Applicant's Prehearing Conference Statement

Application for Certification (08-AFC-5)
Imperial Valley Solar, LLC

Submitted to:
Bureau of Land Management
1661 S. 4th Street, El Centro, CA 92243

Submitted to:
California Energy Commission
1516 9th Street , MS 15, Sacramento, CA 95814-5504

Submitted by:
Imperial Valley Solar, LLC
4800 N. Scottsdale Road, Suite 5500, Scottsdale, AZ 85251

With Support From:
URS Corporation

March 2010

URS

March 23, 2010

Mr. Christopher Meyer
Project Manager
Attn: Docket No. 08-AFC-5
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

Subject: Imperial Valley Solar (formerly Solar Two) (08-AFC-5)
Applicant's Prehearing Conference Statement
URS Project No. 27657103.00209

Dear Mr. Meyer:

On behalf of Imperial Valley Solar (formerly SES Solar Two), LLC, URS Corporation Americas (URS) hereby submits the Applicant's Prehearing Conference Statement.

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to submit on behalf of Imperial Valley Solar, LLC.

Sincerely,

Angela Leiba
Project Manager

AL: ml

URS Corporation
1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108
Tel: 619.294.9400
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STATE OF CALIFORNIA

Energy Resources Conservation and Development Commission

Application for Certification for the Imperial Valley Solar Project (formerly Known as SES Solar Two Project) Imperial Valley Solar, LLC	)))))	Docket No. 08-AFC-5

Applicant's Prehearing Conference Statement

March 15, 2009

Allan J. Thompson
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Orinda, CA 94563
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STATE OF CALIFORNIA
Energy Resources Conservation and Development Commission

Application for Certification for the Imperial Valley Solar Project (formerly Known as SES Solar Two Project Imperial Valley Solar, LLC	)	Docket No. 08-AFC-5

On February 12, 2009 CEC Staff and BLM issued a "Staff Assessment and Draft Environmental Impact Statement and Draft California Desert Conservation Area Plan Amendment". Applicant has reviewed this document and has certain comments and suggestions to make to the agencies. Applicant is committed to reduce, to the extent possible, areas of disagreement between ourselves, the agencies and other parties. However, due to scheduling difficulties, Applicant must address all areas not currently resolved in this proceeding. We are hopeful that we will be able to reduce the outstanding issues prior to hearings.

Please note that Applicant desires to submit testimony on the elements necessary for an "override" determination by the Commission. Despite the best efforts of the parties, and conditions of certification which diminish the project's impacts, it may be impossible to mitigate impacts to a less than significant level.

Applicant's response to the questions requested to be addressed in the prehearing conference statement are discussed below. Please note that these topics are subject to change pending the outcome of workshops to be held later this month.

1. The topic areas that are complete and ready to proceed to evidentiary hearings.

   All topic areas are ready to proceed to evidentiary hearings.

2. The topic areas that are not complete are not yet ready to proceed to evidentiary hearings, and the reasons therefore.

   There are no topics that are not ready for hearings.

3. The topic areas that remain disputed and require adjudication, and the precise nature of the dispute for each topic.

   The Applicant believes the following topics remain disputed:

(a) Biological Resources. The SA/DEIS raises concerns regarding the biological impacts from construction of the reclaimed water line and whether the proposed mitigation is sufficient. Applicant will address these issues and suggest revisions to the Conditions of Certification as specified in attachment D.

(b) Cultural Resources. The SA/DEIS raises uncertainties in the evaluation of cultural impacts. Applicant believes cultural impacts will be adverse and cannot be mitigated to a level less than significant.

(c) Soils. The SA/DEIS questions whether impacts related to soil erosion, sedimentation and stream morphology could be considered "significant". Applicant will testify that such impacts, with mitigation, will be less than significant.

(d) Water. The SA/DEIS proposes extensive reporting of potable water usage. Applicant will suggest that this reporting is unnecessary. With regard to reclaimed water, we believe that the cost of reclaimed water is not necessary to a decision in this application. Applicant will present information on the adequacy of the projects water supply and backup water supply.

(e) Noise. The SA/DEIS (NOISE-6) contains restrictions on the project work day and work week. Applicant believes these restrictions are unnecessary and will result in a needless restriction on construction of this renewable resource.

(f) Visual Resources. The SA/DEIS proposes set-backs, fencing and equipment painting that the Applicant believes are unnecessary and, in some cases, would reduce the size of this renewable Project. Applicant will present testimony on these issues and propose alternate mitigation. Applicant will also present testimony on glint and glare that will obviate the need for creating a glare mitigation plan. Applicant believes that a Commission "override" should be considered as a project of this magnitude is anticipated to result in unavoidable and unmitigatable visual impacts.

(g) Land Use. The SA/DEIS identifies impacts to recreational land uses that the applicant believes are incorrect and will present testimony on the issue.

(h) Cumulative Impacts. Applicant believes the record would benefit from a more complete discussion of cumulative impacts and will present testimony on cumulative impacts at a regional level.

(i) Alternatives. The Applicant is concerned that the alternatives analysis did not address the feasibility of the alternatives, particularly the 300 MW and the alternatives intended to avoid construction in the washes.

4. The identity of each witness sponsored by each party (note: expert witnesses must demonstrate professional expertise in their area(s) of testimony; the topic area(s) which each witness will present; a brief summary of the testimony to be offered by each witness; qualifications of each witness; and the time required to present direct testimony by each witness.

   Attachment A hereto contains the witness names, topic areas, a brief summary of the proposed testimony and the time required for direct examination.

   Attachment B hereto contains resumes for all Applicant witnesses.

5. Topic areas which a party desires to cross-examination witnesses, a summary of the scope of such cross-examination, and the time desired for such cross-examination.

   Applicant reserves the right to cross-examine witnesses for the CEC Staff and BLM staff in the following areas:

Biological Resources	Required buffer zone and impacts	20 minutes
Cultural Resources	Impact conclusions	20 minutes
Soils	Impacts and sufficiency of mitigation	10 minutes
Water Resources	Potable water and reclaimed water	20 minutes
Noise Resources	Work day and work week restrictions	10 minutes
Visual Resources	Necessity of proposed mitigation	20 minutes
Land Use	Recreation impacts	10 minutes

   Applicant reserves the right to cross-examine witnesses of other parties contingent on the outcome of the workshops and the receipt and review of their testimony.

6. A list identifying exhibits and declarations that each party intends to offer into evidence and the technical topics to which they apply;

   Attachment C hereto lists Applicant's proposed exhibits.

7. Briefing dates (if needed) and other scheduling matters:

At this time Applicant does not believe briefing is necessary. However, if legal issues arise during the workshops and/or hearings which the Committee or parties believe deserve briefing, Applicant suggests these issues be discussed at the Prehearing Conference, and on the last day of hearings.

8. For all topics, the parties shall review the Proposed Conditions of Certification listed in the Staff Assessment (SA) for enforceability, comprehension, and consistency with the evidence, and submit any proposed modifications.

   Attachment D hereto lists changes to proposed Conditions of Certification

ATTACHMENT A

Applicant's Witnesses, Topic Areas, Testimony summaries, Direct Time

1. Angela Leiba URS Corporation **Policy** Direct – 5 Minutes
   Ms. Leiba will sponsor the Executive Summary portion of Exhibit 1 – Applicant's AFC

2. Marc VanPatten Tessera Solar **Project Management** Direct – 5 minutes
   Mr. VanPatten will sponsor the Project Objectives/Need and portions of the Alternatives sections of Exhibit 1- Applicant's AFC.

3. Ken Kostok Tessera Solar **Project Description** Direct – 20 minutes
   Mr. Kostok will testify on project engineering and water use. Mr. Kostok will offer suggested alternate language for Condition of Certifications as outlined in Attachment D. Mr. Kostok will also discuss the necessity of deleting Condition of Certification NOISE-6 as burdensome on project construction.

4. Julie Mitchell URS Corporation **Air Quality** Direct – 5 minutes
   Public Health
   Ms. Mitchell will sponsor the Air Quality and Public Health and Safety portions of Exhibit 1 and responses to various data requests in the air quality and public health and safety areas.

5. Mike Hatch URS Corporation **Geology** Direct – 5 minutes
   Mr. Hatch will sponsor the Geotechnical/Geologic Resources and Hazards portion of Exhibit 1- Applicant's AFC and the same section of AFC supplements.

6. Matt Moore URS Corporation **Water Resources** Direct – 20 minutes
   Mr. Moore will testify to the adequacy of the projects water supply, including the backup supply, and the water section of Exhibit 1, Applicant's AFC. Mr. Moore will also sponsor various water resources exhibits and responses to various data requests. Mr. Moore will offer testimony that the loss of soils does not constitute a significant adverse environmental impact.

7. Pat Mock URS Corporation **Biology** Direct – 30 minutes
   Mr. Mock will testify to particulars of the biology of construction and operation of the reclaim water line, and will sponsor various portions of Applicant's exhibits and discuss the adequacy of mitigation to off set impacts to aquatic resources. He will offer suggested revisions to Conditions of Certification as outlined in Attachment D.

8. Rebecca Apple — AECOM — **Cultural** — Direct – 20 minutes
   Ms. Apple will testify to the various Cultural exhibits and sections of submittals, including part of Exhibit 1. Ms. Apple will also testify to the sufficiency of Applicant's measures designed to mitigate environmental impacts to a level of insignificance.

9. Lanny Fisk — URS Corporation — **Paleontology** — Direct – 5 minutes
   Mr. Fisk will sponsor the Paleontology section of Exhibit 1 and other filings.

10. Seth Hopkins — URS Corporation — **Land Use**, **Socioeconomics**, **Visual** — Direct – 25 minutes
    Mr. Hopkins will sponsor the Land Use, Socioeconomics and Visual portions of exhibit 1 and other exhibits and filings. Mr. Hopkins will testify to the cumulative impacts on land use. Mr. Hopkins will also testify that certain aspects of VISUAL-3, VISUAL-4 and VISUAL-6 are burdensome. Mr. Hopkins will support a Commission "override" in the area of Visual Impacts.

11. Noel Casil — URS Corporation — **Traffic/Trans** — Direct – 5 minutes
    Mr. Casil will sponsor the Traffic/Transportation sections of exhibit 1 and other filings.

12. Mark Storm — URS Corporation — **Noise** — Direct – 5 minutes
    Mr. Storm will sponsor the Noise section of exhibit 1 and various other filings.

13. Tricia Winterbauer — URS Corporation — **Waste Management**, **Hazardous Materials**, **Worker Safety** — Direct – 5 minutes
    Ms Winterbauer will sponsor the Waste Management, Hazardous Materials and Worker Safety sections of exhibit 1 and various other filings.

14. Carolyn Dunmire — Ecosphere — **Cumulative**, **Alternatives** — Direct – 10 minutes
    Ms Dunmire will sponsor various exhibits and portions of exhibits giving the Applicant's Cumulative and Alternatives testimony.

15. Jason Pfaff — Power Engineers — **Visual** — Direct – 20 minutes
    Mr. Pfaff will present the results of his Glint and Glare study. He will also testify on the impacts to be expected by off-site drivers on nearby roads and highways.

16. Sean Gallagher — Tessera Solar — **Overriding Considerations** — Direct – 15 minutes
    Mr. Gallagher will sponsor testimony supporting a Commission finding on overriding

Attachment B

Resumes

Angela Leiba, GISP, Vice President

Senior Project Manager / GIS Manager/Visual Specialist

Areas of Expertise

Environmental Permitting and Analysis
Energy Projects
Project Permitting/Agency Coordination
Emergency Response/Emergency Planning
GIS Modeling/Analysis, Database Application Design, Website Design
Visual Resource Studies/Aesthetics/Simulations
Military Planning Projects
Flood Modeling Projects

Years of Experience

16 Years

Education

MS Program/1994/Computer Graphics/University of California, Los Angeles
BA/1992/Computer Graphics/San Diego State University
ESRI ArcGIS 9.0, 2005
ESRI Spatial Analysis, 3-D Analysis, Palomar College, 1999
ESRI ArcView Avenue Programming, SD Data Processing Center 1999, 1997

Registration/Certifications

Certified GIS Professional (GISP), GIS Certification Institute, 2006
Certified County of San Diego Visual Resource Specialist

Overview

Ms. Angela Leiba is a Vice President and Senior Project Manager with more than 16 years of experience. Ms. Leiba oversees the Environmental Management Group (consisting of approximately 70 specialists). Her project management expertise focuses on environmental projects, energy/power projects, emergency response/planning studies, visual resource assessments, and GIS projects/programs. She has helped prepare over 30 major environmental impact reports (EIRs), more than 100 environmental assessments (EAs) or technical studies, over a dozen Application for Certifications (AFCs), and dozens of environmental impact statements (EISs). She has also Project or Task managed environmental, traffic, water resource, biological, cultural, social impact, noise, air, environmental compliance, military, and planning efforts for numerous public and private agencies. She has served as Project Manager and/or Task Manager on hundreds of projects for local, state, federal, and private agencies.

Project Experience

Energy Projects

Ausra, Inc. 180MW Concentrated Solar Power (CSP) Solar Power Plant AFC, San Luis Obispo County, CA. Project Manager for the Application for Certification for an 180MW solar thermal generating facility located within San Luis Obispo County. Ausra uses a proprietary type of solar trough called a Compact Linear Fresnel Reflector. Once licensed, this project will likely be the first utility-scale solar power project under the CEC in California. The project covers two sections of land within the Carrizo Plain area in San Luis Obispo County. Project will include agency consultation and coordination including with the California Energy Commission (as lead CEQA agency) and ACOE, USFWS, CDFG, to name a few. **($1.5M) 2006-2009**

Stirling Energy Systems Concentrated Solar Power (CSP) Solar Two Solar Power Plant AFC/EIS, Imperial County, CA. Project Manager for the 750MW solar thermal generating facility located within Imperial County. The project will cover approximately 6,500 acres and will include 12,000–36,000 solar dishes. Managed joint CEQA/NEPA documentation preparation under joint thresholds of the California Energy Commission (CEC) and Bureau of Land Management (BLM). Facilitated project-level MOU between the CEC and BLM to help expedite joint process. MOU later became a State and Federal mandate. Managing all aspects of project permitting including technical resource analysis, agency review and consultation, public involvement and scoping and post-construction monitoring, once constructed. This project will be one of the largest solar power plant projects in the world, once built. **($3.5M) 2006-2009**

Spinnaker Energy (Martifer/Bethel Energy) 106MW San Joaquin 1 & 2 Solar/Bio-Fuel Power Plant AFC, Imperial County, CA. Principal-in-Charge and permitting support for the Application for Certification for hybrid design solar thermal electric generating plants, comprising a solar field and biomass facility for each plant. The two plants will each produce up to a nominal 53.4 MW net of renewable energy. The California Energy Commission will act as lead CEQA agency for the project. **($350K) 2006-2007**

Caithness (Solenergis) PhotoVoltaic (PV) Solar Permitting, San Bernardino, CA. Provided peer review and other support for solar energy project lead by Caithness Soda Mountain, LLC (Caithness). Caithness has requested a right-of-way grant to construct and operate a 350 megawatt (MW) solar electric power generating facility on federal lands managed by the U.S. Department of the Interior, Bureau of Land Management (BLM) located in San Bernardino County, California. Assisted URS team in providing comprehensive environmental and technical support services to assist Caithness in the permitting process with the BLM and other Federal and State agencies and assisting in the land use planning for the project. **($150K) 2008-2009.**

