site; and the language and development standards for the amendments to the General Plan, Avila Beach Specific Plan, and the San Luis Bay Coastal Plan. The project description will be based on information provided by the Applicant, which at a minimum will include the following: descriptions of demolition and remediation activities, including equipment, methodologies, workforce, and schedule assumptions; details regarding the future development plan, which currently includes a resort with multiple recreation resources and facilities; and the proposed plan amendments based on the request to change the land use designation from Industrial to Recreation.

Other components of the project description may include mitigation measures from past environmental documents and the Applicant’s proposed best management practices (BMPs). For several issue areas, factoring in these controls may substantially reduce the severity of impacts caused by the proposed project. As applicable, this approach will be clearly articulated to and understood by the team and will be clearly articulated in the EIR Project Description.

The key to fulfilling this task will be extensive coordination with the community, projects stakeholders, public agencies, and the applicant in order to build consensus regarding the goals and objectives for the project site. Development of the project description will be based on a series of meetings, which will include public outreach through community meetings and workshops, the EIR scoping process, and Avila Tank Farm Collaborative Assessment Team (ATCAT) meetings. Details regarding public involvement and

collaboration are addressed below under Tasks 1-3 and 1-4. It is anticipated that this task will extend through the duration of Phase 1, the Pre-EIR stage, which could be up to a year.

Aspen will provide the County with four (4) hard copies and one electronic copy of the draft Project Description.

### **Task 1-2. Prepare Initial Study/Notice of Preparation**

Aspen will prepare an Initial Study that addresses all environmental issue areas consistent with Appendix G of CEQA. The main purpose of the Initial Study will be to analyze and describe the potential environmental impacts that would result from implementation of the proposed project and to identify the specific issues that will need to be addressed in the EIR. Aspen's technical staff will review the background reports and all available studies provided by the applicant for preparation of the Initial Study.

Aspen will prepare two administrative drafts of the Initial Study as part of this task. The first administrative draft will be a complete version of the Initial Study for the proposed project, not including alternatives.

The methodology and criteria used for determining the significance of project impacts will be clearly and explicitly described in each issue area section, including any assumptions, models, or modeling techniques used in the analysis. Certain technical specialists on the Aspen Team will conduct field reconnaissance as warranted by their specific issue area(s) to appropriately characterize all potential impacts of the project. For each issue area the following will be determined:

- Appropriate baseline information to collect, appropriate level of detail, and whether any information will be mapped.
- Use of specialized studies, surveys, and database searches (e.g., Cultural and Hazardous Materials)
- Descriptions of applicable plans, regulations, and policies (especially those that may reduce or avoid impacts).

Aspen will submit electronic copies (MS Word format for text and PDF format for graphics) of the first administrative draft Initial Study to County for review and comment. Edits from the County shall be provided in tracked changes, table format, or hard copy. Based on comments received, Aspen will revise the document.

The second administrative document will include the revisions requested by the County provided for the first version of the document. Aspen will submit electronic copies (MS Word format for text and PDF format for graphics) of the second administrative draft Initial Study to the County for electronic distribution of the document to applicable County departments, divisions and districts for review and comment prior to preparation of the public document. Aspen will respond to any additional comments and prepare final version. For the final version of the Initial Study, Aspen will provide the County with one "camera-ready" hard copy version.

Aspen will prepare the NOP for the EIR. The NOP will include a brief project description, location map and a list of probable environmental effects resulting from the project. Aspen will prepare a Draft NOP for review by County Planning staff, then incorporate any comments and finalize the NOP.

Upon approval of the Screen Check Initial Study and NOP, Aspen will prepare and distribute copies of these documents (together) in accordance with the distribution list. The RFP does not identify an estimated number of copies of the Initial Study or NOP that will be needed for distribution. Therefore, it is assumed in this scope of work that Aspen will provide five copies of the Initial Study (four hard copies

and one electronic copy), which is same number of copies as the Project Description and Administrative Draft EIR, to County for general distribution. If desired by the County, Aspen can distribute copies of the Initial Study and NOP to the State Clearinghouse, which may require a budget amendment.

Under CEQA, the release of the Initial Study/NOP commences the scoping portion of the environmental review process. The purpose of the scoping process is to solicit input from agencies and the public as to the scope and content of the environmental document. As part of the scoping process, CEQA Section 15082 (c) (1) states that projects of regional or area-wide significance shall conduct at least one scoping meeting.

### **Task 1-3. Public Outreach and EIR Scoping**

#### ***Public Outreach***

During the initial stages of Phase 1, public outreach will include community meetings and public workshops for the purpose of presenting the proposed project and defining potential alternatives. It is assumed that there would be one community meeting that would consist of the following: presentation of the remediation plans along with the potential environmental and community-related issues; explanation of the proposed plan amendments; presentation of the vision for the future development plan; and there would be opportunity for public comments. In addition, there would be one public workshop which would be designed as open house events, focused workshops or other venue style that would meet the expectation of active community input and knowledge of the process. We assume that exploring the range alternatives would be the central focus of the public workshops. As such, the workshops would consist of visual aids and/or fact sheets regarding potential alternatives.

Aspen's Project Manager and Deputy Project Manager will work closely with the County to plan and facilitate all aspects (e.g., logistics, staffing, presenting, providing materials) of the outreach meetings. If necessary, issue area experts, such as the remediation or risk assessment technical specialists, would attend the meetings and be available to answer questions and engage in conversations with the community.

The scope and budget for this proposal accounts for the two public outreach meetings noted above. However, if it becomes apparent through the course of the Phase 1 efforts that the public outreach program needs to be expanded, Aspen will be available to include additional public meetings.

Upon completion of each public outreach meetings, Aspen would prepare a memorandum summarizing the issues and comments received, and documenting the events and results of each public meeting. The intent of the memorandum would be to document the concerns brought up by members of the public so that they can be taken into consideration for development of the project during Phase 1, and they can also be addressed included in the scoping report and/or EIR.

#### ***EIR Scoping***

As noted under Task 1-3 above, the release of the NOP commences the EIR scoping period which will be a collaborative, community-based public involvement process to further identify planning issues and set analytical parameters of the scope and content of the EIR. To this end, Aspen will compile a project mailing list in coordination with the County and the Applicant, and maintain this list throughout the project and draft scoping letters for distribution to agency and non-agency interested parties. Aspen will also work with the County to plan and facilitate all aspects (e.g., logistics, staffing, presenting, providing materials) of one public scoping meeting. Based on a preliminary search for meetings sites, it appears that the Avila Beach Community Center and PG&E Community Center are currently used for public meetings and would be the primary options to hold the meetings for this project.

Our proposed cost assumes attendance by Aspen's Project Manager, Deputy Project Manager, and a land use specialist to respond to questions. The required attendance of any additional staff or attendance at any additional public meetings would require a commensurate scope and budget amendment.

A presentation will be prepared by Aspen and reviewed by the County that includes general project information and a description of the CEQA process. Aspen has prepared many of these presentations for scoping meetings on behalf of government agencies and has templates in place. As part of this presentation we will work with the County and the applicant to provide visual simulations in a format that could be presented at the scoping meeting. Because visual resources will be a primary issue of public concern, these simulations will be integrated into the scoping presentation and meeting materials to clearly convey the appearance of the proposed project from visually sensitive areas.

Throughout the 30-day public scoping period, Aspen will scan and compile all scoping comments and materials associated with scoping into a database, which will allow Aspen to efficiently sort comments by name/organization, address, and resources issue/category of interest as well as quantify the number of individuals raising similar concerns. At the end of the EIR scoping period, Aspen will use this information to prepare a Scoping Report, considering any written scoping comments received and a summary of oral comments provided at the public scoping meetings.

#### **Task 1-4. Agency Coordination/ATCAT Meetings**

As stated in the RFP, the ATCAT meetings occur monthly, and with the assumption that Phase 1 will last for a year, Aspen will attend 12 ATCAT meetings during Phase 1. In the event that supplemental meetings are scheduled, we are prepared to work with the County to make them cost effective, such as holding conference calls with meeting materials provided electronically, use the Go-To-Meeting program, or other web-based programs.

In addition, we have retained expert facilitators, PMC, who specializes in public participation. We understand the importance of effectively communicating how to participate in the CEQA process, the roles of the agencies, applicant, and environmental consultant, and intent of scoping (particularly that it is conducted early in the process in the interest of engaging the public in issues identification).

The ATCAT meetings are intended to facilitate coordination amongst the agencies involved with the proposed project. As such, Aspen will assist the County in any necessary coordination efforts. Aspen's Project Manager and Deputy Project manager will regularly attend the meetings to provide support for tasks such as presentations, recordation, and preparations for the meetings. In addition, our cost includes by attendance of technical at four ATCAT meetings to ensure that the identification of the remediation plan and the required actions are accurately identified. We have identified the use of facilitators at meetings as an optional task in this proposal.

In the event that Aspen is attending the meetings as representatives of the County, Aspen will provide a full written report of the meeting(s). In addition, Aspen will consult with the County to define the parameters of Aspen's involvement in the meetings. To this end, we will not discuss any of the issues without permission from the County.

Although this task focuses on coordination with the ATCAT, Aspen recognizes that there may be the need to coordinate with other agencies (e.g. Public Health Department, transportation agencies) during this phase of the project. We will identify our coordination with agencies and work with the County prior to making these contacts.

**Risk Assessment/Remedial Action Plan.** One of the key issues that will be discussed at the ATCAT meetings is the review and approval of the Remedial Action Plan (RAP) for the Avila Tank Farm site. The Aspen Team includes professional engineers, geologists and certified engineering geologists, who are specialists with extensive relevant experience. The Aspen Team also includes highly qualified experts to evaluate the site risk issues (both human health and ecological), including one of only a handful of Diplomates of the American Board of Toxicology (DABTs) in California. These resources have been identified to assist the County in the review of the applicant-prepared risk assessment and the RAP.

Two documents have been prepared which evaluate risks: the Draft Risk Management Plan (RMP) by Arcadis (2008) and the “Supplemental Human Health Risk Assessment” (SHHRA) prepared by McDaniel Lambert, Inc. (2011). The RMP summarizes the efforts of the ATCAT subcommittees (Human Health Risk Working Group and Ecological Risk Working Group) to evaluate site areas or features that present potentially unacceptable risk to human or ecological receptors, groundwater quality, or other environmental conditions within the context of the proposed future use of the project site. The SHHRA presents estimated risks to a variety of future potential receptors in specific site areas identified in the Development Plan. The results of these reports (and previous investigations) will be used to formulate management recommendations that will serve as the foundation for the RAP and, which must be conducted in accordance with RWQCB, DTSC and EPA guidance documents.

Based on the pre-bid meeting, the applicant is in the process of preparing the Site Conceptual Model and anticipates that the RAP will be ready by the end of the year. The Aspen Team is prepared to review the RAP and to provide comments. Our team will prepare a technical memorandum summarizing our findings and recommendations. The Aspen Team’s review of the RAP will proceed through the following steps:

- **Preliminary RAP Review.** Perform a preliminary review of the RAP to confirm that the screening process used in the RAP meets the requirements of the County.
- **Site Conceptual Model.** Review the adequacy of the site conceptual model (SCM) to support determinations and decision-making used for remedy selection, and future design and implementation. The RAP presents a brief discussion of the nature and extent of contamination and chemicals of concern in the affected media. These conditions reflect the historical use of the site. Our team will review the SCM to determine if it is adequate to support decision-making or if additional site evaluations are warranted to support future activities, including remedy implementation. Our review of the SCM will consider the lateral and vertical extent and range of concentrations that will remain, and the geotechnical properties of the soil.
- **Remedial Goals and Criteria.** Review the risk evaluations and methods for selecting remedial goals for the project. Risk evaluations are another critical element of the RAP that leads to significant decisions about the site and remedial actions. We will review the appropriateness of the criteria for the site conditions and will assess the degree of conservativeness in those estimates of risk. The relevance of the criteria to actual site conditions, the assumptions used in their development, and how or whether statistical evaluations of the data were done, or are appropriate for decision making, will be reviewed.
- **Remedial Alternatives.** Review the approach used in performing remedial alternatives analysis and remedy selection and reasonableness of the recommended alternative. We will review remedial alternatives developed for the site for reasonableness, approximate costs, and compliance with pertinent guidance, including USEPA’s nine criteria for remedy selection, with recognition that the RWQCB is the lead agency for RAP approval. The Aspen Team will review the proposed approach and likelihood of achieving remedial goals.

■ **Remedy Implementation.** We will review the adequacy of the planned approach to implementing the remedy. At this time it is not known how detailed the final approved RAP will be with respect to the methods of RAP implementation. Our team has considerable years of experience preparing, implementing, overseeing and evaluating RAPs. Often, in order to provide maximum flexibility in unique circumstances, RAPs are developed as performance-based, rather than prescriptive, documents. This approach is often the best for all parties involved, as it allows for creativity in methodology to reduce cost and impacts. However, cost reduction pressures can threaten to increase impacts. Cost-based examples of increased potential impacts include: creation of excessive contaminated soil stockpiles during removals, employing less than optimal air monitoring equipment or locating equipment at ineffective positions, allowing uncredentialed equipment operators or workers on site, abating asbestos or lead paint without third-party oversight, etc. Our experienced team will proactively identify these pressures, evaluate whether they have the potential to result in significant impacts, and recommend project design features or mitigation methods to reduce the impacts to less than significant levels.

### **Task 1-5. Complete Senate Bill 18 Native American Consultation**

Amendments to the County's General Plan and the Avila Beach Specific Plan trigger California Senate Bill 18 (SB-18) (Chapter 905, Statutes of 2004), which requires cities and counties to consult with Native American Indian tribes during the adoption or amendment of local general plans or specific plans. Aspen Team member, Applied Earthworks (Æ), is cognizant of the prior discussions Chevron has had with local Native American groups and the potential controversy that may arise over the development of an area considered important to them. We therefore anticipate that tribal outreach and participation will require a substantial level of effort and a sophisticated approach to this sensitive issue.

The project will require two separate tracks for Native American participation, one explicitly geared to the Specific Plan amendment and another for the project EIR. For the Specific Plan amendment, SB-18 requires the County "to contact, provide notice to, refer plans to, and consult with tribes" identified by the NAHC. The purpose of this consultation is for preserving, or mitigating impacts to, important cultural places located on land that might be affected by the proposed plan amendment.

Based on our past knowledge and experience, we understand that the NAHC list of local Tribal Government contacts for SB-18 consultation currently includes six groups: the Santa Ynez Band of Mission Indians, the Barbareño/Ventureño Band of Mission Indians, the Salinan Tribe of San Luis Obispo and Monterey Counties, the Xolon Salinan Tribe, the Coastal Band of the Chumash Nation, and the Northern Chumash Tribal Council. On behalf of the County, Æ will initiate SB-18 consultation in accordance with the Tribal Consultation Guidelines published in November 2005 by the Governor's Office of Planning and Research (OPR). We will confirm the most current list of Tribal Government contacts with the NAHC and contact all that are identified. The process involves an initial notification and invitation to consult; the tribes then have 90 days from the time they receive the invitation to respond, indicating their request for consultation. There is no statutory limit on the duration of consultation; often there are numerous meetings, and follow-up conferences may extend through the period of Planning Commission or Board of Supervisors deliberations on the proposal.

We do not expect all the tribes we contact to respond positively to our initial request; for example, the Santa Ynez, Barbareño, and Coastal bands of the Chumash frequently do not accept invitations to consult on projects in San Luis Obispo County, deferring rather to the Northern Chumash tribes. Given the sensitivity of the project and its notoriety among various tribal groups, however, we anticipate a robust response to the initial request for consultation; we therefore anticipate that numerous meetings (and possible site visits) will be required for the initial round of consultation. It has been our experience that meeting individually with each separate group or individual is a more effective method

for eliciting serious and meaningful responses, and we advocate this approach over larger meetings with representatives of multiple tribal groups. Repeat or follow-up conferences are likely to be needed as well. For budgeting purposes, we have anticipated ten 4-hour meetings to complete this phase of consultation. If additional meetings or conferences are required, we will gladly facilitate and participate in those on a time and materials basis.

Æ will take minutes of all meetings and keep an accurate administrative record of the discussions. Our budget includes time for a clerical staff person to attend the meeting, take and transcribe the notes, and distribute them to all parties after each meeting.

Once the SB-18 consultations are concluded, or while they are in progress, Æ will also initiate the broader outreach required for the EIR. The NAHC maintains a separate, more extensive list of local tribal contacts for this kind of consultation, which does not require the same kind of direct, government-to-government contact stipulated under SB-18. Æ will initiate outreach for the EIR by contacting the NAHC to request a search of their confidential Sacred Lands Inventory files, obtain the local Native American contact list, and seek their input on any potential conflicts or concerns. Æ will prepare and send letters describing the project to the contacts identified by the NAHC. The letters will invite tribal representatives to confer on potential impacts to tribal resources. To ensure effective Native American participation during this phase, we will follow up with phone calls and/or emails to each of the individuals or groups on the list. All responses will be recorded and summarized in the EIR.

### **Task 1-6. Staff Meetings**

An initial kick-off meeting and site visit with the County and Applicant will be held soon after the contract is awarded. It is assumed that this meeting and site visit will be attended by Aspen's Project Manager, Deputy Project Manager, and key technical specialists for remediation/risk; aesthetics; biological resources; noise; land use; recreation; geology and soils; wastewater; and water and hydrology.

In addition to the kick-off meeting and site visit, members of the Aspen Team will be available for two meetings with the County for development of the Project Description and two meetings with the Applicant. Aspen's Project Manager and Deputy Project Manager will work closely with the County to plan and facilitate all aspects (e.g., logistics, staffing, presenting, providing materials) of the staff meetings. For the purposes of estimated cost it has been assumed that these meetings will be attended by the Project Manager and up to three (3) Team members.

## **D.2 Phase 2 – Preparation of Environmental Impact Report and Related Support Documents**

This section presents the eight main tasks we have identified for preparing the EIR. A detailed discussion of the technical approach for each of the issue areas is provided in Section E of this proposal.

### **Task 2-1. Project Description (refine), Alternatives and EIR Outline**

At the onset of Phase 2, it is expected that the proposed project will be well-defined as a result of the extensive coordination discussed above under Phase 1. As such, the project description will be refined and ready for final approval early on during Phase 2.

Based on the RFP, the alternatives analysis will rely on information related to existing site contamination, and it is expected that the range of alternatives will consist of multiple on-site design alternatives. As the purpose of the alternatives identified for analysis in the EIR is to lessen one or more significant impacts that would be expected to occur due to the proposed project's implementation,

potential alternatives could include a reduced project “footprint” and/or a reduced operational/visitor capacity. Aspen has extensive experience developing alternatives and will work closely with County staff to develop alternative project options taking into account economic, environmental, legal and technological factors, as well as regulatory limitations, site constraints, and concerns and comments raised by the public and agencies as part of the scoping process.

For the purposes of our proposed cost, we are assuming that up to four alternatives will be evaluated in the EIR, including the proposed project and the No Project Alternative. The Description of Alternatives will include a section briefly discussing those alternative that were identified but eliminated from detailed consideration due to either their infeasibility, inability to meet the proposed project’s most basic objectives, or failure to avoid any significant environmental effects. Considering the public involvement that will be associated with this project, the process for developing alternatives may be lengthy and complex. In this scenario, Aspen would present details of the process in an appendix to the EIR. In addition, the EIR will include a separate discussion regarding the different alternatives that were considered for the remediation of the project site and provide an explanation of how and the basis for the selection of the remedial alternative for the project.

Aspen will also develop an EIR Outline that delineates the structure of the document, Aspen’s strategy for meeting the County’s 200 page length requirement, and those technical issues to be evaluated in the EIR. The EIR Outline will be based on State and County CEQA guidelines, Aspen’s knowledge of project-specific issues, peer review of the technical studies provided by the Applicant, Aspen’s independent research, and information collected during the project’s scoping process.

Four (4) hard copies and one electronic copy of the draft Project Description and EIR Outline will be submitted to the County.

### **Task 2-2. Prepare Administrative Draft EIR**

Aspen will prepare a concise, accurate, and objective environmental review document that fully complies with CEQA and County requirements. The document will minimize the use of technical jargon so that the information conveyed is accessible to decision-makers and the public. The Administrative Draft EIR will impartially and accurately analyze the environmental impacts of the proposed project. In order to meet the County’s request to limit the EIR analysis to no more than 200 pages, Aspen will present detailed technical analyses and data tables as appendices to the EIR. Aspen has successfully employed this strategy to reduce the length of documents on past projects.

Aspen Team members will perform a thorough peer review of each technical report prepared on behalf of the applicant and provide feedback to the County regarding the adequacy of the data, analysis, and findings of each report. Aspen will verify data presented in these reports through independent research and field surveys. One cycle of data review, data request preparation and submittal, and review of data responses has been factored into the scope and associated cost of each of the EIR’s technical analyses under Task 2-2. Should the data and analyses prepared by, or on behalf of, the applicant be considered inadequate following the peer review and question cycle, a commensurate scope and cost modification may be needed on an issue-specific level. Efforts under Task 2-2 additionally include the cost of site visits and field reconnaissance, as appropriate by issue area, by technical team members.

Impacts will be clearly assigned to each phase of the proposed project, i.e., the remediation activities, the plan amendments, and the proposed future development. The methodologies and criteria used for determining the impacts of the project will be clearly and explicitly described in each technical section of the EIR. These will include any assumptions, models, or modeling techniques used in the analyses. The determination of impacts will be based on **thresholds of significance** developed in accordance with

CEQA requirements, the County's guidelines and requirements, and other recently approved environmental documents.

As noted previously under Task 1-1, the analysis will consider any existing conditions of approval or mitigation measures that the County would like factored into the impacts assessment, as well as any newly identified Applicant-proposed environmental controls or BMPs. If significant impacts are identified, mitigation measures will be included to reduce the severity of the impacts to the extent possible. Two types of **mitigation measure** will be recommended, the first are measures that will address primary impacts, and the second are measures that address secondary impacts. Mitigation measures will be alpha-numerically coded to correspond to their respective impact criterion. The effectiveness and feasibility of mitigation measures will be discussed, and the level of significance after mitigation will be identified. The impact assessment will consider direct, indirect, alternative, and cumulative impacts.

Each issue area will include consideration of **cumulative projects** consistent with Section 15130 of the State CEQA Guidelines. In consultation with the County, Aspen will prepare a cumulative scenario that will include a list of past, present, and probable future projects. The cumulative scenario will be incorporated into the Project Description and provided to the Aspen Team for evaluation. Cumulative impacts are predominantly associated with the construction period, which often result in impacts that are temporary. Nonetheless, should the project incrementally contribute to any identified adverse and significant cumulative impacts, appropriate mitigation will be developed and included in the EIR. In addition, consistent with State CEQA Guidelines Section 15126.6(d), it is assumed that the alternatives will not be evaluated at the same level of detail as the proposed project.

Aspen will submit four (4) hard copies (in three-ring binders) and one (1) CD in original format (Word) of the Administrative Draft EIR, including appendices.

### **Task 2-3. Prepare Draft EIR**

Aspen will prepare a Draft EIR ready for public review and comment. The Draft EIR will incorporate the County's comments on the Administrative Draft EIR. To ensure consistency and to avoid conflicting directions, it is assumed that the County Project Manager will provide one set of unified review comments on the Administrative Draft EIR for Aspen's use in revising the document. Aspen will complete revisions to the Administrative Draft EIR in conformance with the County's consolidated comments. The completed Draft EIR will be prepared and distributed to an approved distribution list provided by the County Planning Department.

Aspen will prepare a Notice of Availability (NOA) that would accompany each Draft EIR (45 copies). The NOA will also be used as a mailed notice, if additional notices are sent out by the County. Also, Aspen will file the NOA with the County Clerk as required by CEQA, and will prepare and file the CEQA-required Notice of Completion that goes with the copies of the draft to the State Clearinghouse.

Aspen will reproduce 45 copies of the Draft EIR as follows: five (5) hard copies with appendices (in three-ring binders); fifteen (15) bound copies with appendices included as a CD in an envelope; twenty five (25) CDs (with graphics and appendices) in "searchable" .pdf format; ten (10) separately bound copies of appendices; one (1) electronic copy in original format (Word); one (1) copy of the Draft EIR in an HTML, or other acceptable web-friendly format, so text and graphics can be easily placed on the county's web site, which will include breaking the document in smaller, easily downloadable portions; and all spreadsheets and databases, including GIS layers will be submitted electronically according to the specifications in Section 2.6(H) of the RFP. The Mitigation Monitoring and Reporting Program will not be submitted at this point in the process.

#### **Task 2-4. Prepare Administrative Final EIR**

Near the close of the Draft EIR public review period, Aspen will begin to prepare an Administrative Final EIR that includes responses to comments submitted by the public, interested agencies, and the Applicant and make any necessary revisions to the Draft EIR for its finalization.

Aspen will work with the County to ensure that all comments received are properly identified and logged into a database so they can be easily tracked and retrieved. Aspen will prepare responses to individual comments or groups of similar comments and will make all necessary revisions to the Draft EIR with tracked revisions using text strikeout and underlining techniques.

Aspen will organize all the comment letters by source and review each letter to appropriately identify all comments contained in it. The individual comments will then be categorized according to their resource/issue-specific focus, and each senior technical analyst will be provided the comments requiring his or her technical expertise for responses. The draft responses to comments will be submitted to Aspen's Project Manager to ensure that the responses adequately address the comments in a clear, concise, and unbiased manner and that they are consistent between disciplines.

Responses that are within this proposal's scope and budget consist of explanations, elaborations, or clarifications of the data contained in the Draft EIR. If new analysis, issues, alternatives, or substantial project changes need to be addressed, a contract amendment may be required. However, this scenario is not anticipated.

As part of the finalization process, Aspen will additionally prepare the project's MMRP, consistent with Public Resources Code Section 21081.6. Aspen will coordinate with the County as to any preferred formatting for the MMRP. The introduction will explain the technical and legal parameters that require the preparation and adoption of a MMRP, the parties responsible for its implementation, and description of compliance and non-compliance violation levels. This discussion will be followed by a comprehensive table with an alpha-numeric identification of each mitigation measure, its title, the party (or parties) responsible for its implementation and the actions that are involved, the timing of implementation, and identification of the party (or parties) and method (or methods) of compliance verification and reporting. Consistent with the RFP, the MMRP will be prepared as a "stand alone" document.

Aspen will submit five (5) copies (2 three-hole drilled, 2 bound, 1 CD) of the Administrative Final EIR with appendices.

#### **Task 2-5. Prepare Final EIR**

Aspen will prepare a Final EIR that incorporates the County's comments on the Administrative Final EIR. Aspen will obtain all comments on the Administrative Final EIR from the County Project Manager, who will compile one set of unified review comments for use in revising the document. Aspen will complete revisions to the Administrative Draft EIR in conformance with the County's comments.

Aspen will reproduce 55 copies of the Final EIR as follows: five (5) hard copies with appendices (in three-ring binders); twenty five (25) bound copies with appendices as CDs in envelopes at back of document; twenty five (25) CDs (with graphics and appendices) in "searchable" .pdf format; fifteen (15) separately bound copies of appendices; and one (1) CD in original software format (Word).

#### **Task 2-6. Prepare Findings of Fact**

Per RFP Section 2.3, Aspen will prepare the EIR's Findings of Fact, consistent with State CEQA Guidelines Section 15091. Aspen will coordinate with the County to ensure that a format agreeable to staff and

decision makers is used. Aspen completed the Findings of Fact for the Topaz Solar Farm and can apply the template used for that document to the proposed project, thereby expediting the process. Assuming that this type of structure is applied, the Findings of Fact will include a brief project description, summary of the public record, verification of EIR certification by the Planning Commission, and the findings for all impacts identified in the Final EIR, including the Findings and Supportive Evidence for impacts that have been identified as either significant but mitigable to a level of less than significant and significant and unavoidable. The Findings of Fact will additionally include CEQA General Findings and a summary of the MMRP. If necessary, the Findings of Fact will additionally include a Statement of Overriding Considerations, consistent with State CEQA Guidelines Section 15093. Aspen will submit two unbound copies and one electronic copy of the Findings of Fact.

## **Task 2-7. Meetings**

### ***Draft EIR Workshop***

Aspen will prepare the Notice of Completion of the Draft EIR for submittal to the State Clearinghouse for responsible agencies and public review. During the public review period, the Aspen Team (including key subconsultants) will assist the County in planning and conducting two (2) public workshops to present the findings of the Draft EIR. For past public workshops, Aspen has prepared and presented a PowerPoint presentation to the public, which summarized the project description, alternatives, and the findings of the Draft EIR. The public then had the opportunity to ask questions and the issue area authors provided direct responses. The workshops have also included an “open house” period where Aspen provided detailed graphics and/or information handouts regarding the critical issue areas and the Aspen Team was available to answer questions.

### ***Internal Meetings***

Members of the Aspen Team will be available for four internal staff meetings with the County. Aspen’s Project Manager and Deputy Project Manager will work closely with the County to plan and facilitate all aspects (e.g., logistics, staffing, presenting, providing materials) of the staff meetings. For the purposes of estimated cost it has been assumed that these meetings will be attended by the Project Manager and up to three (3) Team members.

### ***Optional Meetings***

If ATCAT meetings continue through the Phase 2 process, Aspen will be available to attend the meetings. These meetings would require a commensurate scope and cost modification.

## **Task 2-8. Public Hearings**

Aspen shall attend up to six (6) public hearings. It is assumed that each of these meetings will be attended by Aspen’s Project Manager and that technical staff will attend two of the four anticipated hearings before County decision makers. It has been our experience that technical staff are generally needed at the second hearing on controversial projects. An hour estimate and cost has been factored into our cost proposal for each meeting to prepare brief presentations and/or to review project-related documents and files in response to submitted or anticipated questions. Consistent with our efforts on the Topaz Solar Farm and California Valley Solar Ranch, it is assumed that the County will be responsible for coordinating and advertising the meetings, arranging for meeting equipment and hand-out materials, and any special services that may be required, such as translators or court reporters.

## E. Technical Approach to Environmental Analyses

This section presents Aspen's approach to the evaluation of the key environmental issues associated with the Avila Point Project. Based on our past efforts preparing CEQA analyses for similar projects and review of the RFP, Aspen has developed a successful approach to analyzing potential environmental issues relevant to the proposed project. As discussed in Section C, Aspen has concluded that a Program Environmental Impact Report (EIR) with project-level details will be the best approach for the proposed project. Section C includes a detailed rationale for this approach based on each of the project components, i.e., the remediation plan, the proposed plan amendments, and the proposed development of the project site.

The EIR shall meet all of the requirements set forth in CEQA (Public Resources Code 21000 et seq.) and the State CEQA guidelines (California Code of Regulations, Section 15000 et seq.). Preparation of the impact analysis will begin with an initial study. If issue areas are scoped out as part of the initial study, they will not be addressed further in the EIR, and the initial study will be included as an appendix to the EIR.

### RFP Criteria

- 4.1B (Approach to Scope of Work)
- 4.2 (Methods and Procedures)
- 4.4A (Coordination with County and Agencies)

The analysis of direct, indirect, and cumulative impacts will be based on the thresholds of significance under CEQA's Appendix G. However, if necessary, during the internal staff meetings Aspen will collaborate with the County to add, remove, or alter the impact thresholds to align with the County's objectives for each issue area. In cases where the applicant's proposed measures do not adequately address a significant impact, the EIR will include feasible mitigation measures to minimize the impact. Each mitigation measure will be tied to the impact criteria and clearly numbered.

The EIR will describe a range of reasonable alternatives, which Aspen anticipates will include the proposed project with three alternatives (including the no project alternative). As stated under Task 2-1 of Section D, it is expected that the range of alternatives will consist of multiple on-site design alternatives. As per CEQA, the alternative will include sufficient information to allow meaningful evaluation, analysis, and comparison with the proposed project.

Each technical specialist will peer review all available reports, studies and data that pertain to their section(s), which they will use to the maximum extent feasible in preparation of the EIR. This includes the reports and studies listed in Section 7 of the 2012 Application and any additional reports that the applicant may provide in the future (as noted in the RFP). If any of the data is found to be inadequate, Aspen will immediately coordinate with the County for resolution in order to avoid delays in the schedule.

The following section, Section F, provides the cost and schedule anticipated for Phases 1 and 2 of the proposed project.

## E.1 Aesthetics

### *Issues and Background*

The analysis of aesthetics utilizes resource-specific qualitative and quantitative terminology. The following defines terms utilized within this scope to ensure understanding of the proposed methodology and scope of work:

- **Key Observation Point (KOP):** One or a series of points on a travel route or at a public/private use area, where the view of a proposed activity would be most revealing.
- **Viewshed:** The landscape that can be directly seen under favorable atmospheric conditions, from a KOP or along a transportation corridor.
  - Foreground View: 0–1 mile
  - Middleground View: 1–3 miles
  - Background View: 3–5 miles
- **Visual Contrast:** Opposition or unlikeness of different forms, lines, colors, or textures in a landscape. Generally, increased visual contrast within foreground distances would be more noticeable to viewers than increased visual contrast within background distances.
- **Visual Quality:** The relative worth of a landscape from a visual perception point of view.

The proposed project is a 95-acre site within the Industrial land use category and is located at 1717 Cave Landing Road, in the community of Avila Beach. The property is adjacent to and east of downtown Avila Beach and extends back (north) to Cave Landing Road. The site is within the boundaries of the San Luis Bay Area Plan (Coastal) and the Avila Beach Specific Plan. Issues associated with aesthetics include the overall visual change of the site from being primarily open space (retired tank farm) to the “vision” submitted by Chevron, which includes construction of a resort, development of a coastal bluff trail and other trails throughout the site, remote parking areas serving the resort, and golf cart facilities for use on site. Furthermore, these future development activities would require amendments to the General Plan, Specific Plan and Local Coastal Plan. These local plans include a number of policies, design guidelines, and development standards related to aesthetics and lighting.

### *Approach to Development of Environmental Setting*

The coastal areas of San Luis Obispo County include some of the region’s most important visual resources, with their scenic views and coastline neighborhood aesthetic considered a trademark of California. Avila Beach has a unique beach aesthetic. The proposed project is located in the upper coastline bluff of Avila Beach, with views of the Pacific Ocean and horizon. The project site currently contains open space, with minimal visibility of the remaining tank farm infrastructure from outside of the property boundary. Receptors in the immediate vicinity with views of and through the site include motorists on Avila Beach Drive and Cave Landing Road, recreation and open space users from adjacent uses, and commercial/residential development west of the site in downtown Avila Beach. As discussed in the Land Use Policy Consistency section, land use and sensitive receptor information will be gathered by site reconnaissance and shared with all EIR technical staff. This inventory will be presented within the environmental setting to assist the reader in understanding the existing viewsheds and visual quality of the area, establishing baseline for how those conditions could be affected by project implementation.

For the purposes of the EIR, the aesthetics environmental setting will include photographs and text descriptions for the acceptable visual simulations prepared by the Applicant (2012 Draft Visual Simulations). Additional KOP locations and baseline photographs and descriptions may be identified (beyond

the five included in the 2012 Draft Visual Simulations) in coordination with the County. The need for additional KOPs would take into account sensitive receptor locations, unique natural features, locations of prominent future development features, and other viewshed specifics garnered from site reconnaissance as well as revised project application materials. The proposed project site is atop a hill, which makes selecting KOPs critical in establishing baseline conditions. The environmental setting would also present applicable laws, ordinances, regulations, and standards necessary for evaluating potential visual resources impacts. These sources include, but are not limited to, applicable portions of the San Luis Obispo County General Plan (Conservation and Open Space Element, Coastal Zone Framework for Planning – Land Use Element), Avila Beach Specific Plan, Countywide Design Guidelines, County Ordinance Title 19 – Building and Construction Ordinance, and Title 22 of the Land Use Ordinance.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

In consultation with County staff, Aspen will formulate impact statements and significance criteria utilizing the four aesthetics impact evaluation criteria contained in the CEQA Guidelines Environmental Checklist Form (Appendix G) as a starting point, as well as considering applicable goals, objectives, ordinances, and policies from the documents identified in the environmental settings discussion provided above. CEQA significance criteria include an evaluation of the proposed project's potential to:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Aspen will peer review the 2012 Draft Visual Simulations and will work closely with County staff (and the Applicant) to conceptualize and revise the visual simulations as part of the Development Plan and for inclusion within the EIR aesthetics analysis. Any additional visual simulations (if deemed necessary) would be prepared consistent with the five approved KOPs to allow for a robust analysis of the visual contrast associated with the proposed project. It is assumed that the Applicant may be asked to revise the 2012 Draft Visual Simulations and/or provide additional simulations based on Aspen Team and County review. As needed, the EIR aesthetics analysis can be supplemented with additional photography and simulations. Should additional or replacement simulations be required, the Aspen Team can provide this as an optional task.

To prepare an in-depth analysis, the aesthetics section will include a defined study area of the viewsheds from which the proposed project might be seen. KOPs that have the potential to result in visual impacts at particular locations will be identified and evaluated in the analysis. Project-induced visual changes will be determined based on evaluation of anticipated visual contrast and project dominance. A written visual analysis will be presented for each KOP to supplement the visual simulations (also included graphically as part of the aesthetics analysis), describing the existing visual character, quality, viewer sensitivity and exposure, to serve as the foundation for impact evaluation per agreed upon thresholds of significance.

**Development Plan for Remediation.** Because remediation activities would be ground level and subterranean, the visual impacts of this activity are limited to views of temporary construction equipment and activities. Due to the short-term construction-based aspect of this type of remediation, view disruptions will be limited in duration at any KOP and temporary in nature (only during the remediation phase).

**Plan Amendments.** The most applicable plan with respect to aesthetics of the proposed project is the Avila Beach Specific Plan. The Plan defines a number of aesthetic design goals and criteria for development of Avila Beach. The Plan also included language specific to the proposed project site. However, it only discusses a potential vision for the property and requires that future development include plan amendments to the General Plan, Specific Plan and Local Coastal Plan to further define the redevelopment of the site once any remediation activities had occurred at the site. As such, the aesthetics analysis will not only be CEQA compliant, but also evaluate proposed changes to the Avila Beach Specific Plan based on the finalized Development Plan. These updates will be linked to the analysis and may tier off any mitigation included within the aesthetics analysis to minimize visual impacts. Additionally, the proposed project will be evaluated for consistency with all applicable polices, and ordinance standards set forth by the County as applicable to aesthetics and visual resources.

**Development Plan for Future Use of the Avila Tank Farm Site.** Due to the proximity of Avila Beach Golf Resort, the proposed project would not introduce a new development of significant visual contrast for the surrounding community. However, development of the site consistent with the “vision” described in RFP Section 1.9 would introduce highly prominent structures and change the overall aesthetic of southern Avila Beach. Overall urbanization of the site, which includes roadways and commercial structures, would alter the existing visual character of the site and its surroundings. This change due to development of the site may result in significant visual contrast impacts when compared to existing conditions. Depending upon review of the finalized Development Plan and visual simulations, the proposed project may also degrade scenic vistas from public KOPs and private property owner viewsheds in the vicinity of the site. While the analysis of visual impacts can be considered qualitative and subjective, the Aspen team has significant experience in preparing and publicly testifying to methods utilized and determinations made under CEQA.

The proposed project also has the potential to result in lighting impacts due to the 24-hour usage of the proposed resort, as well as potential lighting impacts associated with internal roadways and parking facilities. Details of any proposed lighting plan would be requested of the Applicant to perform a thorough evaluation of lighting impacts to adjacent receptors. Due to the height of the proposed developments and distance to adjacent parcels, no shade/shadow impacts are expected.

The EIR will include mitigation measures for the proposed project, as practicable and feasible, to reduce potential visual resource impacts. Any mitigation measures will be prepared consistent and taking into account all of the plan amendments associated with the proposed project. Potential mitigation measures could include: end of day activities to minimize view impacts from temporary construction equipment during remediation; recommendations for site plan limitations to minimize visual impacts; use of screen walls, wall surface and other external hues, and/or landscaping features to soften visual contrast; and direction and planning refinements to minimize any intrusive lighting.

## **E.2 Air Quality, Greenhouse Gases and Climate Change**

For the purposes of this proposal, the air quality section will include impact analyses of the following: criteria pollutant air quality, air toxics pollutant, odors, and climate change/greenhouse gas (GHG) emissions. It is possible that one or more of these analyses such as climate change/GHG emissions, would be prepared as a separate section within the EIR.

### ***Issues and Background***

The proposed project would generate emissions of dust (particulate matter) and equipment exhaust (criteria and air toxics pollutants) during the project’s remediation activities, construction activities, and long-term operation emissions in the San Luis Obispo County Air Pollution Control District’s (APCD) juris-

diction within the South Central Coast Air Basin (SCCAB). Additionally, the project site remediation work would create additional volatile organic compound emissions including some hazardous air pollutants, such as benzene, toluene and xylene. The project site is located within an area of the SCCAB that is currently designated as “non-attainment” of the California Ambient Air Quality Standards (CAAQS) for particulate matter (PM10) and ozone, but is designated as attainment of all other CAAQS and all National Ambient Air Quality Standards. Demolition emissions will come from soil and groundwater remediation activities including contaminated soil excavation and hauling. Construction emissions from site preparation grading activities and the erection of structures will come from the associated on-road and off-road vehicle/equipment emissions and activities that cause fugitive dust. Operational emissions will result from the operation of the proposed recreation properties, including associated fuel use and induced traffic. Specific issues, such as naturally occurring asbestos, Valley Fever, asbestos or lead paint exposure from demolition activities, or odor issues from site remediation will also need to be evaluated based on studies to be performed by the applicant or based on research of other available project site information. The discussion of Valley Fever may be included in the Hazards and Hazardous Materials section, rather than the Air Quality section, per San Luis Obispo County APCD scoping letter comments on previous projects.

The proposed project would generate GHG emissions during the remediation, construction and operation activities. Remediation and construction would generate GHG emissions from the use of off-road construction equipment and on-road vehicle trips. Operation emissions would come directly from the traffic induced from the project and natural gas or other fuel use. Other indirect emissions sources, such as electricity use and the potential loss of vegetative carbon intake due to permanent vegetation removal would also be assessed.

#### ***Approach to Development of Environmental Setting***

The environmental setting information will include a discussion on the applicable State and federal air quality standards and current air quality planning efforts within the County; the current attainment status of the project area; information on the climate and meteorological conditions of the area; ambient air quality data from monitoring stations near the site and/or representative of the site, indicating local trends and patterns of air pollutant concentrations; and identification of all surrounding sensitive receptors. In addition, information will be presented regarding other potentially hazardous air-borne contaminants, such as hydrogen sulfide (H<sub>2</sub>S) and asbestos. Much of this information is available from public databases maintained by the California Air Resources Board (CARB) and the APCD. The most recent APCD Clean Air Plan will be reviewed for applicable information and the APCD will be consulted to determine if recent information is available. A discussion of the other applicable County plans such as the County’s General Plan, San Luis Bay Area Plan (Coastal), and the Avila Beach Specific plan will be included in the setting.

The GHG/Climate Change environmental setting will include information on global climate change and the potential local impacts of climate change, introduction of regulated GHGs, and federal, State and local regulatory setting to regulate GHG emissions. Additionally, applicable elements of the County’s Energywise Plan will be included in the setting discussion for GHG/Climate Change.

#### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

An air quality “technical report” in the form of a comprehensive emission modeling analysis (i.e., CalEEMod or separate spreadsheet calculation) for air pollutants (criteria and air toxic pollutants) and GHGs is assumed to be completed as part of the EIR preparation. Aspen will work with the County and the project applicant to determine appropriate equipment, activity, and project schedule assumptions to prepare the emissions modeling analysis. This will include the evaluation of the assumptions provided

in the applicant's Remedial Action Plan (RAP) and the Development Plan. Aspen would also ensure that proper assumptions are used and documented, and that the scenarios evaluated consider a reasonable worst-case situation for each phase of development (e.g., remediation, construction, and operation). This technical report will be completed using emissions calculation methodologies and emissions factors that meet APCD and CARB guidance. The air quality technical report will be included as an appendix to the EIR.

The EIR will identify APCD construction mitigation recommendations and permitted equipment control requirements for mitigating the construction and operation emissions to ensure that appropriate emission reduction measures are considered as part of the project's emissions estimates. Applicant proposed measures will be applied, as appropriate.

County air quality policies relative to development shall be discussed, and the project's proposed mitigated criteria pollutant (NO<sub>x</sub>, SO<sub>x</sub>, PM<sub>10</sub>, PM<sub>2.5</sub>, VOC/ROG, and CO) emissions shall be compared to the APCD thresholds of significance provided in the 2012 APCD CEQA Air Quality Handbook. Additionally, the project's conformance with air quality plans and APCD permitting requirements and rules compliance will be evaluated. Where appropriate, additional mitigation measures will be recommended to mitigate significant air quality impacts to the extent feasible and mitigated emissions estimated.

It is assumed that air dispersion modeling of the criteria pollutant emissions will not be necessary for EIR. The APCD will be contacted to confirm if any specific analysis or air dispersion modeling/health risk analysis for air toxic pollutants emitted during site remediation is warranted.

If the project complies with a qualified GHG reduction plan the project would be presumed to have less than significant GHG emissions impacts per APCD CEQA guidelines. If the project does not have a qualified GHG reduction plan then the project's annual GHG emissions estimate, where the remediation and construction emissions would be amortized over the project life, would be compared to the APCD Bright-Line Threshold of 1,150 metric tons CO<sub>2</sub> per year (MT CO<sub>2</sub>e/yr) for land use development projects. Additionally, the proposed project will be analyzed to determine conformance with federal, State and local regulations, policies and goals for GHG emissions.

Applicable mitigation measures would be identified reduce the remediation, construction, and operation GHG emissions as necessary. If the project does not include a qualified GHG reduction plan, then it is possible that project's GHG emissions after mitigation may exceed the Bright-Line Threshold of significance for GHG emissions.

The air quality impacts of cumulative development surrounding Avila Point would be assessed. Additional coordination with the APCD would be performed to ensure that the list of cumulative projects, are adequate and complete. Identified project alternatives will be evaluated at a conceptual level of detail, with particular emphasis on their ability to mitigate significant air quality impact(s). Applicable mitigation for cumulative and project alternative impacts would be developed.

**Development Plan for Remediation.** During remedial actions, demolition, and redevelopment, the various phases of activities would introduce a range of air pollutant and GHG emissions sources, in the form of heavy equipment, haul trucks, worker vehicles, fugitive dust, and releases from contaminated soils. Heavy equipment and hauling of excavated soils and demolition debris are likely to be the primary sources of air pollutants from the remediation activities. Remediation activities also have the potential to release odorous substances from contaminated soils. Therefore, the potential for nuisance odors during the project's remediation activities will need to be evaluated and mitigated as necessary.

**Plan Amendments.** The Project's contemplated uses could create air quality compatibility conflicts. The long-term consequences of the proposed plan amendments will be assessed for potential conflicts with

the General Plan's Conservation and Open Space Element's air quality goals and policies. The County's General Plan does not have a separate air quality element, and other applicable regional and local plans do not have detailed air quality requirements beyond the Coastal Plan's requirement for consistency with APCD rules and regulations and requiring APCD review of development projects. The long-term consequences of the proposed plan amendments will be assessed for potential air quality conflicts and the potential to introduce air quality compatibility issues with the General Plan's Conservation and Open Space Element's goals, policies and strategies.

The County has adopted the Energywise Plan that includes policies for GHG emissions reductions. The long-term consequences of the proposed plan amendments will be assessed for potential GHG/climate change conflicts and the potential to introduce compatibility issues with the Energywise Plan's goals, policies and strategies.

**Development Plan for Future Use of the Avila Tank Farm Site.** The Development Plan would bring increased activity to the site along with additional air pollutant and GHG emissions. Construction and operation would include air pollutant emissions from heavy equipment, traffic, new residents, and visitors to the resort and commercial facilities being contemplated. Aspen will identify and document the anticipated construction activities and phases, and the modeled local and regional air pollutant and GHG emissions including the potential new stationary sources of air pollutant emissions. These emissions will be compared to APCD significance thresholds and appropriate mitigation will be recommended. The Development Plan will also be assessed for conformance with the General Plan's Conservation and Open Space Element's air quality goals, policies and strategies and the Energywise Plan's GHG/climate change goals, police and strategies.

### **E.3 Biological Resources**

The Biological Resources section of the EIR will consider the existing baseline conditions and provide an analysis of impacts to plants, wildlife, and habitats associated with the proposed remediation and redevelopment activities. To support this work, Aspen has carefully assembled a team of biologists with extensive experience and knowledge of the species that occur in the project area. More importantly, the team includes biologists with knowledge in site remediation and energy development projects. This experience provides the County with expert resources to accurately assess the project and develop reasonable mitigation measures where necessary. This section describes our current understanding of the existing biological resources that occur at the project site, and provides a summary discussion of how Aspen will address those issues.

#### ***Issues and Background***

The proposed project would occur within approximately 95 acres of previously disturbed and natural lands near the community of Avila Beach. The sites historic use as a tank farm is well known and most of these facilities have been removed. Several documents, including a 2004 Ecological Evaluation Supplement I (2004 EES) and 2005 Ecological Evaluation Supplement II (2005 EES), have been prepared to document biological resources on the project site. Aspen has reviewed these documents and other relevant information for biological resources and we are familiar with the resources that are known or have the potential to occur on-site.

Current conditions on the site support a variety of non-native and native plant communities including (but not limited to) wetlands, coastal scrub, and oak woodlands. Wildlife usage varies however the proposed project has the potential to support over 60 special-status plant and wildlife species. Previous studies on this site describe potential habitat for 45 special status wildlife species and 19 special-status plants. For example, silvery legless lizard, a California Species of Special Concern, has been observed on

the project site. Exhibit 7 presents sensitive biological resources that have been documented or have the potential to occur on the project site.

The diversity of rare and common species is largely due to the sites varied topography; presence of oak woodlands, coastal bluffs; and association with the Pacific Ocean.

**Exhibit 7 Present or Known to Occur Species in the Project Area**

| Scientific Name                            | Common Name                | Special Status* |
|--|----------------------------|-----------------|
| <i>Antrozous pallidus</i>                  | Pallid bat                 | CSC, WBWG       |
| <i>Corynorhinus townsendii</i>             | Townsend's big-eared bat   | CSC, WBWG       |
| <i>Eumops perotis californicus</i>         | Western mastiff bat        | CSC, WBWG       |
| <i>Anniella pulchra pulchra</i>            | Silvery Legless Lizard     | CSC             |
| <i>Accipiter cooperii</i>                  | Cooper's Hawk              | WL              |
| <i>Calypte costae</i>                      | Costa's hummingbird        | BCC             |
| <i>Melanerpes lewis</i>                    | Lewis' woodpecker          | BCC             |
| <i>Picoides nuttalli</i>                   | Nuttall's woodpecker       | BCC             |
| <i>Contopus cooperi</i>                    | Olive-sided flycatcher     | CSC             |
| <i>Amphispiza belli belli</i>              | Bell's sage sparrow        | CSC, BCC        |
| <i>Carduelis lawrencei</i>                 | Lawrence's goldfinch       | BCC             |
| <i>Falco peregrinus anatum</i>             | Peregrine Falcon           | CFP, BCC        |
| <i>Phalacrocorax auritus</i>               | Double-crested Cormorant   | WL              |
| <i>Rana draytonii</i>                      | California red-legged frog | FT, CSC         |
| <i>Pelecanus occidentalis californicus</i> | California Brown Pelican   | CFP             |
| <i>Agrostis hooveri</i>                    | Hoover's Bentgrass         | CRPR 1B         |
| <i>Scrophularia atrata</i>                 | Black-flowered Figwort     | CRPR 1B         |
| <i>Arctostaphylos wellsii</i>              | Well's Manzanita           | CRPR 1B         |

FT = Federally Threatened; CSC = California Species of Special Concern; CFP = California Fully Protected Species; WL = State Watch List Species; CRPR 1B = California Rare Plant Rank; BCC = USFWS Bird of Conservation Concern; WBWG = Western Bat Working Group High Priority Species

**Approach to Development of Environmental Setting**

The 2004 EES and the 2005 EES include detailed descriptions of the proposed project site, a list of plant and wildlife species identified during surveys, and notes on both common and sensitive species expected to occur in the region. These documents have been thoroughly reviewed by Aspen's biological team and will be used to augment the team's extensive knowledge of the project area. Surveys described in the documents provide a general representation of species known to occur in the project area. However, the bulk of the available data relies on surveys conducted from 2003 through 2005. This information is useful and will be referenced in the document; however the age of the data limits the conclusions that may be made regarding CEQA significance. Many species are difficult to detect and their life history characteristics may result in changing population dynamics on the project site. Similarly, biologists have noted range expansions for many species in California. Therefore supplemental field surveys may be necessary to fully characterize the biological resources currently present on site.

Prior to visiting the site, Aspen biologists will conduct a review of available literature and species databases (CNDDDB, CNPS, herbarium and museum Records, U.S. Fish and Wildlife Service [USFWS] Critical Habitat Maps); review available reports or relevant biological technical studies completed in the area; and consult with local experts and resource agency staff. Aspen would utilize existing survey data and conduct reconnaissance-level surveys to verify the information provided in the 2004 and 2005 EES

reports, and note any changes that may have occurred in conditions since the previous biological surveys were conducted. Aspen would also assess the site to determine if any supplemental data collection would be required to support the CEQA process. If the Aspen Team determines additional species-specific surveys would be required, Aspen would provide a memorandum to the County identifying the specific survey types, the expected timing of the surveys, and the rationale for their implementation. Ultimately, survey protocols and strategies will be determined in coordination with the County and applicable resource agencies, including the California Department of Fish and Wildlife (CDFW), the USFWS, and/or the U.S. Army Corps of Engineers (USACE), as appropriate. It is assumed that all additional survey work would be completed by the applicant. However, Aspen is available and qualified to perform any additional survey work that may be required to support the CEQA process.

At the completion of the data acquisition Aspen would develop the environmental setting for the EIR. This information will be based on both information and data provided by the applicant and independent data compiled by Aspen. Aspen's proposed team of biologists are extremely familiar with the types of biological resources documented and potentially occurring within the proposed project area and will provide a thorough and resource-based characterization of the environmental setting to provide a solid baseline for the analysis of the proposed project's potential direct and indirect effects. Based on a review of the existing information and reconnaissance-level surveys, the environmental setting will include an assessment of the following:

- Plant communities and available habitats, including any habitats considered sensitive by CDFW;
- Common plants and wildlife, including wildlife that may use or occupy the site seasonally;
- Special-status plants and wildlife that occur or have the potential to occur at the project site, including federally and state-listed species; plants designated with a California Rare Plant Rank (CRPR) 1A, 1B, 2, 3, and 4; state Species of Special Concern; and locally important species;
- Jurisdictional features;
- Wildlife movement corridors; and
- A regulatory setting, including applicable federal, State, and local laws, plans and guidelines.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

Aspen will prepare an objective, science-based impact analysis for biological resources resulting from the remediation and plan implementation of the proposed project. Aspen will develop and assess the feasibility of proposed mitigation measures for short-term and long-term impacts. The biological resources impact analysis will be based on a thorough inventory of the habitats and species that have the potential to occur on the project site or that would otherwise be affected by the remediation and implementation of the proposed future development. The goal of the biological resource section is to provide a concise, legally defensible document that thoughtfully discloses impacts to biological resources and provides feasible mitigation measures that effectively balance resource protection with development goals.

Unless otherwise directed by the County, significance criteria used in the biological resources impact assessment will follow generally accepted thresholds of significance, which provide habitat-specific criteria for protection of biological resources including wetlands, riparian habitats, native grasslands, and native trees. Under these thresholds, the project would have a significant effect on biological resources if it would:

- Substantially reduce or eliminate species diversity or abundance;
- Substantially reduce or eliminate quantity or quality of nesting areas;
- Substantially limit reproductive capacity through losses of individuals or habitat;

- Substantially fragment, eliminate, or otherwise disrupt foraging areas and/or access to food sources;
- Substantially limit or fragment range and movement, geographic distribution of animals, and/or seed dispersal routes; or
- Substantially interfere with natural processes, such as fire or flooding, upon which the habitat depends.

Aspen recognizes the importance of positive working relationships and will make it a priority to coordinate and consult with the County and all applicable resource agencies (with approval of the County) during the preparation of the EIR. The Aspen Team has positive working relationships with the agencies relevant to this project, including the CDFW, USFWS, and the USACE, as well as the County. Through these relationships and extensive relevant project experience, Aspen biologists will prepare an independent and objective analysis of the proposed project and implement mitigation strategies that are appropriate to the scale of identified project impacts. These impacts and mitigation solutions will be clearly communicated to the public without the use of jargon or overly complicated language. Some of the important themes that will be addressed in the EIR include potential impacts to:

- **Oak Woodlands.** Project related activities would potentially result in direct and indirect impacts to oak woodlands. Oak woodland is considered a sensitive resource by San Luis Obispo County and is considered rare and worthy of consideration by CDFW. Although oak woodlands may be revegetated as part of mitigation for on-site impacts, revegetation results in mature oak woodland being replaced with young oak tree plantings. This results in different habitat function and values in the revegetated areas compared to mature woodlands. In addition, oak trees provide a valuable seasonal resource from mast crops and provide year round shelter to a large variety of small animals and birds. Because of the sensitive nature of this habitat and its importance to a variety of common and special-status wildlife, impacts would likely be considered significant and require mitigation. Mitigation strategies could include avoidance and off-site compensation to mitigate impacts to habitat values, in addition to on-site revegetation.
- **Wetlands** The 2004 and 2005 EES report the presence of wetlands within the project site (man-made seasonal wetlands that have formed in several former tank bottoms). The applicant has indicated that the USACE, after a site visit, determined the wetlands were not jurisdictional under Section 404 of the Clean Water Act. These wetland pools however have the potential to support a variety of aquatic species including fairy shrimp. Impacts to these resources would be thoughtfully investigated. If required, off-site compensation and on-site restoration would be the key mitigation strategies to mitigate/compensate for potential functional loss of wetlands within the project site.
- **Special-Status Plant Species.** Although no rare plants have been detected to date, preliminary surveys conducted by the applicant identified 19 special-status plant species known to occur in the vicinity of the project area. Aspen biologists have reviewed the plant list presented in the 2004 and 2005 EES and have determined that it is likely a good reflection of existing conditions at the project site. Nonetheless, the site has not been subject to disturbance for many years and native vegetation has continued to recover. Because of these factors relying on plant data collected over eight years ago may not provide a reasonable baseline and may miss rare plants which are known to occur in the region.
- **Special-Status Bats.** Bats are known from the area and may roost or shelter in the many large oak trees present on the project site. If special-status bat roosts occur within the project footprint during vegetation removal and grading, bats may suffer mortality or injury and a subsequent reduction in reproductive success. Typical mitigation to avoid or minimize impacts to this species would include pre-construction surveys, monitoring by a qualified biologist, creation of substitute roosting habitat, and implementation of best management practices (BMPs).

- **Special-Status and Migratory Bird Treaty Act (MBTA)-Covered Birds.** Peregrine falcons are known to nest on the coastal bluffs along the southern edge of the project and brown pelican and double-crested cormorants are commonly seen on the edges of the bluffs. If special-status birds and/or more common species protected by the MBTA and CDFW codes are nesting within the project footprint during vegetation removal and grading, “take” could occur which is a violation of State and federal law. Take includes direct mortality of adults, young, and eggs, as well as disturbance that substantially interferes with breeding activities. Project activities may also result in the disturbance of nesting birds in surrounding areas due to noise, increased artificial lighting or other indirect disturbances. Such disturbance could result in the mortality of nestlings and/or eggs due to nest abandonment. Impacts to special-status birds and MBTA-covered species can be minimized with the implementation of preconstruction surveys, construction monitoring by qualified biologist, and use of BMPs to prevent harassment and/or take.
- **Special-Status Reptiles.** Special-status reptiles are known to occur in the area and silvery legless lizard has been observed on the project site. This species and other sensitive reptiles could be subject to both direct and indirect impacts from remediation and land development activities. Species that use both upland and riparian areas, including the two-striped garter snake, could be adversely affected during vegetation clearing and operation activities. Typical mitigation to minimize impacts to special-status reptiles includes pre-construction surveys, implementation of avoidance measures, and species relocation.
- **California Red-Legged Frog (CRLF).** The CRLF is federally listed as Threatened, and although not documented on the project site the project area lies just south of a historic occurrence from the Avila Beach Golf Course. Direct impacts to this species may occur during vegetation removal within riparian and upland habitats should this species be present. While not expected Aspen would disclose potential effects to this species and provide a science based conclusion for potential impacts, if any, to this species. Typical mitigation to minimize impacts to this species include preconstruction surveys to identify the extent of occupied habitat in relation to the project site, construction monitoring by biologists permitted to handle the species, conducting work to be done in proximity to habitat outside of the active season, and use of BMPs to prevent sedimentation and turbidity in downstream areas.
- **Intertidal Zone.** Based on information presented during the April 2013 site visit, a small amount of seepage has been documented within the intertidal zone along the western boundary of the project site. The CDFW has expressed concern with potential impacts to the intertidal zone. Our Aspen Marine Biologist, working closely with the staff preparing the risk assessment analysis, will analyze the potential for impacts to species associated with intertidal and coastal zones. At this time, we do not see this as a significant effort.

**Development Plan for Remediation.** Remediation of the proposed project site will include demolition of existing buildings and industrial facilities, as well as clean-up of previous contamination from the industrial use of the property. Aspen’s assessment will consider the effect from the remediation activities on common and sensitive plants, wildlife, and habitats. Direct impacts as a result of remediation activities could include vegetation removal and disturbance to wildlife from structure demolition activities. Indirect impacts could include the spread of invasive plant species or changes to soil or hydrology that adversely effects native species overtime. Indirect impacts may also include increased traffic and human disturbance. Mitigation measures will be developed, specific to the remediation activities, such that they will facilitate the required remediation while avoiding or minimizing impacts to sensitive resources.

**Plan Amendments.** Both the remediation and development portions of the proposed project would impact areas defined as Environmentally Sensitive Habitats in the County’s Coastal Plan; these include sensitive habitat (i.e., oak woodlands), wetlands, and terrestrial environments. Policies are presented

under the Coastal Watersheds section of the Coastal Plan that may restrict vegetation removal in some areas of the project site and require soil conservation in others. The EIR would evaluate these impacts and develop mitigation measures that would be consistent with the policies presented in this plan but that would facilitate the required remediation and proposed development. Mitigation measures prepared for all aspects of the project will be prepared consistent with and taking into account all General Plan, Specific Plan and Local Coastal Plan amendments associated with the proposed project.

**Development Plan for Future Use of the Avila Tank Farm Site.** Proposed future development includes the construction and operation of a resort and wellness center that may include open space, trails, restaurants, pool, spa, meeting rooms and fitness center, and family cottages. Part of the proposed plan is to restrict the development footprint to 40 percent of the site so that 60 percent would be open space and natural habitat. The Aspen Team will analyze all potential direct, indirect, and operational impacts associated with the construction and operation of the project. This will include a review of all applicant provided technical studies to determine when and if the project would adversely affect sensitive biological resources. Appropriate mitigation measures and/or strategies will be developed where needed to avoid and/or minimize impacts to biological resources. This may include pre-construction survey efforts, nighttime work restrictions, revegetation/restoration of impacted areas, and the placement of buffers around sensitive resources.

## E.4 Cultural and Paleontological Resources

Cultural resources represent and document activities, accomplishments, and traditions of previous civilizations and link current and former inhabitants of an area. Archaeological resources include areas where prehistoric or historic activity measurably altered the earth or deposits of physical remains (e.g., arrowheads, bottles) discovered therein. Architectural resources include standing buildings, districts, bridges, and other structures of historic or aesthetic significance.

Paleontology is the study of life in past geologic time based on fossil plants and animals and including phylogeny, their relationships to existing plants, animals, and environments, and the chronology of the Earth's history. A paleontological resource is a locality containing vertebrate, invertebrate, or plant fossils (i.e., fossil location, fossil bearing formation or a formation with the potential to bear fossils). Paleontological resources are considered a fragile and nonrenewable scientific record of the history of life on earth, and so represent an important and critical component of America's natural heritage.

Aspen has included Dr. Elizabeth Bagwell, RPA, (Aspen) to oversee the Cultural and Paleontological Resources evaluation for this project. She will be supported by Applied Earthworks (Æ) who will bring local expertise in Cultural Resources and Paleontology. We have included Dr. Bagwell on the team to provide an objective technical review of this assessment because of the potential controversial nature of this issue, and to ensure that all requirements are met and that all information is appropriately documented in the EIR. She will also provide technical review and assistance in Task 6 (Native American Consultation) as described in the Phase 1 tasks.

### *Issues and Background*

Three distinct prehistoric archaeological resources have been identified within the project site during prior cultural resource investigations (Gibson 1998, 1999, 2000, and 2002). Some of these appear to remain intact, while others suffer from substantial disturbance resulting from the past industrial use of the property. A key issue for the project will be defining the significance and integrity of these resources and their eligibility for the California Register of Historical Resources (CRHR). We will make use of the Applicant-supplied studies to the greatest extent feasible, and our scope and cost have assumed that these studies/reports provide sufficient detail to reach defensible conclusions regarding cultural and

paleontological resources. If additional archaeological field investigations, subsurface studies, or additional site testing and evaluation are determined to be needed then a commensurate cost and scope amendment would be necessary.

The Avila Tank Farm facilities, first built in 1910, contain buildings and structures that meet the age requirements for listing on the CRHR and have yet to be formally evaluated for their historical significance. The Aspen Team anticipates conducting these analyses and evaluations as part of the current effort and will report the results of this evaluation in the EIR.

Additionally, amendments to the County's General Plan and the Avila Beach Specific Plan trigger California Senate Bill 18 (SB-18) (Chapter 905, Statutes of 2004), which requires cities and counties to consult with Native American Indian tribes during the adoption or amendment of local general plans or specific plans. See Task 6 (Native American Consultation) in Phase 1 for more information on the Aspen Team approach for this required consultation.

### ***Approach to Development of Environmental Setting***

Following a review of existing information included in the cultural resources technical reports, the Aspen Team will prepare the cultural and paleontological resources section of the EIR. It will include a discussion of the applicable State regulations and standards and describe the affected environment based on the previously completed technical studies. Æ will support this effort by using its extensive in-house library and detailed knowledge of the area's cultural and natural history, supplemented by archival sources and on-line information, to prepare overviews of local prehistory, history, ethnography, archaeology, and paleontology. The Aspen Team will review the detailed cultural and natural setting described in Gibson's technical report on archaeological resources (2010) and Entrix's Avila Beach Phase 1 Expansion History Investigation (1997) and incorporate applicable information in the EIR discussion. In addition, the Aspen Team will conduct primary research for an eligibility determination of the Avila Tank Farm facilities in order to prepare the subsequent impact assessment.

Since an updated records search for the project area has not been completed, this scope includes additional research at the Central Coast Information Center of the California Historical Resources Information System. The Aspen Team will review the existing reports and other cultural resource documentation, summarize prior cultural resource studies, and describe the known resources at the site and their significance. We also will evaluate the methods used, adequacy of survey coverage, and whether the prior work was sufficient to ensure that cultural resource concerns are properly addressed in the EIR according to current CEQA standards. In conducting this assessment, we will follow the Avila Beach Specific Plan and San Luis Obispo County General Plan guidelines regarding the assessment of impact significance. Both indirect and direct impacts to archaeological resources will be considered.

The Aspen Team will perform an assessment of paleontological sensitivity following the standards and guidelines of the Society for Vertebrate Paleontology. We will examine topographic and geological as well as other readily available peer-reviewed literature sources to identify sensitive stratigraphic units and sites within the study area. To obtain information on previously identified fossil sites within and near the project area, existing fossil collection databases at the Natural History Museum of Los Angeles County, the Museum of Paleontology of the University of California, Berkeley, and Paleodatabase.org will also be researched. The project area lies in a zone of paleontological sensitivity, therefore, this scope includes a paleontological field survey as part of our baseline data collection.

**Regulatory Setting.** CEQA (PRC Section 21083.2) and the CEQA Guidelines (Section 15064.5) include significance criteria related to archaeological and historical resources. A significant archaeological or historical resource is defined as one that meets the criteria of the CRHR, is included in a local register of historical resources, or is determined by the lead agency to be historically significant. Other sections of

the Public Resources Code and Public Health and Safety Code also address cultural resources concerns. At the local level, the County of San Luis Obispo General Plan, Historic Preservation Ordinance, and the Local Coastal Plan Land Use Element require protection of archaeological, historical, and paleontological resources to the greatest extent feasible.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

The primary purpose of an EIR is to identify any significant effects of a project, as proposed. Knowledge of the significant impacts from the proposed project guides the identification of mitigation measures and alternatives that reduce these impacts. All phases of the project (remediation, plan amendments, future development plan) will require this impact assessment and mitigation measures, as necessary, based upon baseline data gathered on the existing environment. Information from each technical report will be used to write the cultural section(s) of the EIR which would include a setting and existing conditions, assessment of impacts to significant resources, and mitigation measures to reduce significant project impacts. Resources will be analyzed for significance based on the State CEQA guidelines regarding what constitutes a significant impact on historic resources as well as the San Luis Obispo County General Plan. Feasible mitigation will be identified for each resource, based on the type of project impact, and the extent to which the proposed improvement would encroach on the resource. Emphasis will be on avoiding all resources. The ability of such mitigation to feasibly mitigate potential impacts on each of the resources will be clearly discussed to avoid any perception of “deferring mitigation” subsequent to decision-maker approvals. This will ensure that the mitigation is deemed legally defensible in light of the Madera decision (Madera Oversight Coalition, Inc. v. County of Madera [2011] 199 Cal.App.4th 48.).

**Development Plan for Remediation.** We will evaluate the environmental consequences and describe the criteria for determining the project’s impacts on historic resources (i.e. properties eligible for the California Register of Historic Resources), identify in qualitative and quantitative terms the potential project-specific impacts to such resources, and assess the significance level of each identified impact. As part of this effort we will describe the project’s contribution to cumulative impacts on cultural and paleontological resources and identify feasible mitigation measures that are capable of reducing potentially significant impacts to less than significant levels. We also will include a statement of residual impacts of the project based on implementation of the recommended mitigation.

**Plan Amendments.** The Avila Beach Specific Plan and the Conservation and Open Space Element of San Luis Obispo County’s General Plan establish goals and policies “to identify and protect areas, sites, and buildings having architectural, historical, Native American, or cultural significance.” Among other things, these require archaeological, historical, and paleontological surveys, and avoidance of impacts to significant resources whenever feasible. Native American tribal representatives are to be consulted in all phases of cultural resource investigation.

As discussed above (Phase 1, Task 6), SB-18 requires Native American participation and input during changes and amendments to specific plans and general plans. The approach to SB-18 consultation described herein will satisfy these requirements with regards to amending the County General Plan, Avila Beach Specific Plan, and Local Coastal Plan.

**Development Plan for Future Use of the Avila Tank Farm Site.** The Development Plan for future use of the site contains the same basic cultural and paleontological issues and required impact assessment as the Development Plan for Remediation.

## E.5 Geology, Soils, and Mineral Resources

The geology, soils and mineral resources section of the EIR will assess the site geologic conditions, the proposed project's impacts on the geologic environment, and the potential geologic and seismic hazards that may affect the project, and will provide appropriate recommendations to mitigate adverse conditions and potential hazards. The Aspen Team for this issue area includes engineering geologists and geotechnical engineers from Ninyo & Moore with extensive relevant experience, and Aspen staff with significant relevant experience in San Luis Obispo County. This section describes our current understanding of geologic and seismic issues relevant to the project, and provides a summary discussion of how the Aspen Team will address these issues.

### *Issues and Background*

**Site Physiography.** The Avila Point Project is located on an elevated coastal terrace east of the community of Avila Beach. The property comprises approximately 95 acres and borders approximately 4,000 feet of ocean coastline. Elevations at the site range from sea level to roughly 240 feet above sea level. The central portion of the site (roughly half of the site) has been heavily graded to accommodate the former tanks and industrial facilities. This part of the site comprises near-level to gently sloping terrain where the new structures for the proposed development will be located. Steep coastal bluffs border the south side of the project site and steep slopes border the north and east sides of the property. Development is not planned on the steep bluffs and slopes at the project site.

**Site Geology and Soils.** Regional geologic maps and existing project documents indicate that the project site is underlain at relatively shallow depths by rock formations generally comprised of sedimentary sandstone and volcanic tuff. Younger surficial sediments (alluvium, colluvium and marine terrace deposits) comprised of mixtures of gravel, sand, silt and clay mantle the central portion of the site and terraces bordering the ocean bluffs. Undocumented fill soils associated with the former tanks and industrial facilities at the site are anticipated in the previously graded and developed portions of the site. The presence of potentially compressible/collapsible soils or expansive soils that could impact the proposed development will be evaluated as part of the geotechnical study. No landslides are shown within the project site on the geologic maps reviewed. However, the steep coastal bluffs and slopes will be evaluated for landslide potential, and appropriate recommendations provided to mitigate potential adverse conditions related to landslides. The potential impacts to mineral resources which may be present at the site will be addressed in the study.

**Soil Erosion.** Soil erosion can occur by varying processes and may occur at the project site where bare soil is exposed to wind or moving water (both rainfall and surface runoff) during the remediation and construction phases of the project. The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. Extensive ground disturbance is anticipated at the project site during the remediation and construction phases. Provisions for erosion control during remediation and construction grading activities, particularly near the coastal bluff and slopes at the site, will need to be recommended to reduce the erosion potential. During long-term operations of the development, surface drainage provisions will be needed to control site drainage and reduce the potential for erosion and to protect the coastal bluffs and slopes at the site.

**Seismicity.** The potential for surface rupture, strong ground shaking and seismic-related ground failures such as liquefaction and earthquake-induced landslides will be evaluated as part of the geotechnical study. The likelihood of surface rupture is generally greater along active faults, particularly active faults zoned as Earthquake Fault Zones in accordance with the Alquist-Priolo Act. No active faults or Earthquake Fault Zones are mapped at the project site. The active Los Osos fault is located

approximately 4½ miles north of the project site, and the active Hosgri fault zone is located offshore approximately 8½ miles west of the site. Therefore, the potential for surface rupture at the site is considered relatively low. However, the potentially active San Miguelito fault crosses through the north portion of the project site near the location of the proposed parking lot and access road, and will be evaluated for potential surface rupture as part of the study. Strong ground shaking can be expected at the project site due to earthquakes on nearby and distant active faults in the region. Based on preliminary review of background materials, the site is predominantly underlain at relatively shallow depths by bedrock formations and the potential for liquefaction and manifestations of liquefaction to occur at the site are relatively low.

**Coastal Bluffs.** Development at the project site will require compliance with the guidelines of the California Coastal Commission and Local Coastal Plan. Evaluation of bluff stability and bluff retreat rates will guide the establishment of appropriate bluff setback for the project. The California Coastal Commission considers evaluation of the anticipated bluff retreat considering an estimated project life of 75 years. The State Coastal Conservancy Act of 1976 (Division 21 of the Public Resources Code) established the State Coastal Conservancy (Conservancy) to work cooperatively to protect and restore natural resources, agricultural lands, and to provide public access to and along the coast. The Conservancy Board adopted A Policy Statement on Climate Change on June 4, 2009. The Climate Change Policy identifies the legislative and policy directives to address impacts related to global warming, including projected sea level rise, and it describes strategies and criteria that the Conservancy will use to address sea level rise. Based on the State Coastal Conservancy's guidelines, a sea level rise scenario of 16 inches by 2050 and 55 inches by 2100 is projected during the 75-year economic lifespan of the proposed development project.

### ***Approach to Development of Environmental Setting***

Aspen will prepare a description of the regional and local geologic and seismic setting of the project site, including discussion of site geology, mineral resources, soils, erosion, landslides, compressible and/or collapsible soils, expansive soils, shallow groundwater, subsidence, seismic surface rupture, ground shaking, and liquefaction. This environmental setting will be based on review of published topographic and geologic maps, published geotechnical literature, existing geotechnical-related project documents, seismic data, groundwater data, and historic aerial photographs.

Geologic site reconnaissance will be performed to supplement the background review and observe and document the existing surficial conditions across the project site. The reconnaissance will include documentation of the existing slopes and coastal bluff edge and evaluation of vegetation and erosion features along the observable slope/bluff faces. We will also perform a reconnaissance along the base of the bluff, where accessible from the beach along the west portion of the site, to document geologic materials along the lower bluff, evaluate geologic structure (bedding, folding, joints, faults, etc.), and observe existing landslides, rock falls, and erosion features.

Coastal bluff conditions will be evaluated through review of the documents prepared by the project applicant, including geotechnical and geological studies, and the anticipated Bluff Retreat Study, which we understand is planned or in-progress. Our team may also develop minimal independent information through review of aerial photographs, historic topographic maps/surveys, site reconnaissance, and pertinent published documents regarding anticipated bluff erosion rates. As needed, review of the Local Coastal Plan and available technical reports from the County of San Luis Obispo will be performed for evaluation of local bluff conditions and setback criteria. Our review of the bluff retreat information will assist in our analyses of the proposed bluff setback recommendations.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

Aspen will assess the potential geologic impacts of the proposed project through review of background materials, site reconnaissance and geotechnical analysis, and make recommendations for mitigation of potential impacts, as appropriate. Typically, recommendations to mitigate potential geologic and seismic impacts involve design considerations and construction techniques to avoid or reduce the impacts.

The impact assessment will address evaluation of the potential impacts that the project components may have on the existing geologic environment, including soils and mineral resources. The assessment will also evaluate how potential geologic conditions and seismic hazards may affect the project, including surface fault rupture, ground shaking, liquefaction, landslides, erosion, subsidence, settlement, and expansion or collapse of soils. Compilation and geotechnical analysis of existing geotechnical data pertaining to the site conditions and observations from site reconnaissance will be synthesized to perform the impact assessment and develop appropriate recommendations to mitigate potential impacts. This section of the EIR will present the findings, conclusions, and preliminary mitigation recommendations regarding the various impacts for the project, as well as conclusions and recommendations relative to the geotechnical aspects of the project's conceptual design and construction.

**Development Plan for Remediation.** Remediation of the proposed project site will involve demolition of existing structures and facilities and site grading activities. The geotechnical assessment will consider how the remediation activities may increase the potential for erosion, comply with applicable grading ordinances and excavation safety guidelines, and comply with requirements of the California Coastal Commission with regard to operations near the coastal bluff. Mitigation measures for BMPs will be identified to reduce the potential for erosion during site remediation. Recommendations for contractors and workers will involve compliance with local grading ordinances and the Occupational Safety and Health Administration's regulations during the site remediation activities. Mitigation measures regarding construction methodologies will be established to limit site remediation activities near the coastal bluff and protect the coastal bluff edge from impacts related to the remediation.

**Plan Amendments.** With regard to this issue area, the Aspen Team will evaluate the General Plan, Avila Beach Specific Plan and San Luis Bay Area Plan (Coastal) to determine what additional measures may be needed for inclusion in these plans to address the remediation and future development of the project site. We will also review these plans to assess the project's potential for consistency with existing plans and policies.

**Development Plan for Future Use of the Avila Tank Farm Site.** The future development at the project site is proposed to include a resort, hospitality cottages, wellness center, access roads, parking lot, coastal bluff trail, and open space areas. Construction and operation of these improvements may be subject to potential geologic and seismic impacts, as discussed above. During construction, the proposed project may impact the geologic environment at the site, including soils, mineral resources and the coastal bluff. However, assessment of these potential impacts will result in appropriate mitigation recommendations to reduce the impacts to low levels. During long-term operation of the proposed improvements, impacts to soils and the coastal bluff can be mitigated with appropriate long-term maintenance recommendations.

During long-term operations, the proposed improvements may be subjected to potential geologic and seismic impacts, as discussed above. Recommendations to mitigate potential geologic and seismic impacts to the proposed improvements generally involve design considerations and construction techniques to avoid or reduce the impacts. Establishment of appropriate bluff setback

recommendations, including considerations for projected sea level rise, will be focused toward maintaining an adequate level of safety over the design life of the proposed development.

## E.6 Hazards, Hazardous Materials, and Remediation

The Hazards and Hazardous Materials section will provide a thorough characterization of the baseline conditions and potential impacts related to the construction and operation of the proposed project including **hazardous material use**, storage, and disposal, and potential **hazards**. This section will also address **human health risk assessment and remediation** with regard to the future development of the site. Left in its current condition, it is understood that development of the Avila Tank Farm site may have an unacceptable risk of exposure to non-asphaltic total petroleum hydrocarbon (TPH) in the soil, soil gas, and groundwater at the site. Other minor contaminants include detections of chlorinated solvents, some metals, and other constituents. "Risk" is a function of contaminant toxicity and exposure potential. Exposure is a function of the contamination having a possible complete pathway from the source (e.g. soil) to the receptor (e.g. visitor, worker, residents). Site remediation is any activity which reduces the risk to an acceptable level. This is normally accomplished by reducing the toxicity of contaminants and/or eliminating exposure pathways. This approach describes our current understanding of remediation, hazards, and hazardous materials issues relevant to the project, and provides a summary discussion of how Aspen will address these issues.

The preparation of this section will be closely coordinated with other EIR topics such as air quality, biological resources, geology, surface water, and groundwater so as to address all potential hazards associated with all phases of the project, and to ensure discussion of potential interactions between impacted media, health impacts, and hazards reduction. These issues are discussed together in this proposal; however Aspen and the County may decide to present this information differently in the EIR such as two separate chapters (Risk Assessment/Remediation and Hazards/Hazardous Materials).

Aspen has identified a highly experienced team to address this issue area. The team includes Aspen personnel with remediation and hazards/hazardous materials experience and professional engineers, geologists and certified engineering geologists from our proposed subcontractor **Ninyo & Moore**, who are specialists with extensive relevant experience. The Aspen Team also includes highly qualified experts from Ninyo & Moore to evaluate the site risk issues, including one of only a handful of Diplomates of the American Board of Toxicology in California. This carefully assembled team has proven expertise to accurately assess the project and develop reasonable mitigation measures where necessary.

### *Issues and Background*

The site was operated by Unocal primarily as a petroleum storage and transfer station. The tank farm at the site was used to store petroleum, partially refine crude oil and distribute petroleum products (e.g., gasoline, diesel) for more than 90 years. The tank farm's primary function was to accumulate crude oil from the Santa Maria and San Joaquin oil fields for shipment to refineries around San Francisco and Los Angeles. Petroleum products arrived at the site through one of three pipeline corridors. The Front Street Corridor, the North Corridor, and the Eastern Corridor. The pipelines in the Front Street Corridor were removed as part of the Avila Beach remediation project. The pipelines in the Northern and Eastern Corridors were sold to Conoco-Phillips, who retains an easement on the property. A secondary function consisted of the distribution of refined products fuel-related compounds to local retail outlets

Petroleum products were stored in above ground storage tanks (ASTs). These were added, removed, rebuilt and relocated several times during the years the facility operated, although the number of ASTs in operation at any one time remained fairly constant at around 20. Starting in 1970, tanks were being removed and not replaced. By 1997 no ASTs remained on the site. Through the 1940s, a small on-site

refinery, with a reported capacity of up to 12,000 barrels per day, produced one of a few generic boiling fractions of crude oil that were shipped elsewhere for finishing into marketable commodities (e.g., gasoline, kerosene, and distillate). In addition, the site included a laboratory, heater house, and other miscellaneous structures. Aerial photographs suggest that the refinery ceased operating in the late 1940s.

Since June 1997, a number of environmental investigations have been conducted at the site to determine the nature and extent of impacts to soil, soil gas, and groundwater to characterize background inorganic concentrations and ecological resources. Representatives of regulatory agencies, Chevron, and consultants formed the Avila Tank Farm Collaborative Assessment Team (ATCAT), which oversees investigation and assessment at the site. These investigations have indicated impact from hazardous materials to all three media, primarily from TPHs, volatile organic compounds (VOCs), polynuclear aromatic hydrocarbons, and to lesser extent heavy metals and methane.<sup>1 2</sup>

Two documents have been prepared which evaluate site risks to selected receptors: the Draft Risk Management Plan (RMP) by Arcadis<sup>3</sup> and the “Supplemental Human Health Risk Assessment” (SHHRA) prepared by McDaniel Lambert, Inc.<sup>4</sup> The RMP provides recommendations from the ATCAT to agencies and Chevron for management of potentially unacceptable risks to human and ecological receptors or other resources at the site. The SHHRA presents estimated risks to a variety of future potential receptors in specific site areas identified in the Development Plan. It is our understanding that the results of these reports, previous investigations, and possibly additional risk analyses, were used in the development of the Draft RAP. The need for, and degree of, site remediation is linked to the risks the site contamination poses to potential receptors. The risk to receptors is linked to how people will interact with the site; in other words, how the site will be developed. The Draft RAP is currently being considered by the Central Coast Regional Water Quality Control Board (RWQCB). It is the Central Coast RWQB’s role to consider the risk information in their evaluation of the proposed remediation methods and results.

The applicant’s Feasibility Study (FS) and RAP will evaluate alternative remedial actions in accordance with federal, State and local guidelines. The Aspen Team will peer review the RAP, as described in Task 1-5 (Phase 1), according to these guidelines and will evaluate the RAP for completeness in addressing impacts both during implementation of a remedial action and future development. As noted below, the process used for evaluation of remedial alternatives and the ATCAT involvement will be summarized in this section to describe the rationale for the approved remedy.

**Other Potential Hazards.** Aspen is keenly aware of the County’s concern for potential health and safety impacts of soil disturbance as it relates to releasing the **Valley Fever** vector into the atmosphere. As such, Aspen will evaluate the potential for the spread of the Valley Fever vector from the proposed project, as applicable, that could result in an increased risk of exposure to nearby business owners, residents and on-site workers.

In addition, the proposed project area is located in a high fire hazard zone according to the County’s Safety Element of the General Plan.<sup>5</sup> The potential for exposure to this risk and other hazards during remediation and future development will be considered as part of this assessment; wildfire risk characteristics at the site will be described and mitigated to ensure maximum public safety.

<sup>1</sup> England Geosystem, Inc., 2002, Final Supplemental Site Investigation, April.

<sup>2</sup> Parsons, 2007, Second Semiannual 2006 Groundwater and Cliff Springs Monitoring Report, January 19

<sup>3</sup> Arcadis, 2008, Draft Risk Management Plan (RMP), dated July 1.

<sup>4</sup> McDaniel Lambert, Inc., 2011, Supplemental Human Health Risk Assessment” (SHHRA), dated May.

<sup>5</sup> Safety Element of the San Luis Obispo County General Plan. <http://www.slocounty.ca.gov/Assets/PL/Elements/Safety+Element.pdf>. Per attached Map 7 (Fire Hazard Safety Zones).

### ***Approach to Development of Environmental Setting***

Aspen will prepare a thorough description of the environmental setting for the project site and will address past site history and use (see discussion above). This discussion will also include the hazardous materials occurrences relevant to the proposed project, including discussion of chemicals of concern, cleanup goals, hazards, risks to human health and the environment, sampling plans, dust monitoring plan, waste transportation plans, and various monitoring plans. Aspen will also describe any known sources of contamination in the vicinity of the project site. Keys to discussion of the hazards posed by the planned project are implementation of various BMPs, which will be included in the RAP. Any relevant technical studies and reports provided by the applicant will be reviewed and incorporated into the EIR analysis as applicable. A site reconnaissance will be conducted to assist in our analysis and the formulation of our opinions.

According to the Avila Beach Community Services District, the community "...experiences periods of high fire danger due to weather conditions. During such periods, the limited available firefighting resources may have great difficulty in controlling fires in structures not having built-in fire protection. Further, floods are another hazard to which the Avila Beach Community Services District is subject. A flood or tidal inundation in the District of Avila would reduce the movement of fire apparatus. Two large fires at the same time during these climatic conditions would be disastrous." In addition "...Avila Beach ... is an isolated community that is surrounded by steep coastal hills on one side and the Pacific Ocean on the other. Emergency responses in the District require a longer response time as responders traverse the limited access roads created by this topography. (W)ildland interface fires in the hills around the District are more difficult to fight and expose multiple structures to a fire at one time, quickly overwhelming emergency responders."<sup>6</sup>

In 2000, Avila Beach Fire Department began contracting for fire services with CAL FIRE/San Luis Obispo County Fire, moving all staff and equipment to Avila Valley Station 62, which is the closest fire station to the project site.<sup>7</sup> Avila Valley Station 62 is approximately 1.5 miles away or five minutes away from the proposed project. The San Luis Bay Area Plan (Coastal) identifies a volunteer fire department in the project area; the number of volunteer fire fighters and availability will be confirmed as part of the review of this issue in the EIR.<sup>8</sup> Aspen will characterize the environmental and regulatory setting for fire and other hazards using existing environmental documentation as much as possible and in consultation with the CalFire/County's Fire Department and Department of Public Health.

*Coccidioidomycosis*, also known as **Valley Fever**, is a fungal disease caused by *Coccidioides immitis* or *C. posadasii*. It is endemic to certain parts of the western United States and is known to occur in the County. The fungus resides in the soil and is dormant during dry periods. Spores become airborne through soil disturbances, including construction-related activity such as grading. Infection is caused by spore inhalation. The disease is usually mild, with flu-like symptoms; however, in some cases it can result in skin ulcers, bone lesions, severe joint pain, heart inflammation, urinary tract problems, meningitis, and death. Based on discussion with County Public Health, Aspen will address whether this issue will be a concern for this project and discuss any specific precautions that should be taken to reduce exposure (see discussion below).

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<sup>6</sup> The Avila Beach Community Service District, 2010, Ordinance No. 2010-01, An Ordinance of Amending and Restating The District's Fire Code Including the Adoption Of The 2010 Edition of the California Fire Code.

<sup>7</sup> <http://www.calfireslo.org/Station62.html>. Regarding Avila Valley Fire Station #62

<sup>8</sup> San Luis Bay Area Plan (Coastal), revised in 2009; regarding volunteer fire services  
<http://www.slocounty.ca.gov/Assets/PL/Area+Plans/San+Luis+Bay+Coastal+Area+Plan.pdf>

Aspen will also provide a description of applicable regulations that address hazardous materials, hazardous wastes, fire, and other hazards. The regulatory setting will also identify key policies and ordinance requirements that pertain to these issues.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

With the exception of a limited portion of the southwest facing cliff where characterization is still underway, the site impacts are typically limited to the former operational areas of the site and are related to crude oil handling and refinement. These areas include the former pump house and loading rack, the former refinery area, along the pipelines and beneath the former tanks. There is a significant amount of existing industrial infrastructure (pipelines, buildings and roads) remaining from the former industrial use that is inactive and has been secured. This infrastructure will be removed, abandoned-in-place or relocated during the remediation process. As described during the pre-bid, these structures are thought to have asbestos containing materials and lead-based paint that will be considered in this evaluation.

As noted above, effective site remediation is the result of proper consideration of site risks, which are estimated in consideration of planned site development. The Aspen Team will evaluate the range of remedial alternatives available within the approved RAP in relation to the proposed RMP, SHHRA, and other risk assessment documents prepared by the applicant that are relevant to the site contamination, remediation and development plans. Available reports from previous investigations will be reviewed to evaluate the short-term and long-term impacts of existing soil, soil gas and groundwater impacts at the site. The RAP will be evaluated with respect to protection from exposure to health or hazards during implementation of the RAP and future development of the site after implementation of the RAP. As part of our evaluation in Phase 1, the Aspen Team will evaluate whether the RAP includes sufficient monitoring plans, BMPs, and post-RAP implementation plans and conditions to adequately address public safety. The RAP will also be evaluated for compliance with federal, State and local codes and regulations. Implementation of the RAP as approved by the Central Coast RWQCB is expected to result in conditions suitable to the protection of site users and the general public. However, if appropriate to reduce project impacts to less than significant levels during RAP implementation, site development or site use, we may recommend mitigation measures that include RAP modification. It is expected that these modifications would be consistent with the approved RAP. Although not anticipated, if the available information is insufficient for our analysis of impacts and mitigation measures, supplemental studies may be recommended.

**Development Plan for Remediation.** The purpose of remediation is to make the site suitable for the proposed development and related uses, and to satisfy regulatory requirements. The remediation program and methodology will be detailed in the RAP submitted to the Central Coast RWQCB. The remediation details will not be known until the RAP is approved. However, the project application has identified potential remedial actions and preliminary development work as described below:

- Soil excavation and backfilling of the top 5 to 6 feet of chemical-impacted soil to limit exposure
- Dewatering of excavations
- Hauling of impacted soils off-site to appropriate disposal facilities
- Capping impacted soils with clean fill
- Active hydrocarbon recovery equipment installation and operation
- Future building design requirements, such as vapor barriers, sub-slab depressurization systems or elevated foundations

- Grading and road/utility installation to accommodate future development concurrent with remediation activities
- Institutional controls/deed restrictions

This assessment will present information on the evaluation of the RAP by the ATCAT and present information on the findings and rationale for approving a specific remedial approach to address site contamination. In addition, the assessment will present the results of the human health and ecological risk assessment and discuss the cleanup goals, which resulted in the overall selection of the preferred remedial alternative. Hazards associated with remediation will be clearly identified. It is anticipated that most of the potential land use and environmental impacts that could result from remediation are addressed in Phase 1, and captured in the Specific Plan amendments. However, if any additional issues arise that require mitigation, the Aspen Team will identify feasible mitigation to address the potential impact. The assessment will include the effect of the short-term impacts during implementation of the RAP, including:

- Community exposures to contaminants, including transportation of contaminated materials. (Related traffic-generated impacts from this activity will be addressed in the Traffic analyses.)
- On-site visitors and worker exposures to contaminants.
- Exposures to accidental release of materials brought on to the site, such as fuels, and remedial chemical solutions.

Direct and indirect Impacts will be identified for all potential hazards as noted above and will include review of existing regulatory databases (State Water Resources Control Board's and the California Department of Toxic Substances Control databases) to identify sources of existing contamination in the vicinity of the project. Also, the assessment will consider other land uses in the project area such as the residences and the Avila Beach Golf Resort surrounding the project site.

Aspen's specialists for this issue area will work closely with air quality, geology and soils, and biological resources specialists to ensure that dust mitigation measures are sufficient to prevent emissions of naturally occurring asbestos and the spread of the Valley Fever vector. The County's Department of Public Health has published a list of dust control and worker safety measures to minimize potential exposures of construction personnel to the disease and these will be incorporated as recommendations into appropriate dust control measures to ensure both worker safety and the safety of nearby residents, as needed.

Aspen will carefully characterize the risk of wildfire, and through consultation with CalFire, develop an appropriate set of site-specific and project-specific mitigation solutions to minimize the risk if not proposed by the applicant. Aspen will also mitigate and minimize risks to public health and safety, as necessary, as a result of routine handling of hazardous materials and wastes.

**Plan Amendments.** The Aspen Team will evaluate the General Plan, Avila Beach Specific Plan and San Luis Bay Area Plan (Coastal) to determine what measures may be needed for inclusion in these plans to address the remediation and future development of the project site. These measures could include requirements for limiting the potential for fires and ensuring effective and responsive emergency response, ensuring controls are in place to address safe management of hazardous materials, and by identifying precautions that need to be taken to limit exposure to asbestos and lead-based paint.

**Development Plan for Future Use of the Avila Tank Farm Site.** Potential hazards posed to the public by development of the proposed resort and associated facilities will be analyzed. These hazards may include: hazardous materials used during construction activities (including fuels, lubricants, solvents,

paints, propane and other hazardous materials), exposure to Valley Fever, and fire and other potential hazards.

Aspen will describe any known sources of contamination on and in the vicinity of the project site. The contamination on site will be described in reference to the contamination expected to remain at the conclusion of the RAP implementation. (e.g., some contamination at depths greater than about five feet, areas of contaminated groundwater, etc.). Description of potential contamination sources off site will principally be accomplished by a summary of these sources taken from site contamination assessment documents, and through a search of public databases. Aspen will utilize the services of Environmental Data Resources (EDR) to search environmental databases and identify sites with contamination issues with the potential to affect the site. The results of the search will be summarized and incorporated into the description of the baseline conditions. The impact analysis will be based on federal, State, and local hazardous waste limits, which when compared to the baseline data and the project description will identify if any impacts could be significant.

Although operation of the resort facilities would involve limited amounts of hazardous materials, the primary issues associated with this future site use are related to construction activities. These issues could include: spills of hazardous materials used during construction activities (including fuels, lubricants, solvents, paints, propane and other hazardous materials), fire hazards, and exposure to Valley Fever spores from grading activities. Mitigation measures are expected to include establishment of fire suppression systems, development of emergency response plans, preparation of a Hazardous Materials Management Plan and a Fire Protection Plan; prohibition of smoking and burning; adequate maintenance of equipment to reduce the risk of spills, and specific guidelines for refueling construction equipment.

## **E.7 Noise**

### ***Issues and Background***

Rezoning, remediation, demolition of industrial facilities, and future development of the site could introduce noise compatibility issues especially for residences nearest the site and the roads used for access. During remedial actions, demolition, and redevelopment, the various phases of activities would introduce a range of noise sources, in the form of heavy equipment, haul trucks, worker vehicles, and the like over a span of several years.

The long-term consequences of the proposed plan amendments and build-out of the Development Plan could bring greatly increased activity to the site along with the noise of traffic, new residents, and visitors to the resort and commercial facilities being contemplated. The potential traffic changes in Avila Beach could dramatically increase noise along San Luis Street, Avila Beach Drive, and/or Cave Landing Road, depending on site access.

### ***Approach to Development of Environmental Setting***

Characterizing the noise setting will begin with the fundamentals of community noise supported by a comprehensive review of site conditions, existing sources of noise, baseline traffic, and technical studies submitted on behalf of the applicant. Our review of the material will determine if the available setting information is adequate to allow preparation of the CEQA analysis. The review will focus on existing ambient noise measurements and noise source data for equipment used for remediation and future development. The sensitivity of existing and future residential uses and other land use types will be described in terms of the General Plan Noise Element. Where applicable, portions of the Noise Element

will be relied upon for fundamentals and conditions, including noise contours, which have changed little over the years.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

The noise impact assessment will begin with a peer review of noise- and traffic-related technical studies submitted on behalf of the applicant. Where appropriate, the analysis will summarize the findings, and if necessary during EIR preparation, we will provide specific recommendations for obtaining additional details from the applicant. Aspen will conduct an independent and objective analysis of the studies supporting the various proposals.

The impact assessment will model future noise levels to determine traffic noise levels for homes in Avila Beach and along access routes, such as San Luis Street, Avila Beach Drive, and/or Cave Landing Road, using the Federal Highway Administration Traffic Noise Model or Caltrans Vehicle Noise Reference Energy Mean Emission Levels (Calven REMELs). Stationary noise sources will be included and evaluated for potential compliance with the Noise Ordinance of the San Luis Obispo County Land Use Ordinance (2008). The EIR will evaluate the available noise reduction features and, where necessary to avoid substantial noise increases or incompatibilities with Noise Element (1992) policies, recommend mitigation measures.

**Development Plan for Remediation.** During remedial actions and demolition, (and redevelopment, see below) the various phases of activities would introduce a range of noise sources, in the form of heavy equipment, haul trucks, and worker vehicles over a span of several years. Equipment delivery and hauling materials or demolition debris are likely to be the primary sources of noise from the site and along the access routes.

**Plan Amendments.** Depending on the mix and orientation of land uses, the contemplated uses could create noise compatibility conflicts. The long-term consequences of the proposed plan amendment will be assessed for potential conflicts with the General Plan Noise Element and the potential to introduce noise compatibility issues especially for residences nearest the site and the roads used for access. Additional noise reduction measures may be recommended based on the assessment of the potential noise impacts from construction and operation of the proposed resort and related facilities.

**Development Plan for Future Use of the Avila Tank Farm Site.** The Development Plan could bring greatly increased activity to the site along with additional noise. Construction, build-out, and operation would include noise from traffic, new residents, and visitors to the resort and commercial facilities being contemplated. Aspen will identify and document the anticipated construction activities and phases, modeled traffic levels, and potential new stationary sources of noise. The results will identify the likely future noise levels experienced by the nearest sensitive uses, primarily homes along impacted traffic thoroughfares and in Avila Beach.

Implementation of the development could lead to substantial increases in ambient noise levels or noise levels incompatible with surrounding uses. Key areas of assessment include the existing residences in Avila Beach and nearby recreational uses. The need for mitigation for new development of noise-sensitive uses will be determined through the procedures identified in the Noise Element. The EIR will identify the available noise reduction features for new residential and resort-type development, including potential traffic calming, and recommend mitigation measures where necessary to avoid substantial noise increases or incompatible noise levels.

## E.8 Population and Housing

### *Issues and Background*

Issues associated with population and housing (based on CEQA guidelines) include evaluating a project's effects on displacing existing population or housing or directly or indirectly inducing substantial growth. The project would not remove any existing housing. Furthermore, workers necessary for remediation and future physical development of the 95-acre site are assumed to be readily available within a local study area, which would include those communities within a one-hour worker commute (which includes the cities of San Luis Obispo, Arroyo Grande, Pismo Beach, and potentially Santa Maria).

As discussed within Section 1.7 of the Avila Point Project RFP, residential and commercial development of Avila Beach has been greatly influenced and limited by petroleum extraction and contamination. Applications for a Local Coastal Program/Specific Plan/General Plan amendment to rezone the site from Industrial to Recreation, a "Development Plan/Coastal Development Permit" application for site remediation, and a "Development Plan/Coastal Development Permit" application for future re-development activities have the potential to increase housing demand near Avila Beach. Therefore, the population and housing analysis would be focused on evaluating how future development could influence population projections and available housing for a defined study area.

### *Approach to Development of Environmental Setting*

Using current data readily available from web sources such as the 2010 U.S. Census, State Department of Finance, and California Employment Development Department, Aspen will summarize (in tabular format) the following existing data for San Luis Obispo as a whole (for regional context), the workforce commute area, and a localized study area (US Census Tracts comprising Avila Beach, as well as the city of San Luis Obispo):

- Population and population projections;
- Housing and vacancy rates;
- Demographic and economic statistics of the residing population;
- Labor force (including the number of people employed by both construction and oil/gas trade/industry);  
and
- Unemployment rates.

Additionally, due to the temporary nature of contracted labor, baseline data on available transient housing (motels/hotels and RV parks) will be provided proximate to the project site to anticipate workers who may come from within the study area but choose to temporarily stay immediately proximate to the project site.

The County General Plan Housing Element includes several policies, objectives and 15 programs designed to retain existing affordable housing or to facilitate provision of new affordable housing. In its efforts to provide for affordable housing, the County currently administers the Home Investment Partnerships (HOME) Program and the Community Development Block Grant (CDBG) program, which provides limited financing to projects relating to affordable housing throughout the County. Additionally, the County's Inclusionary Housing Ordinance requires future development project proponents to pay a fee to support development of new affordable housing.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

**Development Plan for Remediation.** Remediation of the site would not require the removal of any habitable structures or result in the displacement of persons or housing. As such, potential impacts to population and housing would be conducted through a comparative analysis between the available workforce within the study area (as presented within the environmental setting) and that estimated for remediation activities. As discussed earlier, it is assumed that the required workforce would be available within this study area.

**Plan Amendments.** The population and housing section will contain a consistency analysis with all applicable General Plan Housing Element and San Luis Obispo County Ordinance policies and objectives, as well as how any updates to the San Luis Bay Area Plan (Coastal) may influence these plans. It is assumed mitigation will be included to ensure compliance with the County's Inclusionary Housing Ordinance, as further discussed below under future development plans.

**Development Plan for Future Use of the Tank Farm Site.** Potential population and housing impacts associated with future development of the site would be focused on how future development may change existing and planned housing and population patterns of the Avila Beach area. Future development is expected to result in the long-term development of lands for recreational and commercial use, per the "vision package" described in Section 1.9 of the RFP. Development of the site consistent with these plans (creating employees of the proposed resort, as well as recreational trail usage) may induce, both directly and cumulatively, an increase to both population and housing demand at a local level. Direct mitigation will be developed and included within the Draft EIR to ensure all applicable developments are compliant with the County's Inclusionary Housing Ordinance requirements to pay a fee supporting development of new affordable housing (through the HOME and CDBG programs).

For the population and housing analysis, the influence that future development will have on long-term land use patterns of the Avila Beach area will be qualitative and quantitative. While not a required analysis under CEQA, should public or stakeholder comment warrant (or if requested by the County), Aspen can provide a socioeconomic analysis of future development. Such a socioeconomic analysis could analyze how the proposed resort and recreational trails may directly/indirectly generate support businesses through increased visitors to the Avila Beach area, influence property values, and stimulate revenue and overall growth of Avila Beach. Aspen has extensive experience in socioeconomic analysis and modeling, as well as presenting socioeconomic issues at public meetings and acting as CEQA expert witnesses on such matters.

## **E.9 Public Services and Utilities**

### ***Issues and Background***

The project site is proposed to be rezoned from Industrial to Recreation, with construction of a resort that would include a restaurant, spa, shops, cottages, hotel rooms and related facilities. The project would also include a coastal bluff trail and other trails throughout the site, remote parking areas, and golf cart facilities for use on site. Remediation of the site will include cleanup of previous contamination from the industrial use of the property, demolition of existing tanks, and other remaining industrial facilities on the site. Proposed remediation activities are expected to generate hazardous and solid waste disposal. While municipal waste is disposed of at a Class III landfill, any project-related hazardous waste is likely to be disposed of at Class II landfills. Because the remedial alternative needs to be selected, it is unknown at this time if removed soil and other waste from remediation activities will require disposal at Class I or Class II landfills. Aspen will research and identify disposal sites for

contaminated soil, should it be later identified. It is expected this waste could be disposed of at Cold Canyon Landfill and/or Santa Maria Landfill.

The Avila Beach Community Services District may provide long-term water and wastewater service to the resort. However, if the district cannot accommodate the project's wastewater, than an on-site package may be used as described in the preliminary application package. Additionally, remediation activities and construction/operation of the resort may potentially affect existing and projected capacities, facilities and service times of public services and utilities serving the area. It is assumed the resort would include on-site security and other features to minimize any increased demand to police and fire services.

### ***Approach to Development of Environmental Setting***

The site is located in the boundaries of the Avila Beach Specific Plan and the San Luis Bay Area Plan (Coastal). The proposed project would be served by county and regional services, which include the following:

- Avila Beach Community Services District;
- San Luis Obispo County Sheriff's Office;
- San Luis Obispo County Fire Department and California Department of Forestry and Fire Protection (Station 62, Avila Fire Station);
- San Luis Obispo County, Office of Emergency Services;
- California Highway Patrol;
- Hospitals;
- Lucia Mar Unified School District;
- Bellevue-Santa Fe Charter School;
- Cold Canyon Landfill;
- Santa Maria Landfill;
- Southern California Gas Company; and
- Pacific Gas and Electric (electrical services).

The public services and utilities environmental setting data will rely on existing reports and studies to the maximum extent feasible. Should additional or more current data be needed, information on existing public services and utilities will be collected via internet searches and phone contact with personnel from appropriate departments, districts and facilities to establish the existing baseline information such as service areas, peak operating capacities, service levels, response times, operational hours, and projected future demands to, and anticipated changes in, existing operating parameters. The environmental setting data will be presented in both descriptive text and tabular format.

Aspen would take the following steps to acquire additional baseline data:

- Contact public service agencies, including police, fire, school, and solid waste agencies to request supplemental information on current facilities and services;
- Request information from County public works and engineering departments;
- Contact Underground Service Alert to identify buried utilities for information on the location of all underground utility lines in the remediation and construction areas; and
- Confirm the presence of applicable underground utility lines (e.g., water, sewers, natural gas, electricity, telecommunications) through coordination with utility operators.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

**Development Plan for Remediation.** Aspen will quantitatively and qualitatively evaluate proposed remediation activities against the baseline data collected and provide conclusions as to how the proposed project would or would not affect existing and projected capacities, facilities and service times. The analysis will provide a quantitative determination of average daily solid waste generation from remediation activities, based upon the final selection of a remediation plan, against the capacity and

daily throughput of Cold Canyon Landfill and Santa Maria Landfill (which will likely provide disposal locations for all remediation waste).

Remediation activities are not expected to exceed wastewater treatment plant capacity or result in the construction of new water or wastewater treatment facilities. However, remediation will require significant grading and likely require the construction of temporary stormwater drainage facilities.

Remediation activities are not expected to result in a direct increase to public service responses. However, accidents caused by remediation activities could lead to disruptions of service and other adverse consequences. Mitigation measures could include notification of both utility service providers and emergency response service providers in the event of an accidental disruption to any existing utilities during remediation activities. However, construction BMPs during remediation activities are expected to offset any potential decrease in acceptable levels of public service, utility capacities or performance standards.

**Plan Amendments.** A General Plan/Avila Beach Specific Plan/Local Coastal Plan amendment would be submitted for zoning changes to change the land use category of the site from Industrial (current) to Recreation (proposed) with specific standards and guidelines to accommodate the development of the site for a resort. Aspen will evaluate the project's consistency with existing and revised County plans and ordinances to determine if any mitigation measures are needed to ensure compliance with goals/policies related to public services and utilities.

**Development Plan for Future Use of the Avila Tank Farm Site.** During construction, BMPs are expected to offset any potential decrease in acceptable levels of public service, utility capacities or performance standards. Long-term operation of the resort and trail system may require mitigation measures to minimize potable water use of the facility, ensure stormwater drainage is consistent with all permit requirements, and ensure that police and fire protection service levels and response times are adequately maintained.

The analysis will include a quantitative determination of average daily solid waste generation during resort construction and operation. This analysis will also consider any cumulative increase in population/housing to the area, consistent with the Population and Housing analysis. Long-term solid waste generation by these activities will be evaluated on a daily basis against the allowable daily throughput and long-term capacity of landfills accepting resort construction and operational waste. If required, potential mitigation may include recycling programs to minimize daily solid waste generation that requires disposal at local landfills.

Additionally, the analysis will evaluate whether development of the resort would exceed wastewater treatment plant capacity or result in the construction of new water or wastewater treatment facilities, or require the construction of new stormwater drainage facilities. The resort will require grading and significantly alter the sites amount of permeable surface, both of which will likely require new stormwater drainage facilities and flows of the site. Finally, the analysis will evaluate whether sufficient water supplies are available to serve the resort. The analysis will evaluate the use of non-potable water use for irrigation needs of the resort.

Aspen will quantitatively and qualitatively evaluate proposed construction and operations against the baseline data collected and provide conclusions as to how the proposed project would or would not affect existing and projected capacities, facilities and service times. Any increased demand on existing public services and utility providers resulting from worker in-migration during construction and visitors (tourists and residents from nearby areas) during resort operation will also be assessed.

Due to the temporary nature of resort patrons, the project is not expected to result in significant new permanent population. It is also expected that most resort workers would live within the area. As such, the impact to public services such as police and fire is likely limited to emergency calls during daily operations. The analysis of the impact on public utilities from the future development of the resort will also include coordination with the Population and Housing analysis to evaluate potential cumulative growth of Avila Beach. However, a resort of this size may impact existing service ratios and response times of these emergency service providers. A qualitative and quantitative analysis, as well as direct coordination with the Avila Beach Community Services District, San Luis Obispo County Sheriff's Office, and San Luis Obispo County Fire Department will be required (with approval from and coordination with County staff). Based upon the severity of any impacts identified, the analysis will recommend, as needed, mitigation to offset any potential decrease in acceptable levels of public service or performance standards.

## E.10 Recreation

### *Issues and Background*

The closest existing recreational activities in the vicinity of the proposed project site are Avila State Beach (including the pier and the surrounding beach areas), Avila Community Park, Bob Jones Bike Trail, and the Avila Beach Golf Course. Potential impacts to these facilities will be analyzed in the EIR, which will include access or disruptions to these recreational resources during the construction period, and potential deterioration from increased use of the existing recreation facilities as a result of development of the project. In addition, approval of the proposed project will include a rezoning of the project site from Industrial to Recreation, which will allow for future development of recreational resources. The proposed recreation facilities as part of the future development will be analyzed for potential adverse physical effects on the environment. As recreation will be the primary use, the proposed development may be considered a coastal-dependent use, and therefore, input from other agencies, such as the California Coastal Commission, will be included.

### *Approach to Development of Environmental Setting*

To establish baseline conditions of the proposed project area, Aspen will review the County's San Luis Bay Area Plan (Coastal) and Avila Beach Specific Plan. The San Luis Bay Area Plan (Coastal) describes Avila Beach as, "...one of the main recreation/tourist areas of the county and is one of the most popular beaches in the county." The purpose of the report is to describe land use polices for the Coastal Zone, including the public and private recreational resources within the Avila Beach Urban Area. The Avila Beach Specific Plan includes the visions, goals, and standards for the Avila Beach community. The EIR's environmental setting for the recreation analysis will include details of how recreational resources and facilities are addressed in each plan.

Representatives of the County's Parks and Recreation Department will be contacted to establish the uses, average visitor attendance, and capacities of those recreational facilities closest to the proposed project site. Information collected and reviewed during this task will be briefly summarized, and a map of these resources will be included as part of the analysis.

### *Approach to Evaluation of Impacts and Development of Mitigation Measures*

The significant criteria in Appendix G of CEQA will be used as thresholds for impacts to recreational resources. This includes impacts associated with substantial physical deterioration of recreation facilities and construction or expansion of recreation activities that may adversely affect the environment. Addi-

tional criteria would be included if recreation impacts are presented during the scoping period or revealed during preparation of the EIR.

**Development Plan for Remediation.** Remediation activities may temporarily interfere with existing recreation activities that occur surrounding the project site. Impacts to recreation activities would depend on the length time and the time of year that the remediation activities would occur. For instance, as stated in the Avila Beach Specific Plan, the off-peak period is considered to be from October to March. As such, impacts to the community as a whole would be greater during the summer months, and the impact analysis will take these factors into consideration for impacts associated with the local recreation activities.

The recreation analyst will coordinate with the land use and transportation analysts to develop appropriate mitigation for impacts associated with access and the preclusion of existing land uses. Also, this section will be coordinated the air quality analysis for impacts associated with dust during the remediation period that may adversely affect recreationalists.

**Plan Amendments.** The entire 95-acre project site is proposed to be rezoned from Industrial to Recreation. Under the Recreation designation, permitted future uses on the project site would include hotels, motels, coastal access ways, and passive recreation. The impact analysis will assess the future uses and their potential effect on the physical environment.

This discussion will also evaluate the existing goals and policies that pertain to recreation for potential conflicts with the proposed development. This portion of the analysis will be coordinated with the policy analysis included in the Land Use section, and if necessary mitigation measures will be recommended to address potential inconsistencies.

**Development Plan for Future Use of the Avila Tank Farm Site.** The application states the development project will consist of a resort and wellness center that may include open space, trails, restaurants, pool, spa, meeting rooms and fitness center, and family cottages. As part of the vision plan, the goal is to reduce the development footprint to 40 percent of the site so that 60 percent would be open space and natural habitat. In addition, the proposed development includes a 0.6-mile California Coastal Trail that would be open to the public. Implementation of the this trail would allow connections to local trails and neighboring beaches that surround Avila Beach, including Shell Beach, Bob Jones Bike Trail, Montona de Oro, and Pecho Coast Trail. As stated above, the analysis will include a discussion of the potential effects on the physical environment as a result of the proposed development components. The analysis will also include a discussion of potential impacts to the existing local and regional recreation facilities that may be adversely affected by the proposed Development Plan.

## E.11 Land Use and Policy Consistency

The Avila Point Project is located within the boundaries of the Avila Beach Specific Plan area and San Luis Bay Area Plan (Coastal), and is designated as Industrial reflecting the previous use of the site as an oil tank farm. This site consists of approximately 95 acres and is located adjacent and uphill of the southern edge of the community of Avila Beach (downtown area).

### *Issues and Background*

As the County is aware, the Avila Point Project site has been utilized as a tank farm since 1906. Existing land uses around the site consist of open space, residential and commercial uses in Avila Beach. As part of the development of the Avila Beach Specific Plan, the County and community considered appropriate re-use of this site (specifically addressed in Goal 13 of the Specific Plan). The community's vision included recreation-oriented uses consisting of a convention center and/or marine education facility

that would provide lodging, trails and open space (see pages 31 and 32 of the Specific Plan). While the Specific Plan did consider this re-use of the site, it did not change the Industrial land use designation or establish design guidelines or standards to support the uses envisioned.

Site topography, visibility, character, and its adjacency to the downtown area of Avila Beach will play significantly into the physical changes in land use conditions from site remediation and subsequent development of the proposed resort and recreational uses. The proposed range of recreational uses associated with the “vision package” would alter, enhance, intensify, and impact the interplay of existing land uses in Avila Beach. This issue will also be addressed in the Aesthetics section of the EIR.

The key policy provisions of the General Plan, Avila Beach Specific Plan and Local Coastal Plans applicable to the project include the provisions listed below. The EIR’s consistency analysis with existing policy will focus on these provisions, and consider consistency with all policies that have been adopted for purposes of environmental protection.

- Preservation of the funky and eclectic character and image of Avila Beach (Goal 1 and 2 of the Specific Plan and Visual and Scenic Resources Policy 6 from Local Coastal Program)
- Maintenance of the economic mix of Avila Beach to keep the town affordable (Goal 4 of the Specific Plan and Recreation and Visitor-Servicing Facilities policies 1 and 3 of the Local Coastal Program)
- Provision of a mix of uses in Avila Beach to appeal to local residents and tourists (Goal 5 of the Specific Plan and Recreation and Visitor-Servicing Facilities Policy 2 of the Local Coastal Program)
- Provision of shoreline access (Shoreline Access policies 2, 3, 4 and 8 of the Local Coastal Program)

Based on review of the Avila Point Project’s “vision package”, the concept of the project attempts to implement the vision of re-use of the site as set forth in the Specific Plan. However, the scale and intensity of the project will need further evaluation to ultimately determine consistency.

### ***Approach to Development of Environmental Setting***

Land use and sensitive receptor information will be gathered by site reconnaissance and shared with all EIR technical staff. In addition, the EIR would utilize the following resources to characterize existing land use conditions and applicable regulatory requirements:

- General Plan
- Avila Beach Specific Plan
- The County’s Local Coastal Program, i.e., San Luis Bay Area Plan (Coastal) and the Coastal Plan Policies
- County Code (e.g., Coastal Zone Land Use Ordinance [Title 23])

Description of current land use conditions and character would be coordinated with the Aesthetics and Recreation sections of the EIR.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

As described further below, this EIR will address the “whole” of the project, which includes all currently proposed entitlements as well as subsequent/later projects and applications and associated amendments to the General Plan, Avila Beach Specific Plan, and Local Coastal Plan.

**Development Plan for Remediation.** The EIR will evaluate the land use and plan consistency impacts associated with the remediation of the site and its potential to result in temporary or long-term physical impacts to the Avila Beach community. Specifically, the analysis will evaluate whether remediation activities result in altering or physically dividing the Avila Beach community or would result in conflicts with

applicable land use policies and standards that provide protection of environmental resources. This impact discussion will be coordinated with the other impact sections of the EIR (e.g., Aesthetics and Recreation).

**Plan Amendments.** As identified above as part of Phase 1, we will work with County staff to ensure that the amendments to the General Plan, Avila Beach Specific Plan and Local Coastal Plan would not result in establishing a precedent for new land use activities that could result in growth and environmental impacts beyond the project site.

**Development Plan for Future Use of the Avila Tank Farm Site.** The EIR will evaluate whether redevelopment of the project site would result in physical land use impacts to the existing Avila Beach community (such as altering or physically dividing the existing community). The analysis will also evaluate whether the character of Avila Beach would be altered from the construction and operation of the development project to such an extent that it would result in growth and related effects that could result in environmental impacts.

## E.12 Groundwater

This issue area will characterize existing groundwater conditions at the Avila Tank Farm site, and will assess potential impacts of the project on groundwater supply and quality. This discussion will evaluate the existing site conditions relative to the documented groundwater quality and contamination issues in the area, and the possible impacts that may occur as a result of the proposed remediation and development actions. This section will also consider potential effects both on- and off-site.

The Aspen Team for this project includes professional engineers and geologists from Ninyo & Moore who are specialists with extensive relevant groundwater experience. This carefully assembled team has the resources needed to accurately assess the project and develop reasonable mitigation measures where necessary. This section describes our current understanding of groundwater issues relevant to the project, and provides a summary discussion of how the Aspen Team will address this issue.

### *Issues and Background*<sup>9 10</sup>

Groundwater hydraulic conditions beneath the project site are somewhat complex, in terms of how and where groundwater flows. In addition, there is known contamination in the local groundwater, and the results of general mineral analyses indicate that the quality of water beneath the Avila facility is poor due to previous industrial land uses on the site. Drinking water standards for iron, manganese, chloride, sulfate, and total dissolved solids are frequently exceeded in groundwater samples. Independent of site contamination from past uses, aquifers present in Pismo and Obispo Formations beneath the project site are low yielding and contain poor quality groundwater. These groundwater quality issues will be assessed in order to avoid worsening the situation, including but not limited to issues such as potential migration of the contamination beyond the site perimeter.

Studies have shown that local groundwater is mostly stored within discontinuous fractures of bedrock, which is complicated by vertical anisotropy (variation) of hydraulic conditions of the bedrock. Perched water in surficial alluvial and colluvial deposits are situated in north-south trending and east-west trending swales; this water is known to be contaminated, as is groundwater at depths from 40 feet to over 100 feet in the Pismo Formation, and generally at depths over 100 feet in the Obispo Formation.

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<sup>9</sup> England Geosystem, Inc, 2002, Final Supplemental Site Investigation, April.

<sup>10</sup> Parsons, 2007, Second Semiannual 2006 Groundwater and Cliff Springs Monitoring Report, January 19.

The RMP considers actions that may need to be taken to satisfy regulatory mandates. Key among these is State Water Resources Control Board Resolution 68-16 that requires maintenance of groundwater quality. It is anticipated that the Central Coast RWQCB will use this resolution as the impetus to require some effort to remove contaminants that originated from site use from the groundwater. In addition, water quality concerns at the cliff springs have been identified as a potential resource issue. Investigators recommended that on-going monitoring of the cliff springs be conducted to confirm that the water emerging from cliff springs continues to be of acceptable quality.

The applicant will prepare a Feasibility Study and RAP which will address groundwater-related issues and be reviewed and approved by the regulatory agencies of the ATCAT. There are three principal groundwater related issues that will be addressed in the Feasibility Study and RAP, as follows:

- The nature and extent of dissolved-phase petroleum hydrocarbons in the groundwater and the potential for discharges of contaminated groundwater from the seasonal cliff springs;
- The localized presence of light non-aqueous phase liquid on groundwater; and
- Potential for future structures in certain areas of seasonally shallow groundwater to create conduits for groundwater and to reach the ground surface.

Each of the issues stated above will be fully assessed with respect to the potential for the project to result in or facilitate one or more of these conditions.

#### ***Approach to Development of Environmental Setting***

This section will provide a summary of the current groundwater conditions at and in the vicinity of the site. Several quarters of groundwater monitoring have demonstrated that subsurface formations at the project site are heterogeneous and hydraulically anisotropic, meaning that they have unequal physical properties. Local formations are poorly connected individual fractures that each have a different hydraulic head determined by the degree of communication with the recharge area. During periods of horizontal flow within unconsolidated material in the subsurface, flowing springs may form on the cliff faces bordering the Pacific Ocean.

Groundwater flow is generally toward the north, west, and south away from topographically high recharge areas within the central portion of the site. There is no evidence to suggest that the fault zone within the Pismo Formation has any significant influence on groundwater flow. Water levels in wells in the Obispo Formation in the northwest corner of the site (north of the San Miguelito Fault near the Scout House) more closely resemble the potentiometric surface in the Pismo Formation than the Obispo Formation. This suggests that fracturing along this segment of the fault may have increased the degree of hydraulic communication allowing water to move between the formations with little resistance.

In addition, this section will identify and describe relevant local, regional, state, and federal standards and regulations that apply to groundwater, including proposed clean-up standards for the site set forth by the RWQCB.

#### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

This section will define the thresholds of significance based on applicable regulatory provisions for identifying impacts on groundwater as they relate to the project. The methodology and process for the evaluation of impacts will be based on the review of existing information regarding the groundwater conditions beneath the site with respect to the planned remediation and redevelopment. The approach will be guided to ensure there is minimal risk to human health and the environment by the known petroleum impacts in groundwater. Significant to the evaluation of groundwater will be the proposed

implementation of the RAP, discussed in greater detail in Section E.6, Hazards, Hazardous Materials, and Remediation. Implementation of the RAP as approved by the Central Coast RWQCB is expected to result in conditions suitable to the protection of site users and the general public. The RAP implementation itself, then, will serve as the primary method to mitigate site contamination impacts related to the proposed development.

**Development Plan for Remediation.** Significant to the evaluation of groundwater will be the implementation of the RAP, discussed in greater detail in Section E.6, Hazards, Hazardous Materials, and Remediation. Implementation of the RAP as approved by the Central Coast RWQCB is expected to result in conditions suitable to the protection of site users and the general public. The RAP implementation itself, then, will serve as the primary method to mitigate site contamination impacts related to the proposed development.

The RAP will be reviewed and summarized with respect to potential effects of proposed remediation actions on groundwater quality. The remediation is expected to improve groundwater conditions in general. However, there is potential for groundwater degradation to occur as a result of inappropriate project sequencing, excavation or drilling methods, and other risks associated with RAP implementation. The Aspen Team will review the RAP and other available studies and investigations to characterize all potential impacts of remediation on local groundwater resources.

**Plan Amendments.** Neither the proposed General Plan amendment nor the Avila Beach Specific Plan and Local Coastal Plan Land Use Re-designation are expected to result in adverse groundwater impacts, largely because the existing poor quality of local groundwater beneath the site makes it undesirable for drinking water or land use purposes. However, these plans will be reviewed to determine if any additional measures are needed to address groundwater quality and to assess the project's consistency with existing plans and policies.

**Development Plan for Future Use of the Avila Tank Farm Site.** Groundwater beneath the project site is not known or expected to be used for drinking water. With development of the project site, water supply would be provided by a local purveyor, either the Avila Beach Community Services District, or the San Miguelito Mutual Water Company. Development plans will be reviewed and summarized with respect to the long-term effects on site groundwater quality after implementation. The planned development is expected to improve groundwater conditions beneath the site and locally, by replacing industrial uses with recreational land uses. The analysis of potential impacts to groundwater resources will consider the likely effectiveness of the monitoring and contingency plans, and will identify project-specific mitigation measures where necessary to avoid adverse effects.

## E.13 Surface Water and Wastewater

The surface water and wastewater section of the EIR will assess drainage pattern alterations, water quality effects, water supply requirements, and wastewater needs associated with the proposed remediation and redevelopment activities. The Aspen team for this project includes water and wastewater specialists with extensive relevant experience. This carefully assembled team has the resources needed to accurately assess the project and develop reasonable mitigation measures where necessary. This section describes our current understanding of surface water and wastewater issues relevant to the project, and provides a summary discussion of how Aspen will address those issues.