Solar Power Plant Siting/Fatal Flaw Studies, Nautilus Energy/Starwood Power, Western US. Task Manager for GIS analysis and mapping relating to helping Nautilus Energy locate a solar power plant location in the western US. GIS siting criteria and weighed modeling were used to identify key sites based upon siting criteria that included, but were not limited to, the following: solar intensity, slope, acreage, land ownership, distance to transmission, distance to gas, and distance to reclaimed water. Fatal Flaw studies were also performed for a variety of sites that were narrowed down from the GIS siting studies performed above. **($35K) 2007-2009**

Granite Wind, LLC - Granite Mountain Wind Energy Project, San Bernardino, CA. Ms. Leiba was the visual resources task leader for this Project. Granite Wind, LLC is proposing to construct the approximate 84-MW Granite Mountain Wind Energy Project, which will be located approximately 6 miles east of Apple Valley in San Bernardino County, California, comprised of 28 turbines. The proposed project will be located on private lands and on lands administered by the BLM. Ms. Leiba authored a Visual Impact Assessment (VIA) including an interim Visual Resources Management Classification and impact analysis combining methodologies and guidelines from the BLM, US Forest Service, Federal Highway Administration, CEQA, San Bernardino County and other local agencies. This visual resource methodology and the VIA is now being used by the BLM as an agency "template" for other wind projects in the Southwest. Additionally, Ms. Leiba oversaw the preparation of the visual resources section of the Project's EIS/EIR. **($52K) 2008-2009**

AES Somerset Coal Power Plant Unloading Project, AES, Niagra County, New York. Task Manager for Visual Resource Analysis and Visual Impact Assessment (VIA) review and updates. Provided peer review and updates to the Visual Impact Assessment performed for the New York Somerset Lake Unloading Project. The AES Somerset Power Plant (Plant), in operation since 1984, is a single 675 megawatt (MW) coal-fired electrical generating unit located on the south shore of Lake Ontario in the Town of Somerset, Niagara County, New York. The project added a loading and unloading dock to the existing power plant facility. The project looked at potential visual impacts to neighboring historic landmarks. **($25K) 2008**

Visual Resource Assessment for the Lower Deschutes Wild and Scenic River, Maupin, Oregon. Visual Resource Task Reviewer for the Lower Deschutes River upgrade project. The project was on Bureau of Land Management (BLM) lands and included a proposed pipeline crossing over the river. The Deschutes River is a federal and state designated Wild and Scenic River. Visual Resource management (VRM) BLM guidelines had to be adhered to while conducting the analysis. In addition a Visual Resource Inventory and Interim Resources Management Classification had to be conducted according to federal BLM VRM policy for the project. **($25K) 2008**

Otay Mesa Generating Station Power Plant Construction Monitoring, Calpine, San Diego County, CA. Project Manager for the Construction monitoring for a 510-MW gas-fired power facility located within San Diego County. Managing all oversight for multi-year construction phasing for project including agency consultation, managing and scheduling for compliance with conditions of certification, managing sub-consultants and monitoring field efforts – and being available for on-call services whenever the Project Compliance Manager needs assistance. **($800K) 2006-2009**

Solar Power Plant Siting Study, Edison Mission Energy, Western US. Task Manager for the GIS analysis and mapping relating to helping Edison Mission Energy locate a solar power plant in the western US. GIS siting criteria and weighed modeling were used to identify key sites based upon siting criteria that included, but were not limited to, the following: solar intensity, slope, acreage, land ownership, distance to transmission, distance to gas, and distance to reclaimed water. **($35K) 2007-2008**

Bethel Energy 100MW Solar/Bio-Fuel Power Plant CEQA Documentation, Imperial County, CA. Assistant Project Manager for the Application for Certification. Small Power Plant Exemption or Environmental Impact Report (depending on project configuration). Advised client on schedules and budgets for each of these alternatives as they move forward to try and permit their facility. Project in early stages currently. The California Energy Commission or the County of Imperial will act as lead CEQA agency. **($35K) 2006-2007**

Larkspur Power Facility AFC Amendment, San Diego County, CA. Project Manager for the Post Certification Amendment for Diamond Generating Corporation (a subsidiary of Mitsubishi) to the California Energy Commission to modify the Existing Larkspur Energy Facility in Otay Mesa, City of San Diego, to add a third 45MW LM6000. The normal power plant rating will be 135MW. Facilitated all technical resource area peer review, project facilitation with the California Energy Commission and oversaw regulatory oversight from various technical resource area agency involvements. **($350K) 2007**

Starwood Midway Power Facility AFC, Fresno County, CA. Project Manager for the Application for Certification for a simple-cycle electric generating facility located within Fresno County. The facility will include two FT8-3 Swift Pac Gas Turbine Generator (CTG) units installed in a simple cycle power plant arrangement. The normal power plant rating will be 120MW. Facilitated all technical resource area peer review, project facilitation with the California Energy Commission and oversaw regulatory oversight from various technical resource area agency involvements. **($350K) 2006-2007**

Stirling Energy Systems Concentrated Solar Power (CSP) Solar One Solar Power Plant AFC/EIS, San Bernardino County, CA. Project Management team and peer reviewer for the 800MW thermal generating facility located within San Bernardino County, CA. The project will cover approximately 15,000 acres and will include over 36,000 solar dishes. Facilitated all technical resource area peer reviews, project oversight and overall guidance on joint documentation preparation, technical resource evaluation and analysis, agency input and permitting requirements, and public involvement oversight. **($2.5M) 2007-2009**

Solar and Wind Power Plant Siting Study, BP Energy, Western US. Task Manager for the GIS analysis and mapping relating to helping BP Energy locate a power plant location in the western US. GIS siting criteria and weighed modeling were used to identify key sites based upon siting criteria that included, but were not limited to, the following: solar intensity/wind generation, slope, acreage, land ownership, distance to transmission, distance to gas, and distance to reclaimed water. **($35K) 2007-2008**

Panoche Energy Center AFC, Fresno County, CA. Task Manager for several components of the Application for Certification for the Permitting of the Panoche Energy Center in Fresno County, CA. Panoche Energy Center, LLC was the applicant to the California Energy Commission. Evaluating impacts of four LMS100 natural gas-fired combustion turbine generators was part of this simple-cycle power generation project. **($35K) 2007-2008**

Bullard Energy Center AFC, City of Fresno, CA. Task Manager for the visual resources components of the Application for Certification for the Permitting of the Bullard Energy Center in the City of Fresno, CA.

Bullard Energy Center is a proposed simple-cycle electrical generating facility occupying twelve acres. Bullard Energy Center, LLC is the project applicant to the California Energy Commission. **($35K) 2007-2008**

Solar Power Plant Fatal Flaw Studies, LightSource Renewables, California/Arizona. Task Manager and Client Manager for Fatal Flaw studies relative to five sites that were previously chosen (3 in CA, 2 in AZ). A complete GIS analysis and subsequent desktop review by a variety of specialists (including water, geotechnical engineering/geology, cultural resources, biological resources, and land use) were performed. A write-up of potential fatal flaws and conclusions by each resource area, in addition to the environmental constraints map generated by the GIS system were included in the deliverables. **($125K) 2008-2009**

Gaviotta Coast Wellhead Power Project, LMS100. Task Manager for the visual resources studies for the potential permitting of a Wellhead LMS100 power project along the Gaviotta coast. Scenic highway issues were of primary concern, since the energy project location was in viewshed of the local scenic highway. Viewshed analyses and visual simulations were completed as part of these initial environmental, specifically visual resource issues for the proposed project. **($25K) 2007-2008**

NextLight, AV Solar Ranch One Project, Los Angeles, CA. Ms. Leiba was the visual resources task leader for this Project. NextLight Renewable Power, LLC is proposing to construct the approximate 230-MW Photovoltaic Solar Ranch One Project, which will be located on a 2,100-acre site in Antelope Valley, in unincorporated Los Angeles County, approximately 20 miles northwest of the City of Lancaster. The proposed project will be located on private lands and on lands administered by the County of Los Angeles. Ms. Leiba oversaw the preparation of the visual resources section of the Project's EIR consistent with CEQA, Los Angeles County and other local agencies. **($25K) 2009**

Solar and Liquid Natural Gas (LNG) Power Plant Siting Study, Chevron/Texaco, West Coast, US. Task Manager for Geographic Information System, Visual Resource, Social Economic and other analyses relating to siting potential solar and LNG power plants within the western united states. Worked directly with the Program Director to help with early environmental constraint issues. **($35K) 2006**

Starwood Power Plant Construction Monitoring, Fresno County, CA. Project Manager for the Construction monitoring for a 120MW gas-fired power facility located within Fresno County. Program Manager for compliance with all Conditions of Certification proposed in the CEC's Final Commission Decision. Documentation of all certification was included in these efforts. Managing all oversight for multi-year construction phasing for project including scheduling, reporting of conditional compliance, additional permitting, agency consultation, managing sub-consultants and monitoring field efforts – and being

available for on-call services whenever the Project Compliance Manager needs assistance. **($800K) 2008-2009**

Carson Hydrogen Power Project, Long Beach, CA. Task Manager for Visual Resources permitting relating to the proposed project. This project in a major initiative by BP Alternative Energy (in partnership with Edison Mission Energy) to use gasification technology to gasify petroleum coke (a low value refinery waste product) to produce a hydrogen-rich gas that will then be combusted in next-generation turbines to be developed by GE in order to produce electric power. **($55K) 2007**

Niland Proposed Power Plant, Small Power Plant Exemption (SPPE), Imperial County, CA. Imperial Irrigation District Peaker Development Project. Visual Resources Task Manager for SPPE Visual Resource Section. Also developed visual simulations and public meeting materials for the proposed development of a 30-acre generating station, Imperial County. **($55K) 2007**

El Centro Generating Station, Small Power Plant Exemption (SPPE), El Centro, CA. Visual Resources Task Manager for SPPE Visual Resource Section for the Imperial Irrigation District Project. Also developed visual simulations and public meeting materials for the proposed project. Development included an 80-acre treatment pond (160 acre area) and the addition of an additional generator adjacent to an existing generating station in Imperial County. **($55K) 2007**

Chevron Liquid Natural Gas (LNG) Environmental Assessments, West Coast, U.S. Task Manager for Visual Resource, Social Economic and Geographic Information System analyses for this highly controversial proposed off-shore liquid natural gas platform. Worked directly with the Program Director to help with early environmental constraint issues. **($55K) 2006**

Wind Implementation Monitoring Program, County of Riverside, California. Project Manager for the County of Riverside to evaluate the ongoing and potential additional impacts of Wind Farm Development within the region. Managed visual assessment, noise assessment, air quality study, communication systems assessment, navigation element study, fire protection study, police service element, retrofit element and biological resources components. **($136K) 2006**

San Onofre Nuclear Generating Station (SONGS) Units 2 and 3 Steam Generator Replacement Project. Task Managed preparation of a Proponent's Environmental Assessment for the California Public Utilities Commission, and participated in other aspects of project permitting, including NEPA compliance on Marine Corps Base Camp Pendleton and permitting through the California Coastal Commission. **($350K) 2003**

Cal Energy Geothermal Power Plant, California Energy Commission, California. Served as Task Manager for preparation of an

application for certification (AFC) for submittal to the California Energy Commission (CEC) for construction and operation of the Salton Sea Unit 6 (SSU6) geothermal plant power-generation facility in Imperial County, California. The SSU6 is a proposed, nominally rated, 175-megawatt (MW) merchant power plant. Ancillary facilities and three transmission line alternatives were analyzed. A complete visual resource assessment, including several visual simulations of the plant and corresponding transmission lines, were included in this effort. Over 120 GIS exhibits analyzing over a dozen technical disciplines were also created. **($350K) 2006**

Oak Valley Substation & Transmission Line Project, Southern California Edison, Riverside County, California. Visual Resources Task Manager for the installation of a new substation, re-conductoring of several transmission lines and new installation of several transmission lines in Riverside County (including the cities of Beaumont, Banning, and Calimesa). Visual simulations showing potential transmission line alternatives and the substation were included as part of this effort. Visual assessment included reviewing potential visual impacts relating to highly populated areas where new transmission lines were to be installed, including a freeway over-crossing. **($55K) 2006**

Powerplant Siting Study, ENPEX Development, Marine Corps Air Station, Miramar, CA. Task manager for GIS components of powerplant siting study. Worked to develop model of environmental and man-made constraint information, compiled GIS model and mapping elements to show areas with potential for site development. Coordinated with Air Station, agency, ENPEX and sub-consultants to identify, gather and reconcile relevant GIS data for project. **($55K) 2006**

GIS Solar Power Plant Siting Study, US Renewables Group, Western US. Task Manager for the GIS analysis and mapping relating to helping US Renewables Group locate a solar power plant in the western US. GIS siting criteria and weighed modeling were used to identify key sites based upon siting criteria that included, but were not limited to, the following: solar intensity, slope, acreage, land ownership, distance to transmission, distance to gas, and distance to reclaimed water. **($35K) 2007-2008**

Kinder Morgan Concord-to-Sacramento Pipeline, **Northern California**. Task Manager for pipeline project from Concord, CA to Sacramento, CA. **($55K)**

Kinder Morgan California-to-Nevada Pipeline, **Northern California**. Task Manager for pipeline project from Colton, CA to Las Vegas, NV. I complete environmental and man-made constraint analysis was completed as part of this project. **($160K)**

Meadow Valley Generating Project EIS, **Southern Nevada**. Task Manager for 1,000 MW, gas-fired combined cycle power plant proposed in Southern Nevada. **($115K)**

Imperial County Gas Pipeline, Pacific Gas & Electric/Foster & Wheeler, Imperial County, California. Task Order Manager in support of archaeological services for the transmission line project. **($145K)**

South Bay Power Plant Land Use/Soil/Economic Studies, EDAW/Duke Engineering, San Diego County, California. Oversaw analysis of land use, soil, and economic issues related to relocation of a power plant. **($35K)**

InterGen Transmission Line, Imperial County, California. Analyst for constraints and possible impacts as related to the project corridor. Archaeological and biological impact maps were produced for the entire corridor. **($105K)**

All-American Conversion Line 1903, ENSR, San Bernardino County, California. Analyst for possible impacts as related to archaeological resources along the project corridor. **($75K)**

Bi-National Pipeline Study, Del Mar Land Management, San Diego County, California. Task Managed constraints analysis for possible impacts as related to archaeological resources along the project corridor. **($55K)**

Valley-Rainbow Transmission Line, Power Engineering, San Diego and Riverside Counties, California. Task Manager for several alternative routes for a 500-kilovolt transmission line corridor. Biological, environmental, archaeological, and social impacts were the focus. **($135K)**

AEP Constraints and Permitting, Energy Management and Services Co., Imperial County, California. Task Manager to help analyze and identify possible environmental, biological, archaeological, and social impacts related to transmission line corridor. **($55K)**

AT&T China, US Cable Network, California State Lands Commission, China to U.S. Task Manager overseeing GIS/CAD mapping, database development, and analysis of social impacts as related to fiber optic cable networking along seafloor. GIS seafloor modeling was conducted as part of the project. **($45K)**

Imperial Irrigation District L-Line, Imperial Irrigation District, Imperial County, California. Extensive analysis and mapping was conducted to help evaluate potential cultural impacts from a proposed transmission line. **($115K)**

Environmental Projects

Port of San Diego/Airport Authority Demolition EIR, San Diego, CA. Project Manager for the EIR for the proposed demolition of existing aviation manufacturing facilities located on North harbor Drive in San Diego, CA. The project includes removal of approximately 50 existing

structures; removal of asphalt and other paving materials; removal and disposal of all hazardous and contaminated construction materials; removal and disposal of chlorofluorocarbons; cutting, capping and removal of all underground piping and utility systems, and capping storm drain and sanitary sewer laterals. Multiple agency coordination, potential historic building demolition, least tern nesting mitigation, hazardous material coordination, and coastal zone permitting required. **($415K) 2008-2009**

County of San Diego On-Call Environmental Services, San Diego, CA. 2006-2007. Project Manager for on-call environmental contract. Task orders not to exceed $500K. Environmental projects include capital improvement projects, highway projects, and other miscellaneous county-improvement projects. Over a dozen projects managed focusing on road improvement projects. Majority of projects included either biological or cultural resource tasks. Projects were typically quick-burn – received notice within a day, had resources allocated within 2-3 days, work completed in a week or two, tops. All projects completed on-time/on or under budget. **($500K) 2006-2007**

County of San Diego On-Call Environmental Services, San Diego, CA. 2008-2009. Project Manager for on-call environmental contract. Task orders not to exceed $500K. Environmental projects include capital improvement projects, highway projects, and other miscellaneous county-improvement projects. Projects included: Viejas Bridge Replacement, Summit Drive Upgrades, Woodside Drive Upgrades, Fallbrook Airport Improvements, Moosa Creek Upgrades, Lone Star Road Improvements, Tavern Road Culvert Replacement, Pauma Road Bridge Replacement, SV Bonita Road Upgrades, to name a few. **($500K) 2008-2009**

Coastal Rail Trail EIR/CE, San Diego, California. Project Manager for an EIR/CE for a proposed trail that would start near Del Mar and run south to connect to the existing Rose Canyon bike path. Three proposed Class I bike path areas are the focus: Sorrento Valley Road between Carmel Valley Road and Carmel Mountain Road, Roselle Street to Eastgate Map, and Genesee (Nobel Drive) to Gillman Drive. The project includes multiple agency review including Caltrans/FHWA, City of San Diego and others. A coastal zone permit will also be included. **($294K) 2006-2009**

El Cajon Redevelopment District GIS Webserver Project, El Cajon, San Diego County, CA. Project Manager for GIS project. Oversaw development of webserver developed in-house. Site was designed to manage real estate, environmental and other redevelopment district information in one cohesive public website. The project included meeting with the District to review needs of users and the public. Information was gathered, reviewed, updated and integrated into an on-line mapping viewer program that was linked to the District's existing website. Staff training and a step-by-step guide to usage was included in the project. **($75K) 2006-2007**

High Speed Rail EIR/EIS, Los Angeles, CA. Task Manager for preparation of visual impact assessment (VIA) and subsequent Visual Resources section for the EIR/EIS. The VA required Federal Highway Administration and Caltrans aesthetic guideline adherence. Responsible for analysis relating to the portion of the project covering Los Angeles Union Station (North end of the Station) to the Palmdale Transportation Center in Palmdale, CA. **($85K) 2006-2009**

Placer Parkway Tier I EIR/EIS, Counties of Placer, Sutter and Sacramento, CA. Task Manager for preparation of visual impact assessment (VIA) and subsequent Visual Resources section for the Tier 1 EIR/EIS. The VA required Federal Highway Administration and Caltrans aesthetic guideline adherence. Five current project alternatives were assessed as part of this proposed parkway connecting major State Highways in northern California. **($65K) 2006-2007**

SANDAG On-Call Environmental Services/I-805 Widening Project, San Diego County, CA. Ms. Leiba is serving as the Principal GIS Manager and Visual Resource Task Manager for all relevant studies under this on-call contract. All projects are transportation related within San Diego County. Presently working on study for expansion of I-805 from the Mexican Border to the 805/I-5 merge. **($85K) 2006-2009**

State Route 56/Interstate 5 Interconnections, City of San Diego, California. Deputy Project Manager and Visual Resources Task Manager for environmental and preliminary engineering tasks relating to the "connectors" project for Interstate 5 and State Route 56. Connections from southbound Interstate 5 to eastbound State Route 56 as well as the connection from westbound State Route 56 to northbound Interstate 5 were not completed as part of the initial State Route 56 project. Also managed the visual assessment relating to the project. **($300K)**

Nursery Products Composting Facility Initial Study (IS)/Mitigated Negative Declaration (MND)/Environmental Impact Assessment (EIR), San Bernardino, CA. Assistant Project Manager and Visual Resources Task Manager for the proposed development of a 160-acre biosolids/green waste composting facility, San Bernardino County. **($350K)**

San Simeon Bridge Widenings Visual Impact Assessment (VIA), San Luis Obispo, CA. Visual Resource Task Manager for preparation of visual impact assessment (VIA) for two bridge widenings in San Luis Obispo. Oak tree removal and mitigation was also a key component addressed in this assessment. The VA required Federal Highway Administration and Caltrans aesthetic guideline adherence. Visual simulations and coordination with project engineer were also included as parts of the assessment. **($35K)**

San Diego Unified School District GIS Webserver Project, San Diego County, CA. Project Manager for GIS project. Oversaw development of webserver refined in-house. Site was developed to manage school site information, environmental factors and other district information in one cohesive private/public website. The project included meeting with the District to review needs of users and the public. Information was gathered, reviewed, updated and integrated into an on-line mapping viewer program that was linked to the District's existing website. Staff training and a step-by-step guide to usage was included in the project. **($50K)**

Coastal Rail Trail Phase I Studies, City of San Diego, CA. Environmental Project Manager responsible for development of the second-half of the Coastal Rail Trail. The project is tasked with completing a bicycle/pedestrian multi-use trail from Del Mar south to the Santa Fe Depot. Helped manage project oversight, budgeting, environmental overview, public meeting support, and sub-consultant oversight. An environmental assessment and 30% engineering were the products of Phase I of the project. Phase II will consist of Final engineering and Design, once funding becomes available. **($150K) 2002**

Soil Erosion Surveys, GIS/GPS Database Collection and Plan Development, Marine Corps Air Station, Miramar, San Diego, CA. Project Manager responsible for as aspects of the project including field surveys, GIS/GPS data collection, soil survey collection, soil erosion modeling, PH soil testing, Best Management Practices (BMP) restoration, and methodology oversight for both GIS-related and Soil Survey-related data. After being devastated by the 2003 San Diego Wildfires, the Base was concerned with erosion, runoff and potential for restoration for the lands burned. The project covered 14,000ac. of soil. **($150K)**

Native Plant Restoration, Marine Corps Air Station, Miramar, San Diego, CA. Project Manager responsible for as aspects of the project including field surveys, data collection, native plant restoration oversight, and implementation oversight of Best Management Practices (BMP) for two highly eroded sites on Miramar. After being devastated by the 2003 San Diego Wildfires, the Base was concerned with erosion, runoff and potential for restoration for the lands burned. These two sites were the focus of restoration due to their proximity to highly used training areas. Managed all five years of project maintenance including oversight of subconsultant, Native Landscapes. **($100K) 2007-2011**

State Route 76 Improvements, San Diego County, CA. Task Manger for the State Route 76 improvements. Geographic Information Systems were utilized to calculate potential constraints and potential impacts for various resource areas affected by the improvements. **($50K)**

Carmel Valley Bike Feasibility Study, San Diego County, CA. Environmental Manger for the Carmel Valley Bikeway Feasibility Study.

Topics covered included traffic, noise, visual, biology and other potentially affected resource areas. **($100K)**

Southwest Division (SWDIV) Navy Facility Assessment, San Diego County, CA. Task Manger for Geographic Information System mapping and analyses for tracking progress of asset evaluation. Project included GIS conversions from AutoCAD of over 1200 facilities. Geodatabases were created including such things as, asset use, square footage, age of building and more. **($150K)**

On-call Consulting Services for Otay Land Company, Otay Land Co., LLC. Task Manager for on-call consulting services contract for 4,800-acre ownership within Otay Ranch planning area. Biological surveys and GIS analyses and mapping were major task orders for the client. **($85K)**

San Bernardino County General Plan Update, Environmental Impact Report (EIR), San Bernardino County, CA. Visual Resources Task Manger for Aesthetic/Visual Resource Issues associated with updating the county general plan. Complete EIR section and relevant write-ups were included as part of this project. **($50K)**

Unexploded Ordnance (UXO) Assessment for San Diego Unified School District, San Diego County, CA. Task Manger for Geographic Information System mapping and analyses for tracking progress of unexploded ordnance studies relating to the potential re-use of these areas for proposed school sites. **($40K)**

Miramar Landfill Raise EIS/EIR, City of San Diego, California. Task Manager for the Visual Assessment and supporting EIS/EIR. The Miramar Landfill is being evaluated for potential impacts relating to the eventual raise of twenty feet in order to accommodate additional landfill capacity. Miramar Landfill sits on land leased to the City of San Diego. Ms. Leiba also managed several efforts relating to public outreach/public meetings. Visual simulations with and without mitigation were important pieces of this evaluation. NEPA and CEQA determinations were also included as part of this effort. **($350K) 2006-2008**

State Route 46/Highway 101 West Interchange Project, Paso Robles, San Luis Obispo County, California. Visual Resources Task Manager for the VIA for interchange project. Managed oak tree mitigation and scenic highway elements as part of the project. Handled all coordination with agency leads and client to assure project was in compliance with the San Luis Obispo County Council of Governments and the Regional Transportation Plan. This was a precursor to the next phase of improvements in the region, the East interchange. **($50K) 2006-2007**

State Route 46/Highway 101 East Interchange Project, Paso Robles, San Luis Obispo County, California. Visual Resources Task Manager for the VIA for controversial interchange project. Dealt with oak tree

mitigation and scenic highway elements as part of the project. Handled all coordination with agency leads and client to assure project was in compliance with the San Luis Obispo County Council of Governments and the Regional Transportation Plan. **($45K) 2005**

Santa Barbara Ranch EIR, County of Santa Barbara, California. Visual Resources Task Manager for the EIR for the development of the Santa Barbara Ranch development. Undeveloped coastline along the scenic highway 101 was evaluated for potential impacts relating to development of a project consisting of several mansions, an equestrian farm and other ranch-style complex facilities. Undeveloped coastal bluffs, night lighting, scenic highway, and coastal zone issues were several factors that played into the visual resource/aesthetic impact determinations. Several visual simulations were also incorporated into the visual resource documentation showing various development alternatives. **($45K) 2005**

Newhall Ranch EIS/EIR, Los Angeles County, California. Visual Resource Task Manager for development project in Los Angeles County. Seven development alternatives were equally analyzed for potential visual impacts for this project. This tiered EIS/EIR document included assessing 21,000 residential units and accompanying components including several bridges. The project is highly controversial and includes Army Corps of Engineer issues relating to wetland impacts. **($65K) 2005**

North Spring Street Bridge Widening EA/EIR, County of Los Angels, California. Visual Resource Task Manager for the widening of a historic bridge within the urban core of Los Angeles County. With several potential sensitive resources in the area, the widening included several key visual resource issues including: historic structures, public art removal, oak tree removal, park area takes, train/light rail transit viewers and more. Since the widening affected several densely populated and highly unique community groups, ensuring development was handled in compliance with each community plan was also a key component of this project. **($55K) 2006-2009**

Interim Improvements for the Interstate 5-State Route 56 Interconnections, City of San Diego, California. Project Manager and Visual Resources Task Manager for initial environmental clearance and preliminary engineering for the Interim Improvements relating to the interconnection project for Interstate 5 and State Route 56. Interim Improvements included road widening, restriping, retaining wall, additional drainage/bioswale installation, and replantings. Oversaw Noise, Traffic, Biology, Water Resource and Visual Resource Technical Write-ups. Managed coordination with FHWA, Caltrans and the City of San Diego. **($85K) 2002-2003**

Cathedral City Transfer Station EA, Waste Management, Riverside County, California. Visual Resource Task Manager for preparation of an EA evaluating the proposed waste management facility in Riverside County, California. New project components included construction of a

transfer building, recycling drop-off, office, weigh station, and parking area. Specific City visual guidelines, as well as County of Riverside aesthetic standards, were of concern for this new facility. **($35K)**

Price Canyon Road Widening Visual Impact Assessment/EA, County of San Luis Obispo, California. Visual Resource Task Manager for preparation of visual impact assessment (VA) and subsequent Visual Resources section for the EA. The VA required Federal Highway Administration and Caltrans aesthetic guideline adherence. Simulations were also generated for inclusion in the documents. **($35K) 2004**

Black Mountain Water Treatment Plant EIR, County of San Diego, California. Task Manager for visual simulations and visual resource assessment assistance for an EIR for a proposed 42-acre water treatment plant within Black Mountain Ranch Subarea I boundaries. Interactive 3-D model of the water treatment plant in addition to simulations were prepared for use with the environmental documentation relating to the project. Viewshed modeling was also conducted as part of the project. **($25K) 2001**

Mariposa Composting Facility EA/EIR, Mariposa County/U.S. Forest Service, California. Visual Resource Task Manager for preparation of an EA/EIR evaluating the expansion of a landfill facility in Mariposa County, California. New project components included construction of a composting facility and lighted parking area. Lighting and glare studies were completed to comply with the area night-sky ordinance. Because of the project's rural nature and its proximity to Yosemite National Forest, visual character mitigation was also included in the assessment. Because the U.S. Forest Service was partially funding the project, an EIR was also completed incorporating several visual simulations.
California Environmental Policy Act/National Environmental Policy Act. **($35K)**

Port of Long Beach, Piers J South Marine Terminal Projects, Long Beach, CA. Task manager for three separate EIS/EIRs and Application Summary reports for a 385-acre marine terminal project to be located on Pier J South. The Project features associated with all development scenarios included landfilling (from 52 to 115 acres) submerged land, dike and wharf construction, and inter-modal rail. Additionally, the project entailed the demolition of 15 acres of terminal on Pier F to allow for Pier J The U.S. Army Corps of Engineers was the federal lead agency. **($500K) 2003**

Metropolitan Water District Habitat Conservation Program (MWD HCP), Southern California, US. Task Manger for the Geographic Information Systems (GIS) component of the project. GIS was utilized to map and analyze environmental constraints for the Water District's owned properties. Since the project area was huge, sample areas were

chosen using the GIS and each area was analyzed then compiled to form the basis for potential habitat conservation in the area. **($50K)**

Pier T Terminal Modification, Port of Long Beach, CA. As the on-call consultant to the Port of Long Beach, Ms. Leiba helped prepare the Addendum to the Long Beach Complex Environmental impact Report. The Addendum assessed the 20-acre site within the greater Pier T complex for a change from development as a ship repair facility to an expansion of adjacent container terminal facilities. **($150K) 2003**