## Issues and Background

The project site has been assessed by the USACE, and it has been determined the wetlands identified on the project site are not jurisdictional.<sup>11</sup> This means that the project may not require a Clean Water Act Section 404 permit, or a Stormwater Pollution Prevention Plan associated with Section 404 compliance. However, state jurisdiction for waters on the project site has not yet been determined, and would likely be present for the identified wetland areas. The presence of state jurisdictional waters would require the applicant to file a report of waste discharge with the Central Coast RWQCB in accordance with the Porter-Cologne Water Quality Control Act; this report serves as an application to the RWQCB for issuance of waste discharge requirements (WDRs) for the project, where WDRs function as a permit to control water quality degradation. The RWQCB may also issue a waiver of WDRs. No discharges to waters of the State may occur until the RWQCB has issued WDRs or a waiver of WDRs.<sup>12</sup>

**Drainage Patterns.** Drainage patterns on the project site have been substantially reconfigured from natural conditions due to the former use of the site as a tank farm, which also created a series of closed depressions that accumulate water during the wet season and typically store it for extended periods.<sup>13</sup> It is also understood that surface runoff across the site is directed to one former tank location referred to as the “Lower Basin” via a series of pipes and gutters, and that water detained in the Lower Basin is tested for quality prior to release onto the beach via a concrete outfall. Preliminary site plans provided by the project applicant indicate that topography across the project site will be generally maintained under redevelopment of the site, with steep north-facing slopes and slopes and coastal bluffs to the south preserved as-is, while primary development would occur on the relatively level coastal terraces in the center and northeastern portions of the site.<sup>14</sup>

After completion of site remediation, redevelopment would include construction of a series of drainage features to encourage effective drainage while avoiding ponding of water in the interior of the project site, per direction of the Central Coast RWQCB. Within the development area, pipes and channels will be used to direct surface flows to a series of gravity-drained swales, or depressed marshy and vegetated areas where surface water runoff infiltrates to the subsurface.<sup>15</sup> The EIR for the proposed project will assess all proposed drainage pattern alterations both within and outside of the redevelopment area, including for potential of the drainage pattern alterations to result in adverse effects. Project-specific mitigation measures will be developed as necessary to ensure that appropriate BMPs are implemented and to reduce or avoid potential adverse effects.

**Flood Hazards.** Topography of the project site is varied, with elevations ranging from five feet at the shoreline to 240 feet near the center of the project area.<sup>16</sup> The project is not located within a Flood Hazard Area, or an area expected to be inundated from a storm of the magnitude expected to occur once every 100 years, as designated by the Federal Emergency Management Agency. Alterations to existing drainage patterns on the project site could potentially introduce site-specific flooding hazards, but implementation of appropriate BMPs should eliminate this potential. The EIR will assess the potential for the project to introduce new flooding hazards.

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<sup>11</sup> CL&D (Chevron Land and Development Company), 2012. Avila Point 2012 Application Package. December 7.  
<sup>12</sup> CERES (California Environmental Resources Evaluation System), 2002. Summary of the Porter-Cologne Water Quality Control Act. [online]: [http://ceres.ca.gov/wetlands/permitting/Porter\\_summary.html](http://ceres.ca.gov/wetlands/permitting/Porter_summary.html). Accessed February 22, 2013.  
<sup>13</sup> Unocal (Unocal Corporation), 2004. Results of Wetland Surface Water and Sediment Sampling - Unocal Avila Tank Farm, Avila Beach, California. Prepared by Avocet Environmental, Inc. May 10.  
<sup>14</sup> CL&D, 2012.  
<sup>15</sup> *Ibid.*  
<sup>16</sup> *Ibid.*

**Water Quality.** The proposed project site has historically been used as an industrial facility, and hazardous materials including petroleum products such as gasoline, diesel, and crude oil have been stored, transported, and refined on-site for more than 90 years; as a result, remediation and development activities on this site will introduce the potential for existing hazardous materials to be upset, released, or otherwise mobilized into the environment. In addition, ground-disturbing activities on the project site will introduce the potential for erosion to occur. A variety of technical studies prepared for the project site have included soil and water quality sampling; these reports will be used along with any additional information provided by the applicant or obtained by Aspen during the impact analysis process in order to accurately characterize potential water quality issues and concerns associated with the project site.

**Water Supply.** As stated in the Avila Beach Specific Plan, Union Oil maintains an on-site sewage disposal system and fire protection facilities, but receives water from the Avila Beach Community Services District.<sup>17</sup> With implementation of the plan for future development by Chevron on the Union Oil-owned site, water supply would be obtained from a local purveyor, either the Avila Beach Community Services District, or the San Miguelito Mutual Water Company.<sup>18</sup> Rural areas in San Luis Obispo County typically rely on groundwater, while urban areas rely on surface water delivered from the Lopez Reservoir. The Avila Beach area, although rural, receives water from Lopez Reservoir delivered by the Avila Beach County Water District, which has 65 acre-feet per year allocated from Lopez to serve customers within the District.<sup>19</sup> It is anticipated that during implementation of the project, water services would continue to be obtained from the Avila Beach Community Services District, and that the proposed Development Plan would not obtain water through groundwater pumping. Aspen will assess this source for the purposes of the EIR to ensure that sufficient water is available to meet project needs.

The proposed project would require a water supply during remediation as well as during re-development and operation and maintenance activities; this supply requirement includes both potable and reclaimed water sources. During both remediation and redevelopment of the project site, a non-potable water source will be required for dust abatement and fire suppression. During redevelopment of the site, a non-potable water source will also be required for concrete production and landscaping. In addition, operation and maintenance of the project will require a long-term potable water source that is not currently required at the project site, due to the transition from industrial to recreational uses.

As noted, it is expected that water service will be provided by the Avila Beach Community Services District. Therefore, if it is determined that the project is subject to the requirements of Senate Bill (SB) 610 and would require preparation of a Water Supply Assessment (WSA), it would be the responsibility of the water purveyor to provide the WSA or otherwise demonstrate sufficient water supply reliability, such as through execution or compliance with an existing Urban Water Management Plan. Aspen's water resources specialists have prepared numerous WSAs in accordance with SB 610, and are extremely familiar with the legal requirements associated with demonstrating sufficient water supply availability and reliability for a proposed project. Aspen will assess the project's proposed water supply with respect to availability and reliability, and will provide analysis of the proposed project in the EIR.

**Wastewater.** Redevelopment of the project site will require sewer service in order to accommodate the proposed resort facilities. The Avila Beach County Water District provides sewer service to developed portions of Avila Beach as a zone of benefit; however, the zone of benefit excludes Union Oil Company

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<sup>17</sup> County of San Luis Obispo, 2001. Avila Beach Specific Plan. [online]: <http://www.slocounty.ca.gov/Assets/PL/Specific+Plans/Avila+Beach+Specific+Plan.pdf>. Accessed May 3, 2013.

<sup>18</sup> CL&D, 2012.

<sup>19</sup> County of San Luis Obispo, 1995. San Luis Bay Area Plan (Coastal). The Land Use and Circulation Elements of the San Luis Obispo County General Plan. [online]: <http://www.slocounty.ca.gov/Assets/PL/Area+Plans/San+Luis+Bay+Coastal+Area+Plan.pdf>. Accessed May 3, 2013.

facilities because the company has maintained and operated its own facilities for use of the site as a tank farm.<sup>20</sup> Under the proposed project, a new system would be installed to collect wastewater from the project site and dispose of it into an off-site conveyance system operated by the Avila Beach Community Services District or the San Miguelito Mutual Water Company, both of which operate in the area. The proposed system is a main line gravity distribution network aligned along the redevelopment's road system consistent with County engineering standards.<sup>21</sup>

Alternatively, if the aforementioned Community Services District and/or Water Company don't have sufficient capacity to receive wastewater from the proposed redevelopment facilities, an on-site package plant will be used.<sup>22</sup> A package plant is a pre-fabricated facility that is commonly used to provide on-site sewage treatment for developments such as the proposed resort facilities. The package plant would produce a treated effluent that would need to be discharged. At this time, it is not known where the treated effluent would be discharged (if a package plant is used); however, it is considered possible that discharge may be directed towards the existing concrete outfall on the beach.

Aspen water and wastewater resources specialists will evaluate all possibilities for wastewater treatment and disposal, including coordination with the Community Services District and Water Company to determine available long-term capacity, as well as independent research and assessment of the package plan option. Potential effects associated with wastewater will be thoroughly evaluated, including those associated with the internal collection and conveyance system, as well as those associated with treatment and disposal. Project-specific mitigation measures will be developed as necessary to avoid adverse effects.

### ***Approach to Development of Environmental Setting***

Aspen will prepare thorough descriptions of the regional and local hydrologic setting relevant to the proposed project, including discussion of watersheds, surface water drainages and runoff patterns, water supply, and water quality. Aspen will also prepare a description of existing wastewater treatment system(s) at the project site and in the surrounding area. This Environmental Setting will be prepared based on a review of published maps and information, as well as field reconnaissance to characterize the topography, areas of previous grading and spoils, and the location of any existing water features such as creeks, springs, swales, and wetlands. Any relevant technical studies and reports provided by the applicant will be reviewed and incorporated into the EIR analysis as applicable. Based on our understanding of the project site and surrounding area, it is anticipated that the Surface Water and Wastewater section will be cross-referenced with the Groundwater section, for discussion of potential interactions between surface water and groundwater resources as well as for discussion of wastewater conveyance systems. The Surface Water and Wastewater section would also likely be cross-referenced with the Biology section, for discussion of wetlands present on the site.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

**Development Plan for Remediation.** Remediation of the proposed project site will include demolition of existing buildings and industrial facilities, as well as clean-up of previous contamination from the industrial use of the property. Our assessment will consider how the remediation activities would comply with applicable state and federal laws and regulations, and address potential water quality impacts that could result from the accidental spill or leak of hazardous materials during the remediation. The EIR may identify customized mitigation measures to ensure that BMPs for water quality are identified for site-specific

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<sup>20</sup> *Ibid.*

<sup>21</sup> CL&D, 2012.

<sup>22</sup> *Ibid.*

conditions and activities. Remediation activities may also result in drainage pattern alterations associated with the removal of existing infrastructure. The assessment will consider the BMPs identified to comply with existing laws and regulations and whether these BMPs would minimize potential adverse effects associated with drainage pattern alterations, such as erosion and sedimentation. However, project-specific mitigation may be developed to ensure that BMPs are appropriately customized to the project site and activities.

**Plan Amendments.** The proposed re-designations would change the zoning for the project site from industrial to recreation. This would change the types of activities and associated water uses that would occur on the site, as discussed below. The EIR will thoroughly assess how re-zoning the site to allow for recreational uses would potentially change water and wastewater conditions and potential impacts across the site.

**Development Plan for Future Use of the Avila Tank Farm Site.** Future development on the project site is proposed to include a resort and wellness center with a range of uses that may include open space, trails, restaurants, pool and spa facilities, meeting rooms, a fitness center, and family cottages for overnight stays. As discussed above, construction and operation of the proposed project would introduce the potential for a variety of impacts associated with surface water and wastewater issues. Guidance and management documents including but not limited to the San Luis Obispo County General Plan and the revised Avila Beach Specific Plan will be reviewed to determine potential impacts associated with the proposed project. Aspen will assess all potential direct and indirect effects of the project, and develop appropriate mitigation strategies where needed to avoid adverse impacts.

Impact assessment will include but is not limited to the following: review the project description and applicant-provided technical studies to determine how project features and construction activities could affect surface water resources and wastewater system(s) in the project area; evaluation of the proposed drainage pattern alterations and improvements; assessment of the project's proposed water uses and identified water supply for availability, reliability, and quality. Aspen will develop project-specific mitigation measures as necessary to avoid adverse impacts. Mitigation strategies may include but are not limited to the use of BMPs to ensure high-quality discharge of stormwater runoff, water conservation efforts to minimize supply requirements, and monitoring efforts to ensure water quality.

## E.14 Transportation and Circulation

The transportation and circulations section of the EIR will include review of the applicant's Egress/Ingress Traffic Study and will include independent traffic evaluations, as described below, to support information presented in this report. The Aspen Team includes both Aspen technical experts and transportation specialists from Fehr & Peers who will prepare the evaluation of transportation, circulation, and parking associated with this proposed project.

### *Issues and Background*

The following transportation and circulation issues will inform the development of the EIR for the Avila Point Project:

- **Seasonal Congestion.** During summer weekends, as well as warm weather weekends when Cal Poly San Luis Obispo is in session, congestion on roads that access the Avila Beach community can become congested.
- **Limited Vehicle Access.** Most or all project traffic during remediation, construction, and after opening will likely use Avila Beach Drive. Nearly all regional vehicle access will likely come from the US 101 freeway.

- **Pedestrian Connectivity.** Pedestrian access to the project site is possible from the west in the Avila Beach community, but the project is otherwise isolated, so nearly all visitors to the project will likely arrive by private vehicle.
- **Transit Connectivity.** The Avila Beach community is served by the Avila Beach Trolley on weekends during the spring, and four days per week during the summer, running hourly.

### ***Approach to Development of Environmental Setting***

Fehr & Peers will conduct a field evaluation to document study area intersection configurations and roadway characteristics, intersection controls, public transit routes and stop locations, and roadway operating conditions. We assume that signal timing sheets for any signalized intersection will be provided by the County.

Traffic counts will be conducted based on input from County staff on the analysis locations for the transportation impact study. However, based on our review of the analysis time period as dictated by the San Luis Bay Area Plan (Coastal), weekday PM peak period (3:00 PM to 6:00 PM) analysis. Given the nature of the project, which would generate its peak traffic on weekends, to fully account for the project's potential for traffic impacts, we have also included Saturday midday (11:00 AM to 2:00 PM) analysis period. The data collection will include traffic, pedestrian, and bicycle counts.

- Avila Beach Drive & Cave Landing Road
- Avila Beach Drive & San Luis Bay Drive
- Avila Beach Drive & Ontario Road
- Avila Beach Drive & Shell Beach Road
- Avila Beach Drive & Monte Road
- San Luis Bay Drive & Ontario Road
- San Luis Bay Drive & US 101 Southbound Ramps
- San Luis Bay Drive & US 101 Northbound Ramps

Additionally, 24-hour machine count will be collected at the following locations on the weekday and the Saturday when intersection counts are collected:

- Avila Beach Drive south of Cave Landing Road
- Avila Beach Drive north of Cave Landing Road
- San Luis Bay Drive north of Avila Beach Drive
- Avila Beach Drive east of San Luis Bay Drive

The season for data collection will be determined in consultation with County staff to determine the season (e.g. spring versus summer) that represents the appropriate traffic analysis period for the community of Avila Beach.

Based on our experience with projects in San Luis Obispo County, analysis of Caltrans facilities, including freeway ramps, as well as freeway mainline is typically required. Given that most of the project's traffic will be using the freeway system, to fully account for the potential traffic impacts associated with the project, freeway analysis is recommended (and has been included in the scope and cost in this proposal). Freeway mainline traffic volumes will be obtained from Caltrans for the following freeway locations:

- US 101/Highway 1 north of San Luis Bay Drive
- US 101/Highway 1 south of Avila Beach Road

Ramp terminal intersection volumes will be obtained via the intersection traffic counts that will be collected.

### ***Approach to Evaluation of Impacts and Development of Mitigation Measures***

Using the existing data collected in the documentation of the environmental setting, Fehr & Peers will develop a Synchro model of the study area roadway network, and will calculate existing intersection and roadway segment operating conditions for PM and Saturday midday peak hours based on HCM methodologies, which will be used as a baseline to assess the project's potential for impacts. Freeway ramp queuing analysis will also be conducted at the ramp termini intersections. Freeway mainline merge/diverge analysis will be conducted at the two freeway analysis locations.

Using the San Luis Obispo Council of Government's (SLOCOG) travel demand model that Fehr & Peers developed, we will estimate growth in background traffic in the study area. Model-derived traffic growth factors will be applied to the existing traffic counts to forecast cumulative traffic volumes. These volumes will be input into the Synchro model, and cumulative traffic conditions will be calculated for the PM, and Saturday midday peak hours for study intersections, roadway segments, freeway ramps, and freeway segments.

Fehr & Peers will conduct a select zone analysis for the Avila Beach community using the SLOCOG model to determine trip distribution for the Avila Beach community. Based on the model output, and in coordination with County staff, a trip distribution pattern for the project will be developed. In addition, project traffic volumes will be estimated through the analysis intersections, roadway segments, freeway ramps, and freeway segments using the trip generation estimates for the project conducted in Phase 1, and the developed trip distribution pattern.

Project trips will be added to the existing and cumulative scenarios to develop existing plus project and cumulative plus project scenarios. These scenarios will be analyzed using the methodologies described above, and the project-related increase in intersection and roadway delay will be assessed according to project traffic impact criteria provided by County staff. Freeway ramp will be evaluated to determine additional queue length associated with the project, and the freeway mainline segments will be evaluated to determine additional traffic density associated with the project.

If significant project impacts are identified, mitigation measures will be developed that will, to the extent feasible, mitigate project impacts to less than significant levels.

Fehr & Peers will compare the proposed parking supply to the estimate of parking demand developed in Phase 1 to determine if there will be any project-related impacts associated with parking.

A significant impact would occur if project construction or operation resulted in an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections). Impacts could also occur if project related traffic caused an exceedance of the County's Level of Service (LOS) performance standard thresholds for all utilized local roadways or the Caltrans LOS standards for US 101. The Aspen Team will prepare an EIR transportation and traffic analysis to include all County CEQA checklist requirements and applicable LOS performance standard thresholds. Mitigation measures will be developed, as necessary and feasible, to address project specific and cumulative impacts of significance.

**Development Plan for Remediation.** Remediation efforts will generate heavy truck trips, primarily from disposal of removed soil. While the disposal location of this material is unknown at this time, it is assumed all construction traffic (including soil and waste disposal trucks) would utilize Cave Landing Road, Avila Beach Drive, San Luis Bay Drive, and US 101. Fehr & Peers will prepare estimates of truck trips and construction worker trips during the remediation and construction phases based on input from the project team. The level of traffic generated during these phases will be compared against the level of traffic generated by the project after opening, to determine if any temporary remediation/construction impacts will be likely to occur. General guidance on the preparation of construction traffic management plans will be provided.

**Plan Amendments.** Fehr & Peers will work with the planning and environmental team to qualitatively evaluate the proposed access and circulation concepts, including vehicle access, parking location, on-site pedestrian and bicycle circulation, and on-site shuttle circulation. Trip generation and peak parking demand estimates for the proposed project will be prepared using the Institute of Transportation Engineers *Trip Generation* and *Parking Generation* manuals. Recommendations will be provided to enhance access and circulation for these modes. Fehr & Peers will review transportation related policies in the General Plan and the Avila Beach Specific Plan to determine if the changes brought by the project could necessitate updates to these plans.

**Development Plan for Future Use of the Avila Tank Farm Site.** Development of the site consistent with the “vision” described in RFP Section 1.9 would construct a resort designed for limiting passenger vehicle use upon arrival. This vision includes remote parking areas, golf cart use for on-site circulation, and trails developed for pedestrian access throughout the site area. It is assumed this Development Plan would also include ways to limit passenger vehicle use to downtown Avila Beach, likely through the use of shuttles, trail connectivity, and golf cart access locations. The traffic analysis methods identified above will be applied to operational traffic associated with future development of the site. Similar to construction traffic (described above for remediation), regional access to the resort would utilize Cave Landing Road, Avila Beach Drive, San Luis Bay Drive, and US 101. The intersection and roadway segments proposed for analysis were selected to fully analyze traffic impacts associated with future development activities. Furthermore, Fehr & Peers and the Aspen team will coordinate with the County and applicant to ensure all internal circulation is consistent with County requirements and project goals for making the facility as “car free” as possible.

## E.15 Other CEQA Considerations

In addition to the topics discussed above, the EIR will address the other environmental topics required by CEQA for the Development Plan for Remediation; General Plan, Avila Beach Specific Plan and Local Coastal Plan Land Use Re-designation; and the Development Plan for Future Development. The other environmental topics include:

- **Significant Environmental Effects.** Pursuant to CEQA Guidelines Section 15126.2(b), a discussion of significant unavoidable impacts that cannot be mitigated to a level of insignificance will be discussed in the EIR.
- **Significant Irreversible Environmental Changes.** Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible changes, which would be caused by implementation of the proposed project. This section of the EIR will discuss the use of any non-renewable resources, secondary impacts, and irreversible changes.
- **Growth-Inducing Impacts.** Under CEQA, a project may be growth inducing if it directly or indirectly fosters economic or population growth or the construction of additional housing, removes obstacles

to population growth, over-taxes community service facilities, or otherwise facilitates activities that cause significant environmental effects. (14 Cal. Code Regs. § 15126.2(d).)

- **Energy Consumption.** The County Board of Supervisors adopted a Climate Action Plan (November 2011) called the EnergyWise Plan. Implementation of the EnergyWise Plan would achieve various climate action planning and energy efficiency goals set by the County that are delineated in specific measures and steps. Topics covered by the plan include building energy conservation, promoting renewable energy, waste management and recycling, water conservation, strategic growth, transit accessibility, and affordable housing.
- Aspen will evaluate the proposed Development Plan for consistency with the EnergyWise Plan, identify the applicable EnergyWise Plan actions and whether features of the Development Plan would be consistent with the adopted goals, and recommend changes to the Development Plan where necessary to implement specific measures and steps for climate action planning.

## E.16 Optional Tasks (as identified)

In preparing our proposed technical scope of work, additional technical tasks were identified that may be warranted for the proposed project EIR. We understand that the project applicant may address some of the issues identified below in their proposed studies, and therefore these optional tasks may not be necessary. Nonetheless, we have included these optional tasks in order to provide the County with detailed options for their approach to the analysis of the proposed project. Costs have been included in proposal Section F, and have been identified separately from the RFP-required tasks. As outlined in Section D of the proposal, Aspen has presented our scope of work under two Phases, Phase 1, Staff Support Services and Project Scoping, and Phase 2, Preparation of the EIR and Related Support Documents). The recommendations under Native American Consultation apply to Phase 1 only and Marine Biology applies to Phase 2 only; otherwise, the remaining optional tasks apply to Phases 1 and 2.

### Native American Consultation

Based on our understanding of issues that have arisen during recent tribal communications on other projects in the County, we suggest that the County may wish to make digital recordings and transcriptions of all meetings to ensure a thorough and complete administrative record of the consultation. It might also be appropriate to consider engaging the services of an independent, third-party facilitator to manage consultations that have the potential to become contentious.

### Targeted Outreach Assistance

We propose an optional outreach task based on our understanding of the local stakeholders, the complexity of the planning process, and the visibility of the project to Avila Beach community and the county. Aspen and PMC could provide additional, targeted outreach assistance to the County for the project. We understand that this particular project is complex and may require a balanced and nuanced discussion facilitated by seasoned experts.

During the initial phase of the project, Aspen and PMC would work with County staff to determine key stakeholders, community-based organizations, and other interested parties for the project. Our goal is to identify the best outreach strategy for the Avila Beach community. Aspen and PMC and staff will determine the most effective approach to engaging key stakeholders and how we can best support County staff in this effort. The outreach assessment will ensure that the consultant team benefits from the County and community's past lessons learned, that County staff benefit from our consultant team's knowledge of best practices, and that we are ready to work together as a team on this important project.

Following the outreach assessment, the Aspen Team would prepare a strategy for targeted outreach assistance outlining each technique to be employed throughout the process. We anticipate that, at a minimum, the ATCAT will be involved in the targeted outreach process from the beginning. We believe that engaging key stakeholders from the beginning of the project will help to address potential issues before they arise in the community.

We recommend an in person meeting to initiate the task and a follow-up conference call to review the draft strategy and recommendations, and the following deliverables:

- Outreach Assessment Questionnaire (electronic)
- Draft and Final Outreach Strategy (electronic)

## Stakeholder Facilitation Services

Our senior facilitators have been trained by the International Association of Public Participation (IAP2), which promotes public involvement, collaborative decision-making, citizen engagement, and consensus building in a meaningful way. We have significant experience working on highly controversial projects. The core of our approach to conflict management is to separate the emotions and facts on hot button issues. We recognize that issues that upset people and issues that actually risk one's health and welfare are often completely different, but can be easily become muddled. When working on controversial issues, we put a great deal of effort into developing informative products that provide valuable and unbiased information of all sides of issues. Armed with a great deal of empathy, neutrality, and objectivity, our facilitators are able to connect with stakeholders with tools needed to make tough decisions.

PMC would be a neutral party and could facilitate up to six targeted ATCAT or other stakeholder meetings throughout the process. These meetings could serve to build a shared knowledge base and generate a productive dialogue among stakeholders. Additional meetings would be on a time and materials basis.

## Marine Biology

Based on Aspen's attendance at the pre-bid, we learned that the California Department of Fish and Wildlife representative was concerned that contamination might seep into the tidelands. Aspen has an experienced Marine Biologist on staff that brings significant experience and that we could use to address this issue. We have included some minimal hours for him to address this issue both in Phase 1 (Project Description and Plan Amendments) and Phase 2 (EIR), although at this time we do not see this as a major issue. However, if in the course of the project review, this does become a concern to the regulatory agencies, Dr. Gowan would be available to support the County on a boarder capacity and could attend meetings if necessary to address this issue. His resume is included in this proposal.

## F. Schedule and Cost

This section presents Aspen’s project schedule and costs to execute the Avila Point Project. Both the schedule and the cost reflect the information we have gained through review of the RFP, information gathered from the pre-bid meeting, and our knowledge and experience working with the County.

### F.1 Schedule

Based on a proposal due date of May 24, 2013, a start date of July 1, 2013 was used in identifying start and finish target dates for project tasks. Aspen is prepared to kick off the Avila Point project immediately after contract award. Once formalized, Aspen will mobilize the resources needed to meet the schedule. Aspen finds it acceptable to extend schedules only for reasons beyond our control such as project suspensions or schedule extensions initiated by the client. However, if the need arises, Aspen can quickly and efficiently place a project on hold in order to preserve the budget, and then immediately remobilize when needed to meet the new schedule. We will prepare a detailed schedule for your review and we are fully prepared to implement flexible work scheduling to meet the needs of the project, if the need arises to achieve a more aggressive schedule.

**RFP Criteria**

- 4.1C (Costs for Completing Project)
- 4.5 (Cost Estimates)

The proposed project schedule is presented in two formats. Exhibit 8 presents the schedule with estimated target dates and specific tasks as requested in the RFP. Exhibit 9 presents the schedule in a Gantt chart format.

#### Exhibit 8. Project Schedule

| DELIVERABLE / EVENT   | DURATION<br>(DAYS) | PROPOSED SCHEDULE       |                | RESPONSIBILITY |        |
|---|--------------------|-------------------------|----------------|----------------|--------|
|   |                    | START                   | FINISH         | ASPEN          | COUNTY |
| <b>Phase 1 - Staff Support Services and Project Scoping (July 2013 – July 2014)</b>                             |                    |                         |                |                |        |
| Project Kick-Off Meeting and Site Visit   | 1                  | Week of July 1, 2013    |                | ■              | ■      |
| ATCAT meetings  | 1 (once a month)   | July 1, 2013            | July 1, 2014   | ■              | ■      |
| Meetings with the Applicant   | 2 total            | Mid Oct and early March |                | ■              | ■      |
| Work with County on language for plan amendments and request input from Applicant; Receive information requests | 30                 | July 8, 2013            | Aug 5, 2013    | ■              | ■      |
| Develop Draft Project Description and Language for Plan Amendments  | 60                 | July 22, 2013           | Sept. 16, 2013 | ■              |        |
| Project Description Development Staff Meetings  | 2 total            | Sept. and early March   |                | ■              | ■      |
| Prepare Initial Study (IS)  | 30                 | Mar 3, 2014             | April 3, 2014  | ■              |        |
| SB-18 Native American Notification and Consultation   | 90                 | Aug 1, 2013             | Oct. 30, 2013  | ■              |        |
| SB-18 Tribal Outreach, Conferral, and Follow-up   | 10 Mtgs            | Nov – Dec 2013          |                | ■              |        |
| Submit Administrative Draft NOP/IS  | 1                  | April 4, 2014           |                | ■              |        |
| Review of Administrative Draft NOP/IS   | 10                 | April 7, 2014           | April 21, 2014 |                | ■      |
| Revise NOP/IS   | 8                  | April 22, 2014          | April 30, 2014 | ■              |        |

### Exhibit 8. Project Schedule

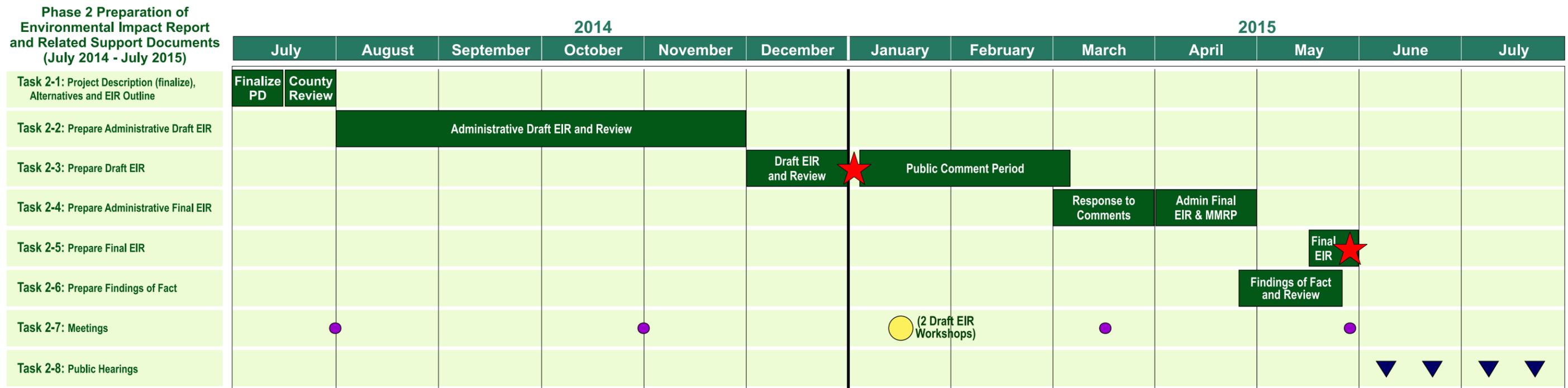
| DELIVERABLE / EVENT   | DURATION<br>(DAYS) | PROPOSED SCHEDULE               |                | RESPONSIBILITY |        |
|---|--------------------|---------------------------------|----------------|----------------|--------|
|   |                    |                                 |                | ASPEN          | COUNTY |
| Second Review NOP/IS  | 5                  | May 1, 2014                     | May 7, 2014    |                | ■      |
| Finalize NOP/IS   | 5                  | May 8, 2014                     | May 14, 2014   | ■              |        |
| Release NOP/IS  | 1                  | May 15, 2014                    |                |                | ■      |
| Public Scoping Meeting  | 2 total            | Week of May 26, 2014            |                | ■              | ■      |
| Public Scoping Period   | 30                 | May 15, 2014                    | June 16, 2014  | ■              | ■      |
| Prepare Scoping Report  | 30                 | May 26, 2014                    | June 27, 2014  | ■              |        |
| <b>Phase 2 – Preparation of Environmental Impact Report and Related Support Documents (July 2014 - July 2015)</b> |                    |                                 |                |                |        |
| ATCAT meetings  | As needed          | coordinated with other meetings |                | ■              | ■      |
| Finalize PD, Alternatives, EIR Outline  | 14                 | June 30, 2014                   | July 13, 2014  | ■              |        |
| Review of Project Description, Alternatives, Outline  | 14                 | July 14, 2014                   | July 28, 2014  |                | ■      |
| Prepare Administrative Draft EIR  | 90                 | July 28, 2014                   | Oct 17, 2014   | ■              |        |
| Review of Administrative Draft EIR  | 30                 | Oct 20, 2014                    | Nov 14, 2014   |                | ■      |
| Prepare Draft EIR   | 14                 | Nov 17, 2014                    | Nov 30, 2014   | ■              |        |
| County Review of Draft EIR  | 14*                | Dec 1, 2014                     | Dec 15, 2014   |                | ■      |
| Revise and Print Draft EIR  | 14*                | Dec 15, 2014                    | Dec 30, 2014   | ■              |        |
| Circulate Draft EIR for Public Review   | 60*                | Jan 6, 2015                     | Mar 7, 2015    | ■              |        |
| Draft EIR Public Workshops  | 2 Wkshps           | Mid-Jan 2015                    |                | ■              | ■      |
| Prepare Administrative Final EIR (RTC) and Mitigation Monitoring and Reporting Program                            | 30                 | Mar 2, 2015                     | Mar 31, 2015   | ■              |        |
| Review of Responses to Comments and MMRP  | 17                 | April 1, 2015                   | April 17, 2015 |                | ■      |
| Revise Responses to Comments and MMRP   | 10                 | April 17, 2015                  | May 1, 2015    | ■              |        |
| Print and Publish Response to Comments (Final EIR)  | 12                 | May 4, 2015                     | May 15, 2015   | ■              |        |
| Release Final EIR   | 1                  | May 18, 2015                    |                | ■              |        |
| Prepare Findings of Fact/Statement of Overriding Considerations and Review  | 30                 | April 20, 2015                  | May 14, 2015   | ■              | ■      |
| Planning Commission Hearings  | 2 Hrgs             | June 2015                       |                | ■              | ■      |
| Board of Supervisors Hearings   | 2 Hrgs             | July 2015                       |                | ■              | ■      |

\*The duration is approximate due to the Christmas and New Year holidays.

## F.2 Cost

Aspen's cost for conducting the scope of services described in Sections D (Work Plan) and E (Proposed Technical Approach to Environmental Impact Assessment) of this proposal are presented herein. The costs include direct and indirect costs, sub-consultant costs, and other expenditures. As identified in the RFP, the costs include both Time and Materials and Fixed Fee. Phase I (Staff Support Service and Project Scoping) will be Time and Materials and Phase 2 (Preparation of Environmental Impact Report and

**Exhibit 9  
Project Schedule Gantt Chart**



-  Kick-off Meeting
-  ATCAT Meetings
-  Meeting with Applicant and County
-  Community Outreach
-  Internal Meeting with County
-  Publish and Distribute
-  Public Hearings

**Schedule Notes**

Aspen Team will be ready to begin work immediately upon contract award. We have identified July 1, 2013 as the potential start date.

Consistent with CEQA, alternatives will be examined in lesser detail than the proposed project.

Review of technical studies will commence as soon as the studies are available.

CEQA requires a minimum review period of 45 days and a maximum of 90 days on the Draft EIR. This schedule assumes a 60-day review period for the draft based on the potential for significant controversy with the project.

\* When possible, Aspen will plan on scheduling staff, community, or ATCAT meetings on the same day to consolidate the number of meeting days.

Related Support Documents) will be primarily Fixed Fee with the staff meetings, public hearings, and preparation of Findings at Time and Materials. **Exhibit 10** presents a summary of Aspen’s estimated costs and **Exhibits 11 and 12** provide the detailed breakdown of these costs.

**Exhibit 10. Cost Summary**

| Description   | Cost             | Contract Type      |
|---|------------------|--------------------|
| <i>Staff Support Services and Project Scoping</i>       |                  |                    |
| Tasks 1 through 6 (All Tasks)                           | \$266,598        | Time and Materials |
| <i>Preparation of EIR and Related Support Documents</i> |                  |                    |
| Tasks 1 through 5 (EIR and MMRP)                        | \$338,043        | Fixed Fee          |
| Tasks 6 through 8 (Meetings/Hearings and Findings)      | \$126,953*       | Time and Materials |
| <b>Total Costs</b>                                      | <b>\$731,594</b> |                    |

\* This cost includes the time to participate in 6 public hearings, 2 public workshops, and 4 internal meetings with the County. This cost will be lower with less meetings.

The assumptions used to prepare our cost estimate are noted below:

**Phase 1 – Staff Support Services and Project Scoping**

- As part of contract award, the Aspen Team will independently conduct a site visit to evaluate the site and confirm site characteristics. We will work with the County to set this up and the Aspen Team will abide by all requirements and restrictions once on the site.
- The costs assume that ATCAT meetings will occur once a month (12 meetings), which includes three (3) meetings requiring an oversight stay; two (2) meetings by conference call, and four (4) meetings in San Luis Obispo with no overnight stay. With the exception of the longer meetings (3 meetings at 4 hours), we anticipate ATCAT meetings to be two (2) hours long.
- We have also assumed the Aspen Project Manager and the Deputy Project Manager will participate and attend all of the ATCAT meetings and that selected technical staff will attend four (4) of these meetings. However, all technical staff will be available as needed for phone or web-based meetings.
- The estimated cost includes two community meetings (one town hall meeting and one workshop) and one scoping meeting.
- The Aspen Project Manager and/or Deputy Project Manager will attend all of the internal staff meetings. To reduce the cost of travel we will attempt to consolidate meetings as shown in Exhibit 9. However, Aspen is readily available and willing to attend meetings on short notice or we can rely on our team member PMC, who has a local office in San Luis Obispo.
- The RFP does not identify a number of desired copies of the Initial Study/Notice of Preparation. Therefore, the cost accounts for 5 copies of the Initial Study/Notice of Preparation (similar to the number of copies identified for the Project Description, approximately 75 pages) for distribution by the County.

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## Phase 2 – Preparation of Environmental Impact Report and Related Support Documents

- Per the County's stated goal in the RFP, the "hard copy" component of Administrative Draft, Draft, Administrative Final and Final EIRs will be limited to 200 pages with all additional information presented as technical appendices on CD.
- Aspen will make maximum use of available applicant reports and other applicable environmental reports or planning documents to prepare the plan amendments, detailed project description, and the EIR. Aspen has conducted a preliminary review of available materials.
- Our cost includes participation of our Project Manager and Deputy Project Manager at six (6) public hearings. Based on our experience with other projects in the County, we have assumed that our specialized technical staff will participate in two hearings.
- Costs assume reproduction of five (5) copies of the Screencheck Draft, 45 copies of the Draft EIR, and 55 copies of the Final EIR (combination of hard copies and electronic version as required by the RFP). Additional copies can be made with a budget amendment.
- Aspen anticipates that the CDs will be burned "in house" and that the "hard copy" documents will be produced by an outside service (Blair Graphics) and shipped to the County for distribution. Should the County wish for Aspen to distribute the documents and CDs directly, we would be more than happy to do so with a commensurate scope and cost modification.

### Optional Tasks

In developing the scope of work for this project, Aspen has identified optional tasks that the County may consider in implementing the Avila Point Project, refer to Section E.16. One of the key reasons for Aspen to have selected PMC as its teaming partner is that in addition to their extensive land use experience, PMC has significant community outreach and facilitation experience. Section E.16 presents more details regarding outreach assessment and stakeholder facilitation services. We have also identified optional tasks cost estimates for transcriptions services during the Native American consultation meetings and additional marine biology services. These services are also described in Section E.16 of this proposal.

#### **Targeted Outreach Assistance Cost estimate**

Labor costs:     \$3,470 (30 hours)  
ODCs:             \$350 (mileage, travel)  
**Total:           \$3,820**

#### **Stakeholder Facilitation Services**

Cost estimate (six meetings which includes meeting preparation, facilitation and recording services, meeting summary, follow-up, and travel)

Labor costs:     \$12,280 (90 hours)  
ODCs:             \$3,000 (mileage, travel)  
**Total:           \$15,280**

**Transcription Services for Native American Consultation.** Transcription services range from \$600 to \$1,000 per meeting, which includes the cost of a report.

**Marine Biology.** If additional services are required, we would bill our Marine Biologist at the hourly rate presented in Exhibits 11 and 12.

**Exhibit 11. Cost Estimate for Phase 1**

| Name, Role<br>(Hourly Rate)                        |       | Task 1-1                |         | Task 1-2 |         | Task 1-3 |         | Task 1-4                    |          | Task 1-5 |                    | Task 1-6 |         | TOTAL |          |
|--|-------|-------------------------|---------|----------|---------|----------|---------|-----------------------------|----------|----------|--------------------|----------|---------|-------|----------|
|  |       | Proj. Desc. Plan Amend. | Hours   | Amount   | IS/NOP  | Hours    | Amount  | Public Outreach EIR Scoping | Hours    | Amount   | Agency Coord ATCAT | Hours    | Amount  |       |          |
| Rate   |       | Hours                   | Amount  | Hours    | Amount  | Hours    | Amount  | Hours                       | Amount   | Hours    | Amount             | Hours    | Amount  | Hours | Amount   |
| <b>Prime Contractor: Aspen Environmental Group</b> |       |                         |         |          |         |          |         |                             |          |          |                    |          |         |       |          |
| Jon Davidson<br>Principal-in-charge                | \$195 | 2                       | 390     |          |         |          |         | 2                           | 390      | -        |                    | -        |         | 4     | \$780    |
| Sandra Alarcon Lopez<br>Project Manager            | \$160 | 25                      | \$4,000 | 18       | \$2,880 | 45       | \$7,200 | 144                         | \$23,040 | 4        | \$640              | 60       | \$9,600 | 296   | \$47,360 |
| Susanne Huerta<br>DPM; Recreation                  | \$87  | 18                      | \$1,566 | 28       | \$2,436 | 45       | \$3,915 | 144                         | \$12,528 | 2        | \$174              | 60       | \$5,220 | 297   | \$25,839 |
| Suzanne Phinney<br>Remediation/Risk                | \$195 | 6                       | \$1,170 | 4        | \$780   | 4        | \$780   | 6                           | \$1,170  | -        |                    | 6        | \$1,170 | 26    | \$5,070  |
| Michael McGowan<br>Marine Biology                  | \$165 | 6                       | \$990   | 5        | \$825   |          |         | 6                           | \$990    | -        |                    | -        |         | 17    | \$2,805  |
| William Walters<br>Air Quality/GHG                 | \$160 | 8                       | \$1,280 | 2        | \$320   |          |         | 16                          | \$2,560  | -        |                    | 12       | \$1,920 | 38    | \$6,080  |
| Jordanne Gregorio<br>Air Quality/GHG               | \$75  |                         |         | 6        | \$450   |          |         | -                           |          | -        |                    | -        |         | 6     | \$450    |
| Brewster Birdsall<br>Noise                         | \$165 | 6                       | \$990   | 6        | \$990   |          |         | -                           |          | -        |                    | -        |         | 12    | \$1,980  |
| Scott Debauche<br>Aesthetics/PopHousing            | \$97  | 5                       | \$485   | 6        | \$582   |          |         | -                           |          | -        |                    | 12       | \$1,164 | 23    | \$2,231  |
| Jared Varonin<br>Biological Resources              | \$110 | 6                       | \$660   | 6        | \$660   |          |         | 20                          | \$2,200  | -        |                    | 12       | \$1,320 | 44    | \$4,840  |
| Beth Bagwell<br>Cultural Resources                 | \$95  | 6                       | \$570   | 2        | \$190   |          |         | -                           |          | 6        | \$570              | -        |         | 14    | \$1,330  |
| Aubrey Mescher<br>Surface Water/Geology            | \$95  | 8                       | \$760   | 6        | \$570   |          |         | 12                          | \$1,140  | -        |                    | -        |         | 26    | \$2,470  |
| Simpson/Kozhevnikov<br>Graphics/Mapping/GIS        | \$95  | 10                      | \$950   | 11       | \$1,045 | 12       | \$1,140 | 16                          | \$1,520  | -        |                    | 6        | \$570   | 55    | \$5,225  |
| Judy Spicer<br>Contracts                           | \$99  | 5                       | \$495   | 4        | \$396   |          |         | -                           |          | -        |                    | -        |         | 9     | \$891    |
| Maral Koshkarian<br>Billing                        | \$65  | 2                       | \$130   | 4        | \$260   | 2        | \$130   | 2                           | \$130    | 2        | \$130              | 2        | \$130   | 14    | \$910    |
| Darlene Freeman<br>Clerical                        | \$60  | 3                       | \$180   | 1        | \$60    |          |         | 8                           | \$480    | -        |                    | 4        | \$240   | 16    | \$960    |

| Name, Role<br>(Hourly Rate)                  |       | Task 1-1                |         | Task 1-2 |         | Task 1-3                    |         | Task 1-4           |         | Task 1-5        |         | Task 1-6 |         | TOTAL |          |
|--|-------|-------------------------|---------|----------|---------|-----------------------------|---------|--------------------|---------|-----------------|---------|----------|---------|-------|----------|
|  |       | Proj. Desc. Plan Amend. |         | IS/NOP   |         | Public Outreach EIR Scoping |         | Agency Coord ATCAT |         | NA Consultation |         | Meeting  |         |       |          |
|  | Rate  | Hours                   | Amount  | Hours    | Amount  | Hours                       | Amount  | Hours              | Amount  | Hours           | Amount  | Hours    | Amount  | Hours | Amount   |
| <b>Subcontractor: Ninyo &amp; Moore</b>      |       |                         |         |          |         |                             |         |                    |         |                 |         |          |         |       |          |
| Walter Crone<br>Principal/Remediation        | \$154 | 8                       | \$1,232 | 1        | \$154   | 22                          | \$3,388 | 58                 | \$8,932 | -               |         | 14       | \$2,156 | 103   | \$15,862 |
| Heriberto Robles<br>Principal/H. H. and Risk | \$154 | 10                      | \$1,540 |          |         | 10                          | \$1,540 | 26                 | \$4,004 | -               |         | -        |         | 46    | \$7,084  |
| Michael Rogers<br>Geo and Mineral Res.       | \$148 | 26                      | \$3,848 | 2        | \$296   | 2                           | \$296   | 8                  | \$1,184 | -               |         | 1        | \$148   | 39    | \$5,772  |
| Jay Roberts<br>Groundwater                   | \$148 | 40                      | \$5,920 | 4        | \$592   | 8                           | \$1,184 | 4                  | \$592   | -               |         | 2        | \$296   | 58    | \$8,584  |
| Principal<br>Eng/Geol/Scientist              | \$154 | 2                       | \$308   | 1        | \$154   |                             |         | -                  |         | -               |         | -        |         | 3     | \$462    |
| Senior Staff<br>Eng/Geol/Scientist           | \$128 | 50                      | \$6,400 | 16       | \$2,048 | 4                           | \$512   | 24                 | \$3,072 | -               |         | 3        | \$384   | 97    | \$12,416 |
| Data Processing<br>Document Processing       | \$58  | 2                       | \$116   |          |         |                             |         | -                  |         | -               |         | -        |         | 2     | \$116    |
| <b>Subcontractor: Fehr &amp; Peers</b>       |       |                         |         |          |         |                             |         |                    |         |                 |         |          |         |       |          |
| John Muggridge<br>PIC                        | \$210 | 4                       | \$840   |          |         |                             |         | 8                  | \$1,680 | -               |         | 8        | \$1,680 | 20    | \$4,200  |
| Michael Kennedy<br>PM                        | \$160 | 32                      | \$5,120 |          |         |                             |         | 16                 | \$2,560 | -               |         | 12       | \$1,920 | 60    | \$9,600  |
| Spencer Reed<br>Engineer                     | \$120 | 12                      | \$1,440 |          |         |                             |         | -                  |         | -               |         | -        |         | 12    | \$1,440  |
| <b>Subcontractor: Applied Earthworks</b>     |       |                         |         |          |         |                             |         |                    |         |                 |         |          |         |       |          |
| Barry Price<br>Principle in Charge           | \$151 |                         |         | 16       | \$2,421 |                             |         | 16                 | \$2,421 | 48              | \$7,262 | 16       | \$2,421 | 96    | \$14,525 |
| Damon Haydu<br>Project Archaeologist         | \$66  |                         |         | 24       | \$1,591 |                             |         | 16                 | \$1,061 | 48              | \$3,182 | 8        | \$530   | 96    | \$6,365  |
| Aubrie Morlet<br>Architectural Historian     | \$67  |                         |         | 40       | \$2,664 |                             |         | -                  |         | -               |         | 8        | \$533   | 48    | \$3,197  |
| Jess Debusk<br>Project Paleontologist        | \$105 |                         |         | 32       | \$3,347 |                             |         | -                  |         | -               |         | 8        | \$837   | 40    | \$4,184  |
| Greg Greenberg<br>GIS Specialist             | \$66  |                         |         | 24       | \$1,591 |                             |         | -                  |         | -               |         | 2        | \$133   | 26    | \$1,724  |
| Savannah Hewes<br>Administration Support     | \$31  |                         |         |          |         |                             |         | -                  |         | 80              | \$2,504 | -        |         | 80    | \$2,504  |

**Exhibit 11. Cost Estimate for Phase 1**

| Name, Role<br>(Hourly Rate)   |       | Task 1-1                |         | Task 1-2        |         | Task 1-3                    |         | Task 1-4           |         | Task 1-5        |        | Task 1-6        |         | TOTAL            |          |
|---|-------|-------------------------|---------|-----------------|---------|-----------------------------|---------|--------------------|---------|-----------------|--------|-----------------|---------|------------------|----------|
|   |       | Proj. Desc. Plan Amend. |         | IS/NOP          |         | Public Outreach EIR Scoping |         | Agency Coord ATCAT |         | NA Consultation |        | Meeting         |         |                  |          |
| Rate  |       | Hours                   | Amount  | Hours           | Amount  | Hours                       | Amount  | Hours              | Amount  | Hours           | Amount | Hours           | Amount  | Hours            | Amount   |
| <b>Subcontractor: PMC</b>   |       |                         |         |                 |         |                             |         |                    |         |                 |        |                 |         |                  |          |
| Tad Stearn<br>Principal   | \$195 | 50                      | \$9,750 |                 |         |                             |         | -                  |         | -               |        | 16              | \$3,120 | 66               | \$12,870 |
| Tammy Seale<br>Project Manager  | \$165 | 32                      | \$5,280 | 8               | \$1,320 | 4                           | \$660   | -                  |         | -               |        | 20              | \$3,300 | 64               | \$10,560 |
| Jeff Beiswenger<br>Senior Planner   | \$135 | 40                      | \$5,400 |                 |         |                             |         | -                  |         | -               |        | 16              | \$2,160 | 56               | \$7,560  |
| Pam Lapham<br>Associate Planner   | \$100 | 40                      | \$4,000 | 12              | \$1,200 |                             |         |                    |         | -               |        | -               |         | 52               | \$5,200  |
| <b>Non-Labor Costs</b>  |       |                         |         |                 |         |                             |         |                    |         |                 |        |                 |         |                  |          |
| Non-Labor Costs (printing CD production, shipping, travel, outside word process)* |       |                         | \$820   |                 | \$2,780 |                             | \$1,300 |                    | \$3,350 |                 | \$630  |                 | \$2,615 |                  | \$11,495 |
| <b>Total Hours by Task &gt;&gt;&gt;</b>   |       | <b>464</b>              |         | <b>193</b>      |         | <b>158</b>                  |         | <b>552</b>         |         | <b>190</b>      |        | <b>308</b>      |         | <b>1,961</b>     |          |
| <b>Total Cost by Task for Phase 1</b>   |       | <b>\$70,791</b>         |         | <b>\$34,215</b> |         | <b>\$22,755</b>             |         | <b>\$77,312</b>    |         | <b>\$16,179</b> |        | <b>\$45,345</b> |         | <b>\$266,598</b> |          |

\*incl Aspen Fee on subs and ODC of 8%.

**Exhibit 12. Cost Estimate for Phase 2**

| Name, Role (Hourly Rate)                           |       | Task 2-1                  |         | Task 2-2        |          | Task 2-3  |         | Task 2-4        |         | Task 2-5  |         | Task 2-6         |         | Task 2-7 |          | Task 2-8        |          | TOTAL  |          |
|--|-------|---------------------------|---------|-----------------|----------|-----------|---------|-----------------|---------|-----------|---------|------------------|---------|----------|----------|-----------------|----------|--------|----------|
|  |       | Refine PD<br>Alt/ Outline |         | Admin Draft EIR |          | Draft EIR |         | Admin Final EIR |         | Final EIR |         | Findings of Fact |         | Meetings |          | Public Hearings |          |        |          |
| Rate   | Hours | Amount                    | Hours   | Amount          | Hours    | Amount    | Hours   | Amount          | Hours   | Amount    | Hours   | Amount           | Hours   | Amount   | Hours    | Amount          | Hours    | Amount |          |
| <b>Prime Contractor: Aspen Environmental Group</b> |       |                           |         |                 |          |           |         |                 |         |           |         |                  |         |          |          |                 |          |        |          |
| Jon Davidson<br>Principal-in-charge                | \$195 | 2                         | \$390   | 2               | \$390    | -         |         | 2               | \$390   | -         |         | -                |         | -        |          | -               |          | 6      | \$1,170  |
| Sandra Alarcon Lopez<br>Project Manager            | \$160 | 30                        | \$4,800 | 55              | \$8,800  | 20        | \$3,200 | 22              | \$3,520 | 12        | \$1,920 | 8                | \$1,280 | 75       | \$12,000 | 75              | \$12,000 | 297    | \$47,520 |
| Susanne Huerta<br>DPM; Recreation                  | \$87  | 20                        | \$1,740 | 65              | \$5,655  | 25        | \$2,175 | 30              | \$2,610 | 15        | \$1,305 | 34               | \$2,958 | 75       | \$6,525  | 75              | \$6,525  | 339    | \$29,493 |
| Suzanne Phinney<br>Remediation/Risk                | \$195 | 18                        | \$3,510 | 25              | \$4,875  | -         |         | 12              | \$2,340 | 4         | \$780   | -                |         | -        |          | -               |          | 59     | \$11,505 |
| Michael McGowan<br>Marine Biology                  | \$165 | -                         |         | 10              | \$1,650  | 4         | \$660   | 10              | \$1,650 | 4         | \$660   | -                |         | -        |          | -               |          | 28     | \$4,620  |
| Christian Huntley<br>Biological Resources          | \$155 | -                         |         | 10              | \$1,550  | -         |         | 12              | \$1,860 | -         |         | -                |         | -        |          | -               |          | 22     | \$3,410  |
| Jared Varonin<br>Biological Resources              | \$110 | 6                         | \$660   | 110             | \$12,100 | 4         | \$440   | 52              | \$5,720 | 4         | \$440   | -                |         | 24       | \$2,640  | 36              | \$3,960  | 236    | \$25,960 |
| William Haas<br>Biological Resources               | \$165 | -                         |         | 10              | \$1,650  | -         |         | -               |         | -         |         | -                |         | -        |          | -               |          | 10     | \$1,650  |
| Justin Wood<br>Biological Resources                | \$95  | -                         |         | 24              | \$2,280  | -         |         | -               |         | -         |         | -                |         | -        |          | -               |          | 24     | \$2,280  |
| William Walters<br>Air Quality/GHG                 | \$160 | 6                         | \$960   | 45              | \$7,200  | 18        | \$2,880 | 24              | \$3,840 | 8         | \$1,280 | -                |         | 24       | \$3,840  | 24              | \$3,840  | 149    | \$23,840 |
| Jordanne Gregorio<br>Air Quality/GHG               | \$75  | -                         |         | 100             | \$7,500  | 10        | \$750   | 8               | \$600   | -         |         | -                |         | -        |          | -               |          | 118    | \$8,850  |
| Brewster Birdsall<br>Noise                         | \$165 | 2                         | \$330   | 15              | \$2,475  | -         |         | 2               | \$330   | -         |         | -                |         | -        |          | -               |          | 19     | \$3,135  |
| Lisa Blewitt<br>Noise                              | \$125 | 4                         | \$500   | 26              | \$3,250  | 4         | \$500   | 6               | \$750   | 4         | \$500   | -                |         | -        |          | -               |          | 44     | \$5,500  |
| Scott Debauche<br>Aesthetics/PopHousing            | \$97  | 6                         | \$582   | 50              | \$4,850  | 6         | \$582   | 6               | \$582   | 4         | \$388   | -                |         | 12       | \$1,164  | 16              | \$1,552  | 100    | \$9,700  |

| Name, Role (Hourly Rate)                     |       | Task 2-1                  |         | Task 2-2        |          | Task 2-3  |         | Task 2-4        |         | Task 2-5  |         | Task 2-6         |        | Task 2-7 |         | Task 2-8        |         | TOTAL |          |
|--|-------|---------------------------|---------|-----------------|----------|-----------|---------|-----------------|---------|-----------|---------|------------------|--------|----------|---------|-----------------|---------|-------|----------|
|  |       | Refine PD<br>Alt/ Outline |         | Admin Draft EIR |          | Draft EIR |         | Admin Final EIR |         | Final EIR |         | Findings of Fact |        | Meetings |         | Public Hearings |         |       |          |
|  | Rate  | Hours                     | Amount  | Hours           | Amount   | Hours     | Amount  | Hours           | Amount  | Hours     | Amount  | Hours            | Amount | Hours    | Amount  | Hours           | Amount  | Hours | Amount   |
| Aubrey Mescher<br>Surface Water/Geology      | \$95  | 8                         | \$760   | 45              | \$4,275  | 4         | \$380   | 12              | \$1,140 | 4         | \$380   | -                |        | -        |         | 16              | \$1,520 | 89    | \$8,455  |
| Beth Bagwell<br>Cultural Resources           | \$95  | 4                         | \$380   | 10              | \$950    | -         |         | 5               | \$475   | -         |         | -                |        | -        |         | -               |         | 19    | \$1,805  |
| Stanley Yeh<br>Public Services/Other CEQA    | \$125 | 4                         | \$500   | 30              | \$3,750  | 4         | \$500   | 8               | \$1,000 | -         |         | -                |        | -        |         | -               |         | 46    | \$5,750  |
| Simpson/Kozhevnikov<br>Graphics/Mapping/GIS  | \$95  | 4                         | \$380   | 25              | \$2,375  | 16        | \$1,520 | 8               | \$760   | 18        | \$1,710 | -                |        | 6        | \$570   | 4               | \$380   | 81    | \$7,695  |
| Judy Spicer<br>Contracts                     | \$99  | 4                         | \$396   | 16              | \$1,584  | 12        | \$1,188 | 6               | \$594   | 12        | \$1,188 | 4                | \$396  | 4        | \$396   | 6               | \$594   | 64    | \$6,336  |
| Maral Koshkarian<br>Billing                  | \$65  | 2                         | \$130   | 2               | \$130    | 2         | \$130   | 2               | \$130   | 2         | \$130   | -                |        | 2        | \$130   | 2               | \$130   | 14    | \$910    |
| Darlene Freeman<br>Clerical                  | \$60  | 1                         | \$60    | 1               | \$60     | 4         | \$240   | 2               | \$120   | 2         | \$120   | -                |        | 4        | \$240   | 4               | \$240   | 18    | \$1,080  |
| <b>Subcontractor: Ninyo &amp; Moore</b>      |       |                           |         |                 |          |           |         |                 |         |           |         |                  |        |          |         |                 |         |       |          |
| Walter Crone<br>Principal/Remediation        | \$154 | 4                         | \$616   | 16              | \$2,464  | -         |         | 2               | \$308   | -         |         | -                |        | 42       | \$6,468 | 26              | \$4,004 | 90    | \$13,860 |
| Heriberto Robles<br>Principal/H. H. and Risk | \$154 | -                         |         | 20              | \$3,080  | -         |         | 20              | \$3,080 | -         |         | -                |        | 14       | \$2,156 | 12              | \$1,848 | 66    | \$10,164 |
| Michael Rogers<br>Geo and Mineral Res.       | \$148 | 4                         | \$592   | 36              | \$5,328  | -         |         | 28              | \$4,144 | -         |         | -                |        | 8        | \$1,184 | 1               | \$148   | 77    | \$11,396 |
| Jay Roberts<br>Groundwater                   | \$148 | 20                        | \$2,960 | 40              | \$5,920  | -         |         | 18              | \$2,664 | -         |         | -                |        | 6        | \$888   | 2               | \$296   | 86    | \$12,728 |
| Principal<br>Eng/Geol/Scientist              | \$154 | 1                         | \$154   | 4               | \$616    | -         |         | 3               | \$462   | -         |         | -                |        | -        |         | -               |         | 8     | \$1,232  |
| Senior Staff<br>Eng/Geol/Scientist           | \$128 | 24                        | \$3,072 | 200             | \$25,600 | -         |         | 16              | \$2,048 | -         |         | -                |        | 46       | \$5,888 | 3               | \$384   | 289   | \$36,992 |
| CAD<br>Illustration                          | \$78  | -                         |         | 26              | \$2,028  | -         |         | 2               | \$156   | -         |         | -                |        | -        |         | -               |         | 28    | \$2,184  |
| Data Processing<br>Document Processing       | \$58  | -                         |         | 16              | \$928    | -         |         | 6               | \$348   | -         |         | -                |        | -        |         | -               |         | 22    | \$1,276  |

**Exhibit 12. Cost Estimate for Phase 2**

| Name, Role (Hourly Rate)                                      |       | Task 2-1                  |         | Task 2-2         |          | Task 2-3        |         | Task 2-4        |         | Task 2-5        |         | Task 2-6         |       | Task 2-7        |         | Task 2-8        |         | TOTAL            |          |
|---|-------|---------------------------|---------|------------------|----------|-----------------|---------|-----------------|---------|-----------------|---------|------------------|-------|-----------------|---------|-----------------|---------|------------------|----------|
|   |       | Refine PD<br>Alt/ Outline |         | Admin Draft EIR  |          | Draft EIR       |         | Admin Final EIR |         | Final EIR       |         | Findings of Fact |       | Meetings        |         | Public Hearings |         |                  |          |
| Rate  | Hours | Amount                    | Hours   | Amount           | Hours    | Amount          | Hours   | Amount          | Hours   | Amount          | Hours   | Amount           | Hours | Amount          | Hours   | Amount          | Hours   | Amount           |          |
| <b>Subcontractor: Fehr &amp; Peers</b>                        |       |                           |         |                  |          |                 |         |                 |         |                 |         |                  |       |                 |         |                 |         |                  |          |
| John Muggridge<br>PIC   | \$210 | 2                         | \$420   | 16               | \$3,360  | -               |         | 4               | \$840   | -               |         | -                |       | -               |         | 8               | \$1,680 | 30               | \$6,300  |
| Michael Kennedy<br>PM   | \$160 | 12                        | \$1,920 | 40               | \$6,400  | -               |         | 20              | \$3,200 | -               |         | -                |       | 20              | \$3,200 | 20              | \$3,200 | 112              | \$17,920 |
| Spencer Reed<br>Engineer                                      | \$120 | 8                         | \$960   | 120              | \$14,400 | -               |         | -               |         | -               |         | -                |       | -               |         | -               |         | 128              | \$15,360 |
| <b>Subcontractor: Applied Earthworks</b>                      |       |                           |         |                  |          |                 |         |                 |         |                 |         |                  |       |                 |         |                 |         |                  |          |
| Barry Price<br>Principle in Charge                            | \$151 | -                         |         | 16               | \$2,421  | -               |         | 16              | \$2,421 | -               |         | -                |       | 16              | \$2,421 | 8               | \$1,210 | 56               | \$8,473  |
| Damon Haydu<br>Project Archaeologist                          | \$66  | -                         |         | 80               | \$5,304  | -               |         | 24              | \$1,591 | -               |         | -                |       | 16              | \$1,061 | 8               | \$530   | 128              | \$8,486  |
| Aubrie Morlet<br>Architectural Historian                      | \$67  | -                         |         | 80               | \$5,328  | -               |         | 24              | \$1,598 | -               |         | -                |       | -               |         | -               |         | 104              | \$6,926  |
| Jess Debusk<br>Project Paleontologist                         | \$105 | -                         |         | 40               | \$4,184  | -               |         | 16              | \$1,674 | -               |         | -                |       | -               |         | -               |         | 56               | \$5,858  |
| Greg Greenberg<br>GIS Specialist                              | \$66  | -                         |         | 24               | \$1,591  | -               |         | 8               | \$530   | -               |         | -                |       | -               |         | -               |         | 32               | \$2,122  |
| <b>Subcontractor: PMC</b>                                     |       |                           |         |                  |          |                 |         |                 |         |                 |         |                  |       |                 |         |                 |         |                  |          |
| Tad Stearn<br>Principal                                       | \$195 | 8                         | \$1,560 | 14               | \$2,730  | -               |         | 24              | \$4,680 | -               |         | 4                | \$780 | 12              | \$2,340 | 12              | \$2,340 | 74               | \$14,430 |
| Tammy Seale<br>Project Manager                                | \$165 | -                         |         | 20               | \$3,300  | -               |         | 28              | \$4,620 | -               |         | -                |       | 12              | \$1,980 | 24              | \$3,960 | 84               | \$13,860 |
| Pam Lapham<br>Associate Planner                               | \$100 | -                         |         | 56               | \$5,600  | -               |         | 40              | \$4,000 | -               |         | -                |       | -               |         | -               |         | 96               | \$9,600  |
| Marti Eckert<br>Visual Simulation                             | \$95  | -                         |         | 16               | \$1,520  | -               |         | -               |         | -               |         | -                |       | -               |         | -               |         | 16               | \$1,520  |
| Leanne Singleton<br>Sustainability                            | \$95  | -                         |         | 32               | \$3,040  | -               |         | 30              | \$2,850 | -               |         | -                |       | -               |         | -               |         | 62               | \$5,890  |
| <b>Non-Labor Costs</b>  |       |                           |         |                  |          |                 |         |                 |         |                 |         |                  |       |                 |         |                 |         |                  |          |
| Non-Labor Costs (printing CD<br>production, shipping, travel, |       |                           | \$250   |                  | \$5,510  |                 | \$4,420 |                 | \$125   |                 | \$7,250 |                  | \$125 |                 | \$4,955 |                 | \$6,280 |                  | \$28,915 |
| <b>Total Hours by Task &gt;&gt;&gt;</b>                       |       | <b>204</b>                |         | <b>1,588</b>     |          | <b>133</b>      |         | <b>558</b>      |         | <b>93</b>       |         | <b>50</b>        |       | <b>418</b>      |         | <b>382</b>      |         | <b>3,426</b>     |          |
| <b>Total Cost by Task for Phase 2*</b>                        |       | <b>\$29,582</b>           |         | <b>\$196,853</b> |          | <b>\$19,919</b> |         | <b>\$73,058</b> |         | <b>\$18,631</b> |         | <b>\$5,611</b>   |       | <b>\$62,649</b> |         | <b>\$58,692</b> |         | <b>\$464,995</b> |          |

\*incl Aspen Fee on subs and ODC of 8%.