Piers G and J Terminal Development, Port of Long Beach, California. As the on-call consultant to the Port of Long Beach, California, Ms. Leiba helped prepare of the EIR and Application Summary Report for this 315-acre marine terminal redevelopment project. The EIR evaluated the four-phased project that would be constructed over an 11-year period. Project features included landfilling 53 acres of submerged land, dike and wharf construction, inter-modal rail. **($150K) 2003**

Vegetation Management EA, Federal Emergency Management Agency, San Bernardino, California. Visual Resource Task Manager for preparation of an EA evaluating several burn sites in San Bernardino. A viewshed assessment was completed to help with overall analysis. The managed burn sites were mapped in GIS in relation to any area sensitive viewers, which helped with overall assessment of the project. **($25K)**

Edom Hill Transfer Station EA, Cathedral City, California. Task Order Manager for the Visual Resources section for Waste Management of California, Inc./Waste Management of the Desert to design and construct a 35,000-square-foot, enclosed transfer station and an adjacent 2,500-square-foot office building on 27.5 acres east and south of Edom Hill Road, near the west side of the Edom Hill Landfill in the Coachella Valley. **($35K)**

Sorrento Valley Road EIR, City of San Diego, California. Task Manager for the equal evaluation of three distinct alternatives for a 3-mile segment of Sorrento Valley Road which is closed and in disrepair since 1994, while a new pump station and a major Caltrans intersection at I-5 was constructed. The project borders the Los Peñasquitos Lagoon, which is managed by State Parks and under the joint coastal jurisdiction of the City of San Diego and the State Coastal Commission. All CEQA issues were evaluated and mapped in GIS with special emphasis on traffic and noise impacts as well as biological permitting and mitigation. Plan and Final Report were generated as part of this project. **($350K)**

Mira Sorrento Place Road Extension, City of San Diego, California. Task Manager for the civil design and environmental compliance studies associated with this road extension. Principal issues for evaluation included soils and slope stability, surface water hydrology, construction impacts, and cultural resources. Also helped prepare land use analysis

technical report. This project won an Association of Environmental Professionals (AEP) award for environmental documentation. **($85K)**

Miramar Hills Curve Realignment/Second Main Track EIR, North County Transit District (NCTD), San Diego, California. Task Manager for preparation of an Environmental Impact Report for proposed realignment and second main track through Soledad Canyon in San Diego, California. Served as task leader for land use impacts analysis and helped coordinate preparation of the Environmental Impact Report. **($85K)**

SONGS Unit 1 Reactor Pressure Vessel Transport Project. Task Managed preparation of a NEPA EA on Marine Corps Base Camp Pendleton and in other aspects of project permitting, including permitting through the California Coastal Commission. **($85K) 2002-2003**

Carmel-Valley Road Improvements, City of San Diego/Caltrans, California. Task Manager for the CEQA compliance for the controversial Carmel Valley Road Project. After extensive coordination with permitting agencies and the community, an EIR was prepared to evaluate the effects of improving Carmel Valley Road between Interstate 5 and the Pacific Coast Highway. Oversaw mapping which included potential wetland impacts due to the expansion of the roadway. **($300K) 2000**

State Route 56 EIR, City of San Diego, California. Task Manager for the State Route 56 (SR-56) EIR and associated studies. The project involved working closely with the City on preparation of biological and land use constraints analyses consistent with the MSCP and City MSCP Subarea Plan, which were finalized during the SR-56 study process. Using GIS background data, a database was updated through focused biological surveys, including surveys for sensitive chaparral plant species, the California gnatcatcher, vernal pools and San Diego fairy shrimp, and wetlands delineations. Assisted in an analysis using GIS MSCP data to facilitate a potential MSCP boundary adjustment for a parcel near the Camino Ruiz interchange. Section 404/401 and 1601 permit applications were performed using the updated MSCP dataset, and mitigation ratios were based on City MSCP plans. **($400K) 2000**

Miramar Road Pipeline Project, San Diego County, California. Task Manager for evaluating potential project impacts to noise levels, vegetation, and sensitive species in the project area. Also incorporated a VISTA (site assessment and remediation) database to evaluate hazardous materials sites in and around the project location.

Pacific Street Bridge, City of Oceanside, Oceanside, California. Task Manager for review of potential impacts relating to three proposed bridge alternatives in Oceanside California. Very controversial as bridge was within the coastal zone and above wetlands. Presented paper and won

technical symposium award on behalf of the City of Oceanside for use of innovative GIS modeling to calculate past wetland impacts.

GIS Database Development and Support, San Diego Unified School District, California. Project Manager responsible for creating a complete geospatial GIS database for ongoing analysis and Phase I environmental site assessments for 30 proposed school sites. Over 30 environmental and manmade constraint layers were incorporated. A complete historical survey of potential hazardous sites was also researched and mapped into the GIS. Over 120 exhibits were generated for ongoing environmental, Phase I, and public-outreach efforts.

McClellan Palomar Airport Noise Compatibility Study, County of San Diego, California. GIS Manager responsible for creating existing, 5-year, and 10-year projected GIS land use databases. The databases were then used to help evaluate noise conditions and help in GIS/noise modeling efforts. Over 400 GIS man-hours were used to create, update, and generate these all-encompassing databases and complete analysis for preparation of the supporting Part 150 FAA document. The final product was also converted to Global Environment Management System format for use at the airport facility. GIS models, exhibits, and materials were focal points for community planning meetings/forums.

GPS Survey and GIS Database Development, Port of San Diego, California. Project Manager responsible for overseeing field crew collection of drain, inlet, and pipe information in GPS format. A complete version of the populated data was entered into a personal geodatabase format for delivery to the client. An FGDC-standard data dictionary and complete metadata were also included in the deliverable. GPS training of Port of San Diego staff was also included so that in-house staff could make necessary future updates to the GIS database.

Otay/Kuchamaa GIS Database Development, Biological Monitoring Plan, and Cultural Resource Study, Bureau of Land Management, California. GIS Manager responsible for creating a geospatial, FGDC-standard GIS database. GIS data from over 30 private and public agencies were integrated. Over 130 data layers were compiled, reviewed, corrected, and integrated to form one consolidated, easy-to-use database for planners, biologists, archaeologists, and other specialists within the Bureau of Land Management (BLM). A complete data dictionary, including complete FGDC standard metadata, was completed for the project. Also managed installation and training for all staff at three BLM offices. Following completion of the database, a biological monitoring plan and cultural resource document were prepared. This project won the Association of Environmental Professionals' 2002 "Outstanding Environmental Solution" award.

County Trails Assessment, County of San Diego, California. Project Manager for the San Diego Trails Assessment assisting the County of San Diego (County) with preparation of a long-range strategy for non-

motorized recreational trails. The effort included completion of a comprehensive trails system assessment. The County's existing, planned, and proposed trails were documented, along with types of trails (hiking, equestrian, and biking), user groups, and frequency of use. An opportunities and constraints analysis was conducted documenting existing physical and environmental constraints, including land uses, recreation, Multiple Species Conservation Program (MSCP) lands, sensitive ecosystems, and public lands. The environmental approach describing required National Environmental Policy Act and California Environmental Quality Act documentation was also included. Alternative trail systems were evaluated with regard to environmental, public demand, and financial conditions. All conditions were mapped with GIS.

Black Mountain Water Treatment Plant EIR, County of San Diego, California. Task Manager for an EIR for a proposed 42-acre water treatment plant within Black Mountain Ranch Subarea I boundaries. The proposed site is adjacent to and partially within the Multi-Habitat Planning Area (MHPA). MSCP GIS data layers for regional vegetation, sensitive species, and the MHPA boundaries were used as baseline information for the project analysis. Imported MHPA boundaries from regional data were incorporated into project GIS maps. Findings relevant to a boundary adjustment analysis were presented in the Biological Resources section of the EIR and in the biology technical report.

Environmental Services for Emergency Storage Project, San Diego County Water Authority, California. Task Order Manager for visualization and related project components of the first five-year phase of the $760 million contract. The Authority's proposed 24,000-acre-foot reservoir and dam are key components to solving regional water-storage needs. One task was to create a "dynamic" model that could incorporate data layers from over 20 different consultants. Built this three-dimensional geospatial model in GIS for resource specialists to analyze impacts to environmental resources, including biology, cultural resources, and water quality. Won several technical/GIS awards for work on this project.

East Otay Mesa Specific Plan, San Diego County, California. Task Manager assisting the County in its efforts to amend the Specific Plan for the 3,300-acre East Otay Mesa Specific Planning Area as documented on the County's MSCP Subarea Plan. The proposed amendment would modify previously approved land use designations and conservation areas within the SPA. Analyses conducted would also be used to process a minor amendment to the County's MSCP Subarea Plan, as well as a boundary adjustment to MHPA boundaries. MSCP GIS data layers for regional vegetation, sensitive species, and MHPA boundaries were analyzed as baseline information to plan current biology field survey needs and for project analysis. The regional GIS vegetation database is being updated via ongoing surveys, and all past and current data will be assessed to revise conservation boundaries and development constraints and opportunities within the SPA.

Hopewell National Historic Park Ethnographic Overview, National Park Service, Chillicothe, Ohio. Task Order Manager for the document prepared to address park ethnography. The document focused on the park's dedication to preservation and interpretation of the Hopewell culture. The park contains nationally significant archeological resources, including large earthwork and mound complexes that provide an insight into the social, ceremonial, political, and economic life of the Hopewell people. All aspects of the project were mapped, analyzed, and presented in the document in GIS format.

Biscayne National Park Ethnographic Overview, National Park Service, Biscayne National Park, Florida. Task Order Manager providing a complete ethnographic overview of Biscayne National Park, which is in Biscayne Bay and the offshore waters along the Atlantic Coast south of Miami in Miami-Dade County, Florida. The park encompasses almost 173,000 acres and has relatively pristine estuarine and marine environments. Several off-shore GIS databases were compiled, analyzed, integrated, and exhibited for this project.

City of San Diego As-Builts Project, San Diego, CA. Project Manger for the compilation for final As-Built drawings and files for water/wastewater resource projects completed by URS over ten years ago. Tracked all final CAD fines and drawings down, updated as necessary via engineering mark-ups and presented all to City of San Diego for final processing.

Pelagic Fisheries EIS, National Marine Fisheries Service, Hawaii. Task Order Manager analyzing impacts on the human environment resulting from management of U.S. pelagic fisheries under the Fishery Management Plan for the Pelagic Fisheries of the Western Pacific Region (Pelagic FMP). Analyzed environmental impacts caused by fisheries managed under the FMP. The EIS provided a comprehensive overview of pelagic fisheries conducted under the FMP and their effects, as well as described management actions that would mitigate such negative effects. All fisheries information was cataloged, integrated into database format, and loaded into GIS for ongoing efforts.

Raising of the Ehime Maru, U.S. Navy, Southwest Division, Honolulu, Hawaii. Created the visual simulation to show the raising of the Ehime Maru, the Japanese fishing vessel sunk by a nuclear submarine in Hawaii. Worked with the Navy to help visualize raising the ship from a 6,000-foot depth to an approximately 150-foot depth to recover those that perished in the accident. Created visual simulations to show how the Ehime Maru, barge, and subsequent equipment would be positioned once the move occurred.

Salton Sea Geotechnical Study, Imperial County, CA. Task Manger for the Geographic Information Systems (GIS) component of the Salton Sea geotechnical evaluations. GIS was used to help map boring locations and track resources within the area.

Midcoast Transportation Study, San Diego County, CA. Task Manger for the traffic and transportation study of the Midcoast transportation corridors. Geographic Information Systems were utilized to help review potential constraints including slope issues and other environmental and manmade constraints potentially affecting the project.

Agua Caliente New Casino Project EA, Agua Caliente Indian Reservation, San Diego County, California. Managed the visual component for the Casino, as well as the subsequent signage components for the project. GIS and aerial images were combined to produce a base. CAD and GIS files were incorporated and extruded adding the Casino, subsequent parking structure, and later signage components to the overall assessment. Key observation points were identified and photographs from each of these points taken. The models were eventually placed in these photographs for realistic representation. **(2001)**

San Diego Unified School District Administrative Space Study, San Diego, CA As GIS and CAD Manager, provided analysis and graphics of the buildings for conducting a Space Utilization Study, development of Space Requirement Report, Alternatives and Cost Estimates, and the final report describing methodology, information obtained, alternatives considered, and preferred alternatives.

Emergency Response/Emergency Planning Projects

City of San Diego Flood Mitigation Plan, San Diego County, CA. Project Manager for the Flood Mitigation Plan (FMP). Coordinated with the City of San Diego, State Office of Emergency Services, and FEMA to coordinate a risk assessment, vulnerability analysis and complete mitigation measures for the Plan. Planning efforts also included managing public outreach measures, including hosting public meetings, flyer generation and website development with the City of San Diego. The project will allow the City of San Diego to continue to receive mitigation funding for flood-related mitigation projects from FEMA.

County Hazard Mitigation Implementation Plan, San Diego County, CA. Project Manager for the Implementation of the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (HMP). Coordinated with the County Office of Emergency Services and all eighteen incorporated cities to implement mitigation strategies identified in the HMP. Responsible for press releases, county- and jurisdictional-level working group meetings and public notices, information flyer development and GIS updates relating to the county-wide efforts.

Multi-Jurisdiction All Hazard Mitigation Plan, Municipal Water District of Orange County, CA. Deputy Project Manager for the for the preparation of a confidential hazard mitigation plan for all natural and man made hazards for 20 water districts in Orange County. Oversaw GIS coordination of assets and hazards information, Hazard analysis and write-up,

risk assessment, vulnerability assessment, and mitigation strategy preparation. Coordinated working group and district-level meetings.

San Diego Gas & Electric Seismic Study, San Diego County, CA. Task Manger for the Geographic Information Systems (GIS) component of the project. CAD and GIS were utilized to map and analyze seismic issues within right-of-ways for the San Diego Gas & Electric transmission systems and owned facilities. Geotechnical data was input into GIS and distributed to agency following the project.

Multi-hazard Mitigation Plan, Viejas Band of Mission Indians, San Diego County, CA. Deputy Project Manager for the preparation of the tribe's Hazard Mitigation Plan (HMP). Coordination of GIS efforts and write-up of Planning document. Also facilitated tribal council meetings, public and inter-agency workshops. Helped develop risk assessment, vulnerability analysis and tribe's mitigation strategy, and provided general oversight of preparation of the HMP. **(2001)**

Multi-hazard Mitigation Plan, Oregon Tribal Hazard Mitigation Plans, OR. Task Manager for the preparation of three tribal Hazard Mitigation Plans. Oversaw GIS elements for project which included a Hazard Analysis, Risk Assessment, and Vulnerability Assessment. Coordination of GIS efforts and write-up of GIS-related sections of planning document. Provided QA/QC of all GIS efforts.

US Postal Service Landslide Susceptibility Studies, Western US. Project Manager for the preparation of landslide susceptibility studies for all postal offices within the western United States. Working under an on-call contract with FEMA, URS helped evaluate potential at-risk post office locations following torrential rains in California. Focusing on California, and then moving toward the western United States, Ms. Leiba worked directly with USPS and FEMA to help with this evaluation.

Multi-hazard Mitigation Plan, Concow Maidu (Mooretown Rancheria), Sacramento Area, CA Deputy Project Manager for the preparation of the tribe's Hazard Mitigation Plan (HMP). Oversaw GIS elements for project which included a Hazard Analysis, Risk Assessment, and Vulnerability Assessment. Coordination of GIS efforts and write-up of GIS-related sections of planning document. Provided QA/QC of all GIS efforts.