# APPENDIX 1. RESUMES

## Aspen Environmental Group

**Jon Davidson**, MURP – Principal-in-Charge

**Sandra Alarcón-Lopez**, MA – Project Manager

**Susanne Huerta**, MUP – Deputy Project Manager;  
Recreation

**Beth Bagwell**, PhD, RPA – Cultural Resources

**Brewster Birdsall**, PE, QEP – Air Quality/GHG; Noise

**Lisa Blewitt** – Noise

**Scott Debauche**, CEP – Aesthetics; Population and  
Housing

**Bill Haas**, MS – Biological Resources

**Chris Huntley** – Biological Resources

**Michael McGowan**, PhD – Marine Biology

**Aubrey Mescher**, MESM – Hydrology and  
Groundwater; Geology and Mineral Resources

**Suzanne Phinney**, D.Env. – Remediation/Hazardous  
Materials

**Jared Varonin**, CFP – Biological Resources

**Will Walters**, PE – Air Quality/GHG

**Stanley Yeh**, MPA – Public Services and Utilities;  
Other CEQA Energy

## Ninyo & Moore

**Walter Crone**, MS, PG, QSD/QSP – Remediation/  
Hazardous Materials

**John Jay Roberts**, PG, CEG – Hydrology and  
Groundwater

**Heriberto Robles**, PhD, DABT – Human Health  
and Risk Assessment

**Michael Rogers**, PG, CEG – Geology and Mineral  
Resources

## Applied Earthworks

**Barry Price**, MA, RPA – Cultural Resources

**Jessica Debusk** – Paleontological Resources

**Damon Haydu**, MA, RPA – Cultural Resources\*

## PMC

**Jeffrey Beiswenger**, MUP – Land Use

**Nora De Cuir**, MS – Optional Task\*

**Martti Phillip Eckert**, MCRP – Aesthetics

**Pamela Lapham** – Land Use/Entitlements

**Tammy Seale**, MSP – Project  
Description/Specific Plan; Land Use; Other CEQA  
Energy

**Leeanne Singleton**, LEED AP – Air Quality/GHG

**Tad Stearn** – Project Description/Specific Plan

## Fehr & Peers

**Michael Kennedy**, MURP, AICP –  
Transportation/Traffic

**John Muggridge**, MS, AICP –  
Transportation/Traffic

**Spencer Reed**, EIT – Transportation/  
Traffic

\* This technical support staff is not listed in the Organization Chart in Section B of this proposal. The resumes are provided because they are specifically identified in the cost estimate.



## Academic Background

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

## Professional Experience

Jon Davidson is an environmental professional with more than 30 years of experience in providing consulting services to government agencies. Mr. Davidson has managed or had a major role in the preparation of more than 135 EIRs, EISs, and EAs, and has prepared over 30 plans and planning studies. He has a diverse background in land use planning, environmental review, technical writing, public presentation, and project management.

### Aspen Environmental Group.....1997-present

Mr. Davidson is Vice President for Aspen’s southern California operations. He also manages the preparation of EIR and EIS documents and manages support for environmental planning projects.

- **Tehachapi Renewable Transmission Project EIR/EIS.** Mr. Davidson managed the preparation of a joint EIR/EIS for the California Public Utilities Commission (CPUC) and USDA Forest Service for an extensive series of transmission system upgrades spanning Kern, Los Angeles, and San Bernardino Counties. These upgrades will increase transmission system capacity and reliability in order to allow wind energy generated in the Tehachapi area to be delivered to California load centers.
- **Ocotillo Wind Energy Facility EIS/EIR.** Mr. Davidson is managed the preparation of an EIS/EIR for the Bureau of Land Management and the County of Imperial for a 465-MW wind energy project near the town of Ocotillo. The project is spread across a 12,400-acre site and consists of the installation of 155 wind turbine generators and construction of a substation.
- **Antelope-Pardee 500-kV Transmission Project.** Mr. Davidson managed the preparation of a joint EIR/EIS for the CPUC and USDA Forest Service for a 25.6-mile 500-kV transmission line proposed by Southern California Edison to serve wind power projects in the Tehachapi area in Kern County and Antelope Valley in Los Angeles County.
- **Antelope Transmission Project, Segments 2 and 3.** Mr. Davidson managed the preparation of an EIR for the CPUC for a new transmission line project. The project includes 46.6 miles of 500-kV line, 9.6 miles of 220-kV line, and two new substations. The project is proposed by Southern California Edison to serve future wind energy projects in the Tehachapi and Mojave areas of Kern County.
- **Program Manager, US Army Corps of Engineers Miscellaneous Environmental Services Contracts.** Mr. Davidson has served as Program Manager for three consecutive multi-year environmental services contract with the Corps’ Los Angeles District. He also manages environmental impact analyses for flood control, riparian restoration, and water resources projects:
  - **Matilija Dam Ecosystem Restoration Project EIS/EIR.** Project Manager for preparation of an EIS/EIR to support a Corps of Engineers feasibility study for the removal of Matilija Dam on Matilija Creek, a tributary of the Ventura River.
  - **Prado Basin Final Supplemental EIS/EIR.** Project Manager for the preparation of the Final Supplemental EIS/EIR for the Prado Dam, Norco Bluffs, and Reach 9 components of the Santa Ana River Mainstem Project — a major project to provide flood protection to Orange, Riverside, and San Bernardino Counties.

- **Rio Salado Environmental Restoration Project EIS.** Project Manager for the preparation of an EIS for the environmental restoration of the Salt River in Phoenix and Tempe, Arizona.
- **Whitewater River Basin (Thousand Palms) Flood Control Project EIS/EIR.** Project Manager for the preparation of an EIS/EIR emphasizing cultural, biological, and hydrological issues for a flood control project in the Thousand Palms area of the Coachella Valley.
- **Tucson (Ajo) Detention Basin Ecosystem Restoration Report.** Project Manager the preparation of a plan for the restoration of wildlife habitat at the Ajo Detention Basin in Pima County, Arizona, near the City of Tucson.
- **San Antonio Creek Erosion Repair EAs.** Project Manager for the preparation of two environmental assessments for erosion repair projects at five locations along San Antonio Creek at Vandenberg Air Force Base.
- **Santa Cruz River Watershed Management Plan.** Project Manager for this project which involved the preparation of a management plan covering environmental and cultural issues along 65 miles of the Santa Cruz River in Pima County, Arizona.
- **Program Manager, Los Angeles Department of Water and Power (LADWP) Environmental Assessment Services Contract.** Mr. Davidson served as Program Manager for two multi-year contracts to provide CEQA/NEPA compliance, environmental permitting, and mitigation monitoring for LADWP water and power projects. In this role, he developed work programs and budgets for new task orders, made task order manager assignments, and oversaw the quality of products and services to LADWP, which is the largest municipal utility agency in the United States.
- **Deputy Program Manager, California Department of Water Resources (DWR) Contract to Provide Environmental and Technical Support Services for Southern Region Projects.** Mr. Davidson served as Deputy Program Manager for this contract to provide on-call environmental assessment, compliance, and monitoring services for projects associated with the State Water Project in southern California. In this role, he developed work programs and budgets for new task orders, made task order manager assignments, and oversaw the quality of products and services to DWR.
- **Tehachapi East Afterbay EIR.** Mr. Davidson managed the preparation of an EIR for the Department of Water Resources for a project to construct and operate a storage reservoir (afterbay) on the East Branch of the California Aqueduct. The new afterbay provides 1,159 acre-feet of additional operational storage that allows downstream facilities on the East Branch and, to a lesser extent, the West Branch to operate for short periods without relying on the pumping operations of the Valley String Pumping Plants. The project reduces pumping during peak electrical demand periods and provides increased operational flexibility.
- **Monterey Accelerated Research System (MARS) Cabled Observatory EIR/EIS.** Mr. Davidson managed the preparation of a joint EIR/EIS for the California State Lands Commission and the Monterey Bay National Marine Sanctuary that analyzed a proposal to install an advanced undersea cabled observatory in Monterey Bay that will provide researchers with long-term, real-time data access to deep-sea benthic communities and ocean processes. The project would consist of a science node located on the sea floor 51 km off the coast of Monterey Bay connected to shore by a cable to provide electricity to power undersea experiments and a fiber optic cable to transmit data.
- **San Onofre Nuclear Generating Station (SONGS) Steam Generator Replacement Project EIR.** Mr. Davidson managed the preparation of an EIR for the CPUC for a project to replace the steam generators at SONGS Units 2 and 3. The original steam generators needed to be replaced because they were degraded from stress and corrosion cracking. The replacement steam generators arrived by barge at Camp Pendleton's Del Mar Boat Basin and were transported 15 miles overland to SONGS

using prime movers. The original steam generators were transported by rail to a licensed low-level radioactive waste disposal facility for long-term storage. The EIR was prepared in close coordination with an EIR prepared by Aspen for steam generator replacement at Diablo Canyon Power Plant.

- **Yellowstone Pipeline Reroute EIS.** Performed critical review and technical editing of Specialist Reports covering Socioeconomics, Public Services, and Minority and Low-Income Populations in western Montana and northern Idaho for a petroleum products pipeline and related facilities. He also prepared the sections of the EIS relating to these issue areas.
- **Technical Assistance to the California Energy Commission in Application for Certification Review.** As part of Aspen's on-call contract with the California Energy Commission, Mr. Davidson has served as an expert technical specialist in the analysis of land use and socioeconomics for new power plant projects. In addition, Mr. Davidson served as project manager for the preparation of two studies for the Energy Commission: **Coastal Power Plant Study** and **Hydroelectric Power Plant Inventory**.
- **Newhall Ranch CEQA Consultation Services.** Under contract to the California Department of Fish and Game (CDFG), Mr. Davidson assisted the CDFG and Corps of Engineers in the preparation of an EIR/EIS for a master Streambed Alteration Agreement, Section 404 Permit, and Section 2081 Take Permit for the Newhall Ranch Specific Plan. The Specific Plan, approved by Los Angeles County in 2003, allows the construction of 20,885 homes on 11,963 acres in northwestern Los Angeles County near the City of Santa Clarita. The CDFG contracted with Aspen for assistance in administering the EIR process and to provide expert technical review services for all issue areas.
- **EIR for the Divestiture of PG&E's Hydroelectric Generation Assets.** Mr. Davidson served as the Land Use issue manager for the CPUC's EIR evaluating the Pacific Gas & Electric Company's proposal to divest their hydroelectric facilities in California. Situated in the Sierra Nevada, Southern Cascade, and Coastal mountain ranges, this system is spread across 16 river basins and annually generates approximately five percent of the power consumed each year in California. The proposed sale of assets also included approximately 140,000 acres of land with the hydroelectric system. The EIR analyzed the range of operational changes that could occur under new ownership, including complex integrated models that analyze power generation and water management.
- **Viejo System Project.** Mr. Davidson managed the CEQA process for the CPUC for a new 220/66/12-kV substation and 3.1-mile 66-kV subtransmission line proposed by Southern California Edison in south Orange County. Aspen prepared a detailed Initial Study, Mitigated Negative Declaration, and Mitigation Monitoring Program for the project. The proposed subtransmission line traverses residential and recreational areas in the City of Mission Viejo and the proposed substation would be located in a business park adjacent to a wilderness area in the City of Lake Forest.
- **California Public Utilities Commission Environmental Services Contract for 50- to 200-kV Transmission Lines and Substations.** Under this three-year contract to provide environmental services for the CEQA analysis of applicable facilities proposed in the Southern California Edison region, Mr. Davidson served as Project Manager for the following projects: **Six Flags Power Line and Substation Project** and **Valley-Auld Power Line Project**.
- **Program Manager, Los Angeles Unified School District Environmental Document Contract.** Mr. Davidson served as Aspen's program manager for environmental services to the Los Angeles Unified School District. Aspen assisted the District in completing CEQA review for a major new school building program. Mr. Davidson also managed the preparation of environmental documents for several new school projects, including primary centers, elementary schools, and high schools. He supervised overall services to the District and oversaw other Aspen project managers.



- **East Valley New High School No. 1B EIR.** Mr. Davidson managed the preparation of an EIR for the Los Angeles Unified School District for a new high school on a 10-acre site in North Hollywood. The new school helped alleviate overcrowding at other area high schools and allowed students to attend school in their own neighborhood. The campus also includes a continuation high school.
- **Environmental Baseline Survey and Physical Conditions Report, Space Launch Complex 6, Vandenberg Air Force Base.** Mr. Davidson was Aspen’s project manager for the Phase I investigation of physical and environmental conditions at SLC-6 prior to The Boeing Company entering into a lease agreement with the Air Force for commercial launches at the facility.
- **Bolsa Chica Domestic Water Transmission Line and Wastewater Service Project EIR.** Mr. Davidson managed the preparation of an EIR for the CPUC for an application to construct and operate a 6.7-mile water transmission line in western Orange County to supply domestic water to the Bolsa Chica Planned Community, a proposed residential development project on Bolsa Chica Mesa.

**EIP Associates..... 1993-1996**

At EIP Associates, Mr. Davidson was a senior project manager for the preparation of EIRs. Some of these projects are listed below.

- **Cajon Pipeline EIR/EIS and Technical Studies**
- **Santa Barbara Long-Term Water Supply Plan and Seawater Desalination Facility EIR**
- **San Sevaine Redevelopment Project EIR**
- **City of Pasadena Land Use & Mobility Elements EIR**
- **City of Irvine Comprehensive General Plan Update (Phase 2) Master EIR**
- **California Speedway EIR**

**Willdan Associates ..... 1984-1993 and 1996-1997**

Mr. Davidson advanced from Assistant Planner to Principal Planner while at Willdan Associates. He worked on urban planning projects for municipal agencies and also prepared numerous EIRs.

- **City of Santa Monica, Local Coastal Program**
- **Colorado River Water Allocation EAs**
- **Grove Avenue Corridor Specific Plan EIR**
- **City of Irvine Conservation and Open Space Element Revision EIR**
- **Mojave River Corridor Land Use Study**
- **Jungleland Specific Plan and EIR**

**Previous Experience**

From 1982 to 1984, Mr. Davidson worked at Urban Futures, Incorporated, where he assisted in redevelopment plan formulation and the preparation of planning studies and EIRs. In 1981, Mr. Davidson worked as an intern with the City of Seattle’s Office of Neighborhood Planning.

**Professional Affiliations**

- American Planning Association
- Association of Environmental Professionals



### Academic Background

MA, Architecture and Urban Planning, University of California, Los Angeles, 1982  
BA, Speech and Hearing Sciences, University of California, Santa Barbara, 1980

### Professional Experience

Ms. Alarcón-Lopez has 30 years of experience managing environmental projects, including experience conducting environmental analyses pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). She is an accomplished land use planner with significant local government experience as well as planning experience through her work as a Planning Commissioner for the City of Whittier, where she served two four-year terms, and as a planner for the County of Santa Barbara. While an employee of Jacobs Engineering Group, she worked on some of the most comprehensive remediation programs in the nation. These programs involved the remediation of contaminated sites on military bases in California and a nationwide remediation effort for properties owned by ARCO.

#### Aspen Environmental Group..... 1999-present

- **Baldwin Hills Community Standards District (CSD), City of Culver City, Project Manager (2008-present).** Project manager for the review of a County of Los Angeles environmental document and preparation of **Oil Drilling** Regulations for the City of Culver City in Los Angeles County. Ms. Alarcón-Lopez managed the preparation of technical comments on the Baldwin Hills CSD Environmental Impact Report (EIR) prepared by the County of Los Angeles for the Inglewood Oil Field. Working with a technical team of in-house and subcontractor staff, Ms. Alarcón-Lopez prepared a detailed evaluation of the County EIR on behalf of the City. The technical review included the evaluation of the County's proposed CSD (drilling ordinance), which the County revised based on public comments.
- **EIRs/EISs, California Public Utilities Commission (CPUC), Public Involvement Manager and Technical Support (2005-2009), and Project Manager (2013).** Ms. Alarcón-Lopez has worked on six electrical transmission projects preparing EIR/EIS sections, scoping reports, policy screening reports, and CEQA Findings of Fact. She is currently managing a 12-mile 115-kV sub-transmission line project proposed by Southern California Edison in Riverside County.
- **Topaz Solar Farm Project, Environmental Impact Report and Condition Compliance Review, County of San Luis Obispo, Project Manager (2009-2012).** Project manager for the preparation of an EIR for a 550-MW photovoltaic (PV) solar power plant in the Carrizo Plain, an unincorporated area of eastern San Luis Obispo County. This controversial project included consideration of impacts to biological resources, visual resources, agricultural resources and Williamson Act Lands, traffic, noise, air quality and greenhouse gas emissions, and land use. This project required significant coordination with wildlife agencies, other responsible agencies, and County departments to complete the environmental analysis for the project. She supported the County in preparing staff reports, CEQA Findings, and responding to written comments received during the public hearings as well as comments presented orally during the Planning Commission and Board of Supervisor hearings.
- **Cabrillo Port Liquefied Natural Gas (LNG) Deepwater Port Project EIR/EIS Document Review, City of Oxnard, Project Manager (2004 and 2006).** Managed the technical and procedural review of the Cabrillo Port LNG Deepwater Port Project EIR/EIS. This review included the 2004 Draft EIR/EIS and a second review in April 2006 of the revised draft. The scope of work involved reviewing all issue areas addressed in the draft documents and preparing comments regarding the adequacy of the document for the City of Oxnard. Aspen's senior technical staff provided input to this review.

- **Assessment of Well Permitting Practices and Administrative Draft Initial Study CEQA Compliance Program, Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), Project Manager (2001-2003).** Project Manager for the preparation of an assessment report that analyzed DOGGR's compliance with CEQA. The assessment considered lead and responsible agency roles, applicable regulatory processes, environmental compliance, and **oil and gas** well permitting processes in Kern County. She prepared a comprehensive preliminary environmental assessment (Initial Study) to identify potential environmental impacts of revising existing DOGGR regulations.
- **Technical Studies, California Energy Commission (CEC), Project Manager (2000 and 2005; 2010-2011).** Project Manager responsible for preparation of technical studies, as identified below.
  - **Technical Subject Writer for Presiding Member's Proposed Decision, CEC (2010-2011).** Assisted with the preparation of decision documents on multiple issue areas for five renewable energy (solar thermal and solar/gas hybrid) and power plant projects.
  - **Meeting Facilitation and Moss Landing Power Plant: Elkhorn Slough Environmental Enhancement and Mitigation Program Plan, CEC, Project Manager (2000-2001).** Ms. Alarcón-Lopez effectively facilitated the meetings of the Elkhorn Slough Advisory Team, which was composed of State agency representatives and local technical experts. She guided the team in selecting projects that could be funded through mitigation fees imposed on an adjacent energy facility. She also guided the team in preparing a plan that identified project priorities, project stewardship, a process for selection and ranking of projects and timelines. This plan was adopted by the Regional Water Quality Control Board and the CEC without any revisions.
- **EIRs and Technical Studies, Los Angeles Department of Water and Power (LADWP), Project Manager (2004-2009).** Project Manager responsible for preparation of two EIRs and other technical studies.
  - **Lower Reach River Supply Conduit Project EIR, LADWP, Project Manager (2004-2008).** Project Manager for preparation of an EIR to support LADWP's Lower Reach River Supply Conduit Pipeline project. The project involved the replacement of an existing water pipeline with a new 48-, 60-, 66-, 72-, 84-, and 96-inch-diameter welded steel underground pipeline in a new alignment.
  - **River Supply Conduit Improvement Upper Reach EIR, LADWP, Project Manager (2006-2009).** Project Manager for preparation of an EIR involving construction of six miles of 78-inch-diameter welded steel (water) pipeline within the jurisdiction of the Cities of Los Angeles and Burbank. This project included significant controversy regarding the project's potential to impact **traffic** as it included jacking under seven major street intersections and tunneling under an existing easement.
- **EIRs and Mitigated Negative Declarations (MNDs) for New School Sites, Los Angeles Unified School District (LAUSD), Project Manager (2001-2007).** Project Manager for 13 school projects in the City of Los Angeles. She completed 5 EIRs on controversial new schools and 8 MNDs for school expansions or additions. All of these projects included extensive traffic evaluations to address impacts to **traffic** circulation and air toxic and human health risk assessment evaluations. Some of the school sites required remediation of contaminated soils. In addition, Ms. Alarcón-Lopez managed the Program EIR for the New School Construction Program, which received the **2006 Environmental Award** from the Los Angeles Section of the American Planning Association.
- **Detailed Project Reports, Environmental Assessments, and Special Studies, US Army Corps of Engineers (USACE), Los Angeles District, Project Manager (1999-2003).** Ms. Alarcón-Lopez managed a Detailed Project Report (Ecosystem Restoration Report) and Environmental Assessment of Old San Jose Creek, which was partially within the **coastal zone** in Santa Barbara County. This project included vegetation mapping and soil sampling to assess the suitability of soil for restoration, and an historical evaluation of how the creek changed over time through review of aerial photography.

**Jacobs Engineering Group Inc. .... 1990-1999**

At Jacobs Engineering, Ms. Alarcón-Lopez worked on a variety of large complex projects and managed a wide range of **environmental remediation** and restoration projects. Ms. Alarcón-Lopez's major project activities included the following:

- **ARCO CES Nationwide Contract.** Program Manager for the ARCO CES contract. Managed seven project managers in six Jacobs offices. Served as primary point of contact to ARCO for all contractual and personnel related issues. Project-related activities included:
  - Managed investigation of three properties in Kansas City, Kansas. Prepared focused site investigation for determining baseline contaminant levels, four cost estimates for **remediation alternatives**, and managed a **risk-based analysis** to quantify the environmental risks associated with a vacant property, which was part of the old refinery. Completed a due diligence review of one of the properties that were purchased by ARCO.
  - Managed the **site characterization** of a former foundry property in Kewanee, Illinois. Managed the site investigation that included soil and groundwater sampling and the **human health risk assessment**. Managed the preparation of a comprehensive sampling work plan that received approval within a 45-day time frame by the state and prepared a site characterization report that documented the sampling results and presented a recommendation for no further action. These documents provided the basis for an expedited site closure.
- **US Navy Comprehensive Long-Term Environmental Action Navy (CLEAN) Program.** Activities included:
  - Managed the preparation of a Proposed Plan under CERCLA for one of the operable units at the Marine Corps Logistics Base (MCLB) at Barstow. The plan described **remedial alternatives**, the preferred alternative, and the rationale for selection of the preferred remedial alternative
  - Managed the preparation of fact sheets, brochures, and other informational materials for Naval Air Station North Island, Naval Amphibious Base Coronado, and San Pedro Defense Field Support Point
  - Managed the preparation of a major public involvement effort for MCLB Barstow. This involved the development of an historical aerial display, two three-panel displays on base activities, four single panels on topics regarding base cleanup and public participation, a fact sheet, and other public involvement materials as well as meeting logistics.
- Vandenberg Air Force Base (AFB), part of Jacobs **Air Force Installation Restoration Program (IRP) contract.** Activities included:
  - Managed the preparation of **preliminary endangerment assessments (PEA)**, and brought to closure EPA sites that could not be closed (or considered "no action" sites by the regulators) by previous attempts. Completed **11 PEA reports** as part of this effort
  - Managed the preparation of a public involvement effort. This involved preparation of a community relations plan that included approximately 90 interviews, and the layout and production of two fact sheets for the base.
- **RAILCYCLE solid waste management project** for Waste Management of North America Inc. Managed the work of in-house and contract staff in preparation of technical documents, monitored the project budget, and served as primary interface with the client. Activities included:
  - Managed technical and administrative activities. Oversaw a major geologic investigation of the landfill site that included the drilling of 21 wells, soil and groundwater testing, and geophysical surveys. Also managed air quality, biological, cultural resource, paleontological, and land use studies of the landfill site in the Mojave Desert



- Provided support to the environmental impact report/statement document and prepared a scoping document for this project
- Managed the preparation of a surface and groundwater compliance plan.

**Planning Consultants Research ..... 1989-1990**

As Manager of Waste Management Services for Planning Consultants Research, Ms. Alarcón-Lopez worked on several planning and environmental projects including the following projects:

- Managed a permitting and environmental review effort for the Lopez Canyon landfill in the city of Los Angeles
- Prepared a **hazardous materials** management plan for the Lockheed Company in Burbank
- Completed a site feasibility study that evaluated three candidate sites for an autoclave facility for Waste Management of North America.

**Independent Consultant ..... 1988-1989**

As an independent consultant, Ms. Alarcón-Lopez was the primary author of the draft county **Hazardous Waste Management Plan** (HWMP) for the County of San Bernardino. As primary author of the San Bernardino County HWMP, work involved analyzing and writing about issues regarding hazardous waste management such as siting hazardous waste facilities, transportation, summary of legislation, policy development, and preparation of other documents related to the plan as well as taking the plan before public bodies for their review and consideration. She also managed the public involvement component for HWMP development including the coordination of informational materials and workshops.

**County of Santa Barbara ..... 1983-1988**

As a Land Use Planner for the County of Santa Barbara Resource Management Department, Ms. Alarcón-Lopez prepared the county’s Draft HWMP. Her work involved analyzing and writing about issues regarding **hazardous waste management** such as siting hazardous waste facilities, transportation, summary of legislation, policy development, and preparation of other documents related to the plan, as well as taking the plan before public bodies for their review and consideration.

She prepared, managed, and/or contributed to several major NEPA and CEQA documents including offshore oil and gas projects, hazardous waste management plans/facilities, and other industrial, commercial, and recreational projects. She participated in:

- Application review and environmental documentation (EIR/EIS) for **complex offshore oil and gas** development and related facilities, and the review and permitting of projects in the **coastal areas** of Santa Barbara County
- Represented the local jurisdiction on panels with State and federal agencies for the joint preparation of environmental documents as an employee of Santa Barbara County Resource Management Department
- Presented project information and recommendations to decision-making bodies and the public.

**Special Training**

- Planning, Communication and Techniques for Effective Public Participation, International Association of Public Participation (IAP2)
- 40-hour OSHA 29CFR 1910.120 Hazardous Materials Safety Training



### Academic Background

Master of Urban Planning, New York University, 2007  
BA, Geography, University of California, Los Angeles, 2004

### Certification

#### American Institute of Certified Planners (AICP)

Ms. Huerta passed the AICP exam in May 2013; however, official certification is pending until July 2013.

### Professional Experience

Ms. Huerta is an Environmental Planner with seven years of experience in environmental consulting, city planning, and GIS analysis. Her city planning background includes experience in the preparation of master plans, the evaluation of site plans and subdivisions, and conducting land use surveys. At Aspen Environmental Group, Ms. Huerta conducts research and prepares environmental analyses in accordance with CEQA and NEPA. She specializes in the analysis of land use, recreation and agricultural resources. In addition, Ms. Huerta has four years of experience assisting with project management, which has included public involvement and extensive client interaction. Her project-specific efforts are provided below.

#### Aspen Environmental Group.....2007-present

- **Topaz Solar Farm Project Environmental Impact Report (EIR) and Condition Compliance Review, San Luis Obispo County, Project Management Assistant/Technical Specialist (2009-present).** Ms. Huerta prepared the Project Description, the alternatives analysis, and the technical analysis for agriculture resources for this 550-MW solar photovoltaic power plant on the Carrizo Plain of eastern San Luis Obispo County. The project includes solar arrays that would cover approximately 4,200 acres, as well as an electric substation and switching station. A major issue of concern was the conversion of agricultural land, including approximately 1,200 acres of land under Williamson Act contracts. Ms. Huerta conducted extensive coordination with the San Luis Obispo County Agriculture Department to develop the approach and analysis for land conversion. The project was approved in July 2011 and is currently under construction. Ms. Huerta is reviewing the compliance reports for the 133 conditions of approval that are required for each of the six phases of construction.
- **Baldwin Hills Community Standards District (CSD), City of Culver City, Technical Specialist (2009).** As a Technical Specialist for the review of a County of Los Angeles environmental document and preparation of an oil and gas drilling ordinance for the City of Culver City in Los Angeles County, Ms. Huerta reviewed the technical comments on the Baldwin Hills Community Standards District EIR prepared by the County of Los Angeles for the Inglewood Oil Field. The technical review included the evaluation of the County’s proposed CSD (drilling ordinance), which the County revised based on public comments. The City used the review comments as part of their formal comments submitted on the County’s EIR and CSD.
- **California Energy Commission (CEC).** In response to California’s power shortage, Aspen has assisted the CEC in evaluating the environmental and engineering aspects of new power plant applications throughout the State under four separate contracts. Ms. Huerta has served as a Staff Professional for Land Use Staff Assessments since 2008 and has provided peak workload support for the Energy Facility Siting Program and the Energy Planning Program. The projects listed below have included analysis for transmission lines and pipelines.

- **Carrizo Energy Solar Farm, San Luis Obispo County (2009).** Staff Technical Analyst for the Land Use Staff Assessment for Carrizo Energy, LLC's Application for Certification (AFC) to build the Carrizo Energy Solar Farm (CESF). The proposed CESF included the solar farm site, a minimal offsite transmission system connection, and construction laydown area. The CESF site would encompass approximately 640 acres of fenced area in an area zoned for agricultural uses as specified in the San Luis Obispo County General Land Use Plan. Issues of concern include the impacts of the power plant on adjacent land uses, compliance with applicable local LORS, and the conversion of agricultural land. The development of the agriculture mitigation to reduce impacts resulting from the loss of 645 acres of Important Farmlands required extensive coordination with the California Department of Conservation, San Luis Obispo County Agriculture Department, and the San Luis Obispo County Land Conservancy.
- **City of Palmdale Hybrid Power Plant Project, Palmdale (2009-2011)**
- **Oakley Generating Station, Contra Costa County (2010-2011)**
- **Calico Solar Project (a.k.a. Stirling Energy Systems Solar One), San Bernardino County (2009-2010)**
- **Imperial Valley Solar Project (a.k.a. Stirling Energy Systems Solar Two), Imperial County (2009-2010)**
- **Abengoa Mojave Solar One Project, San Bernardino County (2009-2010)**
- **Willow Pass Generating Station, Pittsburg (2009)**
- **Morgan Hills Wind Energy Project EIR, Kern County, Deputy Project Manager (2011).** Ms. Huerta served as the Deputy Project Manager for an EIR on a proposed 230-MW wind energy generation facility in the Mojave region of Kern County. The proposed wind project would operate up to 76 wind turbines on 3,773 acres of land.
- **California Valley Solar Ranch Project EIR, San Luis Obispo County, Technical Specialist (2009-2010).** The project includes solar arrays that would cover nearly 2,000 acres, as well as an electric substation, a 2.5-mile transmission line, and expansion of a surface aggregate mine. Ms. Huerta prepared the technical analysis for the agricultural resources for this 250-MW solar photovoltaic power plant on the Carrizo Plain of eastern San Luis Obispo County. Major issues of concern included the conversion of Important Farmlands and disturbance to nearby agricultural production activities.
- **Whitewater River Basin Flood Control Project Subsequent EIR/Subsequent EIS, Riverside County (2011-present).** This project consists of the construction of a series of levees and channels to protect the Thousand Palms area of the Coachella Valley in Riverside County. Ms. Huerta is preparing the land use, recreation and socioeconomic analyses for the SEIR/SEIS.
- **Littlerock Reservoir Sediment Removal Project EIS/EIR, Palmdale, CA.** This joint EIS/EIR evaluates the impacts of sediment removal alternatives for the Littlerock Reservoir and Dam on USFS Angeles National Forest (NEPA Lead Agency) lands in Los Angeles County. The Palmdale Water District (CEQA Lead Agency) proposes to remove approximately 540,000 cubic yards of sediment from the reservoir (behind the dam) and haul it to an off-site location. Aspen is working on the Administrative Draft EIR/EIS and assisting the PWD with portions of their Proposition 50 grant application to the DWR. Ms. Huerta is providing project management assistance for development of the project description.
- **Total Terminals International (TTI) Grain Export Terminal Installation Project IS/NOP and Focused EIR, Port of Long Beach (2011-present).** Ms. Huerta prepared the Initial Study report for the transportation/traffic section. The TTI Grain Export Terminal Installation Project IS/NOP was published in August 2011. The focused EIR analyzed impacts to air quality, greenhouse gas

emissions, hazards/hazardous materials, and transportation/traffic. The Draft EIR was issued December 2011.

- **Rimforest Storm Drain EIR, San Bernardino County (2011).** This project would require construction of a storm drain system along Highway 18 and inside the village of Rimforest. Aspen has been contracted to prepare an Environmental Impact Report for the proposed remedial action, which includes rerouting water drainage back into Little Bear Creek, which flows through Blue Jay and into Lake Arrowhead. Ms. Huerta prepared the following sections of the Initial Study: aesthetics, agriculture/forestry resources, land use and planning, mineral resources, population and housing, and recreation.
- **Alta East Wind Project EIR/EIS, Kern County, CA (2011-present).** Ms. Huerta prepared the technical analysis for land use and agricultural resources for the Alta East Wind Project EIR/EIS, which would generate up to 300 megawatts (MW) of electricity through wind power. The NEPA Lead Agency is BLM. The proposed project includes up to 120 wind turbine generators, a substation, transmission interconnection to the SCE Windhub Substation, access roads, and ancillary facilities. The proposed project area consists of BLM land three miles northwest of the unincorporated town of Mojave in southeastern Kern County, California.
- **Downs Substation Expansion Project Initial Study (IS)/Mitigated Negative Declaration (MND), CPUC, Technical Specialist (2010-present).** The Downs Substation Expansion Project proposed by Southern California Edison (SCE), proposes to upgrade/expand the existing Downs 33/12-kV Substation to 115/12 kV to serve increased electrical demand, improve reliability and enhance operational flexibility within the Electrical Needs Area. New telecommunications lines would be added to approximately 58 miles of existing 115-kV poles. Ms. Huerta prepared the technical analysis for land use, public services, and population and housing sections.
- **Tehachapi Renewable Transmission Project (TRTP) Supplemental EIR, CPUC, Technical Analyst (2012).** The Supplemental EIR is being prepared in response to SCE's Petition for Modification of Decision 09-12-044 submitted on October 17, 2011. Modifications to the project include the installation of marker balls to transmission line spans (catenaries) and aviation lights to transmission structures, as well as engineering refinements to transmission structures in Segment 8, Phase 3 (Segment 8A/8C), as recommended by the Federal Aviation Administration (FAA). The Supplemental EIR will focus on the issue areas of Air Quality, Biological Resources, Noise, and Visual Resources. Ms. Huerta is preparing the Cumulative Projects section.
- **Ocotillo Express Wind Project EIR/EIS, Imperial County, Technical Specialist (2010-2012).** The project is proposed to be a 550-MW wind generation facility on approximately 15,000 acres in Imperial County. Ms. Huerta prepared the technical analysis for lands (including agriculture and grazing), realty, and recreation resources.
- **Alcoa Dike Project Supplemental Environmental Assessment (EA)/EIR, US Army Corps of Engineers, Technical Specialist (2012).** Ms. Huerta prepared the land use and visual analysis for the Supplemental EA/EIR Addendum under the NEPA/CEQA for the United States Army Corps of Engineers. A Supplemental EA/EIR Addendum is being performed to address design changes to the approved Alcoa Dike located in the Prado Basin, Riverside County.
- **North Sky River Wind Energy Project and Jawbone Wind Energy Project EIR, Kern County, Technical Specialist (2010-2011).** The project is proposed to be located on 13,535 acres of land with up to 339 wind turbines to produce up to 250 MW of wind energy. Ms. Huerta prepared the technical analysis for land use and population and housing.



- **Auxiliary Dike Project Supplemental EA/EIR, US Army Corps of Engineers, Technical Specialist (2009).** Ms. Huerta prepared the land use and visual analysis for the Supplemental EA/EIR Addendum under the NEPA/CEQA for the US Army Corps of Engineers. A Supplemental EA/EIR Addendum is being performed to address design changes to the approved Auxiliary Dike located in the Prado Basin, Riverside County.
- **Pacific Wind Project EIR, Kern County, Technical Specialist (2009-2010).** Ms. Huerta prepared the technical analysis for land use and public services. The project is proposed to be located on approximately 8,300 acres of land with up to 250 wind turbines to produce up to 250 MW of wind energy.
- **Tehachapi Renewable Transmission Project (TRTP Segments 4 through 11) EIR/EIS, Kern, Los Angeles, and San Bernardino Counties, Technical Specialist (2007-2010).** In preparation of a joint EIR/EIS for the CPUC and USDA Forest Service (Angeles National Forest), Ms. Huerta conducted research and analysis for impacts related to public services and utilities, and prepared the Cumulative Impact Scenario. In addition, she prepared the EIR/EIS Summary; and assisted in preparation of the Project Description, Alternative Screening Report, Scoping Report, and the public comment period of the Draft EIR/EIS.
- **TANC Transmission Project, Transmission Agency of Northern California, Staff Professional (2009).** Public scoping for 600 miles of proposed 230-kV and 500-kV transmission lines and associated infrastructure extending from eastern Lassen County south through the Sacramento Valley, and branching west to the Bay Area and east to Tuolumne County. Ms. Huerta assisted in the acquisition and processing of 6,600 scoping comments and information requests; responded via phone, email, and postal mail to public and agency inquiries throughout the twice extended, five-month scoping period; quantitatively evaluated scoping data; and authored sections of the scoping report. The project was cancelled in July 2009.
- **Alta–Oak Creek Mojave Project EIR, Kern County, Technical Specialist (2008-2009).** The project is proposed to be located on approximately 11,000 acres of land with up to 350 wind turbines to produce up to 800 MW of wind energy. This would be the first project of the Alta Wind Energy Center which is designed to produce 1,500 MW of wind power in the Tehachapi Wind Resource Area of Kern County. Ms. Huerta prepared the technical analysis for land use, public services, and population and housing resources.
- **River Supply Conduit (RSC) Upper Reach Project EIR, Los Angeles and Burbank, Technical Reviewer (2008).** Under Aspen’s environmental services contract with the City of Los Angeles Department of Water and Power (LADWP), Ms. Huerta assisted in preparation of the potential impacts to recreational resources for this EIR.

## Previous Experience

### **Burgis Associates, Inc..... 2006-2007**

Ms. Huerta worked as a consultant for city planning departments and private developers throughout northern New Jersey. Her primary projects were to draft a master plan reexamination report and an open space and recreation element of a master plan. Within these projects she evaluated existing socio-economic conditions and land uses, and conducted an inventory of recreational facilities and open space. She also used ArcGIS to illustrate zoning recommendations and update land use and zoning maps. Other routine projects included the evaluation of site plan, subdivision and variance applications for compliance with local, State and federal regulations.



### Academic Background

PhD, Anthropology (Archaeology), University of New Mexico, 2006  
MA, Anthropology (Archaeology), UC Berkeley, 1995  
Certificate in Archaeological Technology, Cabrillo College, 1994  
BA, Anthropology and Creative Writing, UC Santa Cruz, 1991

### Professional Experience

Dr. Bagwell has 21 years of experience conducting field work, researching, analyzing, and writing about archaeology and anthropology. She has experience preparing environmental documents pursuant to applicable federal, state and local regulations in California, Arizona, Nevada, New Mexico, and internationally in Mexico. These documents emphasize compliance with the National Environmental Policy Act (NEPA), Section 106 of the National Historic Preservation Act (NHPA), Native American Graves Protection and Repatriation Act (NAGPRA), and California Environmental Quality Act (CEQA). Dr. Bagwell is a Registered Professional Archaeologist who meets the Secretary of the Interior’s qualification criteria as a prehistoric archaeologist.

### Aspen Environmental Group.....2009-present

#### San Luis Obispo County

- **Hansen Aggregates Mid-Pacific Santa Margarita Quarry Expansion EIR (2012-present).** This project is a 41 acre expansion of an existing hard rock mining quarry in San Luis Obispo County. Under contract with San Luis Obispo County Dr. Bagwell will be the author of the cultural resources and paleontology sections of the document.
- **California Valley Solar Ranch, Compliance (2011-present).** The CVSR project is a 250 MW solar photovoltaic power plant on the Carrizo Plain in rural San Luis Obispo County. The solar arrays for the project will cover nearly 2,000 acres. Under contract with San Luis Obispo County Dr. Bagwell serves as a technical reviewer for cultural resources and paleontology during the compliance process. Duties include the review of licensees’ submittals and actions related to compliance with cultural resources and paleontological conditions of approval and providing recommendations to the County regarding acceptability.

#### Environmental Documents

- **Hydrogen Energy California Power Plant, Cultural Resources Staff Assessment (2010-present).** Under contract with the California Energy Commission Dr. Bagwell serves as technical staff for the analysis of impacts to cultural resources from the 890-acre 300 MW integrated gasification combined cycle power generating facility in Kern County seven miles west of Bakersfield. The project proposes to produce low-carbon baseload electricity by capturing carbon dioxide and transporting it for CO<sub>2</sub>-enhanced oil recovery and sequestration. Important cultural resource issues include an extensive historic irrigation system and the potential for buried prehistoric resources within the facility footprint and along the extensive linear corridors. This project is the first of its kind in California, requiring close coordination with other agencies including the Department of Energy (DOE) and California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR).
- **Rio Mesa Solar Electric Generating Facility, Cultural Resources Staff Assessment (2012-present).** Under contract with the California Energy Commission Dr. Bagwell leads a group of technical staff analyzing impacts to cultural resources from the 3,960 acre 500 MW solar concentration thermal plant located on the Palo Verde Mesa near Blythe, California. Important cultural issues include direct

impacts to prehistoric Native American and historic World War II military maneuver sites. This is a large, complex project which is being coordinated with other solar projects, with BLM as the federal lead agency, and with local Native American tribal representatives.

- **Desert Harvest Solar Project EIS (CEQA-equivalent document) (2011-present).** Under contract with enXco, Dr. Bagwell is the author of the cultural resources and paleontology sections of an EIS. The proposed project is a 1,280 acre 150 MW photovoltaic generating facility in the Chuckwalla Valley near Desert Center, California. Important cultural issues include impacts to historic World War II military maneuver sites and locations of Native American religious importance within a Bureau of Land Management Area of Critical Environmental Concern.
- **PG&E Cressey-Gallo 115 kV Transmission Project, EIR (2011-present).** Under contract with the California Public Utilities Commission Dr. Bagwell wrote the cultural resources and paleontology sections of the document. This project includes a new 14-mile transmission line and the expansion of two substations in Madera County near Livingston, California.
- **Devers–Palo Verde No.2 Transmission Line Project, Colorado River Substation Expansion, Supplemental EIR (2010).** Under contract with the California Public Utilities Commission Dr. Bagwell served as technical staff conducting analyses of the impacts to cultural resources for a Supplemental EIR. The previously approved 45-acre 500 kV switchyard would be expanded into a full 1120 MVA 500/220 kV substation on approximately 90 acres of land. This expansion is designed to interconnect multiple large solar energy projects to SCE’s existing Devers–Palo Verde (DPV) 500 kV transmission line.
- **Genesis Solar Energy Project, Cultural Resources Staff Assessment (2009-2010).** Under Contract with the California Energy Commission Dr. Bagwell served as the lead technical staff for the analysis of impacts to cultural resources from the 1,800-acre 250 MW power plant in an undeveloped area of the Mojave Desert near Dry Ford Lake. Her review included an extensive data driven cumulative analysis for the Blythe region. Important cultural issues include direct impacts to prehistoric Native American and historic World War II military maneuver sites and potential indirect impacts to a traditional cultural property. Dr. Bagwell testified as an expert witness in cultural resources during Evidentiary Hearings before the Commission.

### Mitigation Monitoring

- **Genesis Solar Energy Project, Cultural Resources Compliance (2010-present).** Under contract with the California Energy Commission Dr. Bagwell currently serves as the lead technical reviewer for cultural resources during the compliance process. Duties include the review of all licensees’ submittals and actions related to compliance with cultural resources conditions of certification and providing recommendations to staff regarding acceptability. The GSEP is a large, complex project for which cultural resources compliance review has been coordinated with other solar projects, with BLM as the federal lead agency, and with local Native American tribal representatives.
- **Cultural Landscape Compliance Assistance, Cultural Resources Compliance (2010-present).** Dr. Bagwell leads an Energy Commission Cultural Resources team which manages the budget, staff of ten specialists, and deliverables for two multi-year research projects. These projects serve as mitigation for the cumulative impacts to WWII era cultural resources and an extensive web of prehistoric trails and associated cultural resources by the Blythe Solar Power Project (BSPP), the Palen Solar Power Project (PSPP), the Genesis Solar Energy Project (GSEP) and the Rice Solar Energy Project (RSEP). The research staff has been tasked to define regional resource types, train the individual archaeologists in consistent field identification and recording of these resources, and incorporate the resulting data into a GIS database designed by Dr. Bagwell and the Aspen GIS Team. Finally, the

research team will document and possibly nominate to the National Register of Historic Places (NRHP) two cultural landscapes — the Prehistoric Trails Network Cultural Landscape (PTNCL) and the Desert Training Center Cultural Landscape (DTCCL). The review of the progress and deliverables from these programs is coordinated among the participating solar projects, BLM and the County of Riverside, and with local Native American tribal representatives.

### Third Party Review

**Western Power Administration, Desert Southwest Region (2011-present).** Under contract with Western, Dr. Bagwell has served as technical reviewer for cultural resources documents associated with multiple transmission maintenance and expansion projects in Arizona, Nevada, and California. In addition, she designed a standardized GIS database for all DSW cultural resources projects. Variants for Arizona, California, and Nevada were created in order to be consistent with an existing Sierra Nevada Region database as well as the requirements of each State Historic Preservation Officer. GPS data dictionaries based on this database will be used in field recording for future DSW projects.

**Western Power Administration, Sierra Nevada Region (2012).** Aspen has a multi-year contract to provide NEPA and other environmental support services. Under this contract Dr. Bagwell has served as technical reviewer for cultural resources documents for vegetation management and fiber optic cable replacement projects along the Carr-Keswick 230-kV, Shasta-Flanagan and Shasta-Cottonwood #1 and #2 230-kV, and Tracy-Livermore 230-kV transmission lines in northern California.

### Technical Reports

- **Four Belectric Photovoltaic Solar Energy Facilities, Cultural Resources Reconnaissance Surveys and Technical Reports (2013).** Dr. Bagwell managed four cultural resources reconnaissance surveys and co-authored four technical reports in support of a CEQA review and preparation of an Initial Study for four proposed solar energy facility on 230 acres of private land in Kings County, Riverside County, and San Bernadino County, California. Cultural resources identified and evaluated include segments of historic irrigation canals.
- **Verde to Pinal West 500 kV Transmission Line Project, Cultural Resources Data Recovery and Technical Report (2007-2008).** While working for Desert Archaeology and under contract with Salt River Project Dr. Bagwell supervised a team of archaeologists mitigating the impacts of the construction of PVPW Tower 49 on the prehistoric village of Gillespie Dam and an historic period irrigation canal. This NRHP eligible site is located on privately owned land on the eastern side of the Gila River near Gila Bend, Arizona.
- **Dinosaur to Hunt 12 kV/69 kV Transmission Line Project, Cultural Resources Data Recovery and Technical Report (2008).** While working for Desert Archaeology and under contract with Salt River Project Dr. Bagwell supervised a team of archaeologists mitigating the impacts of the construction of a 12 kV/69 kV electric line connecting the Dinosaur Substation and the Hunt Substation southeast of Queen Creek, Arizona to four prehistoric sites located on Arizona State Trust Land. She was also the primary author of the technical report.

### Professional Affiliations and Training

- Register of Professional Archaeologists #16564
- Qualified Cultural Resources Project Manager – Arizona State Historic Preservation Office (Arizona State Museum)
- Qualified Cultural Resources Project Manager – New Mexico State Historic Preservation Office
- Renewable Energy Development-Cultural Resources, National Preservation Institute, 2011
- Natural and Cultural Resources, National Preservation Institute, 2011

- The Basics of Section 106 Compliance, SWCA, 2009
- Section 106: Principles and Practice, SRI Foundation – Lynne Sebastian, 2009
- Reaching and Writing Agreements under Section 106 of the NHPA, SWCA-Tom King, 2009
- Comprehensive NEPA Training, SWCA, 2009
- Comprehensive Dust Control Training – Maricopa County, Arizona, 2008
- OSHA Excavation Safety and Competent Person Training, Trench Shore Rentals, 2008

## Memberships

- Society for American Archaeology
- Society for California Archaeology
- Arizona Archaeological Council
- Arizona Archaeological and Historical Society
- New Mexico Archaeological Council

## Honors and Awards

- 2006 University of New Mexico Tom L. Popejoy Prize for most outstanding UNM dissertation, Domestic Architectural Production in Northwest Mexico
- 2002 National Science Foundation grant BCS-0210436: Expanding Dendroarchaeology into Northern Mexico
- 2001 National Science Foundation Dissertation Improvement Grant BCS-0121730

## Selected Publications and Reports

- Bagwell, Elizabeth A., 2008, Archaeological Data Recovery for the Dinosaur to Hunt 12 kV/69 kV Electric Line, Pinal County, Arizona. Technical Report No. 08-04. Desert Archaeology, Inc., Tucson, Arizona.
- Bagwell, Elizabeth A., 2008, Cultural Resources Survey of 160 Acres North of the Abel Substation Site, Southeast of Queen Creek, Pinal County, Arizona. Project Report No. 08-114. Desert Archaeology, Inc., Tucson, Arizona.
- Bagwell, Elizabeth A., 2006, Domestic Architectural Production in Northwest Mexico. Ph.D. Dissertation, Department of Anthropology, University of New Mexico.
- Bagwell, Elizabeth A., 2004, Architectural Patterns Along the Rio Taraises, Northern Sierra Madre Occidental, Sonora. *Kiva* 70(1):7-30.
- Henderson, T. Kathleen and Elizabeth A. Bagwell, 2007, Archaeological Treatment Plan for the Phoenix Sky Harbor International Airport Stage 1 Automated Train Project, Maricopa County, Arizona. Prepared for the City of Phoenix, PGM 2007-46. Desert Archaeology, Inc., Tucson.
- Ruscavage-Barz, Samantha and Elizabeth A. Bagwell, 2006, Gathering Spaces and Bounded Places: The Religious Significance of Plaza-Oriented Communities in the Northern Rio Grande, New Mexico. In *Religion in the Prehispanic Southwest*, pp. 81-102, edited by C. S. VanPool, T. L. VanPool, and D. Phillips. Altamira Press, Lanham, Maryland.



**Academic Background**

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

**Professional Experience**

Mr. Birdsall is an engineer and environmental scientist who specializes in air quality and greenhouse gas (GHG) analyses and noise impact assessment for energy infrastructure and land development projects. He has 18 years of consulting experience under the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and the Clean Air Act. He provides senior-level analysis for resource planning decisions related to energy facilities siting, energy supply alternatives, including power procurement and transmission planning, and offsetting or mitigating the effects of the infrastructure.

**Aspen Environmental Group.....2001-present**

Mr. Birdsall’s project experience at Aspen includes the following:

For the **California Public Utilities Commission:**

- **Long-Term Procurement Plan Guidelines and Renewable Portfolio Standard Implementation Analysis (2008-2011).** Developed timelines of permitting and identified barriers to implementing the 33 percent Renewable Portfolio Standard (RPS), including ranking and screening of available energy resources. Surveyed historical transmission build-out timelines, based on experiences of the California Independent System Operator (CAISO), CPUC, and other cooperating agencies. Mapped and scored renewable resources from the Renewable Energy Transmission Initiative (RETI) process and CPUC Energy Division database for environmental concern and permitting risk based on location to sensitive resources and agency requirements.
- **Sunrise Powerlink 500 kV Transmission Line (2006-2011).** Coordinator for transmission planning and engineering alternatives in the environmental review of this major new transmission line between Imperial Valley and San Diego County. Assessed GHG results of production cost modeling and analyzed net GHG emissions and climate change effects for multiple renewable and conventional generation and transmission scenarios. Developed mitigating actions and carbon offset strategies that were adopted in advance of AB 32 implementation.
- **Devers–Palo Verde 500 kV #2 Transmission Line (2005-2006).** Coordinator for transmission planning and engineering alternatives in the environmental review of this major transmission upgrade between the Phoenix area and urban Riverside County to deliver low-cost, out-of-state power.
- **Diablo Canyon Power Plant and San Onofre Nuclear Generating Station, Steam Generator Replacement Projects (2004-2005).** Deputy Project Manager for two comprehensive Environmental Impact Reports to fulfill CEQA requirements for major investments in the Diablo Canyon and SONGS nuclear power plants, with analyses of potential shutdown, replacement facilities, and extension of life.
- **Miguel-Mission 230 kV #2 Transmission Line (2003-2004).** Conducted the air quality and noise review for a system that would reduce transmission constraints between San Diego County and generators within the US and Mexico. Supervised the engineers studying impacts to traffic and transportation, the transmission system design, and public health.

- **Jefferson-Martin 230 kV Transmission Line (2003-2004).** Prepared air quality and noise studies and provided oversight of health effects analyses for construction and operation of a 27-mile transmission line through urban and rural San Mateo County. The project passes through the Cities of Burlingame, Millbrae, San Bruno, South San Francisco, Brisbane, Colma, and Daly City to serve the projected electric demand in San Francisco.

**Siting Cases for CEC – Review of Applications to Construct Power Plants (2001-present).** Mr. Birdsall has assisted the California Energy Commission (CEC) as a technical specialist by reviewing and providing testimony on Applications for Certification (AFC) for more than a dozen new power plants throughout California, including natural gas-fired combined cycle, peaking, solar, and geothermal facilities. As a contractor for the Engineering Office of the Siting, Transmission, and Environmental Protection Division, he has provided precedent-setting testimony for the CEC on the implementation of the California Global Warming Solutions Act of 2006 (AB 32) in the electricity sector. These assessments cover the potential effects of new power plants on overall electricity system operation, achieving California goals in reducing greenhouse gas emissions, avoiding deterioration of air resources, and developing plans to offset emissions.

**South San Joaquin Irrigation District, Plan to Provide Retail Electric Service (2005-present).** Project manager for full environmental analyses for new provider of electric distribution service. Topics of assessment include how GHG emissions and energy conservation programs could be affected by change in system ownership, assessment of concurrent Municipal Services Review and Sphere of Influence, and analysis of Community Choice Aggregation (CCA) and as an alternative to allowing a change in retail electric service provider in southern San Joaquin County.

**San Luis Obispo County, California Valley Solar Ranch and Topaz Solar Farm (2008-2011).** Noise, air quality, and climate change review for utility-scale solar power generators on Carrizo Plain.

**Northern Sonoma County Air Pollution Control District and Sonoma County, Wildhorse and Buckeye Geothermal Power Plant Projects (2011-2012).** Assessed GHG impacts of new renewable energy facilities and air quality effects of two new geothermal power plants in the Geysers resource area, with complex dispersion modeling.

**Kern County Waste Management Department (2011-2012).** Analyses of municipal solid waste facilities alternatives and energy conservation assessments for landfills in the CEQA process.

**Burning Man 2012-2016 Environmental Assessment, BLM (2011-2012).** Developed technical memoranda on community noise, air quality, and a greenhouse gas emissions inventory for the annual Burning Man Event for the five-year review conducted by the BLM Winnemucca Field Office and Black Rock City LLC.

**City and County of San Francisco, Planning Department, 75 Howard Street (2012-present).** Prepared emissions inventory and noise impact assessment for major residential waterfront development.

**City and County of San Francisco, Planning Department, 706 Mission Street–Mexican Museum (2011).** Analyzed air quality, noise, health risks, and greenhouse gas emissions for major residential development including detailed air dispersion modeling of stationary sources and traffic in heavily urbanized setting.

**City and County of San Francisco, Planning Department, Parkmerced Project (2010).** Air quality, noise, health risk, and greenhouse gas emissions analyses for demolition and replacement of about 1,500 residential units at infill and transit-oriented development, with evaluation of sustainability programs.

**City of Oakland, Central Estuary Implementation Guide (2009-2012).** Air quality, health risk, and greenhouse gas analyses for infill redevelopment within a historic waterfront, adjacent to a major highway, railway, and the port, with a mix of industrial, commercial, residential, and recreational uses.



**Presidio Trust, Presidio of San Francisco (2002-2011).** Analyzed climate change, air quality, and noise impacts within the Golden Gate National Recreation Area for various demolition, rehabilitation, and infill construction, including the Main Post, Contemporary Art Museum, Public Health Service Hospital District, and Letterman Digital Arts Center. Provided technical support and peer review of tunnel and highway noise and vibration for the South Access to the Golden Gate Bridge, Doyle Drive Reconstruction through the Presidio of San Francisco. Developed mitigation to protect natural sounds consistent with National Park Service policy.

**Santa Barbara County, Energy Division, Lompoc Wind Energy Project (2008-2009).** Peer-review of noise analysis and control plan for new 97 MW wind energy facility in rural Santa Barbara County.

**Santa Barbara County, Energy Division, PXP Tranquillon Ridge Development Project (2006-2009).** Air quality, noise, and energy use assessment for extended reach drilling into the Tranquillon Ridge Field in State waters including oil emulsion and gas processing at the Lompoc Oil and Gas Plant.

**City of Richmond, Department of Planning and Building, Review of Environmental Documents (2006-2009).** Peer-review services and technical support to city planners on refinery upgrades and replacement projects, primarily for air quality, health risks, energy use, and mitigation of greenhouse gases and climate change. Identified strategies to inventory refinery emissions and mitigating actions to offset project-related emissions, with a goal of no net increase.

**City of Long Beach, Department of Planning and Building, Review of LNG Import Facility (2005-2006).** Coordinated a critical review and provided technical support for review of the environmental impact assessments related to a proposed liquefied natural gas import facility within the Port of Long Beach.

**California State Lands Commission, Monterey Accelerated Research System Cabled Observatory (2004-2005).** Provided technical analysis of air quality and noise effects of installing new underwater equipment in Monterey Bay. Provided marine biologists with analysis of underwater sounds in the Monterey Bay National Marine Sanctuary.

**California State Lands Commission, Concord-Sacramento Pipeline (2002-2003).** Provided technical analysis of air quality and noise effects of constructing a new 20-inch, 70-mile petroleum products pipeline, including upgrades to storage tank facilities in Concord and distribution systems in West Sacramento.

**Sonoma-Marin Area Rail Transit District, Supplemental Environmental Review (2007-present).** Assessment of air quality, noise, and energy use impacts for planned expansion of diesel rail transit.

**San Joaquin Refining Company, Air Toxics "Hot Spots" Review (2003).** Developed methodologies for emission inventory and health risk assessment in consultation with San Joaquin Valley Air Pollution Control District for an independent refiner in Bakersfield.

**EIP Associates..... 1998-2001**

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

- **City of Mountain View, Whisman Road Transit Oriented Development MND.** Deputy Project Manager for Negative Declaration related to high-density office development at the Middlefield-Ellis-Whisman Superfund Site. Authored various technical sections and coordinated preparing the environmental documents with the city staff.
- **Bay Area Rapid Transit District, Oakland Airport Connector EIS/EIR.** Prepared noise impact evaluation and mitigation strategies. Conducted community noise monitoring and assessment according to Federal Transit Administration methodology.



- **Presidio Trust Implementation Plan EIS and Letterman Complex Supplemental EIS.** Prepared community noise impact assessment and traffic noise mitigation strategies. Air quality management policy consistency and federal general conformity rule analysis. The plan received the 2003 Outstanding Land Use Plan award from the Association of Environmental Professionals.
- **Alameda County Flood Control and Water Conservation District, Zone 7, Altamont Water Treatment Plant EIR.** Analyzed air quality and community noise effects of three potential water plant sites in remote eastern Alameda County.
- **University of California, Davis.** Prepared campuswide health risk assessment update, which included toxic air contaminant emission inventory and dispersion modeling using ISC.
- **University of California, Berkeley.** Prepared initial air quality and noise technical studies for Long Range Development Plan Update EIR and analyses for Northeast Quadrant Science and Safety Project (Stanley Hall replacement building) EIR.
- **Merced County, Draft University Community Plan.** Prepared air quality and noise background studies and policy discussion papers for the new Merced Campus of the University of California.

**Trinity Consultants ..... 1994-1998**

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

**Additional Training and Courses**

- Climate Change, A New Age for Land Use Planning, U.C. Davis Extension
- Fundamentals of Noise and Vibration for the California Energy Commission
- Expert Witness Training, California Energy Commission
- Co-Instructor, Air Permitting Issues for Municipal Solid Waste Landfills, Trinity Consultants
- Fundamentals of New Source Review Workshop, Air and Waste Management Association
- Title V and Compliance Assurance Monitoring Workshops, Air and Waste Management Association
- NATO Advanced Studies Institute, Wind Climates in Cities
- Graduate-level Coursework: Solar Energy Conversion, Wind Engineering, Reciprocating and Centrifugal Engines, Computational Fluid Dynamics, Scalar Transport

**Professional Affiliations and Awards**

- Professional Engineer (Mechanical, California #32565)
- Qualified Environmental Professional, Institute of Professional Environmental Practice (#03030005)
- 2001 Outstanding Performance Award presented by the California Energy Commission
- Air and Waste Management Association since 1994
- Tau Beta Pi, National Engineering Honor Society



## Academic Background

BS, Chemical Engineering, University of California, Santa Barbara, 1996

## Professional Experience

Ms. Blewitt is a Senior Associate with 16 years of project management and technical experience. Specifically, Ms. Blewitt has 11 years of experience evaluating the potential impacts to the physical environment, particularly with regard to noise associated with proposed infrastructure projects in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). She has also been intimately involved in the development of alternatives for several large, controversial transmission line projects.

### Aspen Environmental Group.....2001-present

**Ventura County Watershed Protection District.** Ms. Blewitt performed various environmental analyses for the following projects.

- **Sespe Creek Levee Improvements Project IS/MND and EA, Project Manager and Noise Analysis (Feb. 2012–present).** Ms. Blewitt is managing the preparation of an IS/MND and Environmental Assessment for the modification of the Sespe Creek 2 (SC-2) portion of the Sespe Creek Levee system, located adjacent to the City of Fillmore. The project would raise the levee along approximately 1,521 feet and add a 321-foot-long retaining wall along the landward side of the levee, which would ensure that the SC-2 Levee is capable of withstanding 100-year storm flows for FEMA certification. In addition, structural deficiencies identified in the Periodic Inspection Report commissioned by the Corps in 2010 would be implemented. Issue areas of greatest concern include Air Quality, Biological Resources, Noise, and Visual Resources. Ms. Blewitt prepared the noise analysis for the Initial Study, which was completed in July 2012. The MND (CEQA) and EA (NEPA) for the Corps are currently underway and are expected to be released in May 2013.
- **California River Parkways Trailhead Project IS/MND, Project Manager and Noise Analysis (2009-2010).** Ms. Blewitt managed the preparation of the IS/MND and completed the noise analysis. The project includes the development of a “rustic” parking lot and trailhead, and upgrading of existing informal trails along the Ventura River in unincorporated Ventura County. The IS/MND was approved by the Board of Supervisor’s on July 13, 2010.
- **Upper San Antonio Creek Watershed Giant Reed Removal Project, Noise Analysis (2008-2009).** Ms. Blewitt performed the noise analysis for the Initial Study, which includes an assessment of noise impacts associated with the removal of *Arundo donax*, a highly invasive non-native plant species, and opportunistic removal of castor bean from San Antonio, McNell, Thacher and Reeves Creeks. The analysis includes assessing the noise impacts associated with removal equipment such as chain saws, loppers, and power brush cutters, and then chipping of the plant material.