Federated States of Micronesia (FSM) Multi-State Hazard Mitigation Plan, Federal Emergency Management Agency (FEMA), Government of FSM/National Emergency Management Office (NEMO). Project Manager for the multi-state FSM Hazard Mitigation Plan. As a recognized county who is eligible under compact with the U.S. for FEMA funding, the FSM government hired URS to help prepare the Plan. The FSM is made up of four states, Pohnpei, Kosrae, Chuuk, and Yap covering over 1,000,000 miles of ocean including over 605 islands. Managed extensive public outreach efforts held throughout the islands during the project. Prepared Public Participation Plan

including federal website uploads, press releases, public meeting materials/preparation/and presentations, working group participation and data collection, agency and interested party site visits and interviews and more. The Plan included a complete risk assessment, vulnerability analysis, and separate mitigation strategies for each State. **(2005)($150k)**

Guam Hazard Mitigation Plan, Federal Emergency Management Agency (FEMA), Guam. Task Manager in support of planning and GIS-related efforts for the Guam Multi-Hazard Mitigation Plan. Helped with QA/QC of Plan, GIS analysis and HAZUS-99/HAZUS-MH modeling, input to public outreach efforts, and general planning team support. The Plan included a complete risk assessment, vulnerability analysis, and mitigation strategy.

Multi-Jurisdictional Hazard Mitigation Plan, Federal Emergency Management Agency (FEMA), Office of Emergency Services (OES), County of San Diego, CA. Deputy Project Manager for San Diego County's Multi-Jurisdictional Multi-Hazard Mitigation Plan. Oversaw Plan preparation, GIS analysis and HAZUS-99/HAZUS-MH modeling, public outreach efforts, and individual jurisdiction support. The Plan (including a separate "For Official Use Only" attachment for manmade hazards) was over 750 pages, included production of over 100 maps for 18 jurisdictions and the County, and covered 4,264 square miles. Riskbasilo9 assessment, vulnerability analysis, and mitigation strategies were generated for each jurisdiction. Coordinated all working group meetings, encompassing public officials/staff, fire/police/emergency personnel, public/private organizations and citizens; over two dozen individual jurisdictional meetings, and all public meetings held over the two-year project life. Project won two awards including Outstanding Environmental Document from the Association of Environmental Professionals and a National Award through the National Association of Counties. **(2004)($250k)**

Twenty-seven (27) Single Jurisdiction Hazard Mitigation Plans, Federal Emergency Management Agency (FEMA)/Office of Emergency Services (OES), Individual Jurisdictions within County of Maricopa, AZ. Provided peer review for the twenty-seven (27) separate single-jurisdictional DMA 2000 plans for the cities within Maricopa County, Arizona. GIS review included analysis of GIS HAZUS 99/HAZUS-MH modeling results. Reviewed compilation of results for risk analysis/loss estimation portions of document.

Statewide Hazard Mitigation Plan, Federal Emergency Management Agency (FEMA)/Office of Emergency Services (OES), State of Arizona. Provided peer review for the State-wide Plan. GIS Peer review included GIS HAZUS 99/HAZUS-MH modeling results. Peer reviewed compilation of all results for risk analysis/loss estimation portions of document preparation. **(2004)**

Urban Area Security Initiative, City of San Diego/Federal Emergency Management Agency (FEMA). Participated in the analysis and compilation of a wide-variety of complex, highly confidential source data for the completion of the Urban Area Security Initiative (UASI). This project included analysis of potential hazardous materials release/weapons of mass destruction analysis, including morbidity, mortality, and damage assessments. The preparation of mitigation measures was also a component of this project.

California Firestorm 2003 Modeling/Mapping, Federal Emergency Management Agency (FEMA)/California Office of Emergency Services (OES), Los Angeles, San Bernardino, Ventura, Riverside, San Diego Counties; California. Project Manager responsible for floodplain assessment, database generation of reaches affected, and mapping of approximately 770,000 acres of presidential declared disaster burn areas in Southern California. Emergency reaches were identified and tabulated. HEC-GEORAS hydraulic models were then generated and incorporated into GIS for 5- and 100-year flood zones. Data for over 5 counties were analyzed, field verified, H&H modeled, and mapped for upload onto the Federal Emergency Management Agency website in 3 weeks. Over 100 maps were generated in only 2 days. **(2003-2004).**

Flood Modeling Projects

Digital Flood Insurance Rate Map (D-FIRM) Mapping; Federal Emergency Management Agency (FEMA), Map IX-Mainland Joint Venture, Napa County, San Mateo County, Alameda County, Marin County, Sacramento County, Sonoma County, Tulare County, Monterey County, and Solano County CA; Maui County, HA,. Project Manager for the Joint Venture Project with URS Corp. and Dewberry. FEMA is undertaking a nationwide effort to update and convert hard-copy flood maps for the entire nation to digital geographic information system (GIS) electronic data. FEMA has tasked the partnership with creating these "geodatabases" containing over fifty layers of updated flood information per County. After compiling local, state and federal data, each database was converted to federal standards and detail checked for accuracy. Once complete, quad-scale maps were produced for each county (100-200 maps per county). Each map was then quality assured/quality checked for accuracy. Agencies, local governments, and the public will utilize the geodatabases and corresponding maps to help analyze flood risks in their communities. **(2005).**

Federal Emergency Management Agency Post-Fire Floodplain Mapping, San Diego, Riverside, San Bernardino, Los Angeles, and Ventura Counties, California. Task Manager responsible for floodplain assessment, database generation of reaches affected, and mapping of approximately 770,000 acres of presidential declared disaster burn areas in Southern California. Emergency reaches were identified and tabulated. HEC-GEORAS hydraulic models were then generated and incorporated into GIS for 5- and 100-year flood zones. Data for over 5 counties were analyzed, field verified, H&H modeled, and mapped for upload onto the

Federal Emergency Management Agency website in 3 weeks. Over 100 maps were generated in only 2 days. **(2003-2004).**

Floodplain Management Study and Plan, Viejas Indian Reservation, California. Task Manager responsible for floodplain modeling, mapping, and drainage system assessment. The contract also required storm water management support, reporting, and data presentation. Floodplain modeling included historical flood information, complete topographic survey, and computer simulations/models of studied flood classes, calibrating and verifying the hydrological model to historic floods, and establishing a design flood behavior. HEC-GEORAS hydraulic models were generated through GIS.

Chollas Creek Wetlands Management Plan, San Diego County, California. Task Manager responsible for obtaining GIS data overlays, including data mapped for the MSCP study purpose and updated information. Worked with biologists to create a GIS database that included creek conditions, existing wetlands and sensitive biological resources, parcels and ownership, and planned development projects. With a HEC2 model created for this project and through intensive GIS modeling, sites along the creek needing wetlands management were identified. Also participated in development of presentation material for three community meetings using GIS/HEC-RAS three-dimensional models and information.

Rio de Flag Flood Control Study, Los Angeles Army Corps of Engineers, Rio de Flag, Arizona. Task Manager responsible for GIS modeling/mapping for the Los Angeles Corps of Engineers (LACOE) for impacts relating to possible flooding of the lower Rio de Flag drainage. Erosion-control issues were incorporated into the analysis. Three-dimensional modeling in GIS was performed using the LACOE's HEC-RAS extension. Special attention was also given to manmade alterations of the stream's channel made in the early 1900s.

Murrieta Creek Flood Control BCR and EIS/EIR, LACOE, Los Angeles, California. Working with the LACOE, Task Managed modeling to help determine possible impacts associated with the Murrieta Creek Flood Control project. Some major modifications assessed were (1) removing the B Street bridge, (2) constructing a bridge over Ivy Street, (3) replacing the Washington Avenue bridge, (4) modifying detention/collection basins, (5) assessing equestrian trails, (6) assessing bicycle/pedestrian trails, and (7) replacing the Main Street bridge. Using HEC-RAS and GIS, environmental impacts associated with these studies were mitigated. **(2000) (Task $300k)**

San Timoteo Creek EIR/EIS, Riverside, California. Complex GIS analysis and mapping was conducted to help evaluate biological, cultural, social, and other potential environmental impacts from proposed enhancements for flood control at San Timoteo Creek, which drains a watershed of approximately 126 square miles of the San Bernardino Mountains and foothills in eastern Riverside and San Bernardino counties.

The San Timoteo Creek study area falls within several small communities, including Redlands, Colton, Loma Linda, and San Bernardino, California. The study area, which includes the 100-year floodplain of San Timoteo Creek, extends along San Timoteo Creek from a short distance downstream of Alessandro Road west to the confluence with the Santa Ana River in San Bernardino.

Military Planning Projects

Naval Base San Diego Asset Evaluation, Department of the Navy, San Diego, CA. Project Manager responsible for the oversight of the drafting of the floor plans and the GIS conversion process of data into SDSFIE compliant GIS forma for updating of Property Record Cards and Facility Planning Documents of the floor plans and space utilization data for more than 800 buildings in the metro San Diego Area spread across Naval Bases Point Loma and San Diego.

Naval Special Warfare Group 1(NSWG-1), Naval Amphibious Base (NAB, Department of the Navy, Coronado, CA
As GIS and CAD Manager, provided oversight for analysis and graphics of the buildings on NAB for Asset Evaluations (AE), development of Basic Facility Requirements (BFR), and preparation of a Facilities Development Plan to support future development of NSWG-1. This project includes development of Special Project or MILCON projects to eliminate existing facility deficiencies.

Naval Base Point Loma AOP, Department of the Navy, San Diego, CA
As GIS and CAD Manager, provided oversight for analysis and graphics of the buildings on NBPL. The goal of the RSIP (Regional Shore Infrastructure Plan) was to develop a program of capital improvements which alleviate deficiencies through adaptive reuse, consolidations, facility expansions and new construction, and to reduce shore infrastructure costs associated with excess and underutilized facilities. The Overview Plan will also include recommendations for improvements to meet DoD standards for Anti-Terrorism/Force Protection.

Naval Base San Diego AOP, Department of the Navy, San Diego, CA
As GIS and CAD Manager, provided analysis and graphics of the buildings on NBSD. The goal of the RSIP (Regional Shore Infrastructure Plan) was to specifically address regional land and facility requirements from a functional point of view for Naval Base San Diego. Development included conducting data collection through site visits, questionnaires, interviews, and a visioning workshop with NBSD tenants. The RSIP identifies and aligns future infrastructure investment strategies with CNO guidance and Navy regional planning objectives of reducing footprints and costs, increasing existing capabilities and sustainability, and maximizing efficiencies.

Naval Base Coronado Asset Evaluation, Department of the Navy, San Diego, CA. As GIS and CAD Manager, provided oversight of the CAD and GIS conversion process of data into SDSFIE compliant GIS format for updating of Property Record Cards and Facility Planning Documents of the floor plans and space utilization data for more than 2,000 buildings in the metro San Diego Area.

Powerplant Siting Study, ENPEX Development, Marine Corps Air Station, Miramar, CA. Task manager for GIS components of powerplant siting study. Worked to develop model of environmental and man-made constraint information, compiled GIS model and mapping elements to show areas with potential for site development. Coordinated with Air Station, agency, ENPEX and sub-consultants to identify, gather and reconcile relevant GIS data for project.

Basilone Road Realignment, Marine Corps Base Camp Pendleton, CA. Task Manager for realignment of Basilone Road. Oversaw GIS database development, GIS mapping and analysis and all electronic database development in support of the Environmental Assessment. Oversaw coordination with Base and agency GIS contacts. **(2005) (Approx $350k).**

Advanced Amphibious Assault Vehicle, MCAS Camp Pendleton, California. Task Manager for an EA/BA and subsequent EIS. Oversaw creation of a suitability model to break down the 125,000-acre-plus military area into military maneuver suitability classes. The model analyzed slope restrictions, incorporated seasonal habitat information, and added over two-dozen environmental and manmade constraint layers. **(2000) (Approx $350k).**

Flood Repair-MCAS Camp Pendleton, MCAS Camp Pendleton, California. Task Manager overseeing extensive GIS mapping and modeling. Several environmental constraint, developmental, and flood-related layers were entered into a GIS/HEC-RAS model to help determine flood repair areas on base. Drainage information, precipitation information, and slope were just a few such entries. The model and data layers were installed at the base upon completion of the project so that the MCAS Camp Pendleton GIS department could analyze and use the data results for its ongoing future planning efforts. Specialized training was provided to the base to help with future flood-related potential impact assessments. **(2004) ($100k).**

San Clemente Island Ranges Environmental Assessment, Los Angeles County, CA. Task Manager responsible for analysis, and map preparation for the environmental assessment and Coastal Consistency Determination for Small Arms, Demolition Ranges, and Training Areas, including biological resource survey mapping/analysis and cultural resource investigation support services. **(2000) (Approx $150k)**

Regional Shore Infrastructure Plan, San Diego County, California. Task Manager responsible for analysis and mapping support for investigating three complexes. Also prepared analysis/modeling/and support mapping for natural resources, biological, cultural and historical data inventory.

Long Beach Naval Complex EIS/EIR, Los Angeles County, California. Task Manager responsible for analysis and mapping in support of the preparation of an EIS/EIR to evaluate the future environmental consequences of three alternatives for reuse of the 1,229-acre site, including an adaptive use feasibility study for the Roosevelt Base Historic District. The adaptive use feasibility study received an award for cultural resource reports from the California Preservation Foundation. **(1998)(Approx $300k)**

Conforming Storage Facility Environmental Assessment, MCB Camp Pendleton, San Diego County, California. Analyst involved in analysis and mapping for preparation of an environmental assessment that analyzed the environmental consequences associated with three alternative sites for a proposed conforming storage facility for hazardous wastes and hazardous materials.

Tomahawk Land Attack Missile Program, San Clemente Island, Los Angeles County, California. Task Manager responsible for modeling/analysis, database compilation, and mapping relating to the preparation of an environmental assessment in support of the Tomahawk Land Attack Missile Program to consider effects of proposed test flights of land and sea launches at San Clemente Island.

MCAS Camp Pendleton Airfield Environmental Assessment, San Diego County, California. Analyst responsible for analysis relating to the preparation of an addendum to a 1988 environmental assessment for airfield improvements. The project included mapping sensitive species, calculating impacts to wetlands, and preparation of maps in support of the Corps of Engineers Section 404 Permit application and the Regional Water Quality Control Board Section 401 water quality certification and waiver request.

Others:
Miramar Landfill Reuse Plan, San Diego, California. Task Manager for landfill reuse plan. Sub-consultant to Onyx Group.
MCAS El Toro Closure EIS, Santa Ana, California. Oversaw analysis related to preparation of the environmental impact statement relating to the closure of MCAS El Toro. **(1996) (Approx $500k)**
MCAS Yuma EIS, Yuma, Arizona. Analyst for the preparation of the environmental impact statement relating to MCAS Yuma.
NAB Coronado EA, BA, and OTMMP, San Diego, California. Analyst for the preparation of several environmental documents for NAB Coronado.
Long Beach Shipyard EIS, Long Beach, California. Analyst for the preparation of the environmental impact statement.

Wire Mountain Housing EA, San Diego, California. Analyst for the preparation of the environmental assessment.
San Clemente Island OMP, Los Angeles, California. Oversaw analysis related to preparation of an operations management plan.
MCAS Camp Pendleton P-633 and 527B Archaeological Testing and Surveys, San Diego, California. Task Manager for archaeological mapping component.
Santa Margarita Complex Archaeological Surveys, San Diego, California. Task Manager for archaeological mapping component. Extensive historical modeling/mapping of the area was included.
Chocolate Mountain Aerial Gunnery Range, California. Task Manager for mapping related to archaeological surveys/reports.
NAVSTA Pier 10/11 EIS, California. Analyst for the preparation of the EIS. Sub-consultant to SAIC.
Deluz Housing EA, SWDIV, California. Analyst for the preparation of the environmental assessment of proposed new housing.
Yermo Test Track EA, SWDIV, California. Analyst for the preparation of the environmental assessment for the Yermo Test Track.

Marc C. Van Patten

Professional Registrations

Registered Professional Engineer – State of Washington (24709)

Professional Experience/Accomplishments

TESSERA SOLAR NORTH AMERICA, Houston, TX **2009-Present**

Senior Director of Development (03/09 – Present)

- Leading the development of the 750 MW Imperial Valley Solar project, including support of all permitting activity, acquisition of all private land parcels, securing the project power purchase agreement with San Diego Gas & Electric, and support of application for DOE loan guaranty program (Parts I & II).

CALPINE CORPORATION, Houston, TX **2001-2009**

Vice President, Project Development (10/04 – 02/09)

- Led a team of three project developers covering project development activities for the Eastern region of the United States and Canada. Involved leading multidisciplinary teams of professionals in the areas of legal (internal & external), environmental (internal & external), power marketing, transmission, fuel supply, financial analysis, financing, regulatory (internal & external), engineering, construction, equipment procurement, and public relations.
- Led the divestiture of Valladolid III and oversaw the divestitures of Fremont and Hillabee, for a total capacity of more than 1,800 MW and at prices that were 40% above expectations, in aggregate.
- Successfully structured JV partnership agreements with Mitsui and played key role on proposal that led to award of OPA 20-year power purchase agreement. Led the development of the 1,005 MW Greenfield project in Ontario, Canada through latter stage development and closing of $650 million in project financing. This was particularly challenging, given Calpine's bankruptcy, Deltak's bankruptcy during construction, and the project engineering firm also being under bankruptcy protection. Worked with bankruptcy counsel in the U.S. and Canada to resolve cross-border disputes between respective creditors associated with the Greenfield project, allowing ultimately for the removal of the project from the bankruptcy proceedings and achieving project financing.
- Member of the project company board for Valladolid III, responsible for management of partnership matters on the 525 MW combined cycle project in Mexico through financing, construction and ultimately the divestiture of Calpine's majority stake.

Director, Project Development (04/03 – 10/04)

- Led a team of five project developers covering projects throughout the Eastern region of the United States, Canada and Mexico. Involved leading multidisciplinary teams of professionals in the areas of legal (internal & external), environmental (internal & external), power marketing, transmission, fuel supply, financial analysis, financing, regulatory (internal & external), engineering, construction, equipment procurement, and public relations.
- Led the development of over 2,400 MW of combined cycle projects that closed financing and achieved commercial operation, overseeing the development of another 2,400 MW of simple and combined cycle projects that closed financing and achieved commercial operation, the total value of the 4,800 MW of projects being approximately $3.3 billion.
- Technical lead on a $750 million refinancing of the Calpine Construction Financing Company facility, which closed in August 2003 and involved refinancing of seven projects already in operation. It received the "North American Refinancing Deal of the Year 2003" award.

Manager, Project Management & Asset Management (10/01 – 04/03)

- Led the advanced development and construction oversight for two cogeneration projects totaling 1,850 MW, both successfully achieving commercial operation and one being two months ahead of schedule and more than $10 million below budget.
- After completion of development, financing and construction, was responsible for asset management of these two cogeneration facilities. During this period, played key role on a team of Asset Managers who together generated approximately $3.1 billion in added value for their respective Calpine Assets in one year.

MIDAMERICAN ENERGY HOLDINGS COMPANY, Omaha, NE **1999-2001**

Project Development Manager

- Led key areas of project development, including identification of opportunities, optioning land/easements, obtaining all federal, state and local permits, overseeing legal reviews, negotiating electrical and gas interconnection agreements, directing engineering and construction contracting, procuring long lead-time equipment, directing financial analysis, marketing project output and conducting public meetings.

- Successfully identified and subsequently led the development of the 560 MW Fox Energy Center project near Appleton, Wisconsin. The project obtained all necessary construction permits prior to Calpine's purchase of the project development rights in 2003.

TENASKA, INC., Omaha, NE/Rio de Janeiro, Brazil 1996-1999
Director, Business Development

- Responsible for power project development, including identification of project opportunities within Brazil, developing project structuring alternatives, evaluating risks (technical, financial, political), and analyzing local and international financing alternatives. Successfully identified and led the development of several thermal power projects ranging from 50 MW to 800 MW throughout Brazil, one of which was ultimately completed by Amoco.

BLACK & VEATCH, Inc., Overland Park, KS 1993-1996
Business Development Manager

- Successfully structured a 50/50 joint venture company in São Paulo, Brazil. Responsible for business development for all projects in Brazil, including gas fired, coal, oil, hydro and alternative fuels. During this period, successfully developed business with major banks and North American independent power producers and utilities interested in purchasing assets in Brazil. Projects were executed on budget and on schedule.

EBASCO SERVICES INC. (The Washington Group), New York, NY; Seattle, WA 1983-1993
Assistant Engineering through Principal Engineer

- Performed business development in the area of hydroelectric power projects. Performed project management for numerous FERC safety inspections of hydroelectric projects in the Pacific Northwest. Performed analysis, design and construction oversight for the rehabilitation of several hydroelectric facilities in the Pacific Northwest, two of which included the installation of an RCC dam. Responsible for all dam and complex finite element analyses performed by Ebasco in their Seattle Regional Office.

Education

B.S., Civil Engineering, Iowa State University (1983)
Graduate Study in Business, University of Nebraska at Omaha (2000)

Continuing Education

Paradigm Seminar on Realizing Maximum Value from Generation (2008)
Paradigm Seminar on Essentials of Energy Risk Management (2008)
Paradigm Seminar on Advanced Structuring & Risk Unbundling (2008)
Leadership Summit Conference by Willow Creek Association (2003, 2004, 2005, 2006, 2007)

Community Involvement and Other Activities

Achieved rank of Lieutenant in a US Navy Reserve Construction Battalion (1985-1993)
Member of American Society of Civil Engineers
Member of United States Society on Dams
Member of Aircraft Owners and Pilots Association
Past Board Member for the Klein Band Association, and high school band association (2007-2008)
Assistant Scout Master for BSA Troop 1323 (2002-2008)
Federal Aviation Administration (FAA) certified private pilot (1981)

- **Worked with Tessera Solar team on Calico (Solar 1), Imperial Valley (Solar 2), the demo plant and setting up general EPC guidelines.**

Kenneth Kostok, P.E.

Professional Profile

- 22+years utility experience
- 9+ years contractor experience
- Experience in operations and maintenance of generation, transmission, substations and distribution
- Experience leading design-build
- Experience designing and building renewable generation, transmission, substations and distribution
- Licenses professional electrical engineer who has held construction licenses in multiple states.

Professional Experience

Tessera Solar, Scottsdale, AZ
Sr. Director of Engineering and Construction

Achievements:

- Led design teams to standardize Balance of Plant engineering
- Facilitated California Energy Commission submittals for site design and construction

Responsibilities:

- Perform electrical siting for solar generation facilities
- Engineering and construction of site balance of plant to facilities
- Led design-build teams from conceptual engineering through operational solar generation plant
- Interim responsibility for plant Operations and Maintenance

Sargent & Lundy Engineers, Chicago, IL,
Program Manager

Achievements:

- As Program Manager for Sunrise Powerlink design and permitting, assisted in securing California Public Utilities Commission and BLM approvals to construct 500/230 kV transmission and substations

Responsibilities:

- Led team of engineers, surveyors, archeologists, biologists and consultants to design electrical infrastructure for permitting, engineering and construction management for a 150 mile 500kV transmission line and substation

S&C Electric Company, Chicago, IL,
Project Manager

Achievements:

- Led EPC contract for design-build of a 189 MW wind farm, delivering project ahead of schedule and on budget

Responsibilities:

- Full turnkey engineering, procurement and construction activities for green field wind generation collection systems

Education

Master Degree – Business Administration, Barry University
BS – Electrical Engineering, University of New Haven (Magna cum Laude)
AS – Electrical Technology, Waterbury State Technical College

Julie A. Mitchell

Air Quality Scientist

Overview

Ms. Mitchell has worked in the air quality consulting field since 1994. She is responsible for technical oversight of air quality work which includes permitting and compliance support for government and industrial facilities, air quality impact assessments, air toxics evaluations, and air quality and meteorological monitoring, primarily for industrial facilities in the US and abroad. Her technical specialties include operation and assessment of air dispersion models for air quality and health risk impact assessments, evaluation of greenhouse gas emissions, meteorological data analysis, and computer programming to process data or modify air dispersion models.

Air Quality Impact
Health Risk Assessment
Air Quality Modeling
Visibility Modeling
Greenhouse Gas Studies
Meteorological Analysis
Hazardous Materials Risk Analysis
Computer Programming

Years of Experience

With URS: 10 Years
With Other Firms: 6 Years

Education

BSc/1994/Atmosperic Sciences/University of British Columbia

BSc/1995/Mathmatics and Computer Science/McGill University

Project Specific Experience

Air Quality Impact and Health Risk Assessment Studies, Simmler, CA:
Public health technical lead for the 177 megawatts solar thermal Carrizo Energy Solar Farm. Prepared the public health and air quality sections of the Application for Certification for the CEC, and the application to construct for SLOAPCD. The air quality analysis examined the impacts from criteria pollutants against the NAAQS, CAAQS and SLOAPCD standards. The HRA modeling was conducted with SCREEN3 then toxicity factors were applied to determine health risks due to diesel particulate. Potential criteria pollutant impacts from the mobile sources during construction and stationary sources during operations were analyzed using AERMOD. Project related greenhouse gas emissions were estimated from the operational sources.

EIR for the Lost Hills Solar Project, Kern County, CA:
Prepared the air section of the EIR for the Lost Hills Solar Project. The development consists of two adjacent solar photovoltaic projects on a single land parcel in western Kern County for a combined electric generating capacity of 32.5 MW. Analyses included quantifying construction and operational emissions using the EMFAC and OFFROAD models and emission factors from EPA and CARB. As the region is endemic for coccidioidomycosis (valley fever), a detailed discussion of its transmission and prevention were included.

Solar One Project, Barstow, CA:
Air quality and public health technical manager for the Solar One Project. The project consists of approximately 34,000 solar collectors capable of producing 850 MW of electricity. Prepared the public health and air quality sections of the Application for Certification for the CEC and BLM, and the ATC/PTO for SJVAPCD. The air quality analysis examined the impacts from criteria pollutants using AERMOD against the NAAQS, CAAQS, and SJVAPCD standards. Short-term effects from constructing the power plant were analyzed with AERMOD. Project related greenhouse gas emissions were estimated for both operational and construction phases from stationary and mobile sources, on- and off-site. The HARP model was used to estimate potential impacts from air toxics.

San Joaquin Solar 1 & 2 Hybrid Project, Coalinga, CA:
Air quality and public health technical manager for the San Joaquin Solar 1 & 2 Hybrid Project. The project consists of two collocated plants, each sized for a nominal 53.4 MW net of solar generation, complemented by 40 MW net of biomass-generated production, fueled with agricultural wood waste and municipal green wastes. Prepared the public health and air quality sections of the Application for Certification for the California Energy Commission (CEC) and the Air Permit Application for the SJVAPCD. The air quality analysis examined the impacts from criteria pollutants against the NAAQS, CAAQS, and

SJVAPCD standards. Health risk impacts were analyzed using the HARP model. Short-term effects from constructing the power plant were also analyzed. Greenhouse gas emissions were calculated using EMFAC, OFFROAD and CCAR protocols for both operational and construction phases.

Solar Two Project, El Centro, CA:
Air quality and public health technical manager for the Solar Two Project. The project consists of approximately 30,000 solar collectors capable of producing 750 MW of electricity. Prepared the public health and air quality sections of the Application for Certification for the CEC and BLM, and the ATC/PTO for ICAPCD. The air quality analysis examined the impacts from criteria pollutants against the NAAQS, CAAQS, and ICAPCD standards. HARP modeling was conducted to estimate potential impacts from air toxics. Short-term effects from constructing the power plant were also analyzed. Project related greenhouse gas emissions were estimated for both operational and construction phases from stationary and mobile sources, on- and off-site.

Mt. Signal Solar and Biomass Power Station, El Centro, CA:
Air quality and public health technical manager for the Mt Signal Solar and Biomass Power Station. Prepared the air technical report for an EIR. Emissions were estimated using the EMFAC and OFFROAD models for construction, source test data for the operation of the biomass combustor for criteria pollutants and air toxics, and CCAR protocols for greenhouse gases. Operational impacts were modeled with AERMOD and HARP. Potential offsite odors were assessed qualitatively. Estimated the greenhouse gas emissions and reductions using CCAR protocols.

Air Quality Studies, County of Riverside, CA:
Review EIR air quality studies for the County of Riverside. Most studies include quantification of project and construction emission using a combination of URBEMIS, EMFAC and SCAQMD CEQA emission factors. Impacts from these emissions are analyzed with the air dispersion model ISCST3 or AERMOD and the CO hotspot model, CALINE4.

Ivanpah Valley Airport in Clark County, NV:
Prepared an Authority to Construct permit application for the anticipated stationary sources of air pollutants at the Ivanpah Valley Airport. This included creating an inventory of the NO2, PM10, SO2, CO, VOC, and HAPs emissions and modeling the NO2, PM10, SO2 and CO emissions with ISCST3.

Silver State Waste Management Center, NV:
To acquire an authority to construct permit for the Silver State Waste Management Center, PM10, NOx, SO2, CO, VOC, and HAPs were modeled and compared with the NAAQS and the PSD standards for the region. Visibility and criteria pollutant impacts were analyzed in the Grand Canyon and Lake Mead Recreation Areas.

Air Quality Impact Analyses, Apex Valley, NV:
Conducted air quality impact analyses to evaluate potential effects of a proposed new heavy industrial park in the Apex Valley northeast of Las Vegas, Nevada. The assessment included an extensive air quality modeling study to estimate the quantities of emissions that could be located within the proposed development without resulting in exceedances of the applicable ambient air quality standards and Prevention of Significant Deterioration increments. The study was performed in the context of an Environmental Assessment on the transfer of land from the Bureau of Land Management that would enable the proposed industrial park to be developed.

Nursery Products Composting Facility, San Bernardino County, CA:
Conducted air quality, air toxics and odor modeling assessments for the Nursery Products Composting Facility Environmental Impact Report, 2006. The Project was expected to receive approximately 400,000 wet tons per year of biosolids and green material to produce Class A compost by means of a combination of windrow and modified static pile composting techniques. Important air quality issues included potential generation of odors in the handling of incoming waste streams and in the composting process, as well as emissions from large trucks delivering biosolids and green material to the site and removing finished compost. A full evaluation was conducted of applicable federal, state and local air regulatory requirements and potential mitigation measures for the proposed project and alternatives.