**Ventura County Transportation Department, Donlon Road Realignment Project EIR (Nov-Dec 2011).** Ms. Blewitt performed a third-party review of the Noise section of the administrative Draft EIR prepared by Rincon Consultants. Detailed comments pointing out deficiencies as well as ways to improve the analysis were provided.

**Port of Long Beach.** Ms. Blewitt managed and performed various environmental analyses for the following projects.

- **Total Terminals International (TTI) Grain Export Terminal Installation Project IS/NOP and Focused EIR, Port of Long Beach, Project Manager, Noise Analysis, Hazards/Hazardous Materials Analysis, Alternatives (2011-present).** Ms. Blewitt managed the preparation of the TTI Grain Export Terminal Installation Project IS/NOP and a focused EIR. Ms. Blewitt prepared the noise and hazards/hazardous materials analyses for the Initial Study. Hazards are a major concern for this project as the proposed site is on a portion of the former Long Beach Naval Complex identified as Installation Restoration (IR) Site 4. Due to the historic use of this site, the site was determined to have soil and groundwater contamination. The focused EIR analyzed impacts to air quality, greenhouse gas emissions, hazards/hazardous materials, and transportation/traffic. Ms. Blewitt performed the analysis for hazards/hazardous materials and alternatives in the EIR.
- **Eagle Rock Aggregate Terminal Project IS/NOP and Focused EIS/EIR, Port of Long Beach, Noise Analysis (2011-2012).** Ms. Blewitt prepared the noise analysis for this project, which includes the construction and operation of a sand, gravel and granite aggregate receiving, storage and distribution terminal. Implementation of the project would require the dredging and disposal of the material from Berth D-44, as well as site preparation, berth improvements, installation of a land-based conveyor and distribution system, and the placement of truck scales and an office building.
- **Sulex Demolition Project IS/ND, Port of Long Beach, Project Manager, Noise Analysis, Hazards/Hazardous Materials Analysis (2009-2011).** Ms. Blewitt managed the preparation of the Negative Declaration and Initial Study, including completing the noise and hazards and hazardous materials analyses. The project includes the demolition of existing site improvements installed by Sulex, Inc. for sulfur pelletizing operations, which have been decommissioned for several years.

**San Luis Obispo County.** Ms. Blewitt performed the noise analysis for the following projects:

- **California Valley Solar Ranch Project EIR, Noise Analysis (2009-2010).** Ms. Blewitt performed the noise analysis for the California Valley Solar Ranch Project. SunPower Corporation proposes to construct and operate a 250-MW photovoltaic (PV) solar power plant in the Carrizo Plain, an unincorporated portion of eastern San Luis Obispo County. The project includes solar arrays that would cover nearly 2,000 acres, as well as an electric substation, maintenance facilities, public viewing areas, and an approximately 2.5-mile 230-kV transmission line. In addition, the EIR evaluates the impacts of establishing a commercial aggregate surface mine located north of the solar project.
- **Topaz Solar Farm Project EIR, Noise Analysis (2009-2011).** Ms. Blewitt performed the noise analysis for the Topaz Solar Farm Project. First Solar Inc. proposes to construct and operate a solar energy facility within a 4,200-acre area of a 5,300 project site in the Carrizo Plain. The Project would consist of PV arrays with an electric generating capacity of 550-MW, as well as an electrical substation and switching station, monitoring and maintenance facility, and a Solar Energy Learning Center. Ms. Blewitt prepared extensive responses to comments related to noise to support the Final EIR.

**Bureau of Land Management Palm Springs-South Coast Field Office, Desert Harvest Solar Project EIS, Noise Analysis (2011-2012).** Ms. Blewitt performed the noise analysis for this 150-MW solar project, which would utilize thin-film photovoltaic panels. The project site is located immediately adjacent to the Desert Sunlight Solar Farm Project, which was under construction. The analysis includes assessing the noise impacts associated with construction and operation of the solar field, project substation and switching station, and gen-tie line, as well as a detailed analysis of the cumulative impacts of the Desert Harvest Solar Project occurring concurrently with the Desert Sunlight Solar Project.

**County of San Benito, Panoche Valley Solar Farm Project EIR, Noise Analysis (2010).** Ms. Blewitt performed the noise analysis. Solargen Energy, Inc. proposes to construct a solar energy facility within a 2,133-acre area in an unincorporated portion of eastern San Benito County. The Project consists of PV arrays with an electric generating capacity of 420 MW, as well as an electrical substation, switchyard, and operations and maintenance facility.

**Imperial County and BLM, Ocotillo Wind Energy Facility (OWEF) EIS/EIR, Noise Analysis (2010-2012).** Ms. Blewitt performed an independent noise analysis for the OWEF, utilizing wind turbine modeling provided by Aspen's subcontractor Navcon Engineering Network. Ocotillo Express, LLC proposes to construct up to 465-MW wind energy project including a substation, operations and maintenance facilities, and transmission. The project is located near the community of Ocotillo where noise impacts to local residences are an important concern. Ms. Blewitt worked with Navcon to prepare responses to detailed comments received regarding the noise analysis to support the Final EIS/EIR.

**Kern County.** Ms. Blewitt performed the noise analysis for the following wind energy projects:

- **Pacific Wind Energy Project EIR, Kern County, Noise Analysis (2009-2010).** Ms. Blewitt performed the noise analysis utilizing the applicant's noise wind turbine study. EnXco Development Corporation proposes to construct a 250-MW wind facility within an 8,300-acre area in the south-central portion of the unincorporated area of Kern County. The Project consists of approximately 250 1-MW or 83 3-MW wind turbines, as well as underground/overhead electrical lines, transformers, substation, and a maintenance facility.
- **North Sky River Wind Energy Project and Jawbone Wind Energy Project EIR, Kern County, Noise Analysis (2011).** Ms. Blewitt performed the noise analysis for these two projects utilizing wind turbine noise studies provided by each applicant's consultant. The proposed project requires approval of zone change requests, and a conditional use permit, and if approved would allow for the commercial production of 339 MW of electricity from wind turbine generators.
- **Morgan Hills Wind Energy Project EIR, Kern County, Noise Analysis (2011).** Ms. Blewitt performed the noise analysis utilizing the applicant's noise wind turbine study. Alta Windpower Development, LLC, proposes to construct a 230-MW wind facility. Project components include wind turbines, access roads, underground transmission collector lines, an overhead generation-tie line, substation and switching yard.

**Los Angeles Department of Water and Power (LADWP).** Ms. Blewitt helped to managed and/or performed various tasks for the following projects:

- **River Supply Conduit Improvement – Upper Reach Project EIR, Deputy Project Manager, Air Quality Analysis, Noise Analysis (2006-2008).** Ms. Blewitt was the Deputy Project Manager for the Upper Reach Project. As part of the Initial Study for this project, she prepared the cultural resources, hydrology and water quality, and hazards and hazardous materials analyses. For the Draft EIR, she prepared the air quality and noise analyses based on the air quality emissions calculations prepared by Aspen's air quality specialist, Will Walters, and the Noise and Vibration Study prepared by Aspen's subconsultant, Medlin & Associates, Inc.
- **Lower Reach River Supply Conduit (RSC) Project EIR, Deputy Project Manager (2004-2005).** Ms. Blewitt served as the Deputy Project Manager for the Lower Reach RSC Project. For the Initial Study, she prepared the project description, cultural resources, and hazards and hazardous materials discussions. Ms. Blewitt helped manage the Draft EIR, which focused on air quality, noise, and traffic/transportation impacts (May 2005). She also worked with Jim Buntin of Brown-Buntin Associates, Inc. to develop the basis for the *Noise Study* and reviewed all subconsultant documents for content and accuracy (September 2005). The project includes a 7.1-mile water pipeline, to be located in pub-

lic street rights-of-way, LADWP property, and LADWP utility easements in the communities of Silver Lake and Los Feliz (including Griffith Park) in the City of Los Angeles.

**Los Angeles Unified School District (LAUSD).** Ms. Blewitt performed various environmental analyses for the following projects:

- **Hughes Magnet High School, Issue Area Specialist (2003-2004).** Ms. Blewitt performed the noise, agricultural resources, hydrology and water quality, and mineral resources analyses for the Initial Study to re-open the existing Hughes Middle School in the community of Woodland Hills as a Magnet Span School (6th through 12th grades), requiring the relocation of the existing uses of the school.
- **Reseda High School (Portable Classroom Additions) IS/MND, Noise Analysis (2002).** Ms. Blewitt performed the noise analysis for the Initial Study to determine the significance of noise impacts due to the addition of 15 classroom buildings and two sanitary buildings (portables) at Reseda High School. The FHWA Traffic Noise Model® was used to determine traffic noise impacts.

**California Public Utilities Commission (CPUC).** Ms. Blewitt managed and/or performed various environmental analyses for the following projects:

- **Antelope-Pardee 500-kV Transmission Project EIR/EIS, CPUC and USDA Forest Service, Project Description/Alternatives/Noise (2005-2007).** Ms. Blewitt prepared the Alternatives Screening Report for the Antelope-Pardee 500-kV Transmission Project EIR/EIS. Upon completion of the Alternatives Screening Report, Ms. Blewitt worked with technical experts to develop more detailed information and assumptions for the alternatives carried forward into the EIR/EIS allowing for issue area analysis at an equivalent level of detail as the proposed project. Ms. Blewitt performed the noise analysis and the comparison of alternatives analysis for the EIR/EIS, which included the proposed project and five alternatives. Ms. Blewitt also prepared the Mitigation Monitoring Plan for the Final EIR/EIS and the Findings of Fact document. The proposed project includes building a new 25.6-mile 500 kV transmission line between SCE's existing Antelope and Pardee Substations, which are located in Lancaster and Santa Clarita, respectively. The proposed route would traverse the ANF generally within the existing Saugus-Del Sur transmission corridor.

**Division of Oil, Gas, and Geothermal Resources (DOGGR), California Environmental Quality Act Compliance Program, California Department of Conservation, Noise/Air Quality (2002-2003).** Ms. Blewitt performed the noise analysis and prepared portions of the air quality analysis for an Initial Study performed as part of the evaluation of DOGGR's California Environmental Quality Act Compliance Program for oil and gas well drilling in Kern County.

**Shore Terminals EIR, California State Land Commission (CSLC), Air Quality/Noise (2003).** Ms. Blewitt performed the air quality and noise analyses to determine the impacts due to continued operations of the Shore Marine Terminal (wharf). The EIR analyzed the environmental impacts associated with granting a new 20-year lease of California sovereign lands to Shore Terminals, LLC.

### **Additional Training and Courses**

- NEPA Legal and Policy Update Webinar: 2011 NEPA Cases, June 2012
- Navcon Engineering's 3-day Environmental Noise Seminar – Measurement, Modeling & Evaluation Intensive Short Course, September 2010
- UCLA Extension Public Policy Program – Land Use Planning for Non-Planners: An Introduction to Planning and Regulation in California, June 2009
- AEP Spring 2009 CEQA Series Advanced Workshop – CEQA Tools – CEQA and Climate Change
- UCSB Extension Project Management Professional Certification Program, completed June 2003
- UCSB Extension 2-day class – Preparing CEQA/NEPA Documents, January 2002
- Engineer-In-Training Certificate, October 1996.



**Academic Background**

BS, Urban Planning, University of Minnesota, 1995  
Board Certified Environmental Planner (CEP) #12040973  
U.S. Council of Engineering & Scientific Specialty Boards/ABCEP

**Professional Experience**

Mr. Debauche is an environmental planner with 17 years of experience specializing in the completion of CEQA and NEPA documentation for a variety of large-scale infrastructure and civil development projects. His areas of technical expertise include the evaluation of Visual Resources/Aesthetics, Socioeconomics/Environmental Justice, Transportation/Traffic, and Noise. The following outlines a sampling of his recent and relevant project experience with respect to conducting CEQA Population/Housing and Aesthetics analyses for the proposed Avila Point Project EIR (including Specific Plan Amendment, Coastal Plan Amendment, Development Plan, and Remediation).

**Aspen Environmental Group.....2001-present**

**SAN LUIS OBISPO COUNTY PLANNING AND BUILDING DEPARTMENT**

- **Santa Margarita Quarry Expansion Project EIR, San Luis Obispo County, CA.** Mr. Debauche is currently preparing the Transportation/Traffic analysis to expand the existing surface mine (Santa Margarita Quarry). As proposed, the estimated duration of mining activities would be approximately 59 years with an additional 5 years to complete the proposed reclamation plan.
- **Topaz Solar Project EIR, San Luis Obispo County.** Technical Specialist for the Air Quality and Socioeconomics analyses of this 550 MW solar photovoltaic project in the Carrizo Plain area. The project includes solar arrays that would cover approximately 3,500 acres, as well as an electric substation and switching station.
- **California Valley Solar Ranch EIR, San Luis Obispo County.** Technical Specialist assisting with the Air Quality analysis of this EIR for this 250 MW solar photovoltaic project in the Carrizo Plain area. This project requires the conversion of approximately 4,000 acres of open space to an industrial use.

**COASTAL PROJECTS**

- **Monterey Bay Aquarium Research Institute MARS EIS/EIR, San Francisco County.** Prepared the Socioeconomics/Environmental Justice analysis for the installation and operation of the Monterey Accelerated Research System (MARS) Cabled Observatory within the Pacific Ocean. Traversing California State Lands Commission and BLM jurisdictional coastal resources, the project required extensive Environmental Justice analysis evaluating the potential for any direct or indirect disproportionate impacts to fisheries workers.
- **Redondo Beach Energy Project, Los Angeles County, CA.** Currently preparing the California Energy Commission CEQA-compliant Staff Assessment evaluating Alternatives to the proposed project, which includes a proposed natural gas fired, combined-cycle, air-cooled electrical generating facility with a net generating capacity of 496 MW, which will replace, and be constructed on the site of the existing AES Redondo Beach Generating Station.
- **Huntington Beach Energy Project, Orange County, CA.** Currently preparing the California Energy Commission CEQA-compliant Staff Assessment evaluating Alternatives to the proposed project, which includes a proposed natural gas fired, combined-cycle, air-cooled electrical generating facility with a net generating capacity of 939 MW, which will replace, and be constructed on the site of the existing AES Huntington Beach Generating Station.

- **Carlsbad Energy Center Project, San Diego County, CA.** Prepared the Transportation/Traffic and Alternatives California Energy Commission CEQA-compliant Staff Assessments for the demolition and reconstruction of the existing Carlsbad Power Plant to a 558 MW gross combined-cycle generating facility.
- **Diablo Canyon Power Plant (DCPP) Steam Generator Replacement Project EIR, San Luis Obispo County, CA.** Prepared the Socioeconomics and Alternatives analyses associated with the replacement of the eight original steam generators due to degradation from stress and corrosion cracking. The DCPP facility occupies 760 acres within Pacific Gas and Electric's (PG&E) 12,000-acre owner-controlled land on the California coast.
- **Coastal Plant Study, Coastal Counties of California.** Prepared the Socioeconomics section of the California Energy Commission's Coastal Plant Study, which considered the re-tooling, or expansion of California's 25 coastal power plants. Issues of importance included environmental justice and impacts on local economies and housing markets.
- **Port of Long Beach Eagle Rock Terminal Project EIS/EIR, Los Angeles County, CA.** Under contract to the Port of Long Beach (in cooperation with the Army Corps of Engineers), prepared the Transportation/Traffic analyses for the proposed construction and operation of a sand, gravel and granite aggregate receiving, storage and distribution terminal to be located at the Port of Long Beach.
- **Port of Long Beach Liquid Natural Gas (LNG) Import Project EIS/EIR, Los Angeles County, CA.** Under contract to the City of Long Beach, Mr. Debauche reviewed the Army Corps of Engineers prepared Transportation/Traffic and Noise analyses for the proposed construction and operation of this onshore LNG facility to be located at the Port of Long Beach.

#### **MUNICIPAL PUBLIC WORKS AND WATERSHED RESTORATION PROJECT EXPERIENCE**

- **Littlerock Reservoir Sediment Removal Project EIS/EIR, Palmdale Water District, City of Palmdale.** Mr. Debauche is serving as the Technical Specialist in charge of preparing the Visual Resources, Recreation, Socioeconomics/Environmental Justice Noise, Transportation/Traffic, and Hazardous Materials analyses for this joint EIS/EIR evaluating the impacts of 900,000 cubic yards of sediment removal from the Palmdale Water District Littlerock Reservoir located on US Forest Service lands.
- **South San Joaquin Irrigation District (SSJID) Sphere Plan and Municipal Services Program EIR, San Joaquin County.** Prepared the Visual Resources, Socioeconomics, Noise, Transportation/Traffic, and Air Quality, analyses allowing SSJID to expand its existing services throughout southern San Joaquin County, including the incorporated Cities of Manteca, Ripon, and Escalon, and the unincorporated areas within and contiguous to the SSJID service area boundaries.

**Ventura County Watershed Protection District.** Responsible for conducting the environmental analyses for CEQA compliance as part of two environmental services contracts. Mr. Debauche's project experience includes:

- **California River Parkways Trailhead IS/MND, Ventura County.** Prepared the Transportation/Traffic, Hazardous Materials, Waste Treatment/Disposal, and Utilities analyses for this project, which included a new point of entry to the Ventura County-maintained Ojai Valley Trail (OVT) and the City of Ventura-maintained Ventura River Trail (VRT).
- **Lake Canyon Dam and Detention Basin Project EIR, Ventura County.** Prepared the Transportation/Traffic, Air Quality, Fire Hazards, Hazardous Materials, Public Services, Utilities, and Infrastructure analyses for this project, which included an earthfill dam and detention basin in Ventura County to detain peak storm flows and capture debris expected from a 100-year storm event.

- **Sespe Creek Levee Improvement Project IS/MND, Ventura County** Prepared the Fire Hazards, Hazardous Materials, Community Character, and Housing analyses for this project which provided levee improvements along the SC-2 Levee, a 1.1-mile section of the Sespe Creek levee system.
- **San Antonio Creek Giant Reed Removal Project IS/MND, Ventura County.** Prepared the Transportation/Traffic, Fire Hazards, Visual Resources, Hazardous Materials, and Mineral and Agricultural Resources analyses for this project which removed the giant reed invasive plant species within the upper reaches of the San Antonio Creek watershed and several tributaries within Ventura County to ensure flood control protection to adjacent residential areas.

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

- **Piru Creek Stabilization and Restoration Project IS/MND, northern Los Angeles County.** Prepared the Transportation/Traffic, Noise, Population/Housing, and Alternatives analyses for bank repairs at a series of three locations downstream of Pyramid Dam and seismically retrofit the Pyramid Dam access bridge that crosses Piru Creek.
- **Pyramid Lake Repairs and Improvements Project IS/MND and EA, northern Los Angeles County.** Prepared the Transportation/Traffic, Noise, Population/Housing, and Alternatives analyses for conducting repairs and improvements at various sites on Pyramid Lake.

**US Army Corps of Engineers, Los Angeles District.** Responsible for conducting the analyses of physical science issue areas for a variety of EISs and EAs as part of two environmental services contracts. Projects included:

- **Prado Basin/Norco Bluffs/Reach 9 of the Santa Ana River Dikes Supplemental EAs, Riverside County.** Mr. Debauche prepared the Transportation/Traffic analysis of two structural alternatives for the Norco Bluffs Toe Stabilization project.
- **Murrieta Creek Flood Control and Environmental Restoration Project EA, Riverside County.** Mr. Debauche prepared the Transportation/Traffic and Noise analysis for the EA and Mitigation Monitoring plan for this flood control and restoration project in Riverside County.

#### **OTHER APPLICABLE EXPERIENCE – VISUAL RESOURCES AND SOCIOECONOMICS**

**California Energy Commission, Technical Assistance for Power Plant Siting and Licensing Case Reviews.** Aspen, as the prime on-call contractor for the Energy Commission, evaluates the environmental and engineering aspects of new power plant applications throughout the State. As part of this effort, Mr. Debauche serves as a technical senior and qualified expert witness in the following technical area disciplines: Visual Resources, Socioeconomics, Environmental Justice, Transportation/Traffic, and Alternatives. Mr. Debauche has conducted CEQA and NEPA analyses and testified as an expert witness on the following Energy Commission project as the Visual Resources and Socioeconomics/Environmental Justice technical lead:

- **Hydrogen Energy California Power Plant Project (EIS), Kern County, CA.** The HECA project proposes a 320 MW power plant burning coal and petroleum coke to produce hydrogen (fueling a combustion turbine). The gasification component of the plant would capture carbon dioxide, which would be transported and used for enhanced oil recovery (EOR) at the adjacent Elk Hills Oil Field. The project would also capture and harness the remaining hydrogen to produce approximately 1 million tons of fertilizer for domestic use.
- **Blythe Solar Power Project (EIS), Riverside County, CA.** 1,000 MW solar thermal electric generating facility and required new linear transmission line interconnections on both private and BLM lands.
- **Calico Solar Project (EIS), San Bernardino County, CA.** 850 MW solar electric generating facility and required new linear transmission line interconnections located on both private and BLM lands.



- **Palen Solar Power Project (EIS), Riverside County, CA.** 500 MW solar thermal electric generating facility and required new transmission line linear interconnections located on both private and BLM lands.
- **Ivanpah Solar Electric Generating System Project (EIS), San Bernardino County, CA.** 400 MW solar thermal electric power generating system and required new transmission line linear interconnections located on both private and BLM lands.
- **Genesis Solar Power Project (EIS), Riverside County, CA.** 250 MW solar thermal electric generating facility and required new transmission line linear interconnections on both private and BLM lands.
- **Inland Empire Energy Center Project, Riverside County, CA.** 670 MW natural gas-fired, combined-cycle electric generating facility and associated linear infrastructure (natural gas and reclaimed water).
- **Abengoa Mojave Solar Power Project, San Bernardino County, CA.** 250 MW solar electric generating facility and associated transmission line interconnection.
- **Canyon Power Plant Project, Orange County, CA.** 200 MW simple-cycle peaker plant.
- **Avenal Energy Project, Kings County, CA.** 600 MW combined-cycle electrical generating facility and associated transmission line infrastructure.
- **Lodi Energy Center Project, San Joaquin County, CA.** 225 MW combined-cycle electrical generating facility and associated transmission line interconnections.

**EIP Associates** (now a division of Atkins North America)..... **1998-2001**

**Coastal Urban Design Specific Plans and CEQA Documentation**

- **Cabrillo Plaza Specific Plan EIR, Santa Barbara County, CA.** Under contract to Santa Barbara County, prepared key urban design and planning aspects for this Specific Plan, which proposed commercial, hotel, and a large public aquarium. Design features included minimizing visual contrast and lighting plans for overall pedestrian connectivity. For the EIR, Mr. Debauche prepared the Visual Resources and Socioeconomics analyses for this mixed-use commercial development plan on Santa Barbara’s waterfront.
- **Dana Point Headlands Specific Plan EIR, Orange County, CA.** Under contract to the City of Dana Point, prepared key urban design aspects for this residential Specific Plan. For the EIR, Mr. Debauche prepared the Visual Resources and Socioeconomics analyses for this development of coastal bluff with hotel, single- and multi-family residential, and commercial uses.

**City of Santa Monica Environmental Assessments.** Under an environmental services contract with the City, was a Technical Specialist in charge of CEQA compliance for housing, commercial, institutional, and mixed-use developments. Project included:

- **North Main St. Mixed-Use Development Project EIR.** Prepared the Visual Resources (including a shade/shadow technical report) and Socioeconomics analyses for this evaluation of impacts resulting from the development of a mixed-use development in Santa Monica’s “Commercial Corridor” on Main Street.
- **Four-Story Hotel IS/MND.** Prepared the Visual Resources (including a shade/shadow technical report) and Socioeconomics analyses for this four-story hotel adjacent to St. John’s Hospital in Santa Monica.
- **Santa Monica College Parking Structure B Replacement EIR.** Prepared the Visual Resources (including a shade/shadow technical report) and Socioeconomics analyses for the addition of a 3-story parking structure in the center of the SMC campus.
- **Seaview Court Condominiums IS/MND.** Prepared Visual Resources (including a shade/shadow technical report) and Socioeconomics analyses for this proposed coastline residential development.

## Academic Background

BA, Biology, Harvard College  
MS, Zoology, University of California-Berkeley

## Professional Experience

Mr. Haas' professional focus has been the development of assessment and monitoring (A&M) programs for federally protected species; he has had the responsibility of implementing and supervising A&M programs for major studies supported by the United States Navy, U. S. Marines, California Department of Fish and Game, and California Department of Parks and Recreation. He is a leading authority on the biology and ecology of several federally endangered species including the southwestern willow flycatcher (*Empidonax traillii extimus*), the least Bell's vireo (*Vireo bellii pusillus*), and the arroyo toad (*Anaxyrus californicus*). Haas served as a peer reviewer for FWS critical habitat determinations for the flycatcher and the arroyo toad.

With this expertise and a richly varied background in general vertebrate field methods-including pitfall trapping (reptiles, amphibians, and small mammals), mist netting (birds); SonoBat, Anabat, and radar-based surveys (bats), and small mammal live trapping-Haas is now responsible for the planning and implementation of long-term management and population monitoring of numerous conservation properties, perpetual management areas, and wildlife preserves. He has developed additional expertise in preparing baseline assessments and developing long-term monitoring plans, writing management plans, preparation of property analysis records, and conservation easements for preserves and other mitigation lands in addition to supervising a staff of biologists who conduct biological studies and field research in California, Nevada, Arizona, and New Mexico.

## Previous Experience

### Current Research Projects

- Station-wide surveys for the federal threatened California gnatcatcher (*Polioptila californica*) on Marine Corps Air Station Miramar. Project tasks included not only the survey for and enumeration of occurring gnatcatchers but also an analysis of the effects of wildfire on their habitat use, home range size, and post-fire dispersal and recovery.
- Responsible for the design and implementation of the initial (1999) study and the 10-year follow-up study (2009) for long-term ecosystem monitoring at the Marine Corps Air Station Miramar. The study entailed comprehensive field methods and a variety of study methods to determine the locations and habitat use by reptiles, amphibians, small mammal, and birds and the statistical analysis of diversity changes over time as they relate to military training as well as 10 years of stochastic events including wildfire and weather.
- Design and implementation of a long-term (6-year) study of the federal endangered arroyo toad and the state species of special concern Coast Range newt within the San Diego river watershed in order to ascertain the effects of water transfers on breeding success of these two protected species.
- Design and implementation of a long-term (3-year) field study to determine statistically significant patterns of diversity, occurrence, and habitat use of desert birds in the Anza-Borrego Desert for the California Department of State Parks and Recreation.

## Design Projects

- Designed and implemented a program to model riparian habitats using vegetation sampling, remote sensing, and GIS to predict the occurrence and density of sensitive riparian bird species in desert wash habitats (Palm Springs, CA).
- Conducted analytical surveys in support of the design of mitigations for deep-water channel dredging of the Sacramento River. Designed and implemented surveys and team member for a consortium of specialists (hydrologists, vertebrate biologists, botanists, and limnologists) to develop a comprehensive mitigation plan in the Sacramento River Delta.

## Long-term Studies

- 1992 to Present - 20 years of experience designing protocols and field methods while also conducting field studies of the arroyo toad, least Bell's vireo, and southwestern willow flycatcher (including mist netting and individual color banding) in Southern California.
- 1992 to Present – 20 years of field experience intensively studying seasonal use patterns of the burrowing owl in Riverside, San Diego, San Bernardino, and Imperial counties.
- 1995 to Present – 17 years of field experience conducting intensive studies, habitat assessments, and creating a predictive model for riparian species in southern California deserts, especially the analysis of historic and current habitat use to develop a predictive model to assess the value of riparian corridors to sensitive bird species including Bell's vireo, willow flycatcher, summer tanager, yellow warbler, and yellow-breasted chat.
- 1997 to Present – 12 years monitoring desert and coastal populations of the large-billed and Belding's savannah sparrows to determine year-round activity cycles, breeding chronology, and population dynamics.

## Additional Relevant Capabilities

Mr. Haas has more than 20 years of experience in biological study analysis and the development of mitigation and long-term management plans for more than 50 construction or development-based projects that required:

- Preparation of historic overviews of study areas
- Collecting data and preparing baseline reports
- Pre-construction assessment of potential effects and development of best management practices to minimize or eliminate adverse impacts
- Developing pre-construction monitoring plans
- Developing post-construction monitoring plans

Additional relevant surveys include the following:

- Design and implementation of a long-term avian survey of the 15-section (15 sq. mi.) Freeman Ranch for the State Department of Parks and Recreation to determine winter, migration, and breeding use patterns.
- Design and implementation of a long-term study of the birds, mammals (incl. bats), reptiles, and amphibians of approximately 1500 acres of state acquisition lands for and under contract to the California Department of Fish and Game.

- Implementation of rigorous survey protocols to assess occurrence and distribution of burrowing, short-eared, long-eared, barn, and great horned owls throughout Southern California.
- Extensive small mammal trapping throughout Imperial, San Diego, and Riverside counties with special emphasis on the little pocket mouse (*Perognathus longimembris* ssp.) and various species of the kangaroo rat (*Dipodomys* spp.).
- Vertebrate surveys and habitat assessment encompassing more than 10,500 acres of southern California desert habitats to determine habitat suitability and best detection methods for the kit fox (*Vulpes macrotis*), American badger (*Taxidea taxus*), round-tailed ground squirrel (*Xerospermophilus tereticaudus*), desert tortoise (*Gopherus agassizii*), Mojave Fringe-toed lizard (*Uma scoparia*), and flat-tailed horned lizard (*Phrynosoma mcallii*).

## Permits

- U.S. Fish & Wildlife Service Permit TE-779910 to survey, locate and monitor nests, and color band threatened coastal California gnatcatcher and southwestern willow flycatcher; survey, locate and monitor nests of least Bell's vireo; capture, mark (PIT tag) and release endangered arroyo toad; and capture and release Stephen's kangaroo rat.
- U.S. Geological Survey Master (Bird) Banding Permit #22761
- California Department of Fish & Game Permit #801015-07 to capture for study by means of pitfall traps, live traps, mist net, or other methods reptiles, amphibians, mammals and birds in San Diego, Imperial, Riverside, and Orange counties, California.



**Academic Background**

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

**Professional Experience**

Mr. Huntley has 15 years of experience with Aspen supporting and managing CEQA/NEPA projects including EIR/EIS, IS/MND, EA, BE/BA, and BA documents. In addition, Mr. Huntley has extensive experience conducting biological assessments, managing large-scale construction and restoration projects, and supporting agency clients with permitting tasks including compliance with California Department of Fish and Game (CDFG) 1600 and 2081 permits, US Fish and Wildlife Service (USFWS) Section 7 process, Regional Board 401 compliance, and US Army Corps (Corps) 404 permits. Mr. Huntley also has experience working on projects that involve remediation or where soil contamination has the potential to effect biological resources. These include projects involving coastal power plants, natural gas and oil pipelines, and fuel metering stations.

**Aspen Environmental Group.....1998-present**

**PROJECTS INVOLVING REMEDIATION OR SOIL CONTAMINATION**

- **California Energy Commission (CEC) Coastal Power Plant Study, Deputy Project Manager/Biologist.** Conducted biological surveys at 21 coastal power plants as part of the CEC’s coastal power plant study. Site visits characterized habitat within the footprint of the power plant, landscaping, and identified potential environmental and permitting issues associated with potential expansion of the power plants.
- **Pacific Pipeline Project EIR/EIS for the U.S. Forest Service, Angeles National Forest, and the California Public Utilities Commission, Environmental Monitor.** Served as an Environmental Monitor and supervised mitigation monitoring for all sensitive resources for a construction segment along a 132-mile crude oil pipeline within southern California. Project included the documentation that the pipeline owner managed and removed contaminated soils from multiple locations including two existing refineries in El Segundo and Wilmington, CA.
- **Salton Sea Debris Removal Project, Los Angeles Department of Water and Power, Project Manager/Biologist.** Mr. Huntley conducted Phase I, II, and III burrowing owl surveys at several sites scheduled for clean-up in the Imperial Valley. Mr. Huntley managed the monitoring of clean-up activities and developed mitigation strategies to comply with State and local permit requirements regarding the protection of this species.
- **Fort Irwin Environmental Baseline Survey Reports US Army Corps of Engineers, Project Manager/Biologist.** Mr. Huntley managed the preparation of two Environmental Baseline Survey reports near Fort Irwin, San Bernardino County to support the land acquisition of over 95 parcels by the US Army for the Fort Irwin National Training Center. Mr. Huntley conducted site investigations, documented existing biological conditions and managed the preparation of the report.
- **March Air Reserve Base Cactus and Heacock Channels Environmental Assessment and Biological Technical Report U.S. Army Corps of Engineers, Project Manager/Biologist.** Mr. Huntley conducted and managed the preparation of a Biological Technical Report for two channels located along the perimeter of the March Air Reserve Base in Riverside California. Mr. Huntley managed the completion of an Environmental Assessment to evaluate impacts of construction of approximately

three miles of flood control channel located at Cactus and Heacock Drainages and the management of a historic dump site that required remediation.

- **Line 401 PG&E Redwood Expansion Project, CPUC, Lead Environmental Monitor.** Under contract to the California Public Utilities Commission (CPUC), Mr. Huntley acted as Lead Environmental Monitor and supervised two environmental monitors in the field on the implementation of the CPUC's conditions of approval for construction of this 14-mile natural gas pipeline. Responsibilities included: supervision, guidance and development of environmental monitors, onsite field monitoring, compliance review and mitigation development of pre-construction plans, and mitigation compliance documentation. Other duties included review of variance and temporary extra work space (TEWS) requests; recommendations for CPUC issuance of Notices to Proceed with construction and variance approvals; approval of TEWS requests; preparation of weekly reports for all monitoring activity; and coordination with PG&E, construction managers and subcontractors, local municipalities, affected and interested agencies and the public.
- **Level 3 Fiber Optics Network Construction Monitoring and Supplemental Environmental Review Program, CPUC, Environmental Monitor.** Mr. Huntley's duties included inspection of several southern California segments including Santa Barbara to Burbank, San Bernardino, Corona to Atwood and San Diego to the California/Arizona state line. Environmental compliance during construction addressed biological and cultural resource, air and water quality, traffic control, and public utilities. Other tasks included maintaining daily documentation, review of pre-construction mitigation measures, weekly reporting of compliance activities, and coordination with Level 3 personnel and subcontractors, and affected agencies.
- **CEC Hydroelectric Power Plant Inventory Study, Deputy Project Manager/Natural Resources Analyst.** Mr. Huntley coordinated a team that collected power and environmental data on over 200 hydroelectric power plants located in California. Physical power data included electrical output, system upgrades, water storage capacity and peaking availability. Environmental information included developing a data base addressing sensitive species issues, fish screens and ladders, monitoring parameters and a map of known hydroelectric facilities and barriers to anadromous fish passage. Mr. Huntley also obtained water use information on thermal power plants in support of the CEC's bi-annual environmental performance report.
- **Santa Fe Pacific Pipeline, CPUC, Environmental Monitor.** Inspected construction of three petroleum distribution station sites for compliance with approved project mitigation measures and compliance plans.

#### Energy Projects and Development Projects

- **Topaz Solar Farm EIR, San Luis Obispo County, Issue Area Coordinator/Biologist (2009-2011).** Mr. Huntley acted as the issue area coordinator for natural resources on this solar energy project proposed by Topaz Solar Farms, LLC (wholly owned by First Solar, Inc.). Key issues include potential impacts to San Joaquin kit fox, jurisdictional drainages, vernal pools, rare plants, and nesting birds.
- **California Valley Solar Ranch EIR, San Luis Obispo County, Issue Area Coordinator/Biologist (2009-2011).** Mr. Huntley acted as the issue area coordinator for biological resources on this solar energy project. Key issues include potential impacts to San Joaquin kit fox, blunt-nosed leopard lizard, and giant kangaroo rat.
- **California Energy Commission Emergency Siting Team, Power Plant Development, Compliance Project Manager.** For two years, Mr. Huntley's duties included management of technical staff for the completion of CEQA equivalent environmental permitting for over nine new emergency power plants, review of applicant submittals, drafting of Memoranda of Understanding with Chief Building

Officials, conducting audits of building officials, and coordinating with affected agencies to resolve concerns with potential resource impacts. Other duties included maintaining contractor construction milestones, compliance monitoring and reporting, development of mitigation measures and conflict resolution for power plant compliance issues.

- **Newhall Ranch Project, California Department of Fish and Game (2005-2009), Biological Coordinator and CDFG Reviewer.** Mr. Huntley provided biological expertise and assisted CDFG staff in reviewing the EIR/EIS for the proposed 6,000-acre Newhall Development Plan EIR/EIS in Santa Clarita, California. Primary issues concern the land use conversion of several thousand acres of wild lands and agricultural areas located in and adjacent to the Santa Clara River. This region is known to support numerous threatened and endangered species including least Bell's vireo, southwestern willow flycatcher, California condor, arroyo toad, unarmored three spine- stickleback, and San Fernando Valley spineflower. Other concerns associated with the development include wildlife movement corridors, and effects to riparian habitats. Mr. Huntley reviewed, commented and revised the environmental documents, scheduled and coordinated meetings with resource professionals and agency staff, and provided technical review of the document. Mr. Huntley will be assisting CDFG staff in the response to comments on the Draft EIR/EIS.
- **Calico Solar Project (formerly SES Solar One Project), California Energy Commission, Biologist (2009-2010).** Mr. Huntley prepared the biological resources analysis of the Staff Assessment/EIS for this solar energy project proposed by Calico Solar, LLC. Key issues include potential impacts to desert tortoise, Mojave fringe-toed lizard, Nelson's bighorn sheep, burrowing owl, golden eagle, and large-scale modifications to existing drainages and interference with regional wildlife movement.
- **Palmdale Hybrid Power Plant, California Energy Commission, Biologist (2009-2011).** Mr. Huntley prepared the biological resources analysis of the Staff Assessment for this power generation project proposed by the City of Palmdale. Key issues included potential impacts to Swainson's hawk, desert tortoise, Mojave ground squirrel, and golden eagle.
- **Rice Solar Energy Project, California Energy Commission, Biologist (2009-2010).** Mr. Huntley is contributing to the biological resources analysis of the Staff Assessment/EIS prepared for this solar energy project proposed by Rice Solar Energy, LLC (a wholly owned subsidiary of SolarReserve, LLC). Key issues include potential impacts to desert tortoise and golden eagle, and potential impacts to birds in general from the solar technology.
- **Panoche Valley Solar Farm EIR, County of San Benito, Biologist (2010).** Mr. Huntley was technical support for this large-scale solar energy project. Key issues include potential impacts to California tiger salamander, blunt-nosed leopard lizard, San Joaquin antelope squirrel, giant kangaroo rat, San Joaquin kit fox, San Joaquin coachwhip, mountain plover, golden eagle, northern harrier, burrowing owl, loggerhead shrike, and American badger.

#### Other Relevant Experience

- **Lincoln Avenue Water Permit Support, Lincoln Avenue Water Company, Project Manager/Biologist.** Mr. Huntley provided support to the applicant in obtaining the renewal of a USDA Forest Service Special Use Permit and conducting repairs to a damaged water pipeline on Angeles National Forest lands. Mr. Huntley conducted biological surveys and prepared the technical reports and regulatory documents in compliance with NEPA and the 2007 Angeles National Forest Land Resource Management Plan, including an Environmental Assessment, Biological Evaluation/Biological Assessment, and Management Indicator Species Report.
- **Little Rock Dam and Reservoir Restoration Project EIR/EIS-BE/BA, Palmdale Water District/US Forest Service (2004-present), Deputy Project Manager/Biologist.** Mr. Huntley is currently acting as

deputy project manager and project biologist for the sediment removal activities associated with the Littlerock Dam and Reservoir in the Angeles National Forest. Mr. Huntley is working to develop project alternatives for sediment disposal while avoiding impacts to federally endangered arroyo toads. Mr. Huntley is managing the sensitive species surveys for this project and completing the biological resources section of the EIR/EIS, Management Indicator Species Report, and BE/BA.

- **Horsethief Creek Road Repairs Project, IS/MND and Biological Assessment, California Department of Water Resources (2005-2009), Biologist/Project Manager.** Mr. Huntley prepared the biological resource section and managed the completion of the IS/MND and the BA for construction of an all weather road at Horsethief Creek located near Lake Silverwood in San Bernardino County. Mr. Huntley also assisted DWR through formal consultation with the USFWS. The project was intended to provide an all-weather access to DWR facilities while avoiding impacts to federally endangered arroyo toads. Mr. Huntley also managed and conducted several of the sensitive species surveys required for this project including arroyo toad, two-striped garter snake, and southwestern pond turtles. Mr. Huntley managed the monitoring efforts at the site to comply with permit regulations identified by the Biological Opinion.
- **Vista Del Lago Visitor Center Slope and Waterline Repair Biological Evaluation/Biological Assessment, California Department of Water Resources (2006-2008), Project Manager/Biologist.** Mr. Huntley managed the preparation of the Biological Evaluation/Biological Assessment in compliance with the USFS to conduct repairs to a failed slope at the Vista Del Lago Visitor Center at Pyramid Lake. Mr. Huntley also acted as the USFS and CDFG liaison for this project and managed the preparation of regulatory permits for compliance with CDFG, Corps, and Regional Board requirements. Mr. Huntley also managed the biological monitoring for this project.
- **Pyramid Dam Emergency Access Road IS/MND and Biological Evaluation/Biological Assessment, California Department of Water Resources (2005-2008), Project Manager/Biologist.** Mr. Huntley prepared the biology section of the IS/MND and the Biological Evaluation/Biological Assessment in compliance with the USFS to construct an emergency access road from Interstate 5 to Pyramid Lake Dam. Mr. Huntley acted as the USFS and CDFG liaison for this project and managed the sensitive species surveys for the project.
- **Piru Creek Repairs Project IS/MND, California Department of Water Resources, Biologist.** Mr. Huntley completed sections of the US Forest Service Biological Assessment/Biological Evaluation, and biological technical report for the Piru Creek Repairs Project. In addition, Mr. Huntley has conducted sensitive species surveys and coordinated with CDFG, USFS and RWQCB regarding permits and sensitive species issues.
- **Piru Creek Restoration of Natural Flows Project EIR, California Department of Water Resources (2004-2005), Biologist.** Mr. Huntley managed resource specialists for completion of sensitive bird surveys along Piru Creek. In addition, he conducted sensitive species surveys for aquatic resources, coordinated with technical experts during reconnaissance surveys for arroyo toad, and prepared a comprehensive State jurisdictional riparian delineation for an 18-mile section of middle Piru Creek. Mr. Huntley prepared the biological resources section and developed environmentally sound alternatives to address impacts associated with restoring natural flows.
- **East Branch Extension Project Phase II, California Department of Water Resources (2006), Project Manager/Biologist.** Mr. Huntley managed and conducted sensitive species surveys for DWR in support of the EIR for this aqueduct extension project. In addition, Mr. Huntley acted as an expert witness and provided testimony in the San Bernardino Superior Court to allow access to key areas in support of the surveys.

## Profile

- More than 15 years managing biological research, regulatory compliance, and environmental projects.
- Ability to conceptualize, implement, direct, and complete complex projects involving collaboration among diverse stakeholders.
- Knowledgeable and experienced in preparing and reviewing biological proposals, budgets, schedules, permits, reports, and quality assurance documentation.
- Prepare, review, and contribute to NEPA and CEQA documents as well as endangered species (ESA and CESA) permits and habitat assessments.
- Proven ability to work on behalf of clients in unison with staff, agency regulators, other technical experts, and consultant teams.

## Education (see additional certifications below)

- **Postdoctoral Associate**, National Oceanographic and Atmospheric Administration/National Marine Fisheries Service
- **Ph.D., Biological Oceanography**, University of Miami Rosenstiel School of Marine and Atmospheric Science
- **M.A., Marine Biology**, San Francisco State University
- **B.A., Biology**, San Francisco State University

## Relevant Experience & Accomplishments

### Conducting and Documenting Biological Studies

- Author or coauthor of 24 peer-review articles and book chapters and more than 40 project technical reports.
- Conducted “the most comprehensive site-specific account of (San Francisco) Bay fishes ever completed,” NOAA Independent Peer Review Panel comment on URS Corporation study for San Francisco Airport Runway Project EIR/EIS.
- Managed \$450,000 project (re-awarded three years) for baseline study of biology and water quality for an EIS.
- Managed \$808,000 monitoring field study (re-awarded four years) for US Army Corps and EPA.
- Directed field studies and QA/QC for non-native invasive plant species surveys and control.

### Permitting and NEPA/CEQA

- Developed a handbook of examples of 40 different environmental permits including CERCLA, RCRA, Section 404 Wetlands, Sections 7 and 10 consultations, Clean Water Act, Clean Air Act, emerging dairy waste management, and water quality permits. Costs and anticipated changes.
- Prepared Environmental Assessment (EA) and Finding of No Significant Impact (FONSI) for NASA that facilitated property transfer from agency to city.

- Wrote Biological Resources and Hazardous Materials sections of EIRs for a utility linear development and also for the redevelopment of a former military base.
- Reviewed and commented on EIRs for development projects on behalf of affected community residents, including Environmental Justice communities.
- Have personally held permits including California Endangered Species take, CA Dept. of Fish and Game Collecting, National Marine Sanctuary Research, and SF Bay Conservation and Development permit.
- Managed wetlands delineation, predator removal, and radiological consulting contracts.

### **Project Management/Supervision/Technical Resource**

- Provided expert witness testimony and technical report for water quality impacts.
- Have directed work of up to 10 other biologists and field and lab techs.
- Expertise in many fields of biology: marine, freshwater, & terrestrial species and habitat ecology.
- Reviewed proposals for Bay Delta Conservation Program and book chapter on biological monitoring.
- On time/scope/budget performance typically results in repeat business.

### **Employment**

**Senior Associate, Aspen Environmental Group, San Francisco , January 2013 - present**

- Review CEQA documents with primary focus on marine biological impacts of energy projects.

**Senior Project Manager, ETIC Engineering, Pleasant Hill, CA, 2011-2012**

- Mentor to biology team doing vegetation and wildlife surveys to ensure compliance with natural resource regulations during maintenance and construction of utility infrastructure.
- Senior writer and editor of proposals and technical documents.

**Adjunct Professor of Environmental Management, University of San Francisco, San Francisco, 2010**

- Taught “Environmental Permitting and Compliance” to graduate students.
- Developed a manual of 40 different kinds of environmental permits, their regulatory basis, agency contacts, example case studies, and PowerPoint presentations for each permit.
- Provided a working knowledge of relevant environmental laws and regulations such as NEPA, CEQA, Clean Water Act, wetlands, ESA Section 7 consultations, California Department of Fish and Game streambed alteration agreements and endangered species monitoring and mitigation.

**Principal Environmental Scientist, Maristics, Berkeley 2002-present**

- Provide ecological and biological consulting services including technical and compliance review, design and conduct of surveys and monitoring, mitigation and restoration.
- Qualified Biologist to monitor impacts of marina dredging to ESA-listed Delta smelt and CESA-listed longfin smelt.
- Recently helped resolve a conflict between US Army Corps and California Dept. of Fish and Game by designing endangered species mitigation and conducting a monitoring study that allowed economically important work to proceed.

- Designed monitoring and mitigation study for proposed LNG terminal energy facility.

**Senior Scientist**, *Arc Ecology*, San Francisco 2007-present

- Review and analyze CERCLA technical documents about the cleanup of contaminants at the Hunters Point Shipyard Superfund site and communicate results to the affected local community.
- Reviewed for US Dept. of Transportation a NOAA study of contaminants (metals, PCB, lead paint, asbestos, petroleum) surrounding the reserve ships in Suisun Bay (Mothball Fleet).
- Participate with federal (EPA), state (DTSC), regional (Water Board), and local (SFDPH) staff to review technical and regulatory documents prepared by consultants for the Navy.
- Review and comment on NEPA/CEQA and other documents for urban redevelopment of former military bases.
- Provide environmental expertise to a local community group under an EPA Technical Assistance Grant.

**Senior Research Scientist**, *San Francisco State University*, 1994-2002

- Conducted grant and contract biological studies. Mitigation monitoring, Ecological Restoration, Invasive non-native species surveys and control. Supervised other biologists and marine biology graduate students.

**Ecologist**, *NASA*, Mountain View, California, 2001-2003

- Coordinated biological work on wetlands, USDA predator control contractors, and implementation of a programmatic EIS for infrastructure development.

**Environmental Scientist**, *private company and state agency*, Sacramento and San Francisco, (previous experience).

Addressed fish passage and water supply issues at dams in California and Nevada; provided biological expertise for wetlands and other mitigation for coastal nuclear energy facility.

## Community Involvement

**Board Member (Alternate)** for Bay Area Air Quality Management District Hearing Board, 2011-present.

**Invited speaker at Randall Museum, San Francisco** on Green Sturgeon in SF Bay, 2011, and on New Species of Mud Shrimp in SF Bay, 2013.

**Community organization representative**, Bay Area Air Quality Management District air filtration experiment, 2011.

**Technical Advisor on Superfund site cleanup** for India Basin Neighborhood Association, 2011.

**Member** of SFPUC Digester Task Force, 2009-2010.

**Invited speaker on Monitoring** for Water Quality TMDL's at Environmental Justice Water Coalition Workshop October 2007.

**Restoration Advisory Board**, Hunters Point Shipyard, member, 2007-2009.

**Past President and Board Member**, San Francisco Tyee Club Fishing and Conservation Organization.

## Honors & Awards

**Certificate of Recognition from the San Francisco Public Utilities Commission** for “exemplary dedication to finding a common ground and producing the project report” for the Southeast Digester Task Force June 2, 2010. San Francisco Wastewater Enterprise.

**National Champion** US Masters Platform Diving 2010

**Conservationist of the Year** 1999, San Francisco Tyee Club (Salmon Fishing/Conservation)

**Outstanding Performance Awards**, NOAA - National Marine Fisheries Service 1983, 1984

## Professional Development Courses and certifications:

- Advanced Wetlands Delineation RTC/SFSU, 2012
- Department of Defense Environmental Monitoring & Data Quality, 2012
- Habitat Conservation Planning, 2012
- 40 hour HAZWOPER, Compliance Solutions, 2012, 8 hour recertification, 2013
- Stream restoration for salmonids, American Fisheries Society, 2012
- Stormwater management and best management practices (BMP), ETIC Engineering 2012
- Enhancing Program Performance with Logic Models, University of Wisconsin Extension, 2011
- Grant Management for Non-Profits, Environmental Protection Agency 2010
- Project Management 2008
- Environmental 101, Science Related to Military Base Cleanup, US Navy 2007
- Wetlands Determination & Delineation 40 hr Certification, RTC/SFSU, 2007
- NEPA Policy and Implementation, TetraTech, S.F. 2003
- Natural Resources Regulations and Permitting TetraTech, S.F., 2003
- Coastal Management for Practitioners: Designing and Conducting a Collaborative Process, National Oceanic and Atmospheric Administration, 2001
- Ecological Risk Assessment, U.C. Berkeley Extension, 1998
- Instream Flow Incremental Methodology, U.S.G.S. Biol. Res. Division, 1998
- Restoration Planning, New Academy for Ecological Restoration, 1997
- Improving Wildlife Habitat through Restoration, New Academy for Ecological Restoration, 1997
- Expert Witness Seminar, American Fisheries Society, 1996
- Guidelines for Ecotoxicological Risk Assessment, CalEPA, U.C. Davis, 1995
- CEQA/NEPA, EIR's and Land Use Planning, Merritt College; 1994
- Managing and Communications, College of Marin; 1993
- How to get things done through difficult employees, College of Marin; 1993
- Professional Writers Workshop, University of Miami; 1988.
- Ecosystem Ecology, Marine Biological Laboratory, Woods Hole; 1978.



## Academic Background

Master of Environmental Science and Management, University of California Santa Barbara, 2005  
Bachelor of Arts, Environmental Studies and Film Theory, Emory University, 2000

## Professional Experience

Ms. Mescher is an Associate Environmental Planner with a multidisciplinary background in the environmental sciences, who has been working with Aspen since 2005. Ms. Mescher specializes in the physical science issue area of water resources, including expertise relevant to groundwater, hydrogeology, water quality, and relevant laws and regulations, as well as the analysis of recreational resources and opportunities. Ms. Mescher has prepared technical analyses for numerous projects under CEQA and NEPA, including flood control, water infrastructure, and renewable energy projects throughout California and in San Luis Obispo County. Some of Ms. Mescher’s key experiences are summarized below.

### Aspen Environmental Group..... 2005-2006 and 2007-present

- **Topaz Solar Farm EIR, San Luis Obispo County (2009-present).** Ms. Mescher prepared technical analyses for the environmental issue areas of Water Resources and Groundwater in support of an EIR prepared for a solar energy generation facility in on the Carrizo Plain in San Luis Obispo County. Ms. Mescher also prepared a Water Supply Assessment in compliance with Senate Bill 610 to assess the project’s long-term impacts to local groundwater supply availability.
- **California Valley Solar Ranch Project EIR, San Luis Obispo County (2009-2011).** Ms. Mescher prepared the technical analysis for environmental issue area of Water Resources for this 250-MW solar photovoltaic power plant on the Carrizo Plain of eastern San Luis Obispo County. Ms. Mescher also prepared a Water Supply Assessment in compliance with Senate Bill 610 to assess the project’s long-term impacts to local groundwater supply availability.
- **Senate Bill 610 Water Supply Assessments (2010-present).** Ms. Mescher has managed the preparation of multiple Water Supply Assessments (WSAs) under California Water Code as amended by Senate Bills (SB) 610 and SB 267, for a variety of large-scale and complex projects throughout California, including: Topaz Solar Farm and California Valley Solar Ranch in San Luis Obispo County, Solargen Panoche Valley Solar Farm in San Benito County, and Antelope Valley Solar Farm in Kern County. Ms. Mescher has also provided expert technical review of WSAs prepared other parties and suggested revisions to ensure California Water Code compliance for these WSAs, which included: Ocotillo Express Wind Energy Project in Imperial County, Morgan Hills Wind Energy Project in Kern County, Alta East Wind Project in Kern County, and Alta Wind Infill II Project in Kern County.
- **Baldwin Hills Community Standards District (CSD), City of Culver City (2009).** Technical Specialist for the review of a County of Los Angeles environmental document and preparation of an oil and gas drilling ordinance for the City of Culver City in Los Angeles County. Ms. Mescher reviewed the technical comments on the Baldwin Hills Community Standards District EIR prepared by the County of Los Angeles for the Inglewood Oil Field, including evaluation of the County’s proposed CSD (drilling ordinance), which the County revised based on public comments. The City used the review comments as part of their formal comments submitted on the County’s EIR and CSD.
- **Thousand Palms Flood Control Project Subsequent EIR/ Subsequent EIS, Riverside County (2011-present).** Ms. Mescher is the Project Manager and Hydrology/Water Quality Specialist for this Subsequent Environmental Impact Report (SEIR) / Subsequent Environmental Impact Statement (SEIS) for this proposed flood control improvement project located in the Thousand Palms area of

Riverside County. The proposed project includes a series of levees and channels to direct stormwater flows from the Indio Mountains away from developed areas and into an existing stormwater conveyance system, to protect community areas from flooding hazards. In addition to serving as Project Manager, Ms. Mescher is also preparing several technical analyses for the SEIR/SEIS, including Hydrology and Water Quality, and Topography, Geology, and Soils.

- **Tehachapi Renewable Transmission Line Project (TRTP) EIS/EIR, CPUC and USDA Forest Service (2007-2012).** Ms. Mescher prepared analysis for the environmental issue area of Wilderness and Recreation, and provided extensive assistance in the preparation of the Hydrology and Water Quality analysis for a joint EIR/EIS for the California Public Utilities Commission (CPUC) and USDA Forest Service. Ms. Mescher also assisted in development of the Project Description and alternatives to the proposed project, as well as a Specialist Report for Hydrology and Water Quality. Ms. Mescher provided technical expertise in the analysis of erosion and sedimentation effects for a Supplemental Draft EIS (SDEIS) that was prepared after the Station Fire, which burned 251 square miles of the Angeles National Forest in 2009. In addition, project changes affecting NFS lands, including new structure types, helicopter staging and support areas, wire setup site locations, alternate access roads, and changes in the project schedule were analyzed in the SDEIS. The SDEIS was published April 30, 2010. This project passed through numerous jurisdictions, and garnered a high level of public awareness and controversy. Ms. Mescher assisted in the preparation and implementation of all public meetings held for the project, and provided written responses to hundreds of comments collected during the comment period.
- **SDG&E Sunrise Powerlink Transmission Project Water Availability Study (2010).** Under a \$14 million contract to the CPUC, and under a Memorandum of Understanding with the Bureau of Land Management (BLM), an EIR/EIS was prepared for a highly controversial 150-mile transmission line from Imperial County to coastal San Diego County. Following publication of the Final EIR/EIS in October 2008, the Applicant (SDG&E) prepared a Water Availability Study. Ms. Mescher provided technical review and feedback of this study, with particular attention to existing water supply and uses, and how the Project could affect water availability to other users in the project area.
- **Whitewater River Basin Flood Control Project SEA/MND, Riverside County (2007-2011).** Now referred to as the "Thousand Palms Flood Control Project," described above, Ms. Mescher served as Project Manager and Hydrology/Water Quality Specialist in the preparation of a Supplemental Environmental Assessment (SEA) for this proposed flood control project. The SEA was tiered off of an EIS/EIR prepared for the project in 2000, with the U.S. Army Corps of Engineers as NEPA Lead Agency and the Coachella Valley Water District as CEQA Lead Agency. Ms. Mescher also prepared several technical analyses, including Hydrology, Water Quality, and Topography, Geology, and Soils.
- **Rimforest Storm Drain Project EIR, San Bernardino County (2012 – present).** Ms. Mescher is the Deputy Project Manager and Hydrology Specialist for this EIR, prepared for a unique flood control improvement project which involves a series of upgrades to existing stormwater drainage facilities in order to re-direct stormwater flow throughout the mountain community of Rimforest, and mediate significant historic erosion and landslide issues in the area. Ms. Mescher is also preparing technical analysis for Hydrology and Water Quality, as well as Geology and Soils.
- **Total Terminals International (TTI) Grain Export Terminal Installation Project IS/NOP and Focused EIR, Port of Long Beach (2011-present).** Ms. Mescher served as Deputy Project Manager and Hydrology/Water Quality Specialist in the preparation of the TTI Grain Export Terminal Installation Project IS/NOP and a Focused EIR. Ms. Mescher is providing continued support in responses to comments, Findings of Fact, Statement of Overriding Considerations, Mitigation Monitoring and Reporting Program, and Environmental Controls documents for the POLB.

- **Sespe Creek Levee Improvements Project IS/EA, Ventura County (2011 – present).** Ms. Mescher is the Deputy Project Manager and Hydrology/Water Quality Specialist in the preparation of an IS/EA for the modification of the Sespe Creek 2 (SC-2) portion of the Sespe Creek Levee system, located on Ventura County Watershed Protection District (VCWPD) lands adjacent to the City of Fillmore. As Deputy Project Manager, Ms. Mescher is responsible for coordinating project design details with the VCWPD, and providing support in various areas of project management. Ms. Mescher is also preparing several technical analyses, including Hydrology and Water Quality.
- **California River Parkways Trailhead Project IS/MND, Ventura County (2009-2010).** Ms. Mescher served as Deputy Project Manager and Technical Specialist for this IS/MND. Ms. Mescher provided project management support, and also prepared technical analyses for numerous environmental issue areas, including Hydrology/Water Quality, Groundwater, and Recreation among others. The IS/MND was approved by the Ventura County Board of Supervisors on July 13, 2010.
- **Ocotillo Express Wind Project, Imperial County, Technical Specialist (2010-present).** Ms. Mescher is assisting in the preparation of the EIR/EIS for the proposed wind energy project, located on approximately 15,000 acres of land with up to 193 wind turbines to produce up to 550 MW of energy. Ms. Mescher is serving as the Water Resources Technical Specialist for this project, which is located in an area where water supply availability is a major concern to both the public and the regulatory agencies. Ms. Mescher also prepared analyses of Soils and Mineral Resources issues.
- **Desert Harvest Solar Project EIS, Bureau of Land Management and Riverside County (2011-present).** Ms. Mescher is serving as the Water Resources Technical Specialist in the preparation of an EIS for the enXco Desert Harvest Solar Project, located on 1,200 acres of BLM-administered land in the Chuckwalla Valley of Riverside County. The project's proposed and alternative gen-tie alignments would require state and local permits, so the document is being prepared to a CEQA-equivalent standard.
- **Solargen Panoche Valley Solar Farm Project EIR, San Benito County (2010).** Ms. Mescher prepared the Water Resources analysis for this controversial 420-MW photovoltaic power plant in a remote valley in southeastern San Benito County. In addition to the availability of groundwater resources, issues of primary concern for this project include the presence on the project site of a wide range of threatened and endangered species and cancellation of Williamson Act contracts, both of which are related to the issue area of Water Resources.
- **Colorado River Substation Supplemental EIR, CPUC (2010).** Ms. Mescher served as a Water Resources Technical Specialist for the Colorado River Substation Supplemental EIR, and prepared the water resources analysis for the SEIR, including assessment of potential impacts associated with the allocation of Colorado River water.
- **Burning Man 2012-2016 Environmental Assessment, BLM (2011-2012).** On behalf of the BLM Winnemucca Field Office, Aspen prepared an EA for the annual Burning Man Event. Black Rock City LLC applied to BLM for a five-year Special Recreation Permit for an up to 70,000-person arts festival to be held in the Black Rock National Conservation Area near Gerlach, NV. Ms. Mescher served as the Hydrology and Water Resources Specialist for this project.
- **Downs Substation Expansion Project, CPUC (2010-present).** Ms. Mescher is serving as the Water Resources Technical Specialist for the CEQA review of the Downs Substation Expansion Project proposed by Southern California Edison (SCE). SCE proposes to upgrade/expand the existing Downs 33/12-kV Substation to 115/12-kV to serve increased electrical demand, improve reliability and enhance operational flexibility within the Electrical Needs Area. Pre-filing activities began in October 2010 including completeness review and data requests.

- **Santa Maria River Levee Repair Project EA, Santa Barbara County (2008-2009).** This project included a series of upgrades to the Santa Maria River Levee system so that the US Army Corps of Engineers could certify the levee as being able to contain the 100-year flood, in compliance with the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program. Ms. Mescher prepared the Water Resources and Earth Resources analyses for this project, as well as the required 404(b)(1) documentation.
- **Desert Sunlight Solar Farm Project EIS (2010).** An EIS for this proposed solar energy project was prepared by a consultant under contract to the Bureau of Land Management (BLM). To evaluate whether the EIS would satisfy requirements of CEQA, the California Public Utilities Commission (CPUC) contracted Aspen to provide critical review. Ms. Mescher evaluated the Water Resources and Recreation analyses, and provided suggested revision necessary for the document to meet CEQA adequacy.
- **Lake Canyon Dam and Detention Basin IS, Ventura County (2006-2008).** Ms. Mescher prepared and assisted in the preparation of multiple analyses for the Initial Study, including Land Use, Energy Resources, Aviation Hazards, Fire Hazards, Public Health, Hazardous Materials/Waste, Water Supply, Waste Treatment/Disposal, Utilities, and Law Enforcement/Emergency Systems.
- **Newhall Ranch Specific Plan CEQA Consultation Services (2007-2010).** Ms. Mescher assisted the CDFG and Corps of Engineers in the preparation of an EIR/EIS for a master Streambed Alteration Agreement, Section 404 Permit, and Section 2081 Take Permit (for the San Fernando Valley Spineflower) for the Newhall Ranch Specific Plan. Ms. Mescher conducted technical review for the following issue area sections: Water Quality, Water Supply, and Jurisdictional Waterways.
- **Port of Long Beach (POLB), Sulex Demolition Project MND (2009-2011).** Ms. Mescher is preparing environmental analyses for the following issue areas: Aesthetics; Geology and Soils; Hydrology and Water Quality; Land Use and Planning; Public Services, Recreation; Traffic and Transportation; Utilities and Service Systems. She is also preparing the Application Summary Report for compliance with the California Coastal Act and the POLB Master Plan. The project includes the demolition of site improvements installed by Sulex, Inc. for sulfur pelletizing operations, which have been decommissioned for several years. The objective of the project is to fulfill the conditions of lease termination, returning the site to a state agreed upon by the POLB and Sulex, Inc.
- **Pacific Wind Energy Project (2009-2010).** Ms. Mescher prepared the Water Resources analysis in support of an EIR for a proposed 250-MW wind energy generation facility in the Mojave region of Kern County. The Final EIR was completed and submitted to the County within nine months of Project Kickoff.
- **Port of Los Angeles (POLA) Channel Deepening Project, Supplemental EIS/EIR (2007-2009).** Ms. Mescher provided technical review and assistance on this joint Supplemental EIS/EIR for the US Army Corps of Engineers and the Port of Los Angeles, to address impacts associated with providing additional disposal capacity to complete the POLA Channel Deepening Project.
- **Antelope Transmission Line Project Segments 2 & 3 EIS/EIR, Kern and Los Angeles Counties (2006-2008).** Ms. Mescher prepared the Hydrology and Water Quality analysis for this 56.8-mile-long transmission line project and assisted in the alternatives analysis, generally considering route alternatives to the proposed project.

### Professional Affiliations

- California Association of Environmental Professionals, Channel Counties Chapter



## Academic Background

Doctorate, Environmental Science & Engineering (D.Env.), University of California, Los Angeles, 1981  
M.S., Marine Biology, Dalhousie University, Halifax, Nova Scotia, Canada, 1975  
B.A., Biological Sciences, University of California, Berkeley, 1973

## Professional Experience

Dr. Phinney has 35 years of experience in the environmental and energy field. She has significant experience in CEQA analysis, complicated soil and water clean-ups, and development of contaminated properties. Dr. Phinney was directly responsible for **investigation and remediation** of an 8,500 acre Superfund site, and worked with local, state and federal agencies in redeveloping part of the site. She has conducted **toxicological and ecological analyses and risk assessments**. She has analyzed **waste and hazardous materials management** of major development projects. The following highlights her experience in these areas.

### Aspen Environmental Group..... 2001 to present

Dr. Phinney manages energy and infrastructure projects for Aspen and provides environmental support on major projects. She has provided energy and environmental expertise to the following clients:

**California Energy Commission (CEC).** Dr. Phinney has supported CEC staff since 2001. She has prepared CEQA-equivalent analyses for power plants throughout the State, and has authored or contributed to over a dozen special studies. Her efforts for the CEC include the following:

- **Power Plant Siting, Project Management/Technical Support (2001–Present).** Dr. Phinney prepared the **waste management analyses** for more than a dozen power plants (some encompassing thousands of acres) under review by the CEC. She routinely reviewed regulations and practices to ensure safe disposal of hazardous materials. Additionally, she has reviewed **Remedial Investigation/Feasibility Studies (RI/FS)** to determine whether soil and groundwater conditions would affect project developments.
- **Policy Studies, Project Management/Technical Support (2001 – Present).** Dr. Phinney served as Project Manager for the **Petroleum Infrastructure Environmental Performance Report**. This report focused on marine terminals, refineries, storage terminals, and pipelines and identified potential environmental, public health and safety issues which could affect the development and expansion of petroleum infrastructure.

She was a key member of a team **evaluating nuclear power issues** in the state in response to AB 1632 legislation. She managed and prepared report sections regarding the impacts to local communities and the environmental issues and costs associated with alternatives, including renewables, to the **Diablo Canyon and San Onofre Nuclear Power Plants**. These sections were incorporated in the report *An Assessment of California's Nuclear Power Plants*.

Dr. Phinney updated a 1997 version of the Energy Aware Guide to help local governments plan for and permit electricity generation facilities and transmission lines that will be needed in the upcoming years. The 2012 Guide informs planners, decision makers and the public about the **CEQA and permitting requirements for major infrastructure projects**.

She authored the Commission document: *International and National Efforts to Address the Safety and Security of Importing Liquefied Natural Gas: A Compendium*. This report reviewed national and

international LNG regulations, standards and guidelines; **reviewed risk assessment techniques; and identified, compiled and reviewed LNG safety/risk studies.**

**Aerojet.** While employed at Aspen, Dr. Phinney provided consulting services to Aerojet to enable the company to **develop energy facilities on land previously subject to environmental remediation.**

**California Public Utilities Commission (CPUC).** Dr. Phinney has managed several environmental assessments for the CPUC and provided comprehensive review and editing of many other CPUC documents prepared by Aspen.

- **Multiple EIR Documents, CPUC, Technical Editor (2004-2008).** Dr. Phinney provided QA/QC and editing for the Diablo Canyon Steam Generator Replacement EIR, the Miguel Mission 230 kV Transmission Line EIR, and the Sunrise Powerlink EIR/EIS.
- **Kirby Hills II Natural Gas Storage Facility IS/MND, CPUC, Project Manager (2007).** Dr. Phinney managed an Initial Study/Mitigated Negative Declarations (IS/MND) for expansions at a natural gas storage facility in Solano County.
- **Looking Glass Network Initial Study/Mitigated Negative Declaration, CPUC, Project Manager (2002-2003).** Dr. Phinney served as Project Manager for the preparation of IS/MND for this telecommunication project that involved construction in the San Francisco Bay Area and the Los Angeles Basin to allow fiber optic connections in numerous locations.
- **Williams Communications Sentry Marysville Project IS/MND, CPUC, Project Manager (2002-2003).** Dr. Phinney served as Project Manager for the installation of fiber optic connection to a Beale Air Force Base in Yuba County.

**California Institute of Technology/University of California.** Dr. Phinney was the Project Manager for an EIS/EIR for a radio telescope antenna array to be placed at a high altitude site in the Inyo National Forest.

**Western Area Power Administration (Western).** Dr. Phinney provided comprehensive technical review, QA/QC, and editing to the following projects:

- **North Area ROW Maintenance Project Environmental Assessment, Western, Technical Editor/QA/QC (2006-2008).** Dr. Phinney provided **technical editing and QA/QC support** for all documents relating to the operation and maintenance of 800 miles of transmission lines in Northern California.
- **Sacramento Area Voltage Support Supplemental EIS/EA, Technical Editor/QA/QC (2006-2008).** Dr. Phinney provided technical editing and QA/QC support for all environmental documentation and permitting for new construction and reconstruction of transmission lines in the greater Sacramento area.

**Vermont Yankee Nuclear Power Plant Report, Vermont Department of Public Service, Project Manager (2008-2009).** Dr. Phinney was the Project Manager and provided technical support for the environmental analysis of the continued operation of the Vermont Yankee Nuclear Power Station in Vernon, Vermont. The report assessed the environmental impacts to land, water and air resources (including climate change), soil and seismicity, on-site and off-site storage and **disposal of high-level and low-level nuclear waste.**



**GenCorp.....1999 to 2000**

As Vice President, Environmental and Regulatory Affairs, Dr. Phinney held primary responsibility for coordinating the company’s aerospace and automotive environmental activities with various federal, State, and local regulatory agencies. She worked closely with government agencies and the public to **develop a sound approach to remediation activities** across the U.S. Her work helped the company achieve **more comprehensive and quicker remediation of sites** and further scientific studies on selected chemicals of concern.

**Aerojet General Corporation.....1984 to 1999**

As Vice President, Environmental Health and Safety, Dr. Phinney created the first corporate EHS department, defining and staffing key functional areas. She managed a \$20,000,000 annual budget and oversaw a staff of up to 30 professionals working to resolve contamination issues at several Aerojet sites, including an 8,500 acre Superfund site in Sacramento. She provided **strategic direction and management of all Superfund-related investigation and remediation activities**. Specific actions included:

- **Government Negotiations.** Dr. Phinney negotiated and subsequently implemented all requirements under a Partial Consent Decree with federal and State government agencies for the investigation of the Superfund site.
- **Review of RI/FS Documents.** Dr. Phinney reviewed all reports relating to remedial activities. Reports included soil and groundwater sampling plans, analyses of site conditions, risk assessments, and development of proposed remedial actions.
- **Soil Remediation.** Dr. Phinney oversaw all evaluations of soil conditions and subsequent soil remediation. She conducted statistical calculations and **toxicology review of metal-impacted soils** resulting in the determination by state agencies that soils did not pose a health threat.
- **Groundwater Remediation.** Dr. Phinney oversaw the development of seven treatment facilities that resulted in the **cleanup of over 50 billion gallons of contaminated groundwater**. Under her direction, the **world’s first perchlorate treatment plant** was developed.
- **Land Development.** Dr. Phinney worked with State and federal agencies to develop 1,500 acres within the property boundaries. She oversaw the completion of investigation activities and the submission of a report which resulted in removal of the acreage from any future regulatory requirements.
- **Closure of Facility/Regulatory Compliance.** Dr. Phinney received timely approval of the closure of an ordnance facility in Chino Hills, significantly reducing the explosive inventory and closing out the radioactive materials license. Under her direction, asbestos and lead paint building surveys were completed with results indicating only a limited exposure from these issues.

**Previous Experience, 1976 to 1984**

**Jacobs Engineering Group.**

As a Senior Environmental Scientist for Jacobs Engineering Group, Dr. Phinney conducted numerous **toxicological, ecological, and air and water quality assessments** and managed several EIRs and work order contracts in various subject areas. Specific activities included: **evaluation of potentially carcinogenic pesticides** under RPAR review by EPA; identification of process waste streams of electrical

and electronic component industries and subsequent development of discharge regulations; technical review and analysis of environmental reports on **remedial cleanup of uranium mill tailings piles**, air quality analyses of impacts from offshore oil and gas facilities; and audit and compliance assessments for a number of facilities.

**Department of Environmental Science and Engineering at the University of California, Los Angeles.**

Dr. Phinney analyzed legal, economic, public health, and administrative barriers to waste water reuse. She also conducted an analysis of **ecological and institutional factors in coastal siting** of power plants.

**Southwest Los Angeles Junior College.** Dr. Phinney taught lecture and laboratory courses in general science.

## Training

- Certificate, Executive Program, University of California, Davis, 1989
- Expert Witness Training, California Energy Commission, 2001

## Select Activities and Associations

- Editorial Board, The Environmental Professional, 1987-1989
- City of Sacramento Toxic Substances Commission, 1986-1988
- Sacramento Environmental Commission, 1988-1991
- Toxics Consultant, League of Women Voters of Sacramento, 1988-1989
- Member, Advisory Committee on AB 3777 (Risk Management Prevention Programs)
- Board of Directors, Air and Waste Management Association, 1991-1994
- Co-chair, TCE Issues Group, 1994-2000

## Selected Publications/Presentations

Phinney, S.L., "LNG Safety Analysis in California – Federal, State and Local Processes" Presented at California Foundation on the Environment and the Economy, 2005.

Phinney, S.L., "Trends in Industrial Waste Generation and Management" Presented at National Ground Water Association Conference, Las Vegas, Nevada, 1996.

Phinney, S.L., "Effective Management of an RI/FS to Reduce Financial Exposure," Manufacturers Alliance Environmental Management Council, Washington, D.C., 1995.

Phinney, S.L., "PRP Response to RI/FS Activities." Lecture Presented to U.C. Davis Extension Course, January 1991.

Phinney, S.L., "Managing CERCLA Compliance from the Corporate Perspective." Hazardous Materials Management Conference/West, Long Beach, California, 1988.

Phinney, S.L., and C.A. Fegan, "Identifying a Feasible, Effective Treatment Method for an Unusual Chemical of Concern." Proceedings, American Defense Preparedness Association 16th Environmental Symposium, New Orleans, Louisiana, 1988.

Phinney, S.L., "The U.S. Environmental Protection Agency's Pesticide Registration Program: A Case Study - Chloramben." Doctoral Dissertation, Environmental Science and Engineering Program, University of California, Los Angeles, California, 1981.



## Academic Background

BS, Ecology and Systematic Biology (Concentration in Marine Biology and Fisheries)  
California Polytechnic State University, San Luis Obispo, 1999.

## Professional Experience

Mr. Varonin has over 11 years of experience as a consulting biologist and will be supporting and managing CEQA/NEPA projects including EIR/EIS, IS/MND, EA, BE/BA, and BA. Mr. Varonin has proven experience working with the sensitive biological resources that occur throughout California. Mr. Varonin has a thorough knowledge of the permitting process with such agencies as the California Department of Fish and Game (CDFG), Army Corps of Engineers (Corps), US Fish and Wildlife Service, Regional Water Quality Control Board and NOAA Fisheries. He has professional experience in environmental document preparation in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

Working regularly with CDFG, the Corps and other federal and state agencies, Mr. Varonin has developed permitting strategies for Streambed Alteration Agreements, 404 permits and other regulatory requirements. His training and experience in assessment techniques include the collection and analysis of water samples, microscopic identification of larval marine life, collection of live samples via scuba diving, and in-field plant identification, fisheries restoration and wildlife identification. He has extensive knowledge of anadromous fish and has performed surveys and supervised relocation activities for such species as steelhead trout and king salmon.

With his background and experience, Mr. Varonin has completed, performed or been a participant in biological resource assessments, wetland/jurisdictional waters delineations, rare plant surveys, endangered species surveys, nesting bird surveys, wildlife surveys, species relocation, habitat mitigation and monitoring plans, habitat assessments, oak tree mitigation plans, revegetation plans, fisheries restoration, and streambank restoration. In addition to preparing habitat restoration plans, he has managed the implementation and monitoring of the restoration measures.

## Aspen Environmental Group.....2009-present

- **Santa Margarita Quarry Expansion, San Luis Obispo County (2012-present), Biologist.** Mr. Varonin is working as one of the lead biologists responsible for preparing the biological resources section of the Draft EIR being prepared for the proposed expansion of the Hanson Aggregates Santa Margarita Quarry in northern San Luis Obispo County. This will include site reconnaissance surveys to observe/document site conditions, coordination with County and CDFG personnel, a review of the applicants provided materials and research into the effects the quarry expansion on existing biological resources.
- **Topaz Solar Farm EIR, San Luis Obispo County (2009-present), Biologist.** Mr. Varonin worked as one of the lead biologists responsible for preparing the biological resources section of the DEIR being prepared for a proposed solar energy generation facility on the Carrizo Plain in San Luis Obispo County. This has included site reconnaissance surveys to observe/document site conditions, coordination with County and CDFG personnel, a review of the applicant provided materials and research into the effects of solar arrays on existing biological resources. Additionally, Mr. Varonin is responsible for compliance review for all biological resources related conditions of approval.
- **California Valley Solar Ranch EIR, San Luis Obispo County (2009-present), Biologist.** Mr. Varonin worked as one of the lead biologists responsible for preparing the biological resources section of the

Draft EIR being prepared for a proposed solar energy generation facility in on the Carrizo Plain in San Luis Obispo County. This has included site reconnaissance surveys to observe/document site conditions, coordination with County and CDFG personnel, a review of the applicants provided materials and research into the effects of solar arrays on existing biological resources. Additionally, Mr. Varonin is part of a team responsible for compliance review for all biological resources related conditions of approval.

- **Santa Maria River Levee Improvement Project, US Army Corps of Engineers (2009-2012), Biologist.** Mr. Varonin worked as one of the primary biologists preparing the biological resources section of the Environmental Assessment (EA) for the Santa Maria River Levee Project. An EA is being performed for the corrective action to repair the design deficiency of the Santa Maria River Levee in order to avoid the potentially catastrophic consequences of a levee breach that would affect the population of the City of Santa Maria. Mr. Varonin was also one of the primary biologists responsible for the preparation of the restoration plan to mitigate for project related impacts. Mr. Varonin will be managing all biological monitoring activities, including surveys for steelhead trout, for the duration of the construction portion of the project which started in November 2009.
- **Santa Paula Creek Sediment Removal Project, US Army Corps of Engineers (2009-present), Project Manager/Biologist.** Mr. Varonin is the project manager and lead biologist overseeing the monitoring activities related to the removal of accumulated rock and sediment in Santa Paula Creek. Mr. Varonin was also responsible for conducting pre-construction surveys for steelhead trout and other special status aquatic species. Additionally, Mr. Varonin is the lead biologist overseeing 5 years of water quality and steelhead trout monitoring.
- **Sespe Creek Levee Improvement Initial Study, MND and EA, Ventura County Watershed Protection District (2011 – present) – Lead Biologist.** Mr. Varonin is the lead biologist preparing the biological resources section of the Initial Study and EA for a levee improvement project on the east side of Sespe Creek just north of the Hwy. 126 bridge. As part of the Initial Study Mr. Varonin was the lead biologist overseeing a planning level delineation of potentially jurisdictional waters occurring in the project area.
- **Desert Harvest Solar Project, BLM, Biologist (2011-present).** Mr. Varonin is a member of the team conducting reconnaissance level wildlife and botanical surveys in support of the EIS being prepared for a 150-MW solar photovoltaic facility that is proposed on 1,200 acres near Desert Center in Riverside County, California. Mr. Varonin is the lead biologist responsible for conducting a delineation of potentially jurisdictional state and/or federal waters on the project site. Important biological resources on the project site issues include the threatened desert tortoise, golden eagle, and wildlife habitat connectivity.
- **Morgan Hills Wind Energy Project, Kern County, Biologist (2011 - present).** Mr. Varonin is the lead biologist preparing the biological resources analysis of the EIR for a proposed 230-MW wind energy generation facility in the Mojave region of Kern County. Key issues included potential impacts to birds and bats from the wind turbines as well as potential impacts to California condor and golden eagle.
- **Davis-Nora McDowell Transmission Rebuild, Western Area Power Administration, Biologist (2011 - 2012).** Mr. Varonin is one of the lead biologists conducting reconnaissance level wildlife and botanical surveys in support of an approximately 10 mile transmission line rebuild project near Laughlin, Nevada. Mr. Varonin was the lead biologist responsible for conducting a delineation of potentially jurisdictional state and/or federal waters on the project site. Mr. Varonin also prepared permit application packages and coordinated with the United States Army Corps of Engineers and

Nevada Division of Environmental Protection as part of regulatory compliance for the project. Important biological resources on the project site issues include the threatened desert tortoise and wildlife habitat connectivity.

- **Henderson to Mead Access Road Project, Western Area Power Administration, Biologist (2012 - present).** Mr. Varonin was the lead biologist responsible for conducting a delineation of potentially jurisdictional state and/or federal waters occurring along a portion of the Henderson to Mead transmission line. Important biological resources on the project site issues include the threatened desert tortoise and wildlife habitat connectivity. Mr. Varonin is also preparation permit application packages and coordinating with the United States Army Corps of Engineers and Nevada Division of Environmental Protection as part of regulatory compliance for the project.
- **Littlerock Reservoir Sediment Removal Project, Palmdale Water District/USFS, Biologist (2009-present).** Mr. Varonin is part of the team conducting field surveys and preparing the biological resources section of this joint EIS/EIR evaluating the impacts of sediment removal alternatives for the Littlerock Reservoir and Dam on USFS Angeles National Forest (NEPA Lead Agency) lands in Los Angeles County. The Palmdale Water District (PWD) (CEQA Lead Agency) proposes to remove approximately 540,000 cubic yards of sediment from the reservoir (behind the dam) and haul it to off-site commercial gravel pits located 6 miles north of the dam site in the community of Littlerock. The project involves impacts to the arroyo toad, extensive coordination with USFWS for a Section 7 consultation, incorporation of new Forest Service Plan updates and requirements into the analysis, and preparation of the Forest Service required BE/BA and MIS reports.
- **Santa Ana River Perennial Stream Restoration Planning and Monitoring, US Army Corps of Engineers (2010-present), Project Manager/Lead Biologist.** Mr. Varonin is the project manager/lead biologist overseeing the planning of stream restoration activities required for a proposed river diversion along the Santa Ana River upstream of Prado Dam. Additionally Mr. Varonin is preparing a Perennial Stream Restoration Monitoring Plan to document conditions and assess the success of restoration activities downstream of Prado Dam as well as conducting river fisheries monitoring for river diversion activities within the area to be restored as it is known to be occupied by Santa Ana sucker.
- **Santa Ana River Marsh Habitat Restoration and Bird Surveys, US Army Corps of Engineers (2010-present), Project Manager/Lead Biologist.** Mr. Varonin is the project manager/lead biologist overseeing the restoration of least tern nesting habitat and winter/spring bird surveys within the marsh during the 2011 through 2013 nesting seasons. The purpose of the surveys is to document the approximate number of nesting pairs of species of concern, including but not limited to least terns, Belding's savannah sparrow and clapper rails.
- **Murrieta Creek Flood Control Project CRAM Assessment, US Army Corps of Engineers (2010), Lead Biologist.** Mr. Varonin conducted a CRAM assessment, as part of the ongoing monitoring of the restoration within the Phase 1 of the project, along Murrieta Creek near the City of Temecula.
- **Upper Newport Bay Post-Restoration Monitoring Program, US Army Corps of Engineers (2009-2010), Project Manager/Lead Biologist.** Mr. Varonin was the project manager/lead biologist for the preparation of the Upper Newport Bay Post-Restoration Monitoring Program. The primary goal of the monitoring program was to document the ecological and physical status of the bay following restoration work.
- **Matilija Dam Ecosystem Restoration Project EIR/EIS, US Army Corps of Engineers (2009), Biologist.** Mr. Varonin has worked as a member of the team responsible for preparing the biological assessment and wetland delineation which will be included with the EA being prepared in support of the

removal of Matilija Dam. The analysis focused on potential impacts associated with dam removal on sensitive species known to occur on the Ventura River and the beneficial impacts of the restoration of spawning territory for the endangered Evolutionary Significant Unit of Southern Steelhead.

- **Tehachapi Renewable Transmission Project, California Public Utilities Commission (CPUC) (2009), Biologist.** Mr. Varonin has worked as a member of the team responsible for preparing the DEIR and Biological Assessment. This transmission line is 173 miles in length and includes two separate segments that cross the Angeles National Forest. Some of the key issues on this project include potential impacts to Mojave ground squirrel, desert tortoise, arroyo toads, California condors, spotted owl, and a host of forest sensitive plant and wildlife species. Other key issues involve the coordination with State Park, Forest, and resource agency staff.

### **West Coast Environmental and Engineering, Ventura, CA..... 2003-2009**

Mr. Varonin was a Senior Staff Biologist at West Coast Environmental and Engineering. He was the company's primary technical lead on projects requiring assessment of biological resources. Mr. Varonin was responsible for building the biological consulting services portion of the company from the ground up and created a diverse and continually growing client base. Mr. Varonin's responsibilities included the preparation of consulting services proposals, responses to requests for qualifications, preparation and review of client billing information, preparation of regulatory agency permit applications, consultation with the US Fish and Wildlife Service and/or National Marine Fisheries Service and the preparation of the environmental documents. Mr. Varonin performed or was a participant in various wildlife and plant surveys including but not limited to focused endangered species surveys, rare plant surveys, aquatic resources inventories, steelhead population surveys, nesting bird surveys, burrowing owl surveys and general wildlife surveys. Mr. Varonin performed and was responsible for oversight of creek and bank restoration projects including design, implementation and water quality monitoring.

### **Selected Technical Experience/Training and Certifications**

- Certified Fisheries Professional (2011)
- Associate Fisheries Professional (2005)
- Volunteer biologist and pen-rearing technician at Central Coast Salmon Enhancement (1998-2000)
- CDFG Scientific Collecting Permit for mammals, reptiles, amphibians, vernal pool/terrestrial invertebrates, freshwater fishes, freshwater invertebrates, and anadromous fishes
- PADI Certified Open Water Diver Certification, (1999-present)
- American Fisheries Society, Member (2004-present)
- Plant Identification for Southern California, San Diego (2005)
- Salmonid Restoration Federation (SRF), Member (2006-present)
- SRF Annual Conference (2006-2012)
- California Rapid Assessment Method (CRAM) Training, (2009)
- 36-hour Advanced Wetland Management Training Program (2006)
- 38-hour Army Corps of Engineers Wetland Delineation and Management Training Program (2004)



### Academic Background

MA, Applied Geography, City University of New York, 1988  
BA, Physical Geography, University of Colorado at Boulder, 1983

### Professional Experience

Ms. Walker joined Aspen Environmental Group in 2000, and has over 23 years of experience in environmental consulting. Ms. Walker primarily functions as a Project Manager for both large- and small-scale multidisciplinary environmental review documents under the National Environmental Policy Act (NEPA) and California Environmental Quality Act (CEQA). Ms. Walker additionally functions as a Senior Analyst and Issue Area Coordinator for land use and public policy analyses and related social science analyses. A selection of Ms. Walker’s project-specific efforts is provided below.

#### Aspen Environmental Group.....2000-present

- **Hanson Aggregate/Santa Margarita Quarry Expansion Project, County of San Luis Obispo County Department of Planning and Building, Project Manager and Senior Analyst (2013 – Present).** Ms. Walker is currently scheduled to serve as the Project Manager for an Environmental Impact Report (EIR) for a proposal to extend the operational life, and expand the footprint of, an existing aggregate quarry and processing facility near the community of Santa Margarita in San Luis Obispo County. The project additionally includes proposed amendments to the facility’s existing Reclamation Plan. Ms. Walker will be responsible for all aspects of the technical team’s management, serve as the primary point of contact with the County, provide senior technical and QA/QC review of all administrative, draft and final documents and, as requested by the County, participate in public meetings and decision making hearings. Ms. Walker will also serve as the senior analyst for the EIR’s land use and public policy analysis.
- **California Valley Solar Ranch Project, County of San Luis Obispo Department of Planning and Building, Senior Analyst (2009-2010).** Ms. Walker served as a senior analyst for an EIR addressing a proposed 250-MW photovoltaic solar power plant in the Carrizo Plain of eastern San Luis Obispo County. The EIR also includes analysis of a proposed surface aggregate mine on property adjacent to the proposed solar project. Ms. Walker prepared the document’s land use and recreation analysis, including a comprehensive policy consistency analysis of San Luis Obispo County’s General Plan and related zoning ordinances. Ms. Walker additionally prepared a “stand alone” analysis of historic agricultural uses and patterns in the project area based upon examination and assessment of a suite of aerial photographs taken over an approximate 40-year time frame.
- **Topaz Solar Farm Project, County of San Luis Obispo Department of Planning and Building, Senior Analyst (2009-2011).** Ms. Walker functioned as a senior analyst for an EIR prepared for a proposed 550-MW photovoltaic solar power plant in the Carrizo Plain of eastern San Luis Obispo County. She prepared the EIR’s land use, recreation and public policy consistency analyses, completed an analysis of past agricultural uses and practices within the project area over an approximate 40-year period, and also developed and analyzed an extensive suite of on-site project alternatives through design re-configurations and, for some alternatives, generating capacity reductions.
- **Port of Long Beach, Program Manager, Project Manager and Senior Analyst (2010 – Present).** Ms. Walker serves as Aspen’s Program Manager for an on-call master services agreement with the Port of Long Beach to prepare environmental review documents. In this role Ms. Walker also serves as a Project Manager and senior analyst under both CEQA and NEPA, including the analysis of industrial

development and uses within the Coastal Zone and consistency assessments with the Port's Master Plan and the California Coastal Act.

- **Baldwin Hills Community Standards District, City of Culver City, Senior Analyst (2008-2009).** Ms. Walker served as a senior analyst for technical review of an EIR addressing a proposed Community Standards District for onshore oil well drilling and production in the Baldwin Hills area of Los Angeles County. Ms. Walker was responsible for senior technical review of, and comment on, the Draft EIR's Project Description, land use and adopted public policy, recreation and environmental justice sections.
- **Ormond Beach Wetlands Restoration Feasibility Study, California State Coastal Conservancy, Project Manager (2006-2009).** Initiated by Aspen in 2003, Ms. Walker assumed management of the Ormond Beach Wetlands Restoration Feasibility Study in 2006. The project involved the development of preliminary design plans and the subsequent analysis of wetlands restoration alternatives ranging between approximately 770 to 1,756 acres of land within the Oxnard Plain of Ventura County. Ms. Walker managed and coordinated an extensive team of experts during completion of twelve iterative tasks including, among others, analysis of land use and land availability, an assessment of coastal public access and recreation, and an investigation of soils and surface water contamination. Ms. Walker was an active participant during completion of each project task, meetings with the public and local stakeholders, prepared the project's Potential Funding Sources Report and was the author of numerous sections of the Draft and Final Feasibility Study.
- **Port of Los Angeles Channel Deepening Project, US Army Corps of Engineers (Corps), Issue Area Coordinator for Social Sciences and Senior Analyst (2005-2009).** Ms. Walker served as the Issue Area Coordinator for the social sciences, and as a senior technical analyst for a Supplemental EIS/EIR addressing proposed channel deepening within the Port of Los Angeles. Ms. Walker completed senior technical reviews of all resource/issue-specific analyses related to the social sciences, and also functioned as the principal analyst for land use, including an in-depth evaluation of Port- and industrial related uses within the Coastal Zone as related to the implementing policies of the Port's Master Plan and the California Coastal Act.
- **Tranquillon Ridge Oil and Gas Development Project, Santa Barbara County Planning and Development Department, Energy Division, Senior Analyst (2006-2008).** Ms. Walker served as a senior technical analyst for an EIR addressing proposed oil and gas development of the Tranquillon Ridge oil and gas field, located in State waters offshore northern Santa Barbara County. Ms. Walker completed the EIR's analyses for visual resources/aesthetics, land use and public policy, and recreation. Ms. Walker additionally assisted with development of the EIR's off- and on-shore cumulative project listings and descriptions, as well as completion of multiple resource/issue-specific technical analyses for the EIR's cumulative impacts assessment.
- **Environmental Information Document and Coastal Consistency Determinations for Federal Oil and Gas Leases Offshore Santa Barbara, Ventura and San Luis Obispo Counties, US Department of the Interior, Minerals Management Service, Project Manager (2004-2005).** Ms. Walker served as the Project Manager for preparation of a multidisciplinary Environmental Information Document (EID) and ten federal Coastal Consistency Determinations that evaluated the potential effects of future development of the undeveloped federal oil and gas leases offshore Santa Barbara, Ventura and San Luis Obispo Counties. The documents addressed both lease-specific and cumulative impacts for the period 2006 through 2030. In addition to overall project management and coordination, Ms. Walker was responsible for senior technical review and the preparation of text regarding near- and long-term activities that may occur on the Pacific Outer Continental Shelf, and was a principal author of the Cal-

ifornia Coastal Act policy consistency analyses prepared for each of the project's Lease/Unit-specific Coastal Consistency Determinations.

- **Morro Bay Power Plant Project, California Energy Commission (CEC), Power Plant Coordinator and Senior Analyst (2001-2002).** Ms. Walker served as the Power Plant Coordinator (e.g., Aspen's internal Project Manager) and land use analyst for preparation of the Preliminary and Final Staff Assessments (PSA and FSA, respectively) for the Morro Bay Power Plant Project. Ms. Walker managed Aspen's staff and subcontractors' work efforts and schedules, coordinated with the CEC Project Manager regarding overall project logistics and schedule, and, completed the land use analysis for the PSA and FSA, including in-depth coordination with California Coastal Commission staff and participation in public workshops and evidentiary hearings.
- **Coastal Power Plant Evaluation, CEC, Senior Analyst (2002).** Ms. Walker functioned as a senior analyst during preparation of an evaluation focused on the key environmental and regulatory issues associated with the licensing and operation of coastally located power plants within California. Ms. Walker conducted agency interviews, researched power plant-specific licensing cases and other project-specific analyses and reports, and prepared written summaries of the findings of these efforts for inclusion in a draft and final report for review by the CEC.
- **Imperial Beach Shore Protection Project, Corps, Project Manager (2000-2002).** Ms. Walker served as the Project Manager for the Imperial Beach Shore Protection Project, a beach restoration effort sponsored by the Corps with participation by the City of Imperial Beach. The effort included preparation of a Draft and Final EIS/EIR for the project. Ms. Walker's efforts included: coordination with Corps staff and managers regarding overall project logistics and schedule; management of the project's in-house technical team and the project's various subcontractors; preparation of many of the EIS/EIR's non issue/resource-specific technical sections, such as the document's Project Description; oversight of all document editing, compilation and production; and, participation in local and California Coastal Commission public hearings.
- **Morro Bay Sampling and Chemical Analysis Project, Corps, Project Manager (2001).** Ms. Walker acted as the Project Manager for a water sampling and chemical analyses project within Morro Bay. The purpose of the project was to sample selected locations of the Bay for the necessary approvals needed for proposed dredging activities. Principal agency approvals include the US Environmental Protection Agency and California Coastal Commission. Ms. Walker's involvement included the coordination and scheduling of activities between the Corps and Aspen's subcontractors, and senior technical review of all documents submitted to the Corps.
- **Division of Oil, Gas and Geothermal Resources (DOGGR) Regulatory Compliance Initial Study (2003).** Ms. Walker served as a senior analyst for an Initial Study evaluating the California Division of Oil, Gas and Geothermal Resources' (DOGGR) proposed program for compliance with CEQA for oil and gas drilling in Kern County. Ms. Walker revised DOGGR's regulations for CEQA compliance for review by DOGGR counsel and the Deputy Attorney General, and prepared the agricultural resources and land use and planning analyses of the project's Initial Study.

### Previous Experience, 1989-1999

Prior to joining Aspen Environmental Group Ms. Walker served as a Project Manager at Dames & Moore (1989-1997), and as a contract planner with the Energy Division of the Santa Barbara County Planning and Development Department (1997-1999). A selection of the projects she worked on during this period is provided below.

- **Hercules Remediation Project.** Ms. Walker prepared and evaluation of the federal, State, and local regulatory permit acquisition requirements for the remedial clean-up of an extensive petrochemical spill associated with the Hercules Oil and Gas Development Project located along the Gaviota Coast in Santa Barbara County.
- **California Offshore Oil and Gas Energy Resources Study.** Ms. Walker served as the land use and public policy analyst for an inter-disciplinary study evaluating the potential environmental, engineering, and socioeconomic constraints associated with various levels of offshore oil and gas development within the Coastal Zone of Ventura, Santa Barbara and San Luis Obispo Counties. The effort included an extensive land use inventory and mapping of the tri-county study area, as well as comprehensive analysis of adopted local land use laws, ordinances and regulations applicable to oil and gas exploration, development and abandonment.
- **Santa Barbara North County Siting Study.** Ms. Walker completed the land use and oil and gas facility infrastructure "baseline" sections for a siting and constraints study focused on the potential alternatives available for the construction and operation of a new consolidated oil and gas processing facility in northern Santa Barbara County.
- **Atchison-Topeka Remediation Project.** Ms. Walker prepared an Initial Study and Mitigated Negative Declaration for a proposed remediation project in support of truck/train intermodal operations within the City of Vernon.
- **QAD Facility Expansion.** Ms. Walker Prepared the land use analysis for a preliminary environmental assessment/screening of a proposed facility expansion of a light-industrial enterprise in the City of Carpinteria. The task included an inventory of all land uses within and adjacent to the proposed project site, as well as a consistency analysis of all applicable City and Santa Barbara County General Plan and Zoning regulations.
- **Mobil M-70 Pipeline Replacement Project.** Ms. Walker served as the Principal Investigator for the land use analysis, mapping, and impact assessment of a proposed 92-mile crude oil pipeline and alternatives located between Lebec and Torrance. The effort included a consistency analysis of all applicable local and regional public land use policies and regulations related to pipeline placement and operation.
- **Point Pedernales Project Condition Effectiveness Review.** Ms. Walker completed a comprehensive Preliminary Screening Analysis assessing the effectiveness of the 192 conditions associated with the Santa Barbara County Final Development Plan for the Pt. Pedernales Project, an on- and offshore oil and gas development project.
- **Kern County Valley Floor Habitat Conservation Plan.** Ms. Walker conducted an extensive habitat and land use inventory, mapping, and analysis of the western half of Kern County for inclusion in the Kern County Valley Floor Habitat Conservation Plan. The effort additionally included mapping and analysis of the County's General Plan Land Use Element Goals and Policies, and County Zoning Ordinances.

## Professional Affiliations

- Association of Environmental Professionals

## Certificates/Awards

- Darkenwald Award for outstanding academic achievement by a first year graduate student (City University of New York, Department of Geography and Geology, 1987).



## Academic Background

BS, Chemical Engineering, Cornell University, 1985

## Professional Experience

Mr. Walters has over 25 years of technical and project management experience specializing in air quality environmental compliance work, including environmental impact reports, criteria pollutant and greenhouse gas emissions inventories, source permitting, as well as experience in RCRA/CERCLA site assessment and closure, site inspection, source monitoring, and energy and pollution control research.

### Aspen Environmental Group.....2000-present

He is responsible as the environmental issue area technical lead and/or project manager of environmental projects. Specific responsibilities and projects include the following:

- **Baldwin Hills Community Standards District (CSD), City of Culver City, Air Quality Analyst (2008-2011).** Completed the air quality review of a County of Los Angeles environmental document including attending a City Council meeting and answering technical questions posed by the Council Members; and helped prepare the air quality related sections of an oil and gas drilling ordinance for the City of Culver City in Los Angeles County. Completed reviews and prepared comments on several plans completed in compliance with the CSD: including, the Air Quality Monitoring Plan; the Quiet Mode Drilling Plan; the Drilling, Redrilling, Well Abandonment, and Well Pad Restoration Plan; the Air Quality Study Work Plan; and the Hydraulic Fracturing Study.
- **Topaz Solar Farm, County of San Luis Obispo (2009-2011).** He reviewed existing solar project temperature gradient data to determine localized temperature impacts and completed an assessment of cadmium telluride hazardous material impacts for this solar energy project's EIR. He also attended and answered questions at the County hearings for the project. After project approval reviewed and commented on the project owner's solar module inspection and handling plan compliance submittal and reviewed and addressed other air quality related compliance issues.
- **Port of Long Beach (POLB), Air Quality Analyst (2010-present). Multiple Projects.** He supervised the preparation of the air quality and greenhouse gas sections for the following projects in Los Angeles County:
  - Eagle Rock Marine Terminal Project EIR/EIS (2011-present).
  - TTI Grain Export Terminal Project EIR (2011-present).
  - Sulex Demolition Project MND (2010).
- **Cabrillo Port Liquefied Natural Gas Deepwater Port Draft EIS/EIR, City of Oxnard, Technical Review and Comment (2004-2006).** He prepared comments on the Air Quality, Alternatives, Marine Traffic, Public Safety, and Noise sections of this draft EIS/EIR for the City of Oxnard.
- **Long Beach LNG Import Project Draft Environmental Impact Statement/Environmental Impact Report, City of Long Beach, Technical Review and Comment (2005).** He prepared comments on the air quality section of this Draft EIS/EIR for the City of Long Beach.
- **New School Construction Program EIR, Los Angeles Unified School District (LAUSD), Air Quality Analyst (2003-2004).** He prepared the Air Quality Section of the Los Angeles Unified School District New School Construction Program EIR and provided traffic trip and VMT calculation support for the Traffic and Transportation Section. As part of this project attended two public scoping meetings.

- **LAUSD, Air Quality Analyst (2002-2006). Multiple Projects in Los Angeles County.** He prepared the emission inventory and MND or EIR air quality section for several new school construction projects, including:
  - Central Regional Middle School #7 MND (2005)
  - Southern Regional Middle School #6 EIR (2005)
  - Narbonne High School Stadium Lighting and Improvements MND (2004)
  - Maclay Elementary School Addition MND (2005-2006)
- **Piru Area Plan Update EIR, Odor and Health Impact Study, Ventura County (2005).** He prepared an odor and health impact study of a small natural gas odorizing facility in support of the Ventura County Piru Area Plan Update EIR.
- **CEQA Documentation Review, Newhall Ranch Corporation (2008).** He reviewed and provided comments on the air quality section of the administrative draft EIR for the Newhall Ranch project in Los Angeles County.
- **California Public Utilities Commission (CPUC), Air Quality Analyst (2000-present). Multiple Projects.** He prepared or supervised the emission inventory and/or EIS/R air quality section and/or General Conformity Analysis for several CPUC transmission line, substation, and natural gas storage projects.
- **Los Angeles Department of Water and Power (LADWP), Air Quality Analyst (2004-2008). Multiple Projects.** He prepared the emission inventory and/or CEQA air quality sections for several DWP pipeline and renewable energy projects.
- **United States Army Corps of Engineers (Corps), Air Quality Analyst (2001-2011). Multiple Projects.** He prepared or supervised the emission inventory and/or EIS/R air quality section and/or General Conformity Analysis for several Corps flood control improvement, ecosystem restoration, and water conservation projects.
- **California Department of Water Resources (DWR), Air Quality Analyst (2003-2006). Multiple Projects.** He prepared the emission inventory and/or CEQA air quality sections for several DWR water infrastructure projects.
- **Power Plant Siting Projects, California Energy Commission (CEC), Air Quality Analyst and Project Manager (2000-present). Multiple Projects.** Aspen is assisting the CEC in evaluating the environmental and engineering aspects of new power plant applications throughout the State. As part of this effort, Mr. Walters is serving or has served as a technical specialist and project manager for air quality and greenhouse gas/climate change assessments for over thirty power plant licensing case projects, including over 10 renewable energy power plants. He also provided expert witness testimony as necessary for these for these licensing cases.
- **Construction Emissions Estimation Training, CEC (2012).** He prepared instruction materials and provided onsite instruction of construction emissions estimation techniques for California Energy Commission Air Quality Unit staff.
- **Woodland Generating Station 2, CEC, Public Health Analysis (2001).** He prepared the Public Health Section for the Initial Study for this project.
- **Contra Costa Power Plant, CEC, Noise Assessment (2000).** He assisted in the preparation of noise assessment section for the Staff Assessment for this project.
- **Ocotillo Express Wind Project, County of Imperial (2010-2012).** He prepared the air quality and greenhouse gas sections of the wind energy project's EIR/EIS.

- **Kern County Wind Projects, Kern County Planning (2010-2012).** He has prepared the air quality and greenhouse gas sections for the following wind energy project's EIRs or EIS/EIR.
  - Alta East Wind Energy Project EIS/EIR (2011-2012).
  - Alta Infill Wind Energy Project Supplemental EIR (2011).
  - Morgan Hills Wind Energy Project EIR (2011).
  - North Sky River and Jawbone Wind Projects EIR (2010-2011).
  - Pacific Wind Energy Project EIR (2010-2011).
- **Wildhorse/Buckeye Geothermal Power Projects, Sonoma County Planning (2011).** He prepared the air quality and greenhouse gas analyses for the two geothermal energy project MNDs.
- **California Valley Solar Ranch, County of San Luis Obispo (2011).** He reviewed and commented on a project compliance submittal.
- **Port of Long Beach (POLB), Air Quality Analyst (2010-present). Multiple Projects.** He supervised the preparation of the air quality and greenhouse gas sections for the following projects in Los Angeles County:
  - Eagle Rock Marine Terminal Project EIR/EIS (2011-present).
  - TTI Grain Export Terminal Project EIR (2011-present).
  - Sulex Demolition Project MND (2010).
- **CPUC, Mitigation Monitoring Support, Air Quality Analyst (2010-present).** He reviewed and commented on air quality-related mitigation compliance submittals and field related mitigation issues for several projects including:
  - Devers-Palo Verde 2 Transmission Project
  - Antelope Transmission Project 2 & 3
  - Tehachapi Renewable Transmission Project
- **Mineral Management Service, Air Quality Analyst (2004-2005).** He prepared the Air Quality Section of the Environmental Information Document in support of the Coastal Consistency Determinations for the suspension of operation requests for undeveloped units and leases off the Central California Coast.
- **Littlerock Reservoir Sediment Removal Project Draft EIS/R, Palmdale Water District, Air Quality Analyst. (2006-2007).** He prepared the air quality section and General Conformity analysis.
- **Air Quality Permitting and Compliance, Desa International (2000-2007).** Preparation of permit applications, emission calculation spreadsheets, the 2006/2007 Annual Emission Report for submittal to the SCAQMD, an air quality compliance manual, and performed compliance inspections for Desa International's manufacturing facility in Orange County California.
- **Process Risk Analysis, SSI Foods (2004).** Revision of the Risk Management Plan (RMP) for the Wilder Idaho Facility Ammonia Refrigeration Systems.
- **Liberty Energy XXVIII Renewable Energy Power Plant Project DEIR, City of Banning (2007-2008).** He completed the air quality section and visible plume analysis for the DEIR.
- **Site Apportionment Study, Los Angeles World Airports (2008-2009).** Under subcontract with Jacobs Consultancy he prepared a draft off-airport emission inventory for the study area surrounding LAX and modeling emission input data for the initial scoping study for this project.

## Other Applicable Work Experience ..... 1985-2000

Mr. Walters served as environmental issue area technical lead and/or project manager of environmental projects. Specific responsibilities and projects include the following:

- Project manager/technical lead for the completion of Risk Management Plans (RMPs) for four J.R. Simplot food processing facilities in Oregon, Idaho, and Washington and the Consolidated Reprographics facility located in Irvine. Project manager for the concurrent Process Safety Management plan support for the J.R. Simplot Hermiston (Oregon) and Heyburn (Idaho) facilities.
- Prepared site investigation and RCRA closure plan report for Olin Hunt Specialty Chemical's Vernon, hazardous waste storage site.
- Task manager for nine site investigations under the EPA Region VI ARCS contract. Project activities included data collection, work plan preparation, field sampling, final report preparation, and Hazard Ranking System (HRS) PRescore preparation.
- For the Hanford (Washington) Waste Vitrification Project, prepared an air emission inventory for criteria pollutants, prepared an emission inventory and compliance evaluation of toxic air pollutants, performed compliance review of design drawings and equipment specifications, analyzed failure probability and consequence analysis of design-basis accidents.
- Project manager of air toxic emission inventory reports (under California's AB2588), prepared for US Borax's boron mining and refining facility and the Naval Aviation Depot (North Island Naval Base, San Diego).
- Preparation of emission inventories and dispersion modeling for criteria and air toxic pollutants for the Los Angeles International Airport Master Plan (LAXMP) EIS/EIR. Project Manager for a stationary source emission audit of the entire Los Angeles International Airport complex. Project manager for the ambient air monitoring and deposition monitoring studies performed in support of the LAXMP.
- Characterized and quantified air emissions for offshore oil and gas development activities associated with Federal oil and gas Lease Sale 95, offshore southern California, for the US Minerals Management Service.
- Prepared environmental reports, including waste stream quantification and characterization for several proposed facilities, including:
  - Lake Minerals proposed soda ash plant at Owens Lake, California
  - Minsal's proposed potash facility located on the Salar de Atacama in Chile.

## Certifications

- Chemical Engineer, California, License 5973
- Lead Verifier – California's Mandatory GHG Reporting Program

## Awards

- 2006 American Planning Association, Los Angeles Section Environmental Award for the Los Angeles Unified School District New School Construction Program, Program EIR
- California Energy Commission Outstanding Performance Award 2001

## Air Quality Emissions and Air Dispersion Modeling Expertise

EMFAC; OFFROAD, CalEEMod, URBEMIS; AERMOD; ISC; CALINE4; CAL3QHC; EDMS.



## Academic Background

MPA, Environmental Policy, Columbia University, 2004

BS, Environmental Studies, University of Southern California, 1998

## Professional Experience

Mr. Yeh is an Environmental Scientist with expertise in the management of California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) documents and environmental assessments. He supported the California Energy Commission (CEC) as an energy facilities Siting Project Manager for the licensing process of proposed thermal power plants of 50 MW or greater throughout the State. Prior to employment at Aspen, Mr. Yeh worked as a consultant on various environmental site assessments (including Phase 1 investigations and pipeline safety risk assessments) and CEQA documents (including Environmental Impact Reports (EIR) and Mitigated Negative Declarations (MND)) for public and private organizations.

### Aspen Environmental Group.....2006-present

- **Eagle Rock Aggregate Terminal Project, Port of Long Beach, Deputy Project Manager.** Mr. Yeh served as Deputy Project Manager for the preparation of an Environmental Impact Statement (EIS)/EIR for a marine aggregate storage and transfer facility. The project includes dredging; ocean disposal of dredge material; construction of a wharf; grading; installation of a conveyor system; relocation of existing scales and administration building; and, onsite traffic circulation improvements. Mr. Yeh also prepared the Aesthetics, Agriculture, Mineral Resources, and Socioeconomics sections of the document.
- **Port of Los Angeles Channel Deepening Project Supplemental EIS/EIR, USACE, Technical Specialist.** Mr. Yeh prepared a programmatic analysis of future development of Berths 243-245 to be included in a joint Supplemental EIS/EIR for the USACE and the Port of Los Angeles. The Supplemental EIS/EIR addresses impacts associated with providing additional disposal capacity to complete the Port's Channel Deepening Project.
- **Alcoa Dike Project, USACE, Project Manager.** Mr. Yeh is acting as Project Manager for the preparation of a Supplemental Environmental Assessment (EA)/EIR Addendum under the NEPA/CEQA for the United States Army Corps of Engineers (USACE). A Supplemental EA/EIR Addendum is under preparation to address design changes to the approved Alcoa Dike located in the Prado Basin, Riverside County. Mr. Yeh is also preparing the hazards and public safety section for the document.
- **Seven Oaks Dam Water Conservation Project, USACE, Project Manager.** Mr. Yeh is currently managing the preparation of a Supplemental EA/MND for this project. The project, located in the counties of San Bernardino, Riverside and Orange, entails impoundment of additional water and controlled releases from Seven Oaks Dam on the Santa Ana River for water conservation purposes.
- **Reach 9, Phase 2A Embankment Project, USACE, Project Manager.** Mr. Yeh served as Project Manager for the preparation of a Supplemental Environmental Assessment (EA)/EIR Addendum under the NEPA/CEQA for the United States Army Corps of Engineers (USACE). A Supplemental EA/EIR Addendum was performed to address design changes to the approved Green River Housing Estate and Upper 91 Highway Embankments located in the Prado Basin, Riverside County. Mr. Yeh also prepared the hazards and public safety section for the document.
- **Auxiliary Dike Project, USACE, Project Manager.** Mr. Yeh acted as Project Manager for the preparation of a Supplemental EA/EIR Addendum under the NEPA/CEQA for the USACE. A Supplemental

EA/EIR Addendum was performed to address design changes to the approved Auxiliary Dike located in the Prado Basin, Riverside County. Mr. Yeh also prepared the hazards and public safety section for the document.

- **Santa Maria River Levee Improvement Project, USACE, Project Manager.** Mr. Yeh served as Project Manager for the preparation of an EA under the NEPA for the USACE. An EA was performed for the corrective action to repair the design deficiency of the Santa Maria River Levee in order to avoid the potentially catastrophic consequences of a levee breach that would affect the population of the city of Santa Maria. Mr. Yeh prepared the project description, traffic, hazards, recreation and public safety sections in addition to project management activities.
- **Upper Santa Ana River Wash, Baseline Utilities Analysis, USACE, Technical Specialist.** Mr. Yeh conducted a baseline utilities analysis for the Upper Santa Ana River Wash, beneath the Seven Oaks Dam. His duties included contact and coordination with local utility public agencies and private companies.
- **Donnell Basin Environmental Documents & Regulatory Permits, Project Manager.** Mr. Yeh is acting as Project Manager for the preparation of CEQA environmental documents, technical reports and regulatory permits for the development of Donnell Basin to its ultimate condition inflow and planned basin outflow capacities consistent with the Twenty-nine Palms Master Plan of Drainage. The project is bounded by Twenty-nine Palms Highway on the south, Mesquite Spring Road on the west, El Paseo Drive on the north, and Split Rock Avenue on the east within the Twentynine Palms area of San Bernardino County.
- **Rimforest Storm Drain Project, San Bernardino County Flood Control District, Project Manager.** Mr. Yeh is acting as Project Manager for the preparation of an EIR for the San Bernardino County Flood Control District. For at least the last thirty years, this Rimforest community has been experiencing severe erosion and land sliding resulting in significant property loss. The Rimforest Storm Drain Project addresses the proposed remedial action, which includes rerouting water drainage back into Little Bear Creek, which flows through Blue Jay and into Lake Arrowhead. This project would require construction of a storm drain system along Highway 18 and inside the village of Rimforest.
- **Downs Substation Expansion Project, CPUC, Deputy Project Manager.** Mr. Yeh is serving as Deputy Project Manager for the CEQA review of the Downs Substation Expansion Project proposed by Southern California Edison (SCE). SCE proposes to upgrade/expand the existing Downs 33/12-kV Substation to 115/12 kV to serve increased electrical demand, improve reliability and enhance operational flexibility within the Electrical Needs Area. New telecommunications lines would be added to approximately 58 miles of existing 115-kV poles, where only approximately 6 existing poles would need to be replaced to accommodate the telecommunications line.
- **Manzana Wind Project, California Public Utilities Commission, Project Manager.** Mr. Yeh acted as Project Manager for the Manzana Wind Project environmental review. Environmental review was conducted to assist the California Public Utilities Commission (CPUC) in its decision on whether to approve the Certificate of Public Convenience and Necessity filed by the Pacific Gas and Electric Company for its proposed purchase of the Manzana Wind Project (formerly known as the PdV Wind Energy Project), located in Kern County. Aspen also assisted the CPUC in exploring and developing additional mitigation to address the California Condor.
- **Ocotillo Express Wind Project, Imperial County, Deputy Project Manager.** Mr. Yeh assisted in the preparation of the EIR/Environmental Impact Statement (EIS) for the proposed wind energy project. The project is proposed to be located on approximately 15,000 acres of land with up to 193 wind turbines to produce up to 550 MW of energy. Mr. Yeh prepared the following sections of the docu-

ment: Introduction, Description of Proposed Action, Special Designations, Grazing, Wild horses and burros, and Public Health.

- **Kern County, Project Manager.** Mr. Yeh has performed in a management role for the preparation of EIRs or EIS/EIRs for multiple wind projects in Kern County, including:
  - Alta-Oak Creek Mojave Project
  - Pacific Wind Energy Project
  - North Sky River /Jawbone Wind Energy Project
  - Morgan Hills Wind Energy Project
  - Alta-East Wind Energy Project
- **Topaz Solar Farm Project, San Luis Obispo County, Technical Specialist.** Mr. Yeh prepared the Population and Housing analysis of the EIR for this 550-MW solar photovoltaic power plant on the Carrizo Plain of eastern San Luis Obispo County. The project includes solar arrays that would cover approximately 4,200 acres, as well as an electric substation and switching station.
- **Tehachapi Renewable Transmission Project, CPUC, Coordinator.** Mr. Yeh managed the preparation of the programmatic analysis for the Tehachapi Wind Resource Area for the CPUC. This analysis discussed potential environmental issues associated with the development of wind energy in the Tehachapi area of Kern County. Mr. Yeh prepared the project description and analyses for the following issue areas: hazards and hazardous materials, population and housing, public services, and traffic and transportation.
- **California Energy Commission (CEC).** Aspen is assisting the CEC in evaluating the environmental and engineering aspects of new power plant applications throughout the State. As part of this effort, Mr. Yeh has served as an energy facilities Siting Project Manager for the licensing process of proposed thermal power plants of 50 MW or greater throughout the State. In addition, he has also served as a specialist for alternatives analyses for several electrical generating facility projects. He has participated in public workshops and hearings around the state, and completed the CEC's Expert Witness Training. His major efforts for the CEC include the following:
  - **San Gabriel Generating Station, Siting Project Manager.** Served as Siting Project Manager for the Application for Certification (AFC) environmental review process for San Gabriel Power Generation's 696-MW combined cycle electrical generating facility located in Rancho Cucamonga. In this role, he managed the data adequacy process (including a recommendation to the CEC commissioners), preparation of a Staff Assessment (including mitigation measures, or "conditions of certification"), held workshops to hear Applicant and public comments, and coordinated extensively with CEC staff counsel. Additionally, he prepared the project description and alternatives analysis.
  - **Sentinel Energy Project, Siting Project Manager.** Served as Siting Project Manager for the Data Adequacy process for CPV Sentinel's AFC to construct and operate an 850-MW peaking electrical generating facility on 37 acres of land near SCE's Devers Substation. In this role, he coordinated with technical staff and the applicant on data adequacy issues, and prepared a data adequacy recommendation for the CEC commissioners.
  - **AES Highgrove Power Plant, Technical specialist.** Served as Technical Specialist for the alternatives assessment for AES Highgrove's 300-MW peaking electrical generating facility located on a former power plant site in Grand Terrace.
  - **Sun Valley Energy Project, Technical Specialist.** Served as Technical specialist for the alternatives assessment for Valle del Sol Energy's 500-MW simple-cycle electrical generating facility located on a 20-acre parcel in unincorporated Riverside County.

- **Vernon Power Plant, Technical Specialist.** Served as Technical specialist for the alternatives assessment for the city of Vernon's 943-MW combined-cycle electrical generating facility located in Vernon on a 13.7-acre site.
- **Humboldt Bay Repowering Project, Technical Specialist.** Served as Technical specialist for the alternatives assessment for replacement of existing turbines on the existing Humboldt Bay Power Plant. Pacific, Gas, and Electric's (PG&E) electrical generating facility would consist of a capacity of 163 MW and will be located on 5.4 acres within a 143-acre parcel in Eureka.
- **Bullard Energy Center, Technical Specialist.** Served as Technical specialist for the alternatives assessment for Bullard Energy Center's 200-MW natural gas simple-cycle electrical generating facility located in Fresno on a 12.3-acre site.
- **Russell City Energy Center, Technical Specialist.** Served as Technical specialist for the Reconductoring Analysis for the Eastshore-Dumbarton transmission line upgrade associated with this project. Calpine Corporation and Russell City Energy Center's 600-MW peaking electrical generating facility is located on 14.7 acres in Hayward. This work included analysis of several technical issue areas associated with transmission upgrade.
- **North Area ROW Maintenance Project, Western Area Power Administration, Technical Specialist.** Mr. Yeh assisted in the preparation of the Operations and Maintenance Plan of an Environmental Assessment to address Western's changes in operation and maintenance procedures along the North Area and California-Oregon Transmission Project (COTP) transmission ROWs. In order to support the Environmental Assessment, Aspen is conducting biological and cultural surveys along 1,000 miles of ROW and access roads.

## Previous Employment

### Questa Environmental Consulting, Project Manager

As a CEQA Project Manager for the Los Angeles Unified School District, Mr. Yeh directed and oversaw the work of several teams of CEQA professionals to produce CEQA documentation for more than 20 new elementary, middle school and high school construction projects. He was responsible for evaluating proposals, directing and reviewing analysis of all CEQA documents (including EIRs and MNDs), developing schedules, tracking and reporting project progress, managing project budgets, and organizing and conducting all Scoping and Draft EIR/MND community public meetings for each project. He also coordinated the preparation of special studies related to the safety of new schools including traffic and pedestrian safety studies, air toxic health risk assessments, pipeline safety studies, rail safety studies, electromagnetic field studies, and other similar efforts required to meet Title 5 (California Education Code) requirements.

### Meredith and Associates, Staff Scientist/Project Manager

As a Staff Scientist, Mr. Yeh researched, wrote and edited Phase I environmental site assessments for commercial, residential, industrial, and school properties. He conducted agency and field research to support health/safety risk assessments of railways, air toxics, and natural gas/petroleum pipelines. He also provided litigation support for groundwater remediation projects and participated in the review of CEQA documents for technical and editorial accuracy.

# WALTER R. CRONE, PG, QSD/QSP

## PRINCIPAL ENVIRONMENTAL GEOLOGIST

### EDUCATION

M.S., Geology, 1982, Mackay School of Mines, University of Nevada, Reno

B.A., Geology, 1977, California State University, Los Angeles

### REGISTRATIONS/TRAINING

Professional Geologist, California, PG 4350

Professional Geologist, Idaho, No. 733

Professional Geologist, Arizona, No. 34943

Qualified SWPPP Developer/Practitioner,

California No. 22753

Certified Environmental Manager, Nevada,

CEM 1007

40-Hour OSHA Health and Safety Training

(Updated - Annually)

### EXPERIENCE HIGHLIGHTS

DTSC New School Review Process

Expert Witness/Designated Expert

Regulatory Support for MTBE Contamination of Drinking Water Supplies

Superfund Cost Allocation Support

Contract Manager for On-Call Environmental Assessment and Remediation Agreements

Petroleum, Oils, and Lubricants

Solvents Assessment and Remediation

Metals & Radionuclides Assessment and Remediation

MGP Sites and PAH Remediation

PCB Assessment, Remediation, and Cleanup Verification

### PROFESSIONAL AFFILIATIONS

ASTM Risk-Based Corrective Action Environmental Assessment Subcommittee

National Ground Water Association Association for Environmental Health and Sciences

Orange County Bar Association, Environmental Law Section

### PUBLICATIONS

"A Comparison of Iron Oxide-Rich Joint Coatings and Rock Chips as Geochemical Sampling Media in Exploration for Disseminated Gold Deposits," *Journal of Geochemical Exploration*

As Principal Environmental Geologist, Mr. Crone plans, directs, and performs surface and subsurface geologic mapping and geochemical characterization; provides senior technical guidance to staff performing environmental projects; and plans and directs Phase I and II ESAs through remediation of soil and groundwater. Mr. Crone also develops regulatory compliance strategies and negotiates on client's behalf with regulatory agencies; performs third-party review of contamination investigation reports and remediation cost estimates; provides litigation support and expert opinions regarding environmental issues during various legal proceedings; and performs risk-based corrective action (RBCA) following ASTM Standard E-1739.

### REPRESENTATIVE PROJECT EXPERIENCE

**Commercial and Residential Properties, Avila Beach, California:** Technical Expert to counsel representing an owner of three properties in Avila Beach, California. Three tracts of property were over and near a subsurface plume of refined and crude petroleum that had migrated beneath a large part of this sea-side town along the California central coast. Remediation by Unocal Corporation, the responsible party, included excavation and disposal or treatment of contaminated soil, with demolition and reconstruction of much of the small town. Mr. Crone evaluated the responsible party's assessments of the impact to the owners' properties, recommended additional study to fill data gaps, and provided opinions regarding the actual and possible future impact. This information was used to support successful settlement negotiations with Unocal.

**Monarch Point/Ellwood Mesa, Goleta, California:** Principal Technical lead to identify, assess, and select remedial actions for any environmental issues on Ellwood Mesa and a nearby 36-acre property owned by the City of Goleta. The City of Goleta's property was part of a land exchange structured by Trust for Public Land (TPL) and others to secure Ellwood Mesa as a central element of the ecological preserve. The oil exploration and development of the Ellwood Oilfield from the late 1920s to the mid-1940s created several environmental issues that Ninyo & Moore identified on these properties. Work included review of over 400 documents, geophysical and soil gas surveys, drilling and sample collection and analyses, evaluation of ecological risk, negotiation with local and state regulatory agencies, development of a Remedial Action Plan and cost estimates.

**Oil-Field Contaminated Soil, Yorba Linda, California:** Technical Expert to counsel representing a construction management firm accused of improperly managing the removal of oil-field contaminated soil during construction of a municipal water-storage tank and incurring more than \$1 million additional removal/disposal costs. Responsible for providing opinions regarding the possible alternative approaches and reasonableness of the actual incurred costs. Responsible for discussing technical issues and offering opinions during a mediated settlement.