California Energy Commission, CA:
Calculated greenhouse gas emissions from numerous projects for inclusion in EIS, EIR or CEQA documents and applications to construct for air permits for local air districts and the California Energy Commission. Emissions are calculated from both primary and secondary sources.

Michael E. Hatch, RG, CEG

Principal Engineering Geologist

Overview

Mr. Hatch has 27 years of experience in engineering geology and geologic hazard studies relative to siting and permitting major municipal facilities, including outfalls, aqueducts, gas transmission pipelines, dams, power plants, substations, and electrical transmission lines. His experience includes project management, geologic hazard assessment, and general site evaluation and ranking for major power plant, pipeline, dam, and reservoir projects. Mr. Hatch is an expert in Quaternary and geomorphology studies relative to evaluating fault activity in diverse geologic settings. He is well versed in resource reporting for geology and soils in support of permitting power plants, electrical transmission lines, and pipelines.

Engineering Geology and Geotechnical Investigations
Siting and Permitting
Geologic and Fault Hazard Studies

Years of Experience

With URS: 26 Years
With Other Firms: 1 Year

Education

MS/1987/Geology/San Diego State University

BA/1976/Biology/University of California, San Diego

Registration/Certification

1995/Certified Engineering Geologist/California, No. 1925

1994/Registered Geologist/California, No. 5953

Project Specific Experience

San Joaquin 1 & 2, Fresno County, CA:
Performed a geotechnical evaluation and prepared the geology and soils sections for the Application for Certification for a hybrid design solar thermal electric generating plant. The plant will comprise a solar field and biomass facility producing up to a nominal 53.4 MW net of renewable energy.

Solar Reserve, Imperial County, CA:
Performed fatal flaw analyses for multiple sites in Imperial County, elsewhere in California and in New Mexico under consideration for development of solar power plants. Researched the geotechnical, geologic and minerals settings that could impact site selection. Prepared written recommendations for site development and further study.

LightSource Renewables, CA and AZ:
Researched and summarized geotechnical and geologic related fatal flaws for 3 sites in California and 2 in Arizona for development of solar power plants.

Solar Two Energy Facility, Imperial County, CA:
Managed geological services for the design of up to 36,000 proprietary solar dish structure foundations. Coordinated the geotechnical investigation and seismic hazard evaluation, and prepared the geology and soils sections of the joint AFC/EIS (Environmental Impact Statement) document to comply with both NEPA and CEQA requirements.

Solar One Energy Facility, San Bernardino County, CA:
Coordinated the geotechnical and geologic hazards evaluation in support of the California Energy Commission and Bureau of Land Management NEPA compliance and permitting. Performed groundwater evaluation for project water needs. Proposed project encompasses approximately 27,000 acres of solar power facilities for up to approximately 2,700 MW of power electric generation.

Geology and Soils Resource Reports – SCE Tehachapi Renewables Transmission Project, San Bernardino, Riverside, and Los Angeles Counties, CA:
Managed geology and soils resource reports for AFC documents prepared for the extensive improvements to the SCE electrical transmission line system.

Geology and Soils Resource Reports for Starwood Power Plant, Fresno County, CA:
Managed geology and soils resource reports for AFC documents prepared for the proposed Starwood power plant.

Geology and Soils Resource Reports for Ausra Carrizo Solar Farm, San Luis Obispo County, CA:
Managed geology and soils resource reports for AFC documents prepared for proposed Solar project. Also provided senior management oversight and geologic hazards evaluations for the geotechnical investigations.

Notice of Intent (NOI) Preparation, SDG&E Combined Cycle Power Plant, San Diego and Imperial Counties, CA :
Managed the geosciences elements of an NOI document prepared for the CEC outlining five possible power plant sites. Sites were characterized relative to impacts and suggested mitigations for geologic resources, including minerals, paleontology, groundwater, soils, and geologic hazards.

SDG&E South Bay Repowering Project, San Diego, CA:
Managed the geologic and geotechnical tasks for SDG&E's licensing application to the CEC for a new electrical generator unit. The project included various alternative electrical transmission routes and their characterization relative to the impacts and suggested mitigations for geologic resources including minerals, paleontology, geologic hazards, groundwater and soils.

Teayawa Power Plant, Geotechnical Investigation and Geologic and Soil Resource Reports, Coachella Valley, CA:
Completed geotechnical investigations and prepared soil and geologic resource reports to support permitting for a proposed 40 acre power plant site and ancillary pipelines and transmission lines. Proposed ancillary structures cross the active San Andreas fault. Evaluated potential impacts from geologic hazards and discussed general mitigation measures.

Geology and Soils Resource Reports – Niland _IID Peaker Plant, Imperial County, CA:
Managed geology and soils resource reports for AFC documents prepared for proposed gas-fired peaker plant.

Otay Mesa Generating Project, San Diego, CA:
Managed the geologic and paleontological resource reports for this proposed power generating project. Also provided technical support for the environmental characterization of the plant site and the ancillary easements. Assisted the biological field surveys with characterization of sensitive habitat relative to geomorphology and soils.

El Secundo Power Redevelopment Project, El Secundo, CA:
Managed the geologic hazards and resource reports for the permitting of this redevelopment project. This existing power plant site is located in the coastal Los Angeles area and subject to coastal, seismic and slope related hazards.

Geologic Hazards Study and Geotechnical Investigations of SDG&E Talega Trabuco Transmission Line, San Diego and Orange Counties, CA:
Managed geologic hazard and the geotechnical investigations for this transmission line extending from Camp Pendleton to Mission Viejo through landslide prone terrain.

Geotechnical Investigation of Rosarito Natural Gas Pipeline, Baja California, Mexico:
Managed the field and geologic portions of this investigation of natural gas pipeline from U.S.-Mexico border to power plant. Pipeline route crossed major roadways, railways, rivers, and landslides. Pipelines were analyzed for temporary and permanent slopes, and geotechnical engineering recommendations were made for pipeline design and construction.

Geology and Soils Technical Report and Geotechnical Investigations, BNSF Third Main Track, San Bernardino, CA:
Task manager and project geologist for technical report and geotechnical investigations to support this project that includes a 15 mile section of new commercial rail line through the Cajon Pass area. Steep terrain, complex geology and large cuts are evaluated as part of the permitting and design evaluations for the project.

Mojave Pipeline, Northward Expansion, FERC Application and Geologic Hazards Evaluations, Central and Northern CA:
Managed the geologic resources report task for the FERC Application for this natural gas transmission line planned from Blithe to the San Francisco Bay area. Subsequent geologic hazards and geotechnical investigations were performed for the 600-mile long alignment. Project challenges included considerable landslide prone terrain and multiple active fault crossings.

Matt Moore, PE, CPESC, CPSWQ

Senior Project Engineer

Overview

Mr. Moore is a Registered Civil Engineer and Certified Professional in Erosion and Sediment Control (CPESC) with 14 years of experience with hydrologic and hydraulic engineering for urban drainage facilities, flood control improvements, and erosion control facilities. His work has included preliminary and final engineering design phases, as well as FEMA and NPDES documentation. He has extensive experience evaluating riverine erosion processes related to the analysis, design, and preparation of bridge and levee lining scour investigations and erosion control remediation documents, and preparation and review of stormwater quality BMP design and documentation including technical assistance/review of the San Diego County Low Impact Development Manual. Mr. Moore is skilled using HEC-1, HEC-2, HEC-RAS, HEC-6, Los Angeles County computer programs, Ventura County VCRAT, WSPG, Civil-D, and PondPack.

Surface Hydrology
Hydraulic Modeling
Drainage Design
Floodplain Modeling
Sediment Transport and Scour Analysis
Erosion and Sediment Control
Stormwater Quality BMP Design

Years of Experience

With URS: 4 Years
With Other Firms: 10 Years

Education

MS/Civil Engineering (Water Resources), Virginia Tech
BS/Civil Engineering, Virginia Tech

Registration / Certification

Registered Civil Engineer, CA #56780
Certified Professional in Erosion and Sediment Control #3497
Certified Professional in Stormwater Quality #486

Project Specific Experience

Hydrology and Hydraulic Analysis and Drainage Design

Interstate 805 Preliminary Design, San Diego County, California - Drainage Design Lead
The overall project consists of preliminary drainage design for widening of the I-805 along nearly its entire length. URS responsibilities include approximately 10 miles of preliminary freeway widening design including: redesign of the drainage and water quality systems; preparation of water quality reports; roadway drainage reports; Location Hydraulic Studies, and preliminary Structure Hydraulic (scour) Reports for bridge crossings and floodplain encroachments all consistent with Caltrans standard requirements.

San Diego County Regional Airport Authority, RON Apron Design, San Diego, California - Water Resources Engineer
Project consisted of preparing the 30% Design Drainage Report including preliminary level hydrology and hydraulics calculations and stormwater quality design for a proposed Remain-Over-Night Apron. Work included preparation of the drainage report; research and design of a StormFilter stormwater quality treatment vault, and porous pavement section. Continued work includes 70% design of the drainage facilities and update of the drainage report and stormwater quality treatment facility design.

Los Angeles County World Airports (LAWA), LAX Terminals 1, 2, and 3 Expansion Stormwater Quality BMP Design
Project consisted of preparing the 100% stormwater quality BMP design sheets for retrofit of storm drain inserts and construction of a new stormwater quality hydrodynamic separator. Duties included hydrologic and hydraulic design of the post-construction BMPs; coordinationg with BMP vendors, Project Architect, and LAWA.

Marine Corps Logistics Base Barstow, Storm Drain Study, Barstow, California - Water Resources Engineer
Assisted in conducting a storm drain study for MCLB Barstow, CA at Nebo Main Base, Yermo Annex, and the Rifle Range. The Study included the following tasks: 1) Inventory existing storm drainage system; 2) Determine which stormwater outfalls are subject to the Industrial Storm Water General Permit; 3) Prepare DD1391 forms for locations of the storm drainage

system that require maintenance, repair or replacement; 4) Develop hydrology and hydraulic design criteria for the design of new storm drainage systems.

BNSF Cajon Main Third Track, San Bernardino County – Water Resources Senior Project Engineer
Project consisted of preparation of EIR/EIS documentation and final engineering construction drawings for 15 miles of proposed third main heavy rail track from Summit to Keenbrook. Duties included preparing pre- and post-project hydrology and hydraulic analyses of over 70 culverts/bridges using Rational Method, USGS Regression Equations, CulvertMaster, WSPG-W, HEC-RAS, and HEC-18 Scour Analysis. Analyzed and mapped 10- and 100-year floodplains for over 10 stream miles using HEC-RAS. Provided preliminary design of proposed culvert extensions, energy dissipation, and bridge scour countermeasures. Prepared EIR/EIS Hydrology Technical Report, EIR/EIS impacts and mitigation measures discussion, and Final Engineering Hydrology and Hydraulic Reports.

State Route 76 Widening and Realignment, San Diego County – Water Resources Senior Project Engineer
Project consists of preparing final engineering construction drawings for a 2.3 kilometer widening and realignment of an existing rural state route along San Luis Rey River and bridge widening along a River tributary. Duties included the preparation of hydrology and hydraulic analyses, reports, and storm drain design for final engineering construction drawings including: Rational Method and Unit Hydrograph Method hydrology calculations, culvert, ditch, and inlet design and analysis using CulvertMaster, WSPG-W, and FlowMaster (HEC-22) software; hydraulic floodplain calculations and mapping using HEC-RAS; bridge scour analysis using HEC-18; sediment transport and scour protection design along San Luis Rey River using HEC-6 and HEC-23, and FEMA and Caltrans plan/report preparation and processing.

Plum Canyon Tract 31802, Los Angeles County, Water Resources Project Engineer
Project consisted of preparation of final engineering construction drawings for backbone improvements (grading, street, and utilities) for a 500-lot subdivision adjacent to the City of Santa Clarita. Duties included: storm drain system layout; L.A. County hydrology and hydraulic analyses (MODRAT and WSPG-W) including sediment yield (debris) calculations; CDS Unit sizing and analysis; hydrology and hydraulic report preparation and processing; floodplain analysis, mapping and Conditional and Final Letters of Map Revision (CLOMR/LOMR) preparation and processing through FEMA.

Bressi Ranch Development, Carlsbad – Water Resources Project Engineer
Project consisted of preparation of a tentative map and final engineering construction drawings for backbone improvements (grading, street, and utilities) for a 620-unit, 585-acre mixed use development. Duties included: storm drain layout and preliminary design, hydrology and hydraulic analysis of storm drain system and CDS Units; detention pond design; erosion and sediment control plans, two construction SWPPPs, and final post-construction water quality implementation plans.

Kelly Ranch Residential Development, Carlsbad – Water Resources Project Engineer
Project consisted of preparation of tentative map and final engineering construction drawings for backbone improvements (grading, street, and utilities) for a 1600-unit, 433-acre residential development. Duties included: final engineering hydrology and hydraulic storm drain analysis and reports; detention basin analysis; post-construction water quality BMP concept plans and facility sizing; and sediment yield/erosion calculations using MUSLE and RUSLE for a 170-acre portion of the development.

Bishop's School Redevelopment, La Jolla, San Diego – Water Resources Project Engineer
Project consisted of preparation of tentative map level redevelopment engineering plans for a private high school located in a developed urban area. Duties included: Rational Method hydrology and WSPG-W hydraulic analysis of large offsite surface and underground storm drain system, concept plans and modeling for surface routing of offsite flows through site, preparation and processing of hydrology and hydraulic reports through City of San Diego.

Big Sky Ranch Residential Development, Ventura County – Water Resources Project Engineer
Project consisted of tentative map preparation and processing for a large residential development in Simi Valley. Drainage related work included preparation of a Modified Rational Method hydrology study utilizing VCRAT to determine existing and developed runoff, street and inlet hydraulic capacity calculations, debris storage and bulk flow analysis utilizing Scott's Method for estimating debris potential, HEC-RAS floodplain analysis, water quality basin sizing utilizing Ventura County methodology, and detention basin analysis utilizing PondPack and VCHYDRO.

Santa Fe Depot Redevelopment, San Diego – Water Resources Project Engineer
Project consisted of planning phase redevelopment of Santa Fe Depot in downtown San Diego. Duties included: Rational Method and Unit Hydrograph Method hydrology and WSPG-W hydraulic analysis of the 'B' Street Flume (Box Culvert) and tributaries which drain over a square mile network of storm drains within Balboa Park and downtown San Diego.

California Terraces North Residential Development, San Diego – Water Resources Project Engineer
Project consisted of preparation of tentative map and final engineering construction drawings for backbone improvements (grading, street, and utilities) for a 50 lot residential development. Duties included: final engineering hydrology and hydraulic storm drain analysis and reports; detention analysis; post-construction water quality BMP concept plans and facility sizing.

Floodplain Modeling and FEMA Processing

State Route 76 Widening and Realignment, San Diego County – Water Resources Project Engineer
Prepared pre- and post-project hydraulic floodplain calculations and mapping for San Luis Rey River using HEC-RAS. Prepared and processed FEMA CLOMR.

BNSF Cajon Main Third Track, San Bernardino County – Water Resources Senior Project Engineer
Prepared, analyzed and mapped pre- and post-project conditions 10- and 100-year floodplains for over 10 stream miles using HEC-RAS including 8 existing bridge crossings and 4 widened bridge structures.