**Industrial Complex Overlying an Oil and Gas Field, Oxnard, California:** Project Manager and Technical Lead, represented attorneys for the buyer of an 11-acre site in an oil field that included an oil well and former aboveground storage tanks. He provided third-party oversight of the re-abandonment of the oil well to current California Division of Gas and Geothermal Resources (DOGGR) guidelines. Re-abandonment included placement of a casing-gas collection and venting system in accordance with DOGGR guidelines. Following proper abandonment of the oil well, Ninyo & Moore conducted a soil gas survey for methane and provided conclusions regarding the suitability of the site for the intended purpose.

**Ninyo & Moore**

Experience | Quality | Commitment

**REPRESENTATIVE PROJECT EXPERIENCE (continued)**

**Bixby Oil Production Site: Assessment of Remedial Needs and Costs for Wetlands Restoration, Long Beach, California:** Principal-in-Charge of a project to develop a detailed cost estimate for the remediation of approximately 83 acres of oil field property in Long Beach, California. This property had been an operating oil field since 1928 and contained approximately 82 wells of which 34 were still actively producing. Bixby intended to enter into an agreement with the Trust for Public Land (TPL) to convert most of the property into wetlands. As part of this agreement with TPL, Bixby would fund, through an escrow account, surface and subsurface structure demolition (including the abandonment of active wells and the re-abandonment of former wells), and any remediation that is required to a level defined as suitable for residential development. Mr. Crone's role in the project was provide technical guidance and review of all project elements to assess the property and prepare a detailed and defensible cost estimate for the completion of surface and subsurface structure demolition and required remediation.

**Bloomfield Business Center Assessment, Soil Management Plans, Remediation and Construction Oversight, Santa Fe Springs, California:** Principal-in-Charge and Technical Lead, to complete a Phase I Environmental Site Assessment (ESA), negotiate cleanup levels prepare and implement soil management and pipeline removal plans during construction and remediate oilfield waste, tanks and pipelines on an approximately 20-acre property. The site was used to store oil and petroleum hydrocarbon products since the early-1900s. The property was vacant for over 15 years while numerous environmental investigations were completed. The property was deemed undesirable by many developers due to the amount of contamination discovered and the strict regulatory cleanup standards set by local and State regulatory agencies. The Santa Fe Springs Fire Department has used Ninyo & Moore's soil management plan as a model to develop a City requirement for the preparation of plans by prospective developers of contaminated properties in the City of Santa Fe Springs.

**Former Manufactured Gas Plant Site, Fullerton, California:** Mr. Crone was the designated consulting technical expert for support in litigation involving the cleanup of a former manufactured gas plant (MGP) site in the city of Fullerton, California. The MGP existed for approximately 10 years after the turn of the 20<sup>th</sup> century and produced manufactured gas (also known as "town gas") from crude oil. Wastes from the MGP operations were either leaked, spilled, or disposed of on the site. The city of Fullerton retained Mr. Crone to observe remediation of the former MGP and to collect potentially contaminated soil samples for forensic chemical analyses. Mr. Crone personally supervised the installation and geologic logging of soil borings and the collection of soil samples for analyses for polycyclic aromatic hydrocarbons (PAHs), alkylated PAHs, and saturated hydrocarbons. Following extensive negotiations, the lawsuit was settled before going to trial.

**Union Pacific Park, Fullerton, California:** Mr. Crone provided litigation support services for a lawsuit between the city of Fullerton and the responsible utility for alleged contamination of the Union Pacific Park in Fullerton, California, by early 20<sup>th</sup> century operations of an adjacent former MGP. Mr. Crone identified data gaps in earlier investigations of the park by the utility and installed, geologically logged, and sampled selected borings to refine the extent of PAH contamination. A complex history of site use by railroads and roofing operations complicated the understanding of the origins of PAH contamination. Mr. Crone used innovative multi-component statistical and graphical analyses to identify contamination likely to have originated from MGP operations. In order to establish cleanup criteria, Mr. Crone completed an extensive study of PAH background concentrations within the city of Fullerton. The city-wide background study encompassed an area of approximately 25 square miles and represented the full range of development (e.g., residential, industrial, and commercial) and transportation routes (e.g., low- and high-volume surface streets, interstate highways, and railroads) within the city. The background study was designed, implemented, and results concurred with by the California Department of Toxic Substances Control, and concluded that the upper limit of ambient PAH concentrations was 0.12 mg/kg benzo(a)pyrene toxic equivalent.

**Tetraethyl Lead Storage and Transfer Facility, Carson, California:** Geologist, conducted site assessment and field investigations for the closure of a tetraethyl lead (an extremely toxic substance) storage and transfer facility. The investigation included detailed sampling of groundwater, soils, and construction materials to determine the degree and extent of contamination that occurred during the 40-year operational life of the facility and assisted with successful regulatory closure of the site.

**REPRESENTATIVE PROJECT EXPERIENCE (continued)**

**USEPA/City of Santa Monica Municipal Drinking Water Supply, Santa Monica, California:** Primary Technical Support to the USEPA legal and technical staff for the investigation of contamination of the City of Santa Monica's municipal drinking water supply by MTBE. Directly involved with EPA on a day-to-day basis to analyze technical, regulatory, and political issues and develop an overall strategy to identify responsible parties and, ultimately, restore this drinking water supply serving more than 200,000 people. Assisted EPA in evaluating PRP site lists, developing site characterization objectives, specifying requirements for site investigations, evaluating the sufficiency of PRP work plans, evaluating investigation reports, developing conceptual models for fate and transport, and drafting or reviewing enforcement documents. He reviewed work plans and oversaw field work conducted by PRPs at 47 identified potential sources. He worked directly with EPA, Regional Water Quality Control Board and California Department of Health Services technical and legal staff and legal staff from the U.S. Department of Justice and California Attorney General's Office to assist development of enforcement strategies and draft scopes of work for both consent and unilateral administrative orders.

**Confidential Client, Southern California Oil Producer, Long Beach, La Habra Heights, and Carson, California:** Principal-in-Charge on an as-needed contract with a confidential oil company client in Southern California for several of its oil exploration, production, storage, and distribution facilities, in Long Beach, La Habra Heights, and Carson, California. Projects have included Phase I Environmental Site Assessments (ESAs), Phase II ESAs, remedial action plans (RAPs), remedial design, remedial excavations, free oil removal from both soil and groundwater, oil recovery system designs and installations, groundwater monitoring and sampling events, emergency clean-up response, geotechnical evaluations, materials testing services, and regulatory communication and coordination. The types of facilities evaluated include tank farms; stock consolidation areas; oil/water separation, storage, and pipeline distribution centers; active oil fields with pumping oil wells and sumps; subsurface pipeline zones; a laboratory; pumping oil wells, storage, and pipeline distribution facilities; and exploration drilling sites

**Former Recycling Facility, Corona, California:** Technical lead and testifying expert for the investigation of potential soil and groundwater contamination by metals and solvents, development of remedial action work plan, and estimates of remediation cost to be used as deductions from property value. Responsible for compiling and reviewing historical data regarding site use and regulatory compliance. Designed and oversaw the investigation of soil and groundwater through the use of geophysical methods, soil borings and excavations, and chemical analyses of sludge, soil, and groundwater. Compiled all available data to develop a conceptual model of the nature and extent of site contamination and potential human exposure routes. Lead the technical team to develop cleanup goals for petroleum hydrocarbons, metals, and solvents that provided a basis for designing an appropriate cleanup to allow unrestricted (e.g., residential) future use. Mr. Crone lead the preparation of a remedial action plan that satisfied the requirements of, and was ultimately approved by, the California Department of Toxic Substances Control (DTSC). Mr. Crone was the testifying expert during a trial centered on the need for, and cost of, site remediation and that was successful in obtaining a judgment in favor of holding back twice the estimated remediation cost during transfer of ownership of the property.

**Pilot Soil/Groundwater Treatment System, Bulk Storage and Blending Facility, Santa Fe Springs, California:** Project Manager and Lead Scientist for a remedial investigation/feasibility study and construction of a pilot soil/groundwater treatment system at a 6-acre bulk storage and blending facility with extensive soil and groundwater contamination by a wide variety of chlorinated and non-chlorinated solvents. Project management duties included long-range planning for ultimate contaminant delineation and remediation, preparation of yearly budgets, and intense regulatory agency negotiation. Responsible for a yearly budget that exceeded \$1 million and supervised more than 30 scientists, engineers, technicians, and support personnel during periods of peak project activity.

**Commercial Properties, Newport Beach, California:** Technical Expert, testified at an arbitration hearing regarding site assessment data collected by Ninyo & Moore and opposing party's technical expert. The dispute centered on the value of the property, which was to be the basis for lease payments for ten-year lease option. Successfully refuted opposing party's argument that groundwater contamination by up-gradient gas station did not require remediation or diminish the value of a medical office complex in Newport Beach, California. Mr. Crone prepared a remediation strategy and developed remediation cost estimates that were ultimately uncontested by the opposing party. The arbitrators deducted these estimated remediation costs from the appraised value of the property, which substantially reduced our client's lease payments for a ten-year period.

**REPRESENTATIVE PROJECT EXPERIENCE (continued)**

**Los Angeles Unified School District, Various Sites, Los Angeles County, California:** Principal-in-Charge and Technical and Quality Control Advisor for environmental studies at 12 sites. Studies ranged from Phase I and Phase II Environmental Site Assessments for existing or proposed schools to completion of full PEAs at sites including the former Ambassador Hotel site. All work was done under the oversight of the Department of Toxic Substances Control.

**Orange County Department of Education, Orange County, California:** Program Manager and Technical Lead for the PEA for two proposed new school sites for the Orange County Department of Education. Mr. Crone performed PEAs, including health risk assessment, in accordance with DTSC guidelines for acquisition of new school sites. Both sites were former agricultural operations that included pesticide storage and mixing areas, septic systems, and fuel storage areas.

**Ashland Chemical Company Bulk Storage and Blending Facility, Santa Fe Springs, California:** Project Manager and Lead Scientist for a remedial investigation/feasibility study at a 6-acre bulk storage and blending facility with extensive soil and groundwater contamination by a wide variety of chlorinated and nonchlorinated solvents. Project management duties included long-range planning for ultimate contaminant delineation and remediation, preparation of yearly budgets, and intense regulatory agency negotiation. Responsible for a yearly budget that exceeded \$1 million and supervision of more than 30 scientists, engineers, technicians, and support personnel during periods of peak project activity. Provided litigation support for lawsuits involving environmental impairment of commercial properties.

**Freight Terminal Expansion, Santa Fe Springs, California:** Program Manager for environmental issues related to the expansion of a freight terminal over abandoned oil and gas wells and former mud pits. Soil methane concentrations exceeded the lower explosive limit in the area. Located and characterized former oil field production facilities including oil wells, mud pits and transfer piping and profiled waste material for proper disposal. Designed a DOGGR-approved casing-gas collection and venting device for the oil well beneath the footprint of the new building. Designed, installed, and periodically monitored a dual-membrane, soil methane collection, and barrier system. The soil-methane collection and barrier system served as a physical barrier for methane intrusion into the building and also included collection piping and an atmospheric venting system to divert methane from beneath the foundation of the building.

**Comprehensive Long-Term Environmental Action Navy Program, Southern California, Nevada and Arizona:** Project Manager, responsible for the completion of 11 contract task orders. Projects ranged from installation of permanent in-tank monitoring systems to the removal and investigation of 50 underground storage tank systems. Project budgets ranged from \$146,000 to \$1,233,000 for each project.

**Remedial Investigation/Feasibility Study, Torrance, California:** Project Manager and Lead Scientist for a remedial investigation/feasibility study at a 10-acre former secondary zinc smelting facility that had operated for approximately 40 years and disposed of metallic waste on site in shallow pits, trenches, and low areas without permits. Supervised the decontamination and dismantling of site facilities, removal of more than 20 underground fuel storage tanks, delineated petroleum hydrocarbon contamination at more than 10 different source areas, systematically investigated solvent contamination of groundwater and heavy-metals in soil and groundwater. Managed an annual budget of approximately \$400,000 and more than a dozen scientists, engineers, and technicians.

**Imperial Landfill, Brawley, California:** Geologist to provide landfill expertise such as solid waste assessment tests (SWATs), detailed Holocene-fault investigations, and geotechnical logging of exploration trenches for the siting of a Class I hazardous waste landfill. Part of this work included trenching through an active waste treatment cell, or "pond," to expose and geologically log a potentially active fault.

**Former Automobile Dealership, Los Angeles, California:** Technical Expert to counsel representing an insurance company defending claims for remediation of chlorinated solvent contamination of soil and groundwater at a former automobile dealership in Los Angeles. Responsible for analyzing site chemical use history, methods and interpretations of soil and groundwater investigations, identification of possible unnecessary remediation, evaluating reasonableness of remediation costs. A negotiated settlement was reached prior to taking depositions and going to trial.

**REPRESENTATIVE PROJECT EXPERIENCE (continued)**

**On-Call Environmental Assessment Agreements Contract with the Port of Los Angeles, Los Angeles County, California:** Principal-in-Charge for this contract. Task orders included: environmental site assessment; identification and investigation of potential site contamination; environmental compliance assessments; development of costs, schedules, and remedial strategies associated with cleanup of contamination and reuse of property; and employee awareness training. Ninyo & Moore also transferred spatially referenced UST investigation data into the California's on-line GeoTracker® system. Ninyo & Moore successfully completed 18 project directives for the Port of Los Angeles. Work was performed at various Port of Los Angeles properties including container terminals, former industrial properties, construction sites, and former bulk material yards. All work for the Port of Los Angeles complied with the Port's geographic information system submittal requirements. All project deliverables are provided to the Port in hard copy and in electronic files that conform to the Port's data and report management systems.

# JOHN JAY ROBERTS, PG, CEG

## SENIOR GEOLOGIST

### EDUCATION

B.S., Geology, 1973, University of Southern California

### REGISTRATIONS AND CERTIFICATIONS

PG 3489 (California)

CEG 1018 (California)

### EXPERIENCE HIGHLIGHTS

Environmental Assessments for Schools  
Human Health Risk Screening  
Evaluations for School Sites

Environmental and Geotechnical Services for Redevelopment of an Existing School Site

Brownfields Clean-up Grant Application for Industrial Property

Environmental Services for a New High School

Pipeline Risk Analyses

Groundwater Discharge Evaluation for Dewatering Subdrain

Environmental Assessment for Redevelopment of a Commercial Site

Environmental Consulting Services for Commercial, Industrial, and Residential Properties

Redevelopment of Former Lockheed B-1 Facility

Hazardous Waste Landfill Expansion

Hazardous Waste Ponds Investigations

Geological Logging and Coordination During the Installation of Three Groundwater Production Wells

Hydrogeological Assessment Report

### PROFESSIONAL AFFILIATIONS

Association of Engineering Geologists  
National Groundwater Association

As a Senior Geologist, Mr. Jay Roberts has extensive experience performing environmental and geotechnical investigations of commercial and industrial properties and environmental site assessments of school sites. Projects have included CEQA technical studies and EIR document support, Phase I, PEA, SSI, RAW, RAP, and O&M plans. Mr. Roberts has completed characterization, remediation, and human health assessments on numerous properties. He has prepared successful applications for Brownfields clean-up grants and managed and performed hydrogeologic investigations, groundwater resource evaluations, and water supply studies. He also provides expert witness and litigation support for environmental, geotechnical, and mining matters.

### REPRESENTATIVE PROJECT EXPERIENCE

**Environmental Services for Ascon Landfill, Huntington Beach, Orange County, California:** Project Manager and principal author for preparation of the Water Quality chapter of the site Environmental Impact Report (EIR) for the remedial action plan (RAP) project that would provide for closure of the Ascon Landfill. The landfill contained oil well drilling muds, petroleum hydrocarbons, and construction debris from the historic oil production activities in the surrounding area. The EIR section focused on Groundwater Quality beneath the site, and impacts to the groundwater from the project. The planned project generally consisted of some waste removal, waste consolidation and construction of an engineered cap to be placed over hazardous materials contained within the landfill. Numerous investigative reports, a Feasibility Study and a RAP were reviewed in order to develop the project design features, and produce an analysis of potential groundwater impacts and mitigation measures. The impacts were evaluated both during the implementation of the RAP, as well as post-RAP Implementation.

**Environmental Assessment for Redevelopment of a Commercial Site, Santa Fe Springs, California:** Project Manager for a Phase I and Phase II environmental investigations for an approximately 8-acre parcel, which contained 5 previously abandoned oil wells. Thorough research of California DOGGR's files for each well was conducted to determine the known condition of the on-site wells. Detailed investigations were augmented by geophysical surveys and soil borings, sampling and laboratory analyses for suspected oil field wastes, and methane and hydrogen sulfide in accordance with City of Santa Fe Springs requirements. Services also included preparation, scheduling and observation of reabandonment of the oil wells which had insufficient seals and caps, and development of methane mitigation specifications for the new commercial building.

**Environmental Assessments for 3 School Sites, Northern Orange County:** Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. One site was located in Brea-Olinda Oil Field; investigations included thorough research into potential oil wells on-site. Investigations also included detailed soil characterization for suspected oil field wastes, and methane and hydrogen sulfide soil gas studies in accordance with Orange County Fire Authority guidelines

**REPRESENTATIVE PROJECT EXPERIENCE (continued)**

**Environmental Assessments for 10 School Sites, Western San Bernardino County, California:** Project Manager for Phase I studies through complete environmental investigations and site closure status granted by DTSC, the lead regulatory agency. All 10 sites required DTSC's rigorous PEA investigations, including soil gas and/or soil matrix sampling and risk assessments. The studies were conducted on the sites primarily for past agricultural activities. One site required an additional investigation for an on-site burn dump. Public participation services in accordance with DTSC requirements were also provided to the client school district.

**Pipeline Risk Analyses for School Sites, Various Locations, California:** Project Manager for Pipeline Risk Analysis conducted for California school sites located within 1,500 feet of pipelines transmitting natural gas or liquid petroleum hydrocarbons. These analyses are required by the California Department of Education and involve obtaining records on pipelines and calculating the potential health risks at the school site from various leak and rupture scenarios.

**Redevelopment of Former Lockheed B-1 Facility, Burbank, California:** Project Manager, evaluated the potential for the existence of underground hazardous waste in concentrations that would present a significant human health risk following the redevelopment of the site into a commercial mall. The services were provided on behalf of the City of Burbank through a CEQA consultant, and included review of many investigation and remediation documents, and attendance at Planning Commission meetings.

**Hydrogeological Assessment Report (HAR), Newhall, California:** Senior Geologist, managed and conducted an HAR at the Newhall Refinery to demonstrate whether or not liquids in the on-site holding ponds had impacted the underlying native soils and bedrock. The HAR included the installation of 10 groundwater monitoring wells, which were up to 120 feet deep. Additionally, these wells were geophysically logged to determine appropriate well screen installation and nature of the subsurface materials. Wells were constructed in accordance with California Department of Water Resources Standards. Water samples were collected from the wells on a monthly basis and analyzed for petroleum hydrocarbons, VOCs, and Title 22 metals. The HAR was submitted to the California Water Quality Control Board, which approved the report.

**Remediation Oversight Services for Central Region Middle School No. 7, LAUSD School Site, Los Angeles, California:** Project Manager and Professional of Record for implementation of remedial action for proposed school site. Remediation includes soil vapor well installation; shoring installation; soil removal, management, and disposal; sampling analyses and cost and vapor monitoring, indoor air risk analysis modeling via DTSC's Johnson & Ettinger modified model for residual VOCs, and preparation of completion report. During remediation, several unknown USTs, areas of stained soils and other underground features have been encountered, sampled, analyzed, and dealt with under an accelerated pace, due to the aggressive school construction schedule.

**Remedial Action Plan, Home Gardens Area, Riverside County, California:** As Senior Geologist, Mr. Roberts prepared a Phase I ESA, SSI and RAP for a new school site in the Home Gardens Area of Riverside County, California. The school was planned to be constructed on a long-term farm and industrial site impacted with organochlorine pesticides (OCPs) and polychlorinated biphenyls (PCBs). The RAP services included development of a Fact Sheet, Community Participation Plan, Public Notification, and the preparation of the RAP for submittal and approval by the lead oversight regulatory agency, Department of Toxic Substances Control (DTSC). Upon DTSC-approval, the RAP was implemented involving dust monitoring, sampling and off-site disposal of several hundred thousand tons of impacted soil. The implementation was documented in the Remedial Action Completion Report which was approved by DTSC, and the DTSC certified the school site to the Department of Education.

**Initial Site Assessment Mount Vernon Avenue Bridge Expansion, San Bernardino, California:** Technical Director for an ISA for the Mount Vernon Bridge Expansion project. The Project involved research and review of historical documents into property uses dealing back into the early 1900's due to long history of the site usage as a railroad hub. The records reviewed consisted of environmental investigations, remedial activities, and contaminated groundwater. Regulatory agencies representatives were also contacted for specifics on current states of remedial activities at impacted sites within the influence of the Project.

**Initial Site Assessment State College Boulevard Separation and ADL Survey, Fullerton, California:** Technical Director for an ISA and ADL for the State College Boulevard Separation Project in Fullerton. The project involves the lowering of State College Boulevard to create an underpass at the Burlington Northern Santa Fe (BNSF) rail crossing. The Project included an ADL Survey in the exposed soil areas along State College Boulevard.

# HERIBERTO ROBLES, PHD, DABT

## PRINCIPAL TOXICOLOGIST

### EDUCATION

B.S., Animal Science, Universidad de Sonora, Sonora, Mexico, 1980

M.S., Animal Science and Toxicology, New Mexico State University, 1983

Ph.D., Animal Science and Toxicology, New Mexico State University, 1985

Postdoctoral Studies in Immuno-Toxicology, University of Texas at El Paso, 1986

Certificate in Hazardous Materials Management, University of California, Irvine, 1991

### REGISTRATIONS AND CERTIFICATIONS

Diplomat of the American Board of Toxicology, 1996; Re-certified 2001, 2006, and 2011

### PROFESSIONAL AFFILIATIONS

American Board of Toxicology

Society of Toxicology, Full Member

Society for Risk Analysis

Southern California Chapter of the Society of Toxicology

Southern California Chapter of the Society for Risk Analysis

Dr. Robles is a Diplomate of the American Board of Toxicology (DABT) with 31 years of experience in environmental toxicology and human health and environmental risk assessment for industrial, real estate, and governmental clients. Dr. Robles has conducted, managed, and/or collaborated on numerous risk assessment projects at many sites including mining and military facilities, proposed public school sites, hazardous waste landfills, oil fields as well as commercial and industrial facilities. For example, Dr. Robles has evaluated the health hazards associated with the presence of radionuclides, perchlorate, dioxins/furans, petroleum hydrocarbons, volatile and semivolatile organics, polynuclear aromatics, PCBs, chlorinated solvents, pesticides, asbestos and metals in environmental media. Dr. Robles has also conducted health risk assessments for human exposure to bio-aerosols, radon gas and electromagnetic fields. Dr. Robles has provided litigation support and conducted toxicological evaluations of environmental and industrial chemicals and has communicated risk information to regulatory agencies and the general public. Dr. Robles has served as corporate environmental coordinator for a national pharmaceutical company, Director of Risk Assessment and Health and Safety programs for environmental consulting firms, Study Director in a contract toxicology laboratory, and Toxicology Consultant on a multinational scientific panel.

### REPRESENTATIVE PROJECT EXPERIENCE

**Project Manager for a Human Health Risk Assessment at a Former Oil Refinery Facility in Miri, Sarawak, Malaysia:** The primary objective of the Risk Assessment was to evaluate the potential health risks and hazards posed by petroleum hydrocarbons and lead that were detected in shallow soils, groundwater and surface water at and around the site. Results of the Risk Assessment indicated that, in the absence of soil remediation, some site-related chemicals may be present at concentrations that could pose a health risk to hypothetical future onsite receptors including construction workers, adult and child residents, and future onsite workers. In anticipation of site remediation activities, Risk- Based Target Levels (RBTL) were developed for the Site. The RBTL's proved acceptable to the local environmental regulatory agency and were successfully implemented.

**Project Manager for a Human Health and Ecological Risk Assessment at an Active Military Research Facility located in Central California:** Environmental investigations conducted at the facility detected several chemicals including perchlorate, metals, nitrate, nitrite, energetics and trace levels of semi-volatile organic compounds in soil and shallow groundwater within discrete areas of the site. The objectives of the Risk Assessment were to (1) estimate the potential future risk to human health; (2) estimate the potential threat posed by site-related chemicals to ecological receptors; and, (3) develop site-specific, risk-based concentrations for the protection of human health and ecological receptors. Exposure pathways evaluated in this Risk Assessment for human receptors included (1) accidental ingestion of soil, (2) dermal contact with soil and dust, (3) inhalation of soil particles suspended in air, and (4) consumption of homegrown fruits and vegetables. Soil cleanup levels for protection of groundwater resources were also developed.

**Project Manager for Human Health Risk Assessment.:** Conducted a Human Health Risk Assessment for the Runkle Ranch property in Simi Valley, California. The Runkle Ranch property is located adjacent to the Santa Susana Field Laboratory (SSFL), a former nuclear reactor and rocket testing facility. The Runkle Ranch property was found to be contaminated with chemical and radioactive substances from the SSFL site.

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## **REPRESENTATIVE PROJECT EXPERIENCE (continued)**

**Project Manager for Human Health Risk Assessment. (continued):** A home developer interested in developing the Runkle Ranch property for residential use commissioned the Risk Assessment study. The objective of the risk assessment was to determine whether the presence of chemical and radiological contaminants in soil represented a health risk to future occupants of the site. Results of the risk assessment showed that the property could be safely developed for residential use. The Simi Valley City Council approved a project to build 461 homes on the 1,595-acre property.

**Project Director for Human Health Risk Assessment at a California Superfund Site in Huntington Beach, California:** The former landfill was used to dispose of industrial chemicals, waste drilling mud, petroleum production wastes, and construction/demolition debris. The risk assessment included the evaluation of potential health risks to offsite residents, onsite workers, trespassers and ecological receptors. The risk assessment was also used to set risk-based cleanup levels for chemicals identified at the site. In addition, risk assessment techniques were used to design a waste recycling plan for some of the waste materials found at the site. Risk-based cleanup levels and remedial alternatives were reviewed and approved by the California Department of Toxic Substances Control (DTSC).

**Project Manager for a Human Health and Ecological Assessment.:** Conducted a Human Health and Ecological Risk Assessment for the former BKK Landfill in the City of Carson, California. The former landfill was used to dispose of industrial chemicals, petroleum production wastes, and domestic rubbish. The Victoria Golf Course and other recreational, industrial and commercial facilities currently occupy the site. The risk assessment included the evaluation of potential health risks to offsite residents, onsite adult and child recreational receptors, onsite golf course workers and construction workers. The Ecological portion of the evaluation included a qualitative and qualitative appraisal of the potential effects the site might have on plants and animals other than people and domesticated species. Results of the Human Health and Ecological Risk Assessment were used to evaluate the potential for the former BKK Landfill to pose an unacceptable risk or hazard to human and ecological receptors. The Human and Ecological Risk Assessment report was reviewed and approved by the California Department of Toxic Substances Control.

**Project Manager for Evaluation of Health Hazards Associated with the Presence of Methane and Hydrogen Sulfide in Subsurface Soil within a Residential and Commercial Area of Newport Beach, California:** Evaluated the potential health and environmental risks associated with methane and hydrogen sulfide gases under the area proposed for the Balboa Project in the City of Newport Beach, California. The assessment included the evaluation of potential health risks to construction workers as well as to occupants of the site and its visitors. Results of the risk assessment were used to design and select risk control measures.

**Task Manager for Human and Ecological Screening Risk Evaluations:** Conducted numerous human health and ecological risk assessments for existing and proposed school sites in Southern California. The risk assessments were conducted in accordance with the California Department of Toxic Substances Control's (DTSC) Preliminary Endangerment Assessment guidance. Sites evaluated contained various potential contaminants including agricultural pesticides, dioxins/furans, hydrogen sulfide, heavy metals, petroleum hydrocarbons and chlorinated hydrocarbons. Several risk evaluations were instrumental to obtain "No Further Action" recommendations from the DTSC.

**Project Manager for a Human Health and Ecological Risk Assessment at a Former Military Facility Located in the San Francisco Bay Area:** The major objectives of the Risk Assessment were to (1) estimate the magnitude of potential human health risks associated with the most likely future land use conditions; (2) identify environmental media and contaminants that pose a significant threat to human and ecological receptors; (3) identify environmental contaminants that pose little or no risk to humans and ecological receptors; and, (4) provide the basis to support risk management decisions about the need for further action at the site. The human health portion of the Risk Assessment estimated potential health risks under "total," "incremental," and "ambient" risk scenarios. These scenarios were developed specifically for the military facility in consultation with federal and state health and environmental protection regulatory agencies. "Total" risk represents the risks from potential exposure to all detected analytes (inorganic and organic) present at the site at concentrations above ambient concentrations. "Incremental" risk represents risks from potential exposures to the subset of chemicals detected at concentrations above ambient concentrations and with maximum chemical concentrations above conservative residential risk-based screening concentrations. "Ambient" risk represents the risk from exposure to inorganic chemicals that are within the background soil concentration range defined for the site. The Risk Assessment report was reviewed and well received by the U.S. Navy, the U.S. Environmental Protection Agency and the California Department of Toxic Substances Control.

## REPRESENTATIVE PROJECT EXPERIENCE (continued)

**Project Manager for a Risk Assessment of a California Superfund Site in Santa Fe Springs, California:** The site was formerly used to dispose of oil well drilling mud and drilling wastes, and was contaminated with asbestos, lead, barium, PCBs, polynuclear aromatics, and petroleum hydrocarbons. The risk assessment considered evaluation of potential exposure of future on- and off-site residents, including children in a neighboring day care center. Results of the risk assessment were used to demonstrate that site activities did not contribute to existing groundwater contamination, negotiate soil cleanup goals, and select cost-effective and safe remedial alternatives.

## SELECTED RECENT PUBLICATIONS AND PRESENTATIONS

Robles, H. Recent Advances in Environmental Risk Assessment. Oral and Poster Presentations at the Water in Mining 2012 Conference. GECAMIN Conferences for Mining. Santiago, Chile. June 6-8, 2012.

Robles, H. In Print. 4-Aminophenyl, 3-Methylcholanthrene, Acetonitrile, Butyl Ether, Dimethylaminoazobenzene, Furan, Naphthalene, Nitrosamines, Phosphorus, Tannic Acid, Urethane and Vinyl Acetate. In: Wexler, P.A., ed. Encyclopedia of Toxicology, Third Edition. Elsevier Academic Press.

Robles, H., Jeng, C.Y., and Fletcher, C. 2008. Health Risk Assessment and Management. Presentation at the U.S. Environmental Protection Agency's "Nuts & Bolts of Brownfield Development for Local Governments" Course. Los Angeles, California. April.

Robles, H. 2010. Risk Assessment: Concepts and Practical Applications. Guest Lecturer. Industrial Toxicology Course. University of California at Irvine. Irvine, California. February.

Robles, H. 2010. Reviewing Risk Assessment Reports: Principles and Applications. Presentation at the 12th California Unified Program Annual Training Conference. Burlingame, California. February.

Robles, H. and S. Stoewer. 2010. The Nuts and Bolts of the Risk Assessment Process and Its Importance in Obtaining Site Closure for Contaminated Property. Presentation at the Orange County Bar Association, Environmental Law, June Meeting. Costa Mesa, California. June 3.

## EDUCATION

B.S., Geology, 1995, University of California, Los Angeles

## REGISTRATIONS AND CERTIFICATIONS

CEG 2364 (California)

PG 7335 (California)

40-Hour Hazardous Waste Operations Certification, 2000

## EXPERIENCE HIGHLIGHTS

The Ritz-Carlton Laguna Niguel Hotel Expansion Geotechnical Evaluation

2<sup>nd</sup> & PCH Project Environmental Impact Report

Los Angeles Department of Water & Power, Barren Ridge Renewable Transmission Project, Environmental Impact Report

Angel's Gate Park & Cultural Center Environmental Impact Report

Fontana Westgate Specific Plan Environmental Impact Report

Gray Butte Photovoltaic Array Environmental Impact Report

Panoche Valley Photovoltaic Array Environmental Impact Report

Miraloma Recharge Basin Environmental Impact Report

Los Angeles Department of Water & Power Scattergood Generating Station Re-powering Project

## PROFESSIONAL AFFILIATIONS

Association of Environmental & Engineering Geologists

Mr. Rogers is a Senior Project Geologist with Ninyo & Moore with over 20 years of experience providing geotechnical consulting services and project management for public works, commercial and residential projects. He has performed geologic and seismic hazard evaluations, provided geotechnical design services, and conducted forensic evaluations for a variety of projects throughout California. Mr. Rogers' projects have included water treatment plants, power generating facilities, transmission lines, pipelines, renewable energy projects, and commercial and residential buildings. Mr. Rogers conducts geologic field evaluations, including detailed logging of large and small-diameter borings, rock cores and trenches, analyzes site geologic conditions and potential geologic hazards, and develops recommendations for site preparation and mitigation of adverse conditions. As Senior Project Geologist, Mr. Rogers performs project administration and management, prepares geotechnical reports and provides technical support to staff-level engineers and geologists and field technicians.

## REPRESENTATIVE PROJECT EXPERIENCE

### **The Ritz-Carlton Laguna Niguel Hotel Expansion, Dana Point, California:**

As project manager, Mr. Rogers managed a geotechnical study for the proposed expansion of the Ritz Carlton Laguna Niguel Hotel located in Dana Point, California. The facility is situated on a coastal bluff site overlooking the Pacific Ocean and proposed expansion included development within the Coastal Development Zone. Mr. Rogers performed extensive research of the geologic conditions of the coastal bluff using historical background documents and aerial photograph review. Site exploration involved geologic mapping and exploratory borings. He evaluated the potential geologic impacts to the project, including coastal bluff erosion, landsliding, and projected sea level rise, and analyzed the bluff stability and feasibility of the project improvements. The results of the geotechnical study prepared by Mr. Rogers were used in preparation of documents related to the Coastal Development Permit for the project and were submitted to and approved by the Coastal Commission.

### **2<sup>nd</sup> & PCH Project Environmental Impact Report (EIR), Long Beach, California:**

As project manager, Mr. Rogers conducted a geologic and seismic hazards evaluation in support of preparation of the EIR for the 2<sup>nd</sup> & PCH Project in Long Beach, California. The project site is located in the low-lying coastal plain near the Long Beach marina and is developed with an existing hotel. The 2<sup>nd</sup> & PCH project consists of a mixed-use development with retail, residential, hotel, restaurant and entertainment uses. The proposed parking structure would include one level of subterranean parking. Mr. Rogers performed a review of geotechnical literature, review of an existing geotechnical evaluation report for the project site, review of geologic maps, regional fault maps, and seismic data, and review of City of Long Beach safety element maps. He conducted a geologic and seismic hazard analysis and prepared a geotechnical review report for use in the EIR for the project. Significant potential geologic impacts evaluated for the project included potential liquefaction hazard, shallow groundwater, potential settlement and tsunami inundation. Our report provided detailed mitigation measures for these impacts to be considered during design and construction of the project.

### **LADWP Barren Ridge Renewable Transmission Project EIR, Los Angeles and Kern Counties, California:** As project manager conducted a geotechnical

study to be included in the Environmental Impact Report for a proposed new 230kV transmission line from the Barren Ridge substation in the Mojave Desert area to the new Haskell switching station in the Santa Clarita area. Mr. Rogers performed geologic reconnaissance and extensive data inventory of the geologic resources and potential geologic and seismic hazards affecting more than 200 miles of alternative route alignments for the transmission project. Extensive GIS-based analysis was conducted to evaluate and present the potential project impacts. He assessed of the potential impacts of the project and developed mitigation measures to reduce the impacts. Significant geologic features of the study included potential surface fault rupture due to the San Andreas and other active faults, potential liquefaction hazard zones, and the steep, landslide-prone terrain of the Angeles National Forest and Sierra Pelona.

**Angel's Gate Park and Cultural Center EIR Project, San Pedro, California:**

As Project Manager, Mr. Rogers conducted a geologic and seismic hazards evaluation for the master plan for the Angel's Gate Park and Cultural Center in San Pedro, California. The project involved developing a master plan and Environmental Impact Report (EIR) for future expansion of the park facilities. The evaluation consisted of review of geologic and seismic background materials and previous geotechnical studies, and geologic site reconnaissance to assess the potential geologic and seismic hazards that may impact the project, and to develop recommendations to mitigate the impacts.

**First Solar, Gray Butte Photovoltaic Array EIR, Northeast Los Angeles County, California:**

Managed a geologic hazard evaluation for the construction of a new 1,100 acre, 139 Megawatt photovoltaic solar array on existing agricultural land in the Mojave Desert in northeast Los Angeles County, California. Our services included geotechnical reconnaissance, the evaluation of the potential seismic hazards and geologic conditions that may impact the proposed project including faulting, ground motion, liquefaction, soil erosion, expansive soils, and corrosive soils. Recommendations to mitigate the potential site hazards were developed and a written report was issued presenting our findings and geotechnical recommendations for the mitigation of potential geologic hazards at the proposed solar farm site.

**AES Southland Three Generating Stations Re-Powering Project, Huntington Beach, Long Beach and Redondo Beach, California:**

Managed a geotechnical evaluation for preliminary design reports for Application for Certification to the California Energy Commission to the design of electrical generating station improvements for the Alamitos, Huntington Beach and Redondo Beach Generating Stations in Southern California. The project involved proposed demolition and re-building of the major gas turbine and steam generating facilities at the sites. Mr. Rogers coordinated with the plant representatives for site reconnaissance, geophysical surveying and subsurface exploration, obtained permits for the exploration, and conducted exploratory borings and CPT probes at the sites. Mr. Rogers' services included evaluation of potential geologic and seismic hazards, analysis of subsurface data including soil and groundwater data, geotechnical engineering analyses, geologic impact assessment, and preparation of geotechnical reports.

**LADWP Scattergood Generating Station Re-Powering Project, El Segundo, California:**

Managed a geotechnical evaluation for the design of

electrical generating station improvements for the Los Angeles Department of Water & Power (LADWP) Scattergood Generating Station in El Segundo, California. Mr. Rogers coordinated with the LADWP to conduct subsurface exploration at the generating station that consisted of 14 drilled borings, 3 cone penetration tests (CPTs), geophysical surveying, and installation of gas wells at the site. Mr. Rogers' services also included review of preliminary project plans, evaluation of potential geologic and seismic hazards, development of geologic cross sections, geotechnical engineering analyses, slope stability analysis, and preparation of a geotechnical report.

**Orange County Water District, Miraloma Recharge Basin EIR, Anaheim, California:** Managed a geotechnical evaluation for the Orange County Water District's Miraloma Recharge Basin in Anaheim, California. The project includes an existing 13-acre industrial development. The planned recharge basin included demolition of existing site structures and excavation of a 10-foot deep recharge basin across most of the site. Associated pipeline improvements were designed to convey recharge water to the basin and allow for water management by the District. Mr. Rogers managed the subsurface exploration at the site, analyzed the site geologic conditions, and performed an analysis of the potential geologic and seismic hazards that may impact the project. The geotechnical evaluation was conducted for an environmental impact report and for detailed design of the project. Mr. Rogers' evaluation included research and review of geologic maps, fault and seismic hazard maps, groundwater data and other published geologic data; exploratory borings to depths of 50 feet; geotechnical laboratory testing; analysis of slope stability, potential liquefaction and potential affects of groundwater mounding; and preparation of a detailed geotechnical report.



## Résumé

### **BARRY A. PRICE, RPA** Applied EarthWorks, Inc.

Mr. Price has more than 35 years of experience as a professional cultural resource manager. As Vice President, Principal Archaeologist, and Western Division Manager for Applied EarthWorks, Mr. Price is responsible for project administration and technical management on projects throughout the western United States. He ensures compliance with federal and state laws and regulations, and certifies the technical quality of reports and other documents. He serves as principal liaison with clients and government agencies, manages budgets and workscopes, and directs the work of technical staff and subcontractors. He also fulfills corporate administrative duties assigned by the president and board of directors.

#### **EDUCATION**

- M.A. Cultural Resource Management, Sonoma State University, 1994.
- B.A. Anthropology (with honors), Sonoma State University, 1976.

#### **Specialized Training**

- 2009 "Advanced CEQA Issues: Best Practices, Legal Issues, and Case Studies." California Preservation Foundation.
- 2005 "CEQA Compliance for Historical Resources." Society for California Archaeology/Jones and Stokes.
- 2004 "CEQA for the CRM Professional." American Cultural Resources Association/Hicks and Company.
- 2003 "The California Environmental Quality Act: How Does It Fit in Historic Preservation Efforts?" Planning and Conservation League and the Educational Foundation of America.
- 1999 "The New 36 CFR Part 800: Highlights of Changes." Advisory Council on Historic Preservation.
- 1995 "California Environmental Quality Act: A Step-by-Step Approach to Compliance," University of California, Davis, Land Use and Natural Resources Program
- 1995 "Cultural Resources Industry Outreach Training Course," Federal Energy Regulatory Commission (FERC) Office of Pipeline Regulation
- 1994 "Advanced Seminar on Preparing Agreement Documents under Section 106." U.S. General Services Administration and the University of Nevada, Reno
- 1992 "Federal Projects and Historic Preservation Law," Advisory Council on Historic Preservation
- 1992 Lithic Technology Workshop, Dr. Jeffrey Flenniken, California State University, Fresno

#### **PROFESSIONAL MEMBERSHIPS**

- |   |  |
|---|--|
| Register of Professional Archaeologists | Society for California Archaeology       |
| Society for American Archaeology        | National Trust for Historic Preservation |
| Society for Historical Archaeology      | Nevada Archaeological Association        |
| Mining History Association              | California Preservation Foundation       |



## REPRESENTATIVE PROJECTS

- **Chevron Tank Farm Remediation and Development Project EIR, San Luis Obispo County.** Principal Archaeologist. Conducted peer review of applicant-supplied inventory and site evaluation data, directed Native American consultation and background archival and historical research, conducted impact analysis, developed mitigation measures, and prepared cultural and paleontological resource sections of the EIR for the 332 acre former tank farm property south of the City of San Luis Obispo.
- **Central Coastal California Seismic Imaging Project EIR, San Luis Obispo County.** Principal Archaeologist and Cultural Resources Program Manager. On behalf of Pacific Gas and Electric Company (the applicant), prepared cultural resources data for both offshore and onshore settings in support of high-energy seismic surveys intended to improve the understanding of fault zones near Diablo Canyon Power Plant and enable future detection of seismic hazards.
- **Panoche Valley Solar Farm EIR, San Benito County.** Principal Archaeologist. Reviewed applicant-supplied inventory data, conducted impact analysis, developed mitigation measures, and prepared cultural and paleontological resource sections of the EIR for a 5,000 acre solar development project site.
- **Paradiso del Mare Ocean and Inland Estates EIR, Goleta, CA.** Principal Archaeologist and Cultural Resources Program Manager. Directed all phases of cultural resources studies including background archival and historical research, Native American consultation, archaeological and historical site inventory, identification, and significance evaluation, mitigation planning, and preparation of technical reports and EIR sections.
- **Chinatown Project EIR, San Luis Obispo, CA.** Principal Archaeologist and Cultural Resources Program Manager. Directed all phases of cultural resources studies including background archival and historical research, Native American consultation, archaeological and historical site inventory and evaluation, mitigation planning, and preparation of technical reports and EIR sections.
- **Court Street Development Project EIR, San Luis Obispo, CA.** Principal Archaeologist and Cultural Resources Program Manager. Directed all phases of cultural resources studies including background archival and historical research, Native American consultation, archaeological and historical site inventory, identification, and evaluation, mitigation planning, and preparation of technical reports and EIR sections. Implemented all cultural resource mitigation requirements following EIR certification.
- **Garden Street Development Project EIR, San Luis Obispo, CA.** Principal Archaeologist and Cultural Resources Program Manager. Directed background archival and historical research, Native American consultation, impact assessment and mitigation planning, and preparation of technical reports and EIR sections.
- **Santa Ynez Valley Community Plan Upgrade EIR.** Principal Archaeologist. Acquired cultural resource data and conducted detailed impact analysis. Prepared cultural resource sections of the EIR. Facilitated government-to-government consultation between the County and the Santa Ynez Tribal Elders Council.
- **Lompoc General Plan Update EIR.** Principal Archaeologist. Analyzed potential impacts of the General Plan Update on cultural resources, addressing impacts to both prehistoric and historical archaeological resources as well as historic buildings, structures, and districts. Prepared cultural resource sections of the EIR. Facilitated government-to-government consultation between the City and the Santa Ynez Tribal Elders Council.
- **NEPA/CEQA site assessment and data recovery excavations for Chevron's Estero Marine Terminal, San Luis Obispo County.** Principal Archaeologist and Project Manager. Directed the preparation of an archaeological and historical resources inventory, site evaluations, archaeological testing and historical evaluation, and preparation of mitigation plans and EIR sections.



- **Santa Margarita Ranch EIR.** Principal Archaeologist. Directed the inventory of nearly 5,000 acres, documentation of more than 100 archaeological and historical sites, and preparation of inventory and evaluation reports and monitoring plans. Prepared EIR sections for proposed Agricultural Residential Cluster Subdivision and Long Range Development Plan.

**JESSICA L. DEBUSK**  
**Applied EarthWorks, Inc.**

Ms. DeBusk has more than 10 years of experience as a professional paleontologist in California. As Applied EarthWorks' Paleontology Program Manager, she directs and oversees all paleontology work for the company. She has successfully completed over 250 paleontological resources inventory and monitoring projects throughout California and Nevada and in parts of Arizona, Utah, New Mexico, Colorado, and Texas. As a Senior Paleontologist, she routinely directs or performs paleontological field surveys and assessments, mitigation monitoring of construction activities, third-party inspections, fossil salvage and collection, laboratory preparation and analysis of micro- and macrofossils, and technical reporting. She has field and laboratory experience in paleobotany, paleoentomology, micropaleontology, invertebrate paleontology, and vertebrate paleontology. Ms. DeBusk has extensive experience in providing paleontological resource management for a variety of project types including residential and commercial developments, oil and gas infrastructure, geophysical seismic exploration, power generation and transmission, and environmental planning. As a seasoned Project Manager, she has lead multidisciplinary natural and cultural resource management projects that involve coordination with various federal and state agencies such as the Bureau of Land Management, the U.S. Forest Service, the California Energy Commission, the California Public Utilities Commission, and the California Department of Transportation; as well as major public utilities and city and county municipalities. She has been certified by the energy commission, the County of Riverside, and the County of Orange as a qualified paleontologist and holds statewide BLM-issued Paleontological Resources Use Permits in California and Nevada.

**EDUCATION**

B.S. Geology, Emphasis in Paleobiology, University of Nevada, Reno, 2002.

**Specialized Training**

- |      |   |
|------|---|
| 2012 | Project Management Certificate, California Institute of Technology, Pasadena. |
| 2012 | OSHA 10 Hour Construction Industry Certification.                             |
| 2007 | CEQA Basics.  |
| 2006 | Project Management Training, PSMJ Resources; Phoenix, Arizona.                |

**REPRESENTATIVE PROJECTS**

- **Santa Monica Downtown Specific Plan EIR, City of Santa Monica, Los Angeles County, California.** Lead Paleontologist. Conducted a museum records search, geologic map review, and literature review to evaluate the paleontological resource potential of eight proposed opportunity sites within the City of Santa Monica. Authored paleontological resources sections of EIR.
- **California Flats Solar Project, San Luis Obispo and Monterey Counties, California.** Lead Paleontologist. Conducted field surveys encompassing more than 2,600 acres of land proposed for solar developments. Prepared technical report of survey findings that include Project-specific mitigation measures to be implemented during development.
- **Topaz Solar Farm, San Luis Obispo County, California.** Senior Paleontologist. Currently directing lead paleontological monitor and paleontological technicians during construction monitoring efforts.



Overseeing all paleontological mitigation in accordance to the Project's approved Paleontological Resources Mitigation and Treatment Plan.

- **Highway 101 Brisco/Halycon/Grande I/C Modifications Project, San Luis Obispo County, California.** Principal Investigator. Directed a paleontological resource study that involved a museum records search, literature review, and field survey. Served as primary author of the Paleontological Identification/Evaluation Report, which included Project-specific paleontological mitigation measures to be implemented during the construction phase of the Project.
- **Carson Terminal Redevelopment Project, City of Carson, Orange County, California.** Senior Paleontologist and Project Manager. Directed paleontological resources field survey of Carson Terminal site and authored technical report of findings.
- **Atascadero Walmart EIR, San Luis Obispo County, California.** Senior Paleontologist. Conducted paleontological resources desktop analysis of proposed development site and authored technical report of findings.
- **West Coyote Hills Specific Plan Project, City of Fullerton, Orange County, California.** Project Manager and Lead Paleontologist. Directed paleontological resources survey and assessment of the approximately 510-acre site and prepared the technical report of findings. Managed cultural resources investigations.
- **La Floresta Development Project, City of Brea, Orange County, California.** Project Manager and Lead Paleontologist. Directed paleontological and archaeological monitoring during re-development of previous oil and gas lease areas.
- **Greater Tehachapi Specific Plan Project, Kern County, California.** Project Manager and Lead Paleontologist. Directed paleontological resources survey and assessment of the development site and prepared the technical report of findings.
- **University of California, Irvine Area 10-1 Housing Development, City of Irvine, Orange County, California.** Project Manager and Lead Paleontologist. Project Manager and Lead Paleontologist. Directed paleontological resources survey and assessment of the development site and prepared the technical report of findings. Managed cultural, biological, and paleontological monitoring services prior to and during multiple phases of project construction.
- **Round Mountain New Infrastructure Project. Kern County, California.** Managed cultural and paleontological resources surveys and construction monitoring during the construction of multiple oil and gas well pads. Directed the laboratory preparation and curation of fossil resources.
- **Port of Los Angeles Knoll Hill Park Project. City of San Pedro, California.** Lead Paleontologist. Supervised and directed paleontological mitigation monitoring and fossil salvage during project development. Directed the laboratory preparation and curation of more than 15,000 invertebrate and 450 vertebrate specimens.



## Résumé

### **DAMON M. HAYDU, RPA Applied EarthWorks, Inc.**

Mr. Haydu has more than 15 years experience as a cultural resource specialist throughout California. His experience encompasses all phases of archaeological and historical studies including field survey and site documentation, significance evaluation and mitigative data recovery excavation, laboratory processing and analysis, project management and client consultation, and report preparation. Areas of expertise include state and federal regulatory compliance, land use planning, and impact analysis under the California Environmental Quality Act (CEQA) National Environmental Policy Act (NEPA), and Section 106 and 110 of the National Historic Preservation Act (NHPA). Other specialties include Native American consultation and coordination with federal and state agencies. Mr. Haydu has managed more than 30 State Water Board applications, Tribal Fee-to-Trust actions, and National Register evaluations of both prehistoric and historic-period resources. He has developed close working relationships with several state and federal agencies including the California Department of Fish and Game (CDFG), Caltrans, California State Water Board, Bureau of Indian Affairs (BIA), Bureau of Land Management (BLM), National Park Service (NPS), and several Native American nations including the Northern Chumash Tribal Council, Rumsey Band of Wintun Indians, Auburn Rancheria, and the Quechan Nation.

#### **EDUCATION**

- M.A. Cultural Resource Management, Sonoma State University, 2005.
- B.A. Department of Anthropology, University of California at Santa Cruz, 1996 (with honors).

#### **Specialized Training**

- 2008 Certified 29CFR1910 and Title 8 GISO 5192, 40 Hour Course, *Hazardous Waste Operations and Emergency Response*, OSHA Approved.
- 2000 50001-Small Project Internship, Anthropological Studies Center, Sonoma State University.
- 1999 Point Reyes Site Recording Internship, Anthropological Studies Center, Sonoma State University.

#### **REPRESENTATIVE PROJECTS**

- **Chevron Tank Farm Restoration and Development EIR, City and County of San Luis Obispo, California.** Project Archaeologist. Conducted background research, peer review of applicant-supplied data, and prepared of cultural resource sections of the EIR for the former oil storage facility.
- **Panoche Valley Solar Farm EIR, San Benito County, California.** Project Archaeologist. Reviewed applicant-supplied inventory data, conducted impact analysis, developed mitigation measures, and prepared cultural and paleontological resource sections of the EIR for a 5,000 acre project site.
- **Tule River Wastewater Improvement Project Environmental Assessment, Kern County, California.** Principal Archaeologist and Field Director. Completed cultural resource inventory of 30 miles of wastewater pipeline alignments within the Tule River Indian Reservation. Other duties included tribal consultation with Indian Health Services and preparation of technical reports and cultural resources sections of the EA.
- **Pescadero Wastewater Treatment EIR, San Mateo County, California.** Principal Archaeologist and Field Director. Directed all phases of cultural resources studies including background archival and



historical research, Native American consultation, archaeological and historical site inventory and evaluation, mitigation planning, and preparation of technical reports and cultural resources sections of the EIR.

- **City of Hollister Water and Sewer Infrastructure Upgrade and Improvement Project EIR, San Benito County, California.** Project Archaeologist. Site survey and resource evaluation, development of mitigation measures and treatment plans, SHPO consultation and negotiation, preparation of cultural resources sections for the EIR, and implementation of impact mitigation and construction monitoring plan for five proposed sprayfields and water and sewer infrastructure upgrades.
- **Point Molate Tribal Resort and Casino EIR/EIS, Richmond, California.** Archaeologist and Field Director. Conducted cultural resources studies including background research, field inventory, and testing and significance evaluation of three prehistoric sites and one historic-period site. Contributed to the cultural resource sections of the EIR/EIS.
- **Downtown Water, Sewer, and Microresurfacing Project, San Luis Obispo, California.** Field Supervisor and Senior Construction Monitor. Completed background research, field inventory, construction monitoring, and preparation of compliance documentation for a large water and sewer line upgrade project covering more than 17 blocks in the downtown area.
- **PG&E Morro Bay–Templeton 230 kV Towers Replacement Project, San Luis Obispo County, California.** Project Manager/Senior Archaeologist. Directed all phases of cultural resources studies, including background archival and historical research, Native American consultation, archaeological and historical site inventory, identification, and preparation of technical report.
- **LePoint Street Parking Lot Expansion Phase I Inventory, City of Arroyo Grande.** Project Archaeologist. Background research, records searches, Native American consultation, field survey and site documentation, report preparation.
- **Topaz Solar Farm Cultural and Paleontological Resource Investigations, San Luis Obispo County, California.** Field Supervisor. Directed Phase 1 field inventory and assisted with preparation of CEQA compliance documentation for a 9,312 acre solar farm study area in eastern San Luis Obispo County.
- **Millerton Road Widening EA, Fresno County, California.** Archaeologist and Field Director. Background research, archaeological and site inventory; Tribal and BIA agency consultation; and preparation of cultural resource compliance documents for 15 miles of road right-of-way through state and tribal lands.
- **North Fork Rancheria, Madera County, California.** Principal Investigator and Field Director. Site survey and resource evaluation, preparation of EIR cultural resources sections, development and implementation of impact mitigation and construction monitoring plan for a tribal casino project.
- **Anderson Vineyards Water Rights Initial Study, Mendocino County, California.** Principal Investigator and Project Manager. Directed all phases of cultural resources studies including background archival and historical research, Native American consultation, archaeological and historical site inventory, identification, and evaluation, mitigation planning, and preparation of technical reports and IS sections.

## JEFFREY S. BEISWENGER, AICP

### *Zoning Document Lead*

Mr. Beiswenger has over 18 years of specialized work experience related to zoning and development codes and other planning implementation documents. He has maintained his professional focus on creating the planning tools necessary to bring community visions to reality. Working in both public agencies and private consulting firms throughout the United States, Mr. Beiswenger has prepared several comprehensive plans, zoning ordinances, development codes, vision plans, master plans, and design guideline documents in 11 different states.

His degrees in both architecture and urban planning and experience developing policy documents, land use regulations, design guidelines, and site plans result in a unique skill set advantageous for a wide range of planning services.

## RELEVANT PROJECT EXPERIENCE

### **Zoning and Development Code Experience**

**City of Palm Desert, Zoning Ordinance Update, Project Manager.** The City's zoning ordinance was last updated comprehensively in 1997. The ordinance is badly out of date and in need of an overhaul, including a new organization structure, formatting, and the addition of tables, figures, and graphics.

**City of Patterson, Zoning Code Update, Project Manager.** This comprehensive update to the development code is intended to implement the 2010 General Plan. The code will include conventional zoning code regulations combined with performance, form-based, and sustainable zoning techniques where applicable. Form-based regulations will be developed for the downtown area and a new Neighborhood Village zoning designation.

**City of Rancho Cucamonga, Development Code Update, Co-Project Manager.** The project is the first comprehensive Development Code update since 1983. The purpose of the update will be to implement the newly adopted and innovative General Plan's vision of a Healthy RC: Mind, Body and Earth. Helping to create a more sustainable city will be a central part of implementing this vision.

## EDUCATION

Master of Urban Planning, University of Illinois, Department of Urban Planning, Urbana-Champaign

Bachelor of Architecture, University of Arizona, College of Architecture, Tucson

## PROFESSIONAL AFFILIATIONS / AWARDS

American Institute of Certified Planners (AICP) Member (1999–present)

United States Green Building Council (USGBC) Member (2009–present)

2009 California APA Award for Best Project, Capital Village, Rancho Cordova, CA

## PRESENTATIONS/ PUBLICATIONS

Author, "Foreclosure Lessons: Focus on Building Neighborhoods Where People Want to Live," California Planner, Spring 2012

Conference Presenter, "Meeting the Challenge of Climate Change," Western Planner Conference, Vancouver, Washington, August 2010

Conference Presenter, "Building Foreclosure Resistant Communities," California 2011 APA Conference, Santa Barbara

Webinar Presenter, "Strategies to Manage Widespread Foreclosures," PMC Renew and Rebuild Program, APA Sanctioned Webinar, July 2010

JEFFREY S.  
BEISWENGER, AICP  
*Zoning Document Lead*

**City of Rancho Cordova, Zoning Code Update, Project Manager.** Supervised a team of 3 to 7 staff to complete the first comprehensive zoning code for this young community, which was incorporated in 2003. While mostly a conventional zoning code, it included mixed-use and form-based zoning components at key locations within the community.

**City of Anderson, Downtown Mixed Use District.** New form-based zoning regulations for downtown Anderson to catalyze future development in the city's historic core.

**City of Eastvale, Development Code Update.** Led the effort to re-write the zoning code that was inherited from Riverside County when Eastvale incorporated in 2010. This was the first phase of the project to reorganize and reformat the current code so that it can be more easily updated in the future and to bring it into compliance with state law. The City also initiated a General Plan update. Zoning code work provided the framework for a comprehensive update when the General Plan is complete.

**City of Lemoore, Development Code Update.** Helped to rewrite the Development Code consistent with the recently adopted General Plan. The code features downtown and mixed-use form-based components, streamlined and easy-to-understand approval processes, and additional design standards to improve the quality of new development.

**City of Concord, Telecommunication Ordinance.** Worked with City staff on a project of short duration to update the telecommunications section of the Zoning Ordinance.

**Campbell County, WY, Zoning Ordinance Update.** The project modernized a zoning code that was last updated in the 1980s.

**City of Forest Grove, OR, Development Code Update and Design Review Handbook (prior to PMC).** Supervised the complete rewrite of the Development Code (first since 1980). As part of the Development Code update, authored a Design Review Handbook to be used by commercial and multi-family residential developers.

**New Castle County, DE, Unified Development Code, Lane Kendig, Inc., 1997 (prior to PMC/Lane Kendig, Inc.).** Helped to complete a new Unified Development Code within a six-month time period. A moratorium was placed on new development until the code was adopted.

**Village of Mundelein, IL, Zoning Code Update, 1998 (prior to PMC/Lane Kendig, Inc.).** Wrote minor updates to this previously adopted performance zoning code.

**City of Paola, KS, Zoning Code Update, 1997 (prior to PMC/Lane Kendig, Inc.).** Helped finalize this performance zoning code.

**Seward County, KS, Zoning Code Update, 1996 (prior to PMC/BWR Corporation)**

**City of DeSoto, KS, Zoning Code Update, 1995 (prior to PMC/BWR Corporation)**

**City of Joplin, MO, Zoning Code Update, 1996 (Prior to PMC/BWR Corporation)**

JEFFREY S.  
BEISWENGER, AICP  
*Zoning Document Lead*

## **Urban Design Experience**

**City of Rancho Cordova, Westborough Specific Plan, Project Manager.** This 1,200-acre mixed-use project is part of AeroJet Corporation's land holdings. The project includes 800 acres of residential neighborhoods, 90 acres of commercial, and 100 acres of mixed use designed as a transit-oriented development.

**City of Rancho Cordova, Capital Village Special Planning Area, Project Manager.** Responsible for processing the entitlements for this award-winning 117-acre mixed-use project, with 827 dwelling units and over 300,000 square feet of commercial, in the heart of the city's newly formed Downtown District. Entitlements include CEQA environmental document, a rezone, a master plan document (Special Planning Area) with conceptual site plans and design standards and guidelines, a tentative subdivision map, and residential and commercial design review. Entitlements necessary for the residential portion of the project were processed in less than nine months.

**City of Rancho Cordova, Design Guidelines.** Comprehensive design guidelines for all development within the community to improve functional and aesthetic characteristics.

**City of Forest Grove, OR, ESEE Analysis (Goal 5, Natural Resources) (prior to PMC).** Worked with jurisdictions in the Tualatin Basin to develop a basin-wide ESEE analysis and Goal 5 program. Authored the ESEE Analysis for eight sub-watersheds and developed program recommendations to protect natural resources while allowing economic development activities. Supervised the consultant who conducted environmental assessments and mapping tasks.

**City of Forest Grove, OR, UGB Expansion Report (prior to PMC).** Authored a report to add "Exclusive Farm Use (EFU)" land to the UGB in exchange for removing land in another location. This "swap" helped the City add land for new development and complete critical road connections while protecting significant natural resources.

JEFFREY S.  
BEISWENGER, AICP  
*Zoning Document Lead*

**City of Gresham, OR, Infill Development & Design Standards, Community Development Department (prior to PMC).** Worked with a steering committee and a consultant team to explore strategies for improving compatibility of infill development in established neighborhoods.

**City of Gresham, OR, Industrial and Commercial Lands Analysis (prior to PMC).** Completed a land supply analysis of all available industrial and commercial land available, including an assessment of land likely to infill or redevelop. This analysis was used to determine whether an urban growth boundary expansion was necessary to meet future jobs growth.

**City of Gresham, OR, Rockwood Urban Renewal Plan (prior to PMC).** Completed the data and GIS analysis necessary to delineate the Rockwood Urban Renewal Plan boundary and identify land use supply issues for various types of future land use scenarios, which helped form the basis for the Rockwood Urban Renewal Plan.

**City of Gresham, OR, Residential Capacity Analysis (prior to PMC).** Completed a detailed assessment of all land available for residential development in the city for future residential development. Assessment included the potential for infill and redevelopment. The analysis was part of Metro Functional Plan implementation of the 2040 Concept Plan, which required that communities within the Metro area demonstrate that existing residentially zoned land had adequate “capacity” to accommodate future residential growth.

**Gresham, OR, Pleasant Valley Concept Plan, Community Development Department (prior to PMC).** Worked with a multi-jurisdictional team to complete this master plan for 1,500 acres southwest of Gresham. Primarily responsible for the public involvement plan, the project website, and implementation strategies.

## NORA DE CUIR

### *Director, Community Engagement and Facilitation Services*

Ms. De Cuir acts as a lead facilitator, project manager, project director and advisor for the development of public participation programs. In addition, she has authored general plan elements, strategic plans, climate action plans, watershed plans, pedestrian and bicycle master plans, trail feasibility studies, park and open space system plans and assessments, and agricultural conservation studies.

## RELEVANT PROJECT EXPERIENCE

**Kern Council of Governments, Community Participation for the Sustainable Communities Strategy and RTP Update.** Managed and designed the public participation process for Kern COG's RTP Update and development of their first SCS. Participation strategy includes 40 community meetings and additional stakeholder outreach. Additionally, PMC provided an online tool to enable participation comparable to that in community meetings. Online participation and community workshop have been provided in both English and Spanish.

**County of San Luis Obispo, Climate Action Plan and Land Use and Circulation Element.** Managed the public outreach process for the County's Climate Action Plan and LUCE. The process included extensive stakeholder outreach as well as numerous community workshops. Workshop design for this process included "trade show" style interactive exercises, electronic polling, facilitated open discussions, and facilitated brainstorming.

**Clavey River Ecosystem Project, Watershed Assessment and Plan.** Lead facilitator for this watershed planning process focused on one of California's most ecologically significant watersheds. The watershed planning process included facilitated Watershed Council meetings focused on building capacity for watershed stewardship and guiding the development of the plan. The public outreach component of the planning process included workshops, field days, newsletters, and other media outreach.

**Metropolitan Transportation Commission, Regional Airport Study Workshops.** Facilitated numerous workshops for the Bay Area-wide Regional Airport Study. Workshops took place throughout the nine-county region and involved educational presentations, an open house-style poster session, and facilitated large group discussions.

## EDUCATION

MS, Community Development,  
University of California, Davis

BA, History, University of California,  
Berkeley

## PUBLICATIONS

De Cuir, Nora, Al Sokolow, and Jeff Woled, eds. 2003. *Compensating Landowners for Conserving Agricultural Land: Papers from a California Conference*. Davis: University of California Agricultural Issues Center with UC Davis Community Studies Extension.

Sokolow, Al, Joan Wright, Nora De Cuir, and Mica Bennett. "What California Farmland Owners Like and Don't Like about Compensatory Programs for Conservation" in *Compensating Landowners*.

## PRESENTATIONS

*Agricultural Mitigation in the Central Valley: Planning for Success*, Central Valley Council of Land Trusts, Summit 2007.

NORA DE CUIR  
*Director, Community  
 Engagement and  
 Facilitation Services*

**San Gabriel Valley Council of Governments, Energy Action Plans and Regional Framework.** Managed and designed the public participation process for the development of 27 Energy Action Plans for the cities of the San Gabriel Valley. Public participation focused heavily on community events and one-on-one stakeholder interviews. The PMC team also facilitated internal staff workshops for member Cities to discuss energy efficiency opportunities with facilities managers and field staff.

**County of Kern, Rosamond Business District Visioning.** Managed and facilitated a visioning process for the high desert community of Rosamond. A community charrette was conducted with PMC's urban designers. The resulting community vision plan acts as a roadmap for future improvements.

**County of Kern, East Bakersfield Community Charrette.** Directing and co-facilitating a visioning effort for the community of East Bakersfield.

**Metropolitan Transportation Commission, Advisory Committee Structure Review.** Assisted the Metropolitan Transportation Commission with an evaluation of the existing structure and function of its citizen advisory committees. The Advisory Committee Structure Review included numerous facilitated discussions with committee members, telephone interviews, case studies from similar agencies, and interviews with key staff and other stakeholders.

**City of Sunnyvale, Climate Action Plan and Land Use and Transportation Element EIR.** Lead facilitator for community workshops held in association with the City's Climate Action Plan and Land Use and Transportation Element planning process.

**Bay Area Green Vision and Transportation 2025.** Facilitated the 2007 Bay Area Urban Parks Forum, hosted by the Bay Area Open Space Council, the Greenbelt Alliance and the Association of Bay Area Governments. Also facilitated a large session of the Association of Bay Area Government's Transportation 2025 Forum. Part of a larger, region-wide long-term planning process, each forum provided an opportunity for stakeholders to raise issues and discuss concerns with a diverse group of public agency staff, elected officials, and community leaders. Each forum numbered between 75 and 100 participants.

**Trust for Public Land Parks for People Program, Stewardship Evaluation.** Assisted the Trust for Public Land with the evaluation of park stewardship at Parks for People Program parks. Developed a summary of Best Practices for Urban Park Stewardship, to be used by TPL urban parks programs nationwide. This project provides recommendations and strategies for the improvement of the Parks for People Program, with regard to park stewardship.

**Other Long-Range Planning projects include:**

- City of Elk Grove, Climate Action Plan Public Participation
- City of Santa Rosa, Climate Action Plan Public Participation
- City of Santa Rosa, North Santa Rosa Station Area Plan Public Participation
- City of South San Francisco, Climate Action Plan and Pedestrian Master Plan Public Participation
- County of San Mateo, Energy Efficiency Climate Action Plan Public Participation
- County of Santa Barbara, Climate Action Plan Public Participation
- City of Milpitas, Climate Action Plan Public Participation
- City of Jackson, Waste Water Treatment Plan EIR Public Participation
- County of Contra Costa, Climate Action Plan Public Participation
- City of Eastvale, General Plan and Sign Committee, Public Participation Assistance
- City of Pinole, General Plan, Natural Resources Element
- City of Mendota, General Plan, Open Space and Conservation Element
- City of Taft, General Plan, Open Space and Conservation Element
- City of Sultan, Washington, Park, Recreation and Open Space Plan
- Alameda County Congestion Management Agency and Alameda County Transportation Improvement Authority, Board Retreat Facilitation

NORA DE CUIR  
*Director, Community  
Engagement and  
Facilitation Services*

## MARTTI PHILLIP ECKERT

### *Urban Designer/Associate Planner*

Mr. Eckert brings 6 years of experience to PMC's Planning, Design, and Facilitation team. During his tenure with the company, he has worked on numerous advance planning projects, including general, specific, and downtown plans, zoning ordinances, design guidelines, and community visioning efforts. Mr. Eckert has acquired expertise working on all phases of these projects, including facilitating charrettes and workshops, leading discussions with decision-makers, researching background resources and innovative planning concepts, drafting provision, guidelines, and other content for project deliverables, and preparing maps and illustrations. Since joining PMC, he has also gained experience working as a staff planner for a suburban community in the Sacramento region and prepared visual simulations for several of the firm's environmental planning projects.

#### EDUCATION

Master of City and Regional Planning, Ohio State University, Columbus

BS, Architecture, University of Cincinnati, Cincinnati, OH

#### RELEVANT PROJECT EXPERIENCE

**City of Peoria, AZ, Central Peoria Revitalization Plan.** Participated in the creation of a rendered site plan illustrating the plan's vision for new development and redevelopment in the planning area and developed two fly-through animations of a 3-D model depicting the possible form of the envisioned development.

**City of Sand City, West End Planning Area Visual Simulations.** Created one photographic simulation and an interactive Google Earth model of proposed mixed-use development in the planning area

**City of Laguna Beach, Aliso Creek EIR Visual Simulations.** Oversaw the creation of 10 photographic simulations of a proposed golf resort and residential subdivision.

**City of South Lake Tahoe, Tahoe Valley Community Plan EIR Visual Simulations.** Oversaw the creation of 24 photographic simulations of proposed mixed-use development alternatives in the community plan area.

**Monterey County, Ferrini Ranch Subdivision EIR Visual Simulations.** Created eight photographic simulations of proposed residential development in the subdivision.

**MARTTI ECKERT**  
*Urban Designer/  
 Associate Planner*

**Town of Frederick, CO, Downtown Development Study.** Participated in the conceptual design process and creation of a fully rendered site plan illustrating the plan’s vision for new development and redevelopment in the planning area, drafted portions of and created graphics for the plan, facilitated meetings associated with the plan, and conducted site reconnaissance to aid the planning process.

**City of Compton, Downtown Specific Plan.** Participated in the conceptual design process and created a hand-drawn site plan illustrating the plan’s vision for new development and redevelopment in the planning area.

**City of Chico, General Plan Update.** Participated in the conceptual design process and created a hand-drawn site plan illustrating the plan’s vision for new development and redevelopment in the city’s downtown area.

**City of Rancho Cucamonga, Zoning Code Update.** Created an entirely new set of graphics to illustrate the Zoning Code.

**City of Lemoore, Zoning Code Update.** Created an entirely new set of graphics to illustrate the Zoning Code.

**City of Victorville, Old Town Specific Plan.** Participated in the creation of a rendered site plan illustrating the plan’s vision for new development and redevelopment in the planning area and drafted portions of the plan.

**City of Oceanside, Downtown Residential Design Guidelines.** Drafted the Design Guidelines document, created hand-drawn vignette sketches to illustrate the guidelines, and conducted site reconnaissance to aid in the creation of the document.

**City of Live Oak, Citywide Design Guidelines.** Created graphics to illustrate the Design Guidelines and contributed to designing the document’s layout.

**City of Ione, Downtown Plan.** Played a critical role in all phases of the project. This included interviewing stakeholders, facilitating public workshops, leading discussions with decision-makers, drafting sections of the code, leading the project’s vision sessions, and preparing maps and illustrations for public meetings and for inclusion in the document.

**City of Rancho Cordova, Folsom Boulevard Specific Plan.** Participated in the development of conceptual mixed-use town center and transit-oriented development designs for several locations in the planning area, drafted portions of the plan, and facilitated meetings associated with the plan.

**City of Rancho Cordova, Zoning Code Update.** Drafted several sections of the Zoning Code, including the article devoted to form-based provisions for the city’s commercial mixed-use centers and development standards for pedestrian-oriented spaces.

**City of Santa Rosa, North Santa Rosa Station Area Specific Plan.** Helped facilitate public meetings and participated in the project's visioning effort.

**City of Holtville, Design Workshop and Downtown Code.** Organized and co-facilitated a design workshop to determine the community's vision for developing the downtown area and created a rendered site plan illustrating this vision.

**City of Rancho Cordova, General Plan.** Prepared maps describing the conceptual land uses in the City's planning areas and assisted with editing the plan.

**City of Peoria, AZ, Osuna Park Masterplan and Construction Documents.** Participated in the conceptual design process and created a rendered site plan illustrating the park's design, assisted with the production of construction documents for the park's redevelopment, and prepared presentation boards for the project's public design workshop.

**City of Mesa, AZ, Fiesta District Branding Plan.** Created several large maps and an opportunities and constraints exhibit for use at public meetings and facilitated meetings associated with the plan.

**City of South Lake Tahoe, General Plan Update.** Drafted portions of the General Plan Background Report's Land Use and Community Design chapter and conducted site reconnaissance to aid the General Plan Update process.

**City of Weed, Downtown Revitalization Plan.** Participated in the design of a master plan to help guide redevelopment in the city's downtown.

MARTTI ECKERT  
*Urban Designer/  
Associate Planner*

## PAMELA LAPHAM

### *Planning/LCP/CEQA Support*

Ms. Lapham has 15 years of experience in the construction management and entitlement process for commercial and residential projects on the Central Coast. She has prepared and produced environmental review documents in accordance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA), including environmental impact reports, initial studies, negative declarations, mitigated negative declarations, environmental assessments, findings of no significance impact, and mitigation and monitoring reporting programs. She has processed categorical exclusions by NEPA and US Department of Housing and Urban Development (HUD) standards; prepared rehabilitation environmental reviews for HUD, grant applications, and Local Coastal Program amendments; processed categorical and general rule exemptions by CEQA standards; and monitored federal, state, county, and local agency meetings. Ms. Lapham has prepared and presented materials at planning commission meetings, researched land use and zoning, and worked with city and county planners to develop quality projects.

### RELEVANT PROJECT EXPERIENCE

**City of Morro Bay, Former Texaco Sales Terminal Pipeline Removal.** Prepared Initial Study and Mitigated Negative Declaration for a Coastal Development Permit and Grading Permit to allow the removal of existing facility piping and several concrete features from this site on North Main Street. The project allowed the proper decommissioning and removal approximately 4,500 linear feet of underground pipeline and remnant materials, including contaminated soils. Primary issues were biological resources along Alva Paul Creek, disposal of hazardous materials and noise.

**Salinas Valley Solid Waste Authority, Crazy Horse Sanitary Landfill Closure Project Mitigated Negative Declaration.** A Post-Closure Maintenance Plan would be implemented for Crazy Horse Sanitary Landfill (CHSL) by the Authority after certification of closure. Implementation would continue for the 30-year post closure period as prescribed by law. The Maintenance Plan includes the details regarding the operation and maintenance of the landfill's environmental control system, operation of the aforementioned small recycling center and ABOP

### EDUCATION

BS, Soil Science, Concentration in Environmental Management, California Polytechnic State University, San Luis Obispo

Certificate of Completion, Ornamental Horticulture, Monterey Peninsula College, Monterey, CA

AA, Social Science, College of Alameda, Alameda, CA

### PROFESSIONAL AFFILIATIONS AND LEADERSHIP ACTIVITIES

Association of Environmental Professionals – Member

Ecology Action, Santa Cruz – Master Composter

American Society of Agronomy Student Chapter – Vice President

Soil and Water Conservation Society, California Chapter – Scholarship Recipient

Logan S. Carter Award for Departmental Leadership and Service – Cal Poly, San Luis Obispo

Certificate of Appreciation for Exemplary Serviced to the Soil Science Department – Cal Poly, SLO

Chapter Recognition Award Soil and Water Conservation Society – Cal Poly, SLO

Certificate of Appreciation from Soil and Water Conservation Society – Cal Poly, SLO

Most Valuable Member – Soil Science Department – Cal Poly, SLO

facility, solar based power generation system, and landfill gas-to-energy facility, final cover maintenance, access road and internal haul roads maintenance, and other activities consistent with federal, state and local law. The Recycling Center would be operated under 14 CCR, 17402.5(d).

**City of Seal Beach, Update to the Local Coastal Program.** The update to the City of Seal Beach’s LCP will pick up where the existing 2008 document left off in terms of content and processing. The 2008 draft LCP is understood to provide the framework for this update; however, to move the effort forward, it will be critical to understand the extent of the Coastal Commission’s previous comments and the reasons why the document was not ultimately approved.

**San Luis Obispo County, Bob Jones Pathway EIR.** The proposed project will result in a separated Class I Trail, where possible, for a distance of approximately 4.5 miles between the Octagon Barn in south San Luis Obispo and the existing Bob Jones Trail at the Ontario staging area (near the Salisbury Winery at the intersection of Ontario Road and San Luis Obispo Creek.) The existing route places bicyclists immediately adjacent to motorists and requires a physically dangerous at-grade crossing that places riders adjacent to queued motor vehicles and their associated fumes. The proposed project will provide an improved and safer route for bicyclists and new opportunities for pedestrians, which will encourage greater use by families and users of all ages and abilities.

**City of Seaside, Local Coastal Program Certification and Environmental Review.** Prepared the Local Coastal Program Amendment Application, assisted in the preparation of the City’s Local Coastal Program (LCP) Land Use Plan (LUP) update, the City’s Coastal Implementation Plan (CIP), and Initial Study/Negative Declaration and subsequent Addendum. Assisted the City staff with all steps of the Local Coastal Program amendment certification process. Worked with City and Coastal Commission staff to make necessary modifications to the LCP prior to Coastal Commission’s review and approval. Assisted with the preparation of the Initial Study/Negative Declaration and subsequent Addendum upon Coastal Commissions’ approval of the LCP with modifications. Assisted with the preparation of presentation materials for local agency and Coastal Commission hearings.

**County of Monterey Resource Management Agency, Housing and Redevelopment Office, Castroville Community Plan Environmental Impact Report and Local Coastal Plan Amendment.** Assisted in the preparation of a program-level EIR for the Castroville Community Plan, a long-range plan designed to direct growth and development in a manner that enhances the quality of life in the community of Castroville, located in unincorporated Monterey County. The proposed Community Plan included construction of approximately 1,655 residential housing units, 52,000 square feet of commercial uses, 13,000 square feet of public facilities, 130 acres for industrial uses, and

approximately 77 acres of parks. Growth in the community plan is focused within five opportunity areas: Merritt Street Corridor Opportunity Area, Cypress Residential Opportunity Area, Commuter Train Station Opportunity Area, North Entrance Opportunity Area, and New Industrial Opportunity Area. The major environmental issues addressed in the EIR included agricultural resources, air quality, biological resources, noise, hydrology and water quality, noise, public services, and transportation and circulation.

PAMELA LAPHAM  
*Planning/LCP/CEQA  
Support*

**City of Pacific Grove, Contract Staff Assistance.** Prepared Initial Studies, Mitigated Negative Declarations/Negative Declarations, and Coastal Development Permit Waiver requests for various projects. More substantial projects included the Pacific Grove Municipal Golf Course Clubhouse Use Permit Amendment and Architectural Permit, 472 Asilomar Drive Lot Merger, Historic Inventory Register Addition, and Architectural Permit, and 511 – 13<sup>th</sup> Street Historic Inventory Register Deletion Request.

**City of Sand City, In-N-Out Restaurant.** Prepared an Initial Study for the proposed In-N-Out restaurant along Tioga Avenue, east of State Route 1. The project included a 3,265-square-foot, single-story restaurant building, with indoor and outdoor seating to accommodate 115 occupants (75 indoor seats; 40 outdoor seats), a drive-through window to accommodate 15 cars, and a parking lot providing 48 parking spaces. Primary environmental issues for the project included vehicle access challenges, proximity to a designated Smith's blue butterfly habitat area, and potential aesthetic impacts due to high visibility in a scenic dune corridor of State Route 1.

## TAMMY L. SEALE

### *Sustainability/Climate Change Policy Lead*

Ms. Seale manages PMC's regional office in San Luis Obispo and leads PMC's Sustainability and Climate Change Services Team. Ms. Seale is a leader in the field of climate action planning. She serves as a project director, manager, or advisor for comprehensive planning projects, specifically in the areas of sustainability, climate action planning, and conservation planning. She has been a planner serving public agencies for more than 18 years.

Ms. Seale collaborates with professional associations, PMC staff, and academic institutions to pursue research, publication, and curriculum development focused on local climate action planning. She is a member of the AEP Climate Change Committee and has contributed to the committee's recent white papers: California Community-wide Greenhouse Gas Baseline Inventory Protocol White Paper (May 2011) and Forecasting Community-wide Greenhouse Gas Emissions and Setting Reduction Targets (May 2012). Ms. Seale is a co-author, with Michael R. Boswell II and Adrienne I. Greve, of *Local Climate Action Planning*, the first guidebook for preparation of local climate action plans. Ms. Seale is a frequent presenter at local, regional, state, and national conferences, seminars, courses, and special lectures on local climate action planning.

### RELEVANT LOCAL PROJECT EXPERIENCE

**San Luis Obispo Air Pollution Control District, Municipal Operations and Community-Wide Greenhouse Gas Emissions Baseline Inventories for the Cities of Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, Pismo Beach, and San Luis Obispo.** The APCD used mitigation funds to contract with PMC for the preparation of greenhouse gas emissions baseline inventories for all of the cities in San Luis Obispo County. This collaborative approach allowed the cities and PMC staff to efficiently develop each city's inventory and maintain regional consistency between each inventory. As the project manager, Ms. Seale directed a team of PMC staff and Cal Poly City and Regional Planning student interns for the tasks of community-wide and municipal operations baseline data collection, quantification, analysis, and forecasting in addition to preparation of baseline inventory reports for the cities of Arroyo Grande, Atascadero, Grover Beach, Morro Bay, Paso Robles, and Pismo Beach. Ms. Seale provided a peer review and technical assistance to the City of San Luis Obispo, as their inventory was prepared prior to the APCD's contract with PMC. The inventories were prepared consistent with California Air

### EDUCATION

MSP, Urban and Regional Planning, Florida State University, Tallahassee

BA, Environmental Conservation, University of Colorado, Boulder

### PROFESSIONAL AFFILIATIONS AND COMMUNITY SERVICE

American Planning Association

Director, Central Coast Subsection, California Chapter American Planning Association

Association of Environmental Professionals (AEP)

AEP Climate Change Committee

### PUBLICATIONS

Boswell, Michael R., Adrienne I. Greve, and Tammy L. Seale. 2011. *Local Climate Action Planning*. Washington, DC: Island Press.

Boswell, Michael R., Adrienne I. Greve, and Tammy L. Seale. 2010. "Climate Action Plans and Emissions Inventories: Strengthening the Foundations of Policy Development." *Journal of the American Planning Association* (76) 4 [Autumn 2010].

**TAMMY L. SEALE**  
*Sustainability/Climate  
Change Policy Lead*

Resources Board (CARB) and ICLEI-Local Governments for Sustainability protocol using ICLEI's Clean Air and Climate Protection (CACP) 2009 software tool.

**County of San Luis Obispo, EnergyWise Plan and Government Operations and Community-Wide Greenhouse Gas Emissions 2006 Baseline Inventories.**

Ms. Seale managed preparation of the EnergyWise (Climate Action) Plan for the County. The County's plan relies on the goals, policies, and targets established in the recently adopted Conservation and Open Space Element (COSE) as well as the baseline GHG inventory. The plan provides a 2020 GHG reduction target, GHG reduction strategies to reduce emissions from energy, transportation, waste, and agricultural sectors, climate adaptation policies, and an overall implementation and monitoring program. The plan was prepared with extensive stakeholder public outreach tailored to the county's character and needs. PMC also prepared an Addendum to the COSE Environmental Impact Report.

**County of San Luis Obispo, Conservation and Open Space Element Update and EIR.**

Ms. Seale served as PMC's project manager for the County's Conservation and Open Space Element (COSE) update and EIR. The COSE consolidates and updates existing General Plan elements, including the Conservation, Esthetic, Historic, Open Space, and Energy elements, and integrates new issues and policies, such as greenhouse gas emissions reductions, climate change response and adaptation, and sustainability. Key topics in the element include water, biological, cultural, air quality, visual, open space, soil, and energy resources. The element won the State Comprehensive Planning award from the Association of Environmental Professionals in 2010 and the Comprehensive Planning award from the Central Coast Section of the California Chapter of the American Planning Association.

**City of San Luis Obispo, Climate Action Plan.** Ms. Seale and the PMC team provided technical assistance in the completion of the City's draft Climate Action Plan. Ms. Seale managed PMC team collaboration with City staff to complete the administrative draft CAP prepared by the Cal Poly (SLO) City and Regional Planning Student Community Planning Studio in 2009–2010. PMC's assistance included an updated forecast of the City's GHG emissions based on the City's preferred growth scenario, identification of an achievable GHG reduction goal of at least 15% below 2005 baseline emissions levels by 2020, updates to reduction measures, quantification of the City's GHG reduction measures and existing GHG reduction efforts based on program results, peer-reviewed research, and best practices.

**Bay Area Air Quality Management District, Guidance on Developing Qualified GHG Reduction Strategies.** Ms. Seale directed the PMC team to update the BAAQMD guidance to local governments on preparing greenhouse gas reduction strategies that meet the air district's guidelines for a qualified GHG reduction strategy for use in future CEQA streamlining efforts.

**City of Milpitas, Qualified Greenhouse Gas Reduction Plan.** Ms. Seale is the project manager for the City's Qualified Climate Action Plan. The greenhouse gas inventory will identify and assess all sectors required by the Bay Area Air

Quality Management District (BAAQMD) CEQA Guidelines. The Climate Action Plan will serve as a Qualified Greenhouse Gas Reduction Strategy under the BAAQMD CEQA Guidelines.

**TAMMY L. SEALE**  
*Sustainability/Climate  
Change Policy Lead*

**City of Novato, Energy Efficiency and Conservation Strategy and Climate Change Action Plan.** Ms. Seale managed the preparation of the Energy Efficiency and Conservation Strategy and completion of the Climate Change Action Plan for the City. The Climate Change Action Plan (CCAP) provides a set of strategic goals and measures to prepare for climate change. The CCAP includes 29 mitigation measures that will exceed the City's greenhouse gas emissions reduction target of 15% below baseline by 2020. The CCAP also provides goals and measures for adaptation and implementation.

**City of Palmdale, Greenhouse Gas Emissions Inventory, Energy Action Plan, and Municipal Code Updates.** Ms. Seale was the project manager for the Energy Action Plan and baseline greenhouse gas audit for community and municipal operations in Palmdale. The baseline inventory and forecast serve to inform the Energy Action Plan, which includes specific and descriptive measure to reduce Palmdale's energy use, support the local economy, and reach the City's GHG reduction goals. The Energy Action Plan was adopted in 2011. The California Chapter of the American Public Works Association recognized the plan as project of the year in the Creative and Innovative category in December 2011.

**City of South San Francisco, Greenhouse Gas Emissions Inventory, Strategic Growth Council Grant Application, and Climate Action Plan.** Ms. Seale served as project manager in the development of a greenhouse gas inventory and forecast for community-wide emissions within South San Francisco. Following completion of the inventory, Ms. Seale led the preparation of the City's successful grant application to the Strategic Growth Council to prepare a Climate Action Plan and Pedestrian Master Plan. Ms. Seale is currently serving as project director for the Climate Action Plan and Pedestrian Master Plan being prepared by PMC and Fehr & Peers.

**City of Sunnyvale, Climate Action Plan, Land Use and Transportation Element (LUTE), and LUTE EIR.** Ms. Seale is leading preparation of the Climate Action Plan, which is being prepared concurrently with the City's Land Use and Transportation Element update. PMC collaborated with Fehr & Peers to prepare the baseline inventory and draft reduction measures.

**City of Walnut Creek, Climate Action Plan.** Ms. Seale is serving as the project director for the City's Climate Action Plan, which includes goals and actions to reduce greenhouse gas emissions in years 2020 and 2030 consistent with state legislation. Climate Action Plan strategies resulted from a collaborative public engagement process that included appearances at the Walnut Creek Farmer's Market and City Council meetings.

**Contra Costa County, Climate Action Plan, Project Director.** Ms. Seale provides direction and guidance to the Contra Costa County CAP Project Team. The project includes an update to the County's GHG Inventory and Forecasts,

**TAMMY L. SEALE**  
*Sustainability/Climate  
 Change Policy Lead*

community outreach, and preparation of a Climate Action Plan that will comply with BAAQMD standards for a Qualified GHG Reduction Strategy.

**County of San Mateo, Energy Efficiency and Climate Change Assessment, Energy and Climate Change Update to the General Plan, Climate Action Plan, and Implementation.** Ms. Seale is serving as the project manager to the County’s greenhouse gas emissions inventory, Climate Action Plan, and Energy and Climate Change update to the General Plan. This project addresses community-wide activities for the unincorporated areas of the county and includes an Energy Reduction Strategy, Climate Action Plan, Climate Change Element, and adaptation program. Ms. Seale coordinates with staff to facilitate a project steering committee and technical advisory committee. PMC partnered with ICLEI-USA on the preparation of a vulnerability assessment, which will provide the foundation for adaptation policies. The project team also includes DNV KEMA, Inc., and Fehr & Peers.

**San Gabriel Valley Council of Governments, Energy Action Plans.** Ms. Seale is leading PMC’s project team in a partnership with the San Gabriel Valley Council of Governments and Southern California Edison to develop a regional energy efficiency framework and energy action plans (EAPs) for 27 cities in the San Gabriel Valley. The project is funded by Southern California Edison (SCE) as part of the California Long-term Energy Efficiency Strategic Plan. The project offers a unique opportunity to assess and compare energy trends at a regional scale. The Regional Framework and each EAP identify leveraged regional solutions with opportunities for effective local implementation. All 27 EAPs are shaped by the Regional Framework, an overarching document identifies shared regional goals, priorities, and strategies. EAPs include a baseline inventory and forecast of each community’s energy use and activities, both for municipal operations and for community-wide activities. As part of the project, Ms. Seale facilitates monthly meetings of the Project Steering Committee to support information sharing, updates, best practices, surveys, and ongoing discussion of issues and opportunities by representatives from each city. The project culminated with a regional climate change conference in September 2012. PMC will work with each city to prepare an adoption and implementation strategy to ensure success of the EAP. The project team also includes DNV KEMA, Inc., Fehr & Peers, and ISI Translation, Inc.

**Select Current Planning Experience**

- **City of Morro Bay, On-Call Planning Services.** Ms. Seale manages PMC’s team of on-call staff. She provides senior-level land use and environmental planning and permitting services.
- **City of Paso Robles, On-Call Environmental and Land Use Planning Services.** Ms. Seale managed PMC’s team of on-call staff and provided senior-level land use and environmental planning and permitting services.
- **City of San Luis Obispo/MBA Planning Group, Orcutt Area Specific Plan.** Ms. Seale was retained by the project applicant to assist with policy revisions, development standards, and design guidelines that incorporate green design and the City’s recently adopted Conservation and Open Space Element in 2005–2006.

- **Los Osos Community Services District, Los Osos Wastewater Treatment Project.** As a senior associate with Crawford, Multari & Clark Associates (2005), Ms. Seale provided mitigation monitoring and condition compliance for federal, state, and local government coastal development, land use, and environmental permits.
- **County of San Luis Obispo, Coastal Land Use Planner.** Prior to joining PMC, Ms. Seale was a staff planner on the County's current planning coastal team (2004–2005). She processed coastal land use permit applications (Coastal Development permits, minor use permits, and development plans) and conducted CEQA analysis for coastal residential projects.
- **City of Morro Bay, Morro Bay Power Plant Modernization Project.** As deputy project manager assigned to the Duke Energy Morro Bay Power Plant Modernization Project, Ms. Seale coordinated the City's review and participation in the California Energy Commission's power plant siting (CEQA-equivalent) process (2000–2003). She managed all consultant peer reviews of the applicant's technical documents, coordinated with state resource agencies for Endangered Species Act compliance, and assisted the planning director and city attorney with developer agreements.
- **City of Morro Bay, City of Morro Bay Stormwater Management Plan.** Prior to joining PMC, Ms. Seale was project manager for the City of Morro Bay Stormwater Management Plan (2000–2003). She conducted research and analysis of local government stormwater management and NPDES Phase II compliance; identified appropriate best management practices (BMPs), including low-impact development (LID) strategies; and prepared the draft Stormwater Management Plan for submittal and approval of the Planning Commission, City Council, and Central Coast Regional Water Quality Control Board.
- **Florida Keys Ecosystem Management Area.** Prior to joining PMC, Ms. Seale was a planning manager for the Florida DEP Office of Ecosystem Management (1995–1997). She coordinated the agency's role in the development and adoption of the Monroe County Year 2010 Comprehensive Plan, specifically policies and actions for water quality, wastewater treatment and disposal, threatened and endangered species habitat conservation, and land acquisition. In addition, Ms. Seale participated in the review and adoption of the Florida Keys National Marine Sanctuary Management Plan and Water Quality Protection Plan; drafted state regulations related to wastewater management and environmental resource permitting in the Florida Keys; and managed a federal coastal program grant.

TAMMY L. SEALE  
Sustainability/Climate  
Change Policy Lead

## Specific Plan Experience

- **City of Marina at Monterey Bay, Downtown Vitalization Specific Plan.** Ms. Seale assisted the City with its Downtown Vitalization Specific Plan. Project goals were to identify opportunities for mixed-use infill and economic growth, develop public and private realm design guidelines and development standards consistent with the City's Downtown Vision Plan,

**TAMMY L. SEALE**  
*Sustainability/Climate  
 Change Policy Lead*

provide connectivity for the public realm, and provide a “road diet” for Reservation Road.

- **Monterey Salinas Transit/VBN Architects, Marina Transit Center Specific Plan.** PMC, teamed with VBN Architects, prepared a Specific Plan in support of a new Monterey Salinas Transit (MST) depot and mixed-use development in Marina’s urban core. As part of the PMC team, Ms. Seale developed the transit-oriented development (TOD) planning principles and development regulations for the specific plan area on an accelerated schedule. The Specific Plan establishes a transit-oriented planning framework consistent with the City’s General Plan and Downtown Vision Plan.
- **City of San Luis Obispo/MBA Planning Group, Orcutt Area Specific Plan.** Ms. Seale was retained by the project applicant to assist with policy revisions, development standards, and design guidelines that incorporate green design and the City’s recently adopted Conservation and Open Space Element.

### **Park, Open Space, and Recreation Planning Experience**

- **City of Madera, Parks and Community Services Department, Park and Recreation Master Plan.** Ms. Seale managed the development of the City’s first Park and Recreation Master Plan in coordination with the City’s Vision 2025 process and General Plan update.
- **County of Marin Parks and Open Space Department, Marin County Parks and Open Space Comprehensive Strategic Plan.** Ms. Seale served as the task lead for the parks and recreation facility inventory and needs assessment for unincorporated Marin County and assisted with the public outreach strategy and public workshop facilitation.
- **Florida’s State Comprehensive Outdoor Recreation Plan (SCORP).** Prior to joining PMC, Ms. Seale served as Florida’s State Outdoor Recreation Planner (1997–1999). She directed the update of the 1999 SCORP. Ms. Seale created a public outreach and visioning program; facilitated a steering committee; developed a vision and strategic action plan; researched and analyzed emerging outdoor recreation issues and trends; projected existing and future outdoor recreation demands and needs of residents and tourists; and supervised the update, management, and modernization of the Florida Outdoor Recreation Resource and Facility Inventory.
- **Florida’s Greenways and Trails Implementation Plan.** As the Florida Park Service representative on the Connecting Florida’s Communities with Greenways and Trails committee, Ms. Seale developed implementation strategies and assessed proposed programs.

## LEEANNE M. SINGLETON, LEED AP

### *Associate Planner*

Ms. Singleton is an associate planner with PMC specializing in sustainability policy development and greenhouse gas (GHG) emissions analysis. She is experienced in developing climate action plans, GHG reduction strategies, GHG inventories, and grant applications for sustainability projects. Ms. Singleton offers a wide variety of technical capabilities and experience in sustainability tools and analysis by leading the development of PMC's tools to assist local governments with monitoring and implementing CAPs. She is a LEED Accredited Professional and leads the Sustainability and Climate Change team's efforts toward integration of sustainability principles into work products company-wide.

### RELEVANT PROJECT EXPERIENCE

**County of San Luis Obispo, EnergyWise Plan.** Ms. Singleton assisted in the development of the EnergyWise Plan for the County. The plan provides a comprehensive approach to reduce GHG emissions from the energy, waste, transportation, and agriculture sectors. The plan also includes measures and actions to prepare San Luis Obispo County to adapt to the potential impacts that climate change may have on the region. Ms. Singleton led the development of an Excel-based implementation and monitoring tool to assist County staff with tracking progress toward achieving greenhouse gas reduction targets and sustainability goals.

**City of San Luis Obispo, Climate Action Plan.** Ms. Singleton provided technical assistance to the City for completion of the City's draft Climate Action Plan. She led updates to the City's greenhouse gas emissions forecast and GHG reduction measure quantification. PMC was contracted by the City to complete a second draft of the plan following preparation of the initial draft by the Cal Poly Climate Team.

**San Gabriel Valley Council of Governments, Energy Action Plans.** Ms. Singleton is a task leader on the PMC team leading the development of baseline greenhouse gas emissions inventories and Energy Action Plans for 27 cities in the San Gabriel Valley. She provides project management support to the team and works directly with the cities of Alhambra, Baldwin Park, Bradbury, Duarte, Glendora, San Dimas, South Pasadena, and Temple City to prepare their EAPs. With a customized approach to outreach for each city, she also provides support to the community engagement team on community and staff-focused outreach events.

### EDUCATION

BS, City & Regional Planning,  
California Polytechnic State  
University, San Luis Obispo

Minor, Sustainable Environments,  
California Polytechnic State  
University, San Luis Obispo

### PROFESSIONAL AFFILIATIONS

American Planning Association,  
2007–present

Association of Environmental  
Professionals, 2012–present

LEED Accredited Professional, 2009

### CIVIC ENGAGEMENT

Young Planners Group Co-Chair –  
APA California, Central Coast  
Section, April 2012–present

SLO Subsection Events Committee  
– APA California, Central Coast  
Section. December 2011–present

Conference Host Committee –  
California State APA Conference,  
December 2010–September 2011

### AWARDS

2012 AEP Climate Change  
Document, Merit Award, San Luis  
Obispo County EnergyWise Plan

2012 APA, Central Coast Section,  
Outstanding Planning Award:  
Innovation in Green Community  
Planning, San Luis Obispo County  
EnergyWise Plan

California Planning Foundation  
Student Merit Award, June 2010

Michael McDougall Urban Design  
Scholarship, May 2009

LEEANNE M.  
SINGLETON, LEED AP  
*Associate Planner*

**Bay Area Air Quality Management District, Guidance on Developing Qualified GHG Reduction Strategies.** Ms. Singleton led research efforts on this project to assist the District with providing guidance to local governments on preparing greenhouse gas reduction strategies to meet District guidelines for a Qualified GHG Reduction Strategy. In addition to updating the District’s GHG plan-level guidance, the project included technical advisories on CEQA streamlining considerations and best practices for implementation and monitoring climate action plans so that they may continue to be used as qualified strategies.

**City of Santa Rosa, Climate Action Plan.** Ms. Singleton led the preparation of the City’s community and municipal greenhouse gas inventories, CAP measure quantification, and implementation and monitoring tool. Santa Rosa’s CAP not only serves as a qualified GHG reduction strategy but also sets the City up to achieve the aggressive local GHG reduction targets adopted by the municipalities in Sonoma County in 2005.

**City of Sunnyvale, Climate Action Plan and Land Use and Transportation Element EIR.** Ms. Singleton was the technical lead preparing the City’s Climate Action Plan, prepared concurrently with the City’s Land Use and Transportation Element update to the General Plan and EIR. Both components of the project were guided by the City’s General Plan Update Team, the Horizon 2035 committee. Ms. Singleton’s work on this project included updating Sunnyvale’s GHG emissions inventory, guiding the development of GHG reduction strategies, quantifying GHG reduction strategies, and assisting with meetings. The CAP will serve as a CEQA tiering document in accordance with Bay Area Air Quality Management District guidance.

**City of South San Francisco, Greenhouse Gas Emissions Inventory, Strategic Growth Council Grant Application, and Climate Action Plan.** Ms. Singleton assisted in the development of a GHG inventory for community-wide emissions in South San Francisco. Following completion of the inventory, Ms. Singleton assisted in the preparation of the City’s successful grant application to the Strategic Growth Council to prepare a Climate Action Plan and Pedestrian Master Plan.

**County of Santa Barbara, Technical Assistance in the Preparation of the Energy and Climate Action Plan.** Ms. Singleton is assisting Santa Barbara County in the preparation of its Energy and Climate Action Plan (ECAP) by providing technical analysis and leading stakeholder engagement and outreach efforts. Climate action efforts include updates to the existing GHG emissions inventory, identifying appropriate GHG reduction targets, and quantifying policies to reduce GHG emissions, including the presentation of multiple GHG reduction targets and showing the GHG reduction impact that each measure would have under a voluntary, phased, or mandatory approach. Final technical support to the County will include evaluation of the social, economic, and environmental feasibility of implementing each measure, the provision of an ECAP development checklist, and an Excel-based monitoring and reporting tool

to allow the County to evaluate progress in the future as the ECAP is implemented.

**City of Vallejo, Climate Action Plan and Greenhouse Gas Emissions**

**Inventory.** Ms. Singleton was the technical lead in developing a greenhouse gas emissions inventory and Climate Action Plan for the City. Vallejo's Climate Action Plan includes specific and quantified reduction measures for all emissions sources and satisfies the BAAQMD's guidelines for a Qualified GHG Reduction Strategy.

**City of San Rafael, Greenhouse Gas Reduction Program.** Ms. Singleton was the technical lead on the City's Greenhouse Gas Reduction Program. The program modified the City's existing Climate Change Action Plan to become a Qualified Greenhouse Gas Reduction Program under the BAAQMD CEQA Guidelines.

LEEANNE M.  
SINGLETON, LEED AP  
*Associate Planner*

## TAD STEARN

### *LCP Project Manager*

Mr. Stearn is a principal with the firm and one of PMC's charter staff members. He manages PMC's Monterey office and is responsible for project management and business development in Northern California and the Central Coast region. Management duties include the oversight of PMC staff for all planning and environmental compliance projects, as well as hands-on project management and on-call consultation service for local clients. Mr. Stearn has over 20 years of professional planning experience, including the preparation of CEQA/NEPA compliance documents, review and processing of current planning applications, advance planning projects (general plans, general plan amendments, specific plans, and area/community plans), visual impact analyses, coastal permits and special projects.

## RELEVANT PROJECT EXPERIENCE

**County of San Luis Obispo, Conservation and Open Space Element Update and EIR.** Served as PMC's principal-in-charge for the County's Conservation and Open Space Element (COSE) update and EIR. The COSE consolidates and updates existing General Plan elements, including the Conservation, Esthetic, Historic, Open Space, and Energy elements, and integrates new issues and policies, such as greenhouse gas emissions reductions, climate change response and adaptation, and sustainability. Key topics in the element include water, biological, cultural, air quality, visual, open space, soil, and energy resources. The element won the State Comprehensive Planning award from the Association of Environmental Professionals in 2010 and the Comprehensive Planning award from the Central Coast Section of the California Chapter of the American Planning Association.

**San Luis Obispo County, Bob Jones Pathway EIR.** The proposed project will result in a separated Class I trail, where possible, for a distance of approximately 4.5 miles between the Octagon Barn in south San Luis Obispo and the existing Bob Jones Trail at the Ontario staging area (near the Salisbury Winery at the intersection of Ontario Road and San Luis Obispo Creek). The existing route places bicyclists immediately adjacent to motorists and requires a physically dangerous at-grade crossing that places riders adjacent to queued motor vehicles and their associated fumes. The proposed project will provide an improved and

### EDUCATION

BA, Environmental Studies,  
University of California, Santa Cruz

### PROFESSIONAL AFFILIATIONS

American Planning Association  
Association of Environmental Professionals

TAD STEARN  
*LCP Project Manager*

safer route for bicyclists and new opportunities for pedestrians, which will encourage greater use by families and users of all ages and abilities.

**City of Morro Bay, Former Texaco Sales Terminal Pipeline Removal.** Prepared the Initial Study and Mitigated Negative Declaration for a Coastal Development Permit and Grading Permit to allow the removal of existing facility piping and several concrete features from this site on North Main Street. The project allowed the proper decommissioning and removal approximately 4,500 linear feet of underground pipeline and remnant materials, including contaminated soils. Primary issues were biological resources along Alva Paul Creek, disposal of hazardous materials, and noise.

**Salinas Valley Solid Waste Authority, Crazy Horse Sanitary Landfill Closure Project Mitigated Negative Declaration.** A Post-Closure Maintenance Plan would be implemented for Crazy Horse Sanitary Landfill (CHSL) by the Authority after certification of closure. Implementation would continue for the 30-year post closure period as prescribed by law. The Maintenance Plan includes the details regarding the operation and maintenance of the landfill's environmental control system, operation of the aforementioned small recycling center and ABOP facility, solar based power generation system, and landfill gas-to-energy facility, final cover maintenance, access road and internal haul roads maintenance, and other activities consistent with federal, state and local law. The Recycling Center would be operated under 14 CCR, 17402.5(d).

**City of Seal Beach, Update to the Local Coastal Program.** The update to the City of Seal Beach's LCP will pick up where the existing 2008 document left off in terms of content and processing. The 2008 draft LCP is understood to provide the framework for this update; however, to move the effort forward, it will be critical to understand the extent of the Coastal Commission's previous comments and the reasons why the document was not ultimately approved.

**City of Seaside, Local Coastal Program Certification and Environmental Review.** Prepared the Local Coastal Program Amendment Application, assisted in the preparation of the City's Local Coastal Program (LCP) Land Use Plan (LUP) update, the City's Coastal Implementation Plan (CIP), and Initial Study/Negative Declaration and subsequent Addendum. Assisted City staff with all steps of the Local Coastal Program amendment certification process. Worked with City and Coastal Commission staff to make necessary modifications to the LCP prior to Coastal Commission's review and approval. Assisted with the preparation of the Initial Study/Negative Declaration and subsequent Addendum upon Coastal Commission's approval of the LCP with modifications. Assisted with the preparation of presentation materials for local agency and Coastal Commission hearings.

**County of Monterey Resource Management Agency, Housing and Redevelopment Office, Castroville Community Plan Environmental Impact Report and Local Coastal Plan**

**Amendment.** Assisted in the preparation of a program-level EIR for the Castroville Community Plan, a long-range plan designed to direct growth and development in a manner that enhances the quality of life in the community of Castroville, located in unincorporated Monterey County. The proposed Community Plan included construction of approximately 1,655 residential housing units, 52,000 square feet of commercial uses, 13,000 square feet of public facilities, 130 acres for industrial uses, and approximately 77 acres of parks. Growth in the community plan is focused within five opportunity areas: Merritt Street Corridor Opportunity Area, Cypress Residential Opportunity Area, Commuter Train Station Opportunity Area, North Entrance Opportunity Area, and New Industrial Opportunity Area. The major environmental issues addressed in the EIR included agricultural resources, air quality, biological resources, noise, hydrology and water quality, noise, public services, and transportation and circulation.

**City of Capitola – EIR for the Lent House Project.** Project manager on this EIR for the City to evaluate the environmental issues associated with the demolition and rebuild of a potentially historic single-family residence. In addition to the residence's eligibility for the National and Historic Registers, the Lent House was identified as a local landmark due to its prominent location on a bluff-top overlooking Capitola Village. The EIR evaluated the environmental issues associated with the proposed demolition and rebuild, including potential impacts to aesthetic and visual resources, potential loss of archeological and historic resources, and land use issues within the context of the City, the Local Coastal Program, and California Coastal Act policies.

**Fort Ord Reuse Authority – Beach Stormwater Outfall Removal Project. Project manager for a multi-jurisdictional project involving a series of federal, state, and local permits.** The project involved the removal of four massive ocean outfall pipes on federal land to be deeded to the California Department of Parks and Recreation. In addition to preparing the CEQA/NEPA documentation (a joint Initial Study/Environmental Assessment), PMC outlined each permit required to remove the stormwater outfall pipes. PMC secured the Coastal Development Permit on behalf of FORA.

**City of Half Moon Bay – Church Street Subdivision.** Mr. Stearn served as an extension of City staff to review a proposed subdivision and prepare the Initial Study/Mitigated Negative Declaration on a 5.8-acre parcel in the downtown area adjacent to Highway 1. The proposal included 20 residential units and up to 10,000 square feet of commercial space. The site was heavily constrained by the Pilarcitos Creek riparian area setback requirements. Key issues involved removal of a windrow of

TAD STEARN  
*LCP Project Manager*

Monterey cypress trees, Highway 1 encroachment, Local Coastal Program consistency, and water quality assurances related to the creek.

**City of Half Moon Bay – Agency Staffing Contract Manager.**

PMC has provided contract planning services to the City periodically for several years. Mr. Stearn manages PMC’s contract to provide qualified planning staff to process permits, review projects, and provide assistance to the public.

**City of Hermosa Beach General Plan and Local Coastal Plan.**

Responsible for the Coastal Land Use Plan component of this comprehensive update to the City’s General Plan.

**Monterey County Housing and Redevelopment Office, Artichoke Avenue Initial Study.**

Project manager for the environmental review of this important County roadway project designed to improve safety conditions at the Highway 1/Highway 183 intersection in Castroville. The project involved several sensitive issues such as agricultural land conversion, wetlands, coastal zone policy consistency, and habitat restoration strategies.

**City of Seaside Comprehensive LCP Update.** Project director for this overhaul of the City’s 1983 Local Coastal Program (LCP) document. The update integrates the LCP by combining policies and development standards of the City that have been segmented throughout its current planning documents. Key planning goals of the City addressed by the update include improving community connectivity via the Monterey Bay Coastal bikeway/pedestrian trail, which accommodates an estimated 2 million users annually, and the preservation of the renowned scenic views of the Pacific Ocean viewable from the City’s segment of the Monterey Bay Coastal bikeway/pedestrian trail. The update also incorporates key sea level rise adaptation, wetland conservation, and habitat restoration policies. In addition to updating the 1983 LCP document, PMC also completed the associated environmental review for the update.



# Michael Kennedy

## AICP, LEED AP

Senior Transportation Planner

### About

Michael Kennedy's areas of expertise include campus master plans, mobility plans, specific plans, pedestrian and bicycle plans, transit station area plans, and sustainability. Michael is project manager for Fehr & Peers on the Union Station Master Plan, focusing particularly on transit, bicycle, and pedestrian access planning. He was Fehr & Peers' project manager for several campus master plan projects, including the Loyola Marymount University Master Plan, the Biola University Master Plan, the Jet Propulsion Laboratory Master Plan, and the Tzu Chi Master Plan. He has also led campus pedestrian and bicycle safety studies for Loyola Marymount University, an ongoing bicycle and transit study for the University of California, Santa Barbara, and several elementary and high school projects of the Los Angeles Unified School District. He also recently prepared a Transportation Demand Management (TDM) plan for Loyola Marymount University.

### Education

Master of Urban & Regional Planning, California State Polytechnic University, Pomona, CA, 2007  
Bachelor of Arts, Music, Wesleyan University, Middletown, CT, 1999 (Phi Beta Kappa)

### Affiliations

American Planning Association (APA)

### Professional Certifications

American Institute of Certified Planners  
Leadership in Energy & Environmental Design Accredited Professional (LEED AP)

### Project Experience

#### **Shade Hotel Traffic Impact Study, Redondo Beach, CA**

Michael managed Fehr & Peers' traffic study to assess the potential for traffic impacts associated with the proposed Shade Hotel Redondo Beach project. Detailed event traffic analyses were conducted, and a mitigation package that included hotel shuttles, as well as other travel demand management strategies was prepared.

#### **Manhattan Beach Mobility Element**

Fehr & Peers is leading the Complete Streets evaluation and developing the bicycle and pedestrian project list in collaboration with the City of Manhattan Beach for the update of the Mobility Plan. Pedestrian and bicycle projects are being developed based on evaluation of collision hotspots, grade, traffic volumes, and other metrics. Michael is Project Manager.

#### **Loyola Marymount University (LMU) Master Plan Traffic & Parking Analysis, Los Angeles, CA**

Michael was project manager for the EIR traffic and parking study for the LMU Master Plan. Fehr & Peers conducted an empirical trip generation study and detailed campus inventory and occupancy study to calculate trip and parking demand rates per FTE student. These rates were used to calculate trip generation and parking demand associated with the master plan's FTE student enrollment cap. Fehr & Peers also conducted a trip generation study of an on-campus residence to quantify the different trip generating characteristics of campus residents versus campus commuters. A traffic and parking impact study was prepared, and a parking phasing plan and mitigation plan (which included transportation demand management strategies) was developed to mitigate significant project impacts.



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# Michael Kennedy, AICP, LEED AP

Senior Transportation Planner

## **Biola University Campus Master Plan EIR, La Mirada**

Michael was Project Manager for the traffic and circulation study for the Biola University Campus Master Plan EIR. Fehr & Peers performed a detailed GIS evaluation of student and employee residence locations to determine a trip distribution pattern for the traffic study. An empirical trip generation study was conducted at all of the campus' driveways to determine a vehicle trip rate per FTE student. Trip generation for the Master Plan was estimated using the empirically derived trip generation rates applied to the future FTE enrollment cap. Intersection LOS was calculated at 28 study area intersections (located in several jurisdictions) for existing and cumulative conditions, and the potential for project trips to impact intersections was evaluated based on the impact criteria of the jurisdiction responsible for the intersection. Mitigation measures, which included a TDM program and intersection reconfigurations, were developed to mitigate project impacts. An event traffic analysis was prepared, as was a pedestrian safety analysis for routes from off-campus residential properties to the campus.

## **Los Angeles Union Station Master Plan**

As part of the team, Fehr & Peers is providing expertise in all aspects of surface transportation and the relationship between transportation and land use. The multimodal approach includes the relationship and interface between people arriving and connecting via all modes of travel and is focused on the experience and connection to the both the history and the future of this iconic station. Fehr & Peers is working to provide a management plan for parking as it relates to the station and supports new development. Our approach will translate into guidance toward creating an optimal transit-oriented district. Our expertise will inform the project from early testing of concept alternatives through development of the final master plan. Specific areas of our involvement will include transit (rail and bus), pedestrian and bicycle access enhancements, development trip generation analysis, and supporting alternatives development and evaluation for high speed rail integration. Michael is project manager on the project, with particular emphasis on transit, bicycle, and pedestrian access planning elements.

## **Jet Propulsion Laboratory (JPL) Master Plan, Pasadena**

Michael served as Fehr & Peers' project manager for the JPL Master Plan. He led the evaluation of on- and off-Lab transportation existing conditions at JPL, and identified opportunities and constraints related to transportation,

which included transit service, shuttle service, parking supply, and the Lab's Travel Demand Management (TDM) program. Fehr & Peers estimated parking supply needed to accommodate future parking demand, and evaluated a variety of alternatives to accommodate needed parking supply. Fehr & Peers developed policy and program recommendations to reduce employee vehicle trips and parking demand, such as the implementation of a shuttle program.

## **Buddhist Tzu Chi Foundation Master Plan, San Dimas**

Michael served as Fehr & Peers Project Manager for the Buddhist Tzu Chi Foundation Headquarters Master Plan. Fehr & Peers conducted a trip generation and parking demand study of the existing headquarters, which was used to develop trip and parking demand rates for the existing campus employee, volunteer, and visitor population. Fehr & Peers also prepared a work schedule and commute mode evaluation of employees and volunteers, and an event schedule evaluation of visitors to determine when trips occur on campus. Using these data, Fehr & Peers estimated future trip generation, parking demand, and parking accumulation for the proposed Master Plan. Based on projection of future conditions, Fehr & Peers made recommendations for vehicular access and circulation needs. Fehr & Peers also estimated the increases in campus parking supply needed to support growth, and made recommendations for optimizing the operations of campus parking. Fehr & Peers provided input to the design team related to pedestrian circulation on the campus.



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# John Muggridge, AICP

Principal

## About

Mr. Muggridge, AICP has over 16 years of experience in transportation planning and engineering, both in England and in the United States. As a transport planner, Mr. Muggridge has research and analysis experience in both the private and academic sectors. John is experienced in multi-disciplinary transportation and research projects, including multi-modal transportation planning projects and travel demand forecasting. He has authored numerous reports, managed and participated in a large range of transportation planning, traffic engineering, and parking studies for both private and public clients in Southern California and Hawaii. He also has extensive experience in conducting parking and circulation studies, traffic impact studies, downtown parking studies, long-range transportation plans, corridor studies and specific plans. John has worked with interdisciplinary teams to develop consensus on a wide range of transportation improvements.

## Education

Master of Science, Transportation Planning and Engineering, University of Leeds, Leeds/UK, 1999  
Bachelor of Engineering, Mechanical and Process Engineering, University of Sheffield, Sheffield/UK, 1996

## Affiliations

American Planning Association (APA)

## Professional Registration

American Institute of Certified Planners (021879)

## Project Experience

### **Warner Center Rocketdyne Master Plan**

The project will involve the redevelopment of a 47-acre parcel inside the Warner Center Specific Plan area in the City of Los Angeles, California. The current project's concept plan includes a broad range of mixed uses. Fehr & Peers is responsible for preparing the automobile, transit, and alternative mode sections for the transportation element of the EIR. Fehr & Peers is providing input to the project team on development issues for the project site, including advice on circulation issues and constraints, potential access schemes and coordination with the City of Los Angeles. This analysis includes details on the traffic-related impacts, mitigations proposed to minimize those impacts and a calculation of the impact fees associated with the final project. Mr. Muggridge is Principal-in-Charge.

### **Expo and Crenshaw Transit Neighborhood Plans**

Fehr & Peers served the City of LA in their "Transit Neighborhood Planning" for 10 future light rail stations along the Crenshaw and Expo lines. The project included new land use and streetscape regulations, general plan amendments, and specific plans for five of the stations. Our approach to trip generation, parking demand estimation, and transportation evaluation was informed by the City's new and innovative approaches to transportation evaluation contained in the LA2B update to the circulation element. Fehr & Peers' combination of experience with market based private development impact analysis and our citywide efforts on LA2B came together to meet the City's desire to incentivize an appropriate mix and density of land uses, foster economic development, improve ridership, provide and maintain affordable



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housing, and enhance the quality of the built environment. Mr. Muggridge is Project Manager.

## **Mandalay Beach Hotel Traffic and Parking Study, Oxnard, CA**

Fehr & Peers conducted a site reconnaissance with the project team and prepared preliminary traffic generation and parking demand analysis to evaluate potential expansion of the Mandalay Beach Hotel located in Oxnard, California. As part of the preliminary analysis, Fehr & Peers coordinated with City staff regarding potential traffic issues and subsequently prepared estimates of potential traffic impact fee and cost of traffic related improvements associated with the expansion of the Hotel. Mr. Muggridge was Principal-in-Charge.

## **Santa Barbara/Ventura US 101 HOV Lane Traffic and Circulation Study**

Mr. Muggridge, as Project Manager, prepared a traffic and circulation study in support of the environmental documentation for the proposed Santa Barbara/Ventura US 101 HOV project. A key issue addressed was the potential impacts of the proposed closure of the Mussel Shoals and La Conchita median openings on access to Mussel Shoals and La Conchita. Traffic projections were prepared and impact analyses conducted for the project opening year and for the design year 2036 (at least 20 years beyond the project opening year). The study built on the analyses conducted in support of the Draft Project Report and the Draft Traffic Analysis prepared for the project by Caltrans and updated and supplemented them to reflect potential project design changes, changes to existing and future analysis years, changes to anticipated traffic growth, etc., subsequent to their preparation. The scope of the traffic analysis included intersection and ramp analyses in addition to mainline analyses.

## **NFL Rose Bowl Study**

Fehr & Peers analyzed the potential for traffic impacts resulting from the temporary use of the Rose Bowl in Pasadena by the National Football League (NFL). The proposed project would temporarily allow up to 25 Displacement Events to occur for up to a 5-year period at the Rose Bowl Stadium. The proposed project would allow the NFL to use the Stadium as a temporary location for an NFL franchise. The maximum permitted attendance for NFL games at the Stadium would not exceed 75,000 people and no new construction or additions are proposed to the

Stadium. Detailed intersection capacity analysis was conducted at 66 intersections in the vicinity of the project site for weekday evening and late night hours and weekend midday and evening hours. Fehr & Peers also conducted a parking analysis for the Rose Bowl and Parsons Site. Three alternatives to the proposed project were evaluated including a no build alternative, a reduced attendance alternative and a non-NFL event alternative. Mr. Muggridge was Principal-in-Charge.

## **TIMPs for the West Adams, Boyle Heights and Westchester Community Plan Updates**

As part of the City of Los Angeles New Community Plan (NCP) program, Fehr & Peers prepared Transportation Improvement and Mitigation Programs (TIMPs) for the Los Angeles Department of City Planning (LADCP) and Department of Transportation (LADOT) for the West Adams Community Plan area, the Westchester Community Plan area and the Boyle Heights Community Plan area. Mr. Muggridge served as Project Manager for each of the CPU updates. The projects developed focused travel demand forecasting models for the CPU areas from the Southern California Association of Governments (SCAG) model. The projects also prepared Year 2030 travel forecasts for various planning scenarios and both identified and evaluated potential transportation improvements. These improvements ranged from physical infrastructure improvements to transit system improvements and transportation demand management (TDM) measures. The studies also included a regional circulation analysis in accordance with Congestion Management Program (CMP) requirements and the development of a monitoring program. The documentation of the transportation element was structured so that it could be easily incorporated into the California Environmental Quality Act (CEQA) documentation for the community plan area.



# Spencer Reed, EIT

Transportation Engineer

## About

Spencer earned his Bachelor of Science in Civil Engineering from California Polytechnic State University, San Luis Obispo. His project experience includes microsimulation modeling and analysis, traffic impact studies, travel demand modeling, and bicycle planning. He has conducted field data collection for projects throughout of the greater Los Angeles area and southern California. Spencer is proficient in a variety of analysis and design software platforms including VISSIM, Synchro, Traffix, and AutoCAD. He has actively been involved in the LAX Model Development and Specific Plan Amendment Study, the NFL Rose Bowl Study, and Apple Campus 2 Transportation Impact Analysis.

## Education

Bachelor of Science, Civil Engineering, California State Polytechnic University, San Luis Obispo, 2011

## Affiliations

American Society of Civil Engineers (ASCE)  
Institute of Transportation Engineers (ITE)

## Professional Registration

Engineer-in-Training, California (139046)

## Project Experience

### **University of California Santa Barbara San Joaquin EIR**

Fehr & Peers is preparing a traffic study for the environmental document for the expansion of the proposed San Joaquin Housing Project at the UCSB campus. The project would increase the number of beds at the proposed San Joaquin Housing project from the original expansion that was developed in UCSB Long Range Development Plan. Fehr & Peers was on the project team that was responsible for the creation of the LRDP.

The project study area is split between three different jurisdictions that require different analysis methodologies. Fehr & Peers staff conducted fieldwork and worked closely with the client to understand potential issues and develop appropriate solutions. In addition, the client asked Fehr & Peers to create a proposed bike and transit plan for the housing project. The proposed plan used the first implementation of protected bike lanes around the UCSB campus. Spencer conducted all of the fieldwork and analysis for the project, verified existing project changes, and was instrumental in the development of the bicycle plan.

### **LAX Model Development and Specific Plan Amendment Study**

Fehr & Peers is undertaking a transportation analysis for the LAX Specific Plan Amendment Study (SPAS). Los Angeles World Airports (LAWA) developed the LAX Master Plan to provide a strategic framework for future development of the airport. The SPAS process is intended to identify potential alternative designs, technologies and configurations for the LAX Master Plan program.



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The study involves the development of a sub-area travel demand model based on the SCAG regional travel model, and Fehr & Peers is responsible for the analysis of the off-airport surface transportation system. The travel model will produce traffic forecasts that provide the basis for assessing and solving operational traffic impacts associated with the SPAS. Project alternatives along with the associated increase in annual passengers will be analyzed. Spencer collected field data and verified mitigation feasibility at many of the project study intersections. In addition, Spencer aided in the analysis of project alternatives and graphics development.

### **Apple Campus 2 (Cupertino, CA)**

Fehr & Peers assisted the City of Cupertino in the preparation of a Transportation Impact Analysis to be included in the EIR for the proposed Apple Campus 2 project. The project is located within the North Vallco Master Plan area at the northeast corner of the City of Cupertino. The proposed project will replace approximately 2.7 million square feet (s.f.) of existing partially occupied office space spread over multiple buildings, including some buildings formerly owned by Hewlett-Packard. In the buildings' place will be a unique circular 2.82 million-s.f. building located in the northern part of the project site and 0.30 million s.f. of research facilities along the eastern side of Tantau Avenue - for a total size of 3.12 million s.f. The project description includes closure of Pruneridge Avenue between Tantau Avenue and Wolfe Road.

The study analyzed over 50 intersections and ten freeway segments on I-280 and SR 85. The analysis also focused on pedestrian, bicycle, and access, including mobility measures to reduce the impact of the proposed closure of Pruneridge Avenue. Fehr & Peers worked closely with City staff to determine the adequate level of analysis and to provide innovative mitigation measures. Spencer developed a microsimulation model of the proposed Apple Campus 2 project area to determine the extent and severity of traffic queues and delays at the surrounding intersections. Model development included creation, calibration, and analysis determination. The model was used to develop a variety of physical improvements at the project site and surrounding intersections.

### **NFL Rose Bowl Study**

Fehr & Peers analyzed the potential for traffic impacts resulting from the temporary use of the Rose Bowl in Pasadena by the National Football League (NFL). The proposed project would temporarily allow up to 25 Displacement Events to occur for up to a 5-year period at the Rose Bowl Stadium. The proposed project would allow the NFL to use the Stadium as a temporary location for an NFL franchise. The maximum permitted attendance for NFL games at the Stadium would not exceed 75,000 people and no new construction or additions are proposed to the Stadium. Detailed intersection capacity analysis was conducted at 66 intersections in the vicinity of the project site for weekday evening and late night hours and weekend midday and evening hours. Fehr & Peers also conducted a parking analysis for the Rose Bowl and Parsons Site. Three alternatives to the proposed project were evaluated including a no build alternative, a reduced attendance alternative and a non-NFL event alternative. Spencer collected field data and conducted the analysis for the proposed project. He developed mitigation for traffic impacts and verified feasibility with additional field measurements.