Plum Canyon Tract 31802, Los Angeles County - Water Resources Project Engineer
Prepared pre- and post-project floodplain analysis and mapping. Prepared and processed Conditional and Final Letters of Map Revision (CLOMR/LOMR) submittals through FEMA.

Loma Alta Creek, Oceanside – Water Resources Project Engineer
Prepared a FEMA flood map revision for the City. Performed creek survey oversight, hydraulic modeling and floodplain mapping for creek and flood map processing through FEMA.

Erosion and Sediment Control and Stormwater Quality

Rancho Santa Fe Village Presbyterian Community Church, Porous Pavement Design - Water Resources Engineer
Provided hydrology, hydraulic, and porous pavement storage layer thickness to provide stormwater quality and detention for increased peak runoff flows for a small redevelopment project.

Port of San Diego SUSMP Review and Preparation– Water Resources Senior Project Engineer
Project consists of the review and preparation of selected Standard Urban Stormwater Mitigation Plans (SUSMP) for tenant and capital projects within the Port's jurisdiction. Duties include review and preparation of the project SUSMP documents to ensure compliance with the Port's requirements including analysis of the receiving water quality, pollutants of concern, and proper implementation of site design, source control, and treatment control BMPs. URS is also providing support in updating the Port's SUSMP Manual to reflect a new Municipal Stormwater Permit.

Caltrans Roadside Vegetated Treatment System (RVTS) Stormwater Quality Monitoring - Task Order Manager
Project consists of monitoring, sampling, and analysis along Interstate 5 in San Onofre and along State Route 91 in Yorba Linda as part of on ongoing Caltrans stormwater quality monitoring effort. Duties include supervising field crews, installation of monitoring equipment, preparation of technical memos, and project financials.

Caltrans SWPPP/WPCP Templates and Preparation Manual Updates – Assistant Task Order Manager
Caltrans Headquarters tasked URS to update their Storm Water Pollution Prevention Plan (SWPPP) and Water Pollution Control Program (WPCP) templates and Preparation Manual to address comments received over the last several years. Specific role includes providing response to comments, quality assurance and quality control on template revisions, and coordination with Caltrans Headquarters.

Caltrans Cellular Confinement System Research – Task Order Manager
This project consisted of assisting Caltrans Headquarters to determine the suitability of use and application guidelines for Cellular Confinement Systems (CCS) as a temporary construction storm water BMP. Duties included investigating existing literature, websites, and manufacturers to conduct research and determine applicable uses of CCS as a temporary construction BMP.

Marine Corps Air Station (MCAS) Miramar –Senior Project Engineer
Project consisted of field erosion assessments, evaluation, and prioritization of active erosion sites on the undeveloped areas of MCAS Miramar. Work included landscape level inventories of soil erosion sites on the undeveloped portions of the station; evaluation of these sites for potential restoration; documentation of these sites using digital photography, Global

Positioning Systems (GPS) and Geographic Information Systems (GIS) mapping technology; recommendations for soil stabilization and long-term erosion minimization of the sites; and prioritization of erosion site restoration suggestions.

CingularWireless Site, City of Moorpark, California – Water Resources Senior Project Engineer
Project consisted of the preparation of final engineering construction drawings for the grading and placement of two unmanned cellular communication facilities on an existing steep hillside. Duties included the preparation of erosion and sediment control plans and WPCP in compliance with the Ventura County municipal stormwater permit.

Mission City North, City of San Diego – Water Resources Project Engineer Prepared construction SWPPP, Erosion Control Plan, and Water Quality Technical Report including post-construction BMP design for a 120-acre multi-family residential development.

Bressi Ranch Development, Carlsbad – Water Resources Project Engineer
Prepared hydrology and hydraulic analysis of storm drain system and CDS Units; detention pond design; erosion and sediment control plans, two construction SWPPPs, and final post-construction water quality implementation plans.

Santa Fe Depot, City of San Diego – Water Resources Project Engineer
Prepared Water Quality Technical Report, construction SWPPP, Erosion Control Plan, and drainage design and report for a downtown high-rise building.

Professional Societies/Affiliates

American Society of Civil Engineers, Associate Member
American Public Works Association
International Erosion Control Association

Patrick J. Mock, PhD

Principal Scientist/Sr. Project Manger

Overview

Dr. Mock has over 30 years of professional experience as a wildlife biologist and environmental consultant. He has served as principal investigator for studies of endangered wildlife, directing and participating in field investigations, data analysis, and preparation and review of technical reports and mitigation plans. Dr. Mock has extensive national and international experience in the assessment of impacts on biological resources, especially in relation to wetland ecosystems, coastal sage scrub, and endangered species. Dr. Mock has produced environmental impact assessments of various development projects throughout western US and the Pacific Rim in conformance with NEPA, CWA, and ESA. His specific area of expertise is in the ecology, management, and monitoring of vertebrate populations. He has conducted investigations of several sensitive bird species, including California least tern, brown pelican, least Bell's vireo, California gnatcatcher, coastal cactus wren, and bald eagle. He is experienced in landscape scale habitat evaluation modeling, preserve design, wildlife corridor assessment, and population viability analysis. He is certified as a Senior Ecologist by the Ecological Society of America and as a Certified Wildlife Biologist® by The Wildlife Society. Dr. Mock participates in all aspects of project management, including client liaison, budgeting, field investigations and research, supervision of field biologists, regulatory permitting assistance, agency liaison, report preparation and review, public presentations, and expert testimony. Dr. Mock has also served as a Lecturer at the University of San Diego and University of California, San Diego, where he has taught courses on biological assessment, principles of ecology, and wildlife management. Dr. Mock has thirteen publications in peer-reviewed science journals related to wildlife ecology, ornithology, and habitat conservation topics.

- Wildlife Biology
- Biological Impact Assessment
- ESA/Wetlands Permitting
- Habitat Conservation Planning
- Wildlife Corridor Assessment
- Habitat Restoration Planning and Monitoring
- Biology Group Management

Years of Experience

- With URS: 12 Years
- With Other Firms: 19 Years

Education

- PhD, Biology
- CPh, Biology
- BS, Wildlife Biology

Registration / Certification

- Certified Senior Ecologist/Ecological Society of America
- Certified Wildlife Biologist®/The Wildlife Society
- Training in ACOE Wetland Delineation Methods & Regulatory Policy
- OSHA Hazardous Waste Operations and Emergency Response Training/Section 1910.120
- Training in Use of ArcView and Auto Cad R14 Software

Project Specific Experience

ECOLOGICAL RESEARCH

Ecological Studies of California Gnatcatcher (*Polioptila californica*), Home Capital Corporation, Weingarten, Siegel, Fletcher Group, Inc., and Skyline Wesleyan Presbyterian Church. Served as project manager/principal investigator for a comprehensive ecological study of over 40 pairs of California gnatcatchers in the Rancho San Diego area in order to document home range size, habitat preferences, dispersal behavior, breeding/population biology, and effects of development.

Foraging Ecology of California Least Tern (*Sterna antillarum browni*), Mission Bay, Department of Parks and Recreation, City of San Diego. Served as project manager/principal investigator, responsible for documentation of least tern foraging habitats within Mission Bay Park.

Habitat Characterization of Ephemeral Watercourses Receiving Treated Wastewater Effluents in the Arid Western U.S., Wastewater Management Department, Pima County, Arizona/EPA. Served as project coordinator for the research team assigned to gather data at two southern California sites and acted as the lead wildlife biologist for the overall program.

Behavioral Study of the Effects of Military Helicopter Activity on Breeding Least Bell's Vireo, U.S. Navy. Served as the principal investigator for an intensive behavioral study of least Bell's vireo breeding adjacent to Camp Pendleton Marine Corps Air Station. This empirical study verified a theoretical model of noise impacts to breeding vireos.

Study of the Effects Associated with Modification of Sand Grain-size on Shorebird Foraging Behavior, Department of Parks and Recreation, City of San Diego. Project manager/principal investigator for an impact

assessment of proposed modification of sand grain-size as an erosion-control measure in Mission Bay Park. Study involved documentation of changes in shorebird foraging behavior associated with erosion-control methods.

San Diego Bay Waterbird Survey, U.S. Navy. Project Director of a three-year study of waterbird use of north and central San Diego Bay. Involved weekly boat surveys of waterbirds and other sensitive species. This study allowed for a detailed analysis of spatial and temporal variation of waterbird abundance and habitat use within San Diego Bay.

Behavioral Study of the Effects of Military, Fixed-wing Aircraft Activity on Idaho Bighorn Sheep, U.S. Air Force. Dr. Mock participated in the experimental design and statistical analysis of this intensive behavioral study of bighorn sheep in the Owahee Range of western Idaho.

Wildlife Corridor Study of the 23,000-Acre Otay Ranch, San Diego County, City of Chula Vista. Project director responsible for documentation of wildlife corridors on Otay Ranch and the Miramar-Peñasquitos area of San Diego, made recommendations for the retention and protection of regionally significant corridors within and throughout the ranch.

Wildlife Corridor Assessment for Canyon Crest Development Project, Brea California. City of Brea. Senior biologist for a detailed, wildlife corridor assessment for the project vicinity around a proposed residential development project in the City of Brea, California. Landscape-scale wildlife movement routes between open space areas associated with Carbon Canyon Road were identified and redundant routes through the project site were conserved as part of the project design.

Cavallo Farms Wildlife Corridor Study, City of San Diego, CA. 2006. – Sr. biologist for a wildlife corridor assessment of an 21-acre horse farm/training property located within an presumed MSCP wildlife corridor linkage in Del Mar, California. Study monitored 24 passive tracking stations and 5 camera stations within and surrounding the property for 8 weeks to identify tracks and scat of large mammal species, including mountain lion, bobcat, coyote, and southern mule deer. California gnatcatcher protocol surveys and identified territories were conducted throughout study area.

Raptor Ecology and Management Study on Otay Ranch, City of Chula Vista. Project director responsible for documenting nesting, roosting, and foraging areas of sensitive bird-of-prey species using radio telemetry methods. Species studied included golden eagle, northern harrier, black-shouldered kite, Cooper's hawk, and burrowing owl.

Analysis of Brown Pelican Migration Patterns from Band Recovery Data, Los Angeles County Natural History Museum. Principal investigator. Dr. Mock also assisted Dr. R.W. Schreiber in his field studies of the reproductive ecology of pelicaniform birds on Johnston Atoll, Central Pacific Ocean.

Study of Growth Energetics and Food Intake of Nestling Thick-billed Murre (*Uria lomvia*) Pribilof Islands, Bering Sea, Alaska, Department of Ecology and Evolutionary Biology, University of California, Irvine. Principal investigator for a study that included use of isotopically labeled water and body composition analysis. Dr. Mock was a member of a large research team led by Dr. G.L. Hunt, which studied the effects of colony size on the reproductive ecology and energetics of colonial seabirds.

Comprehensive Studies of the Reproductive Energetics and Ecology of the Western Bluebird (*Sialia mexicana*), Department of Biology and Laboratory of Biomedical and Environmental Sciences, University of California, Los Angeles. As a doctoral candidate, Dr. Mock's studies included comparative growth energetics of nestling western bluebird and ash-throated flycatcher (*Myarchus cinerascens*), use of the doubly-labeled water method, time-activity budget analysis, nestling growth analysis, laboratory measurement of animal metabolism, body composition analysis, bird banding methods, and statistical analysis.

Development of an *in vivo* Method to Estimate Lipid Reserves of Vertebrates, Laboratory of Biomedical and Environmental Sciences, University of California, Los Angeles. As a research associate in Dr. Ken Nagy's Lab, Dr. Mock participated in validation studies of the cyclopropane methods to estimate lipid reserves of vertebrates.

San Diego County Breeding and Wintering Bird Atlas Project, San Diego Natural History Museum. A principal participant in the design and implementation of 6-year atlas project. Providing GIS mapping support and assistance in data analysis.

REGIONAL NATURAL RESOURCE PLANNING

Multiple Species Conservation Program, City of San Diego Clean Water Program. Principal wildlife biologist directing the gap analysis, preserve design, wildlife corridor analysis, and resource assessment to delineate a network of potential preserve areas for a 900-square mile area in southwestern San Diego County. The objective of this three-year program is to develop a plan for the conservation and management of self-sustaining, viable populations of federally listed species and key candidate species and their habitats. Included in this program is the development of population viability analyses for California gnatcatcher and coastal cactus wren, a comprehensive GIS-based habitat evaluation model to aid in the relative valuation of habitat areas and identification preserve planning areas, and a long-term monitoring plan of conserved habitats and selected target species. This project received numerous citations and awards for excellence in resource planning.

Carlsbad Subarea Habitat Conservation Plan/NCCP, Department of Planning, City of Carlsbad. A principal participant in the evaluation of habitat and target species evaluations for proposed city-wide preserve system.

California Gnatcatcher Management Plan for Fallbrook Detachment, Seal Beach NWS, U.S. Navy. Dr. Mock participated in the development of a management and research plan to aid in the relative valuation of habitat areas and assignment of habitat management priorities within the study area.

San Marcos Subarea Habitat Conservation Plan/NCCP, Department of Planning, City of San Marcos. Providing technical assistance to City staff regarding habitat and target species evaluations for proposed city-wide preserve system; Technical review of subarea plan document.

Rancho Palos Verdes Natural Communities Conservation Program Subarea Habitat Conservation Plan and EIR, City of Rancho Palos Verdes. Project Manager and Technical Lead for program assisting the City of Rancho Palos Verdes in the first phase of a NCCP subarea plan for coastal sage scrub habitats. Phase I involves the following tasks: (1) assemble and review existing information on biological resources, land uses, and land-use constraints, (2) perform reconnaissance and focused biological surveys, (3) refine current vegetation mapping and assess the restoration/enhancement potential of disturbed habitats and non-native vegetation, (4) develop three preliminary preserve design alternatives being evaluated in Phase II of the program, and (5) interact with resource agencies, landowners, and local working group of interested parties to incorporate their concerns into the preserve design process. Phase II involved the preparation of the HCP document for public review and Phase III involved the preparation of the EIR and Implementing Agreement documents. Key sensitive species evaluated in the plan include Palos Verdes Blue and El Segundo Blue butterflies, California gnatcatcher, coastal cactus wren, and bright green dudleya.

Desert Lands Habitat Conservation Plan, Metropolitan Water District. Project Manager for HCP and CEQA/NEPA process to address potential incidental take associated with the operation and maintenance of the Colorado River Aqueduct. Program included sample plot assessments across 97,000 acres of MWD owned lands.

North County Multiple Habitat Conservation Program, San Diego Association of Governments. Principal member of a team of biologists formulating a regional preserve design for a 1,000-square-mile area in northwestern San Diego County. This program is similar to the City of San Diego's MSCP program (see above).

Key Deer Habitat Conservation Plan (HCP), Florida Department of Transportation and Monroe County. A principal participant in habitat and target species assessments and the development of a conservation plan for Big Pine Key and No Name Key encompassing over 5,000 acres of potential Key Deer habitat.

Adaptive Management Research Program for Sweetwater Reservoir Least Bell's Vireo Population, Sweetwater Authority. Dr. Mock provided technical assistance in the development of testable hypotheses, including statistical power analyses for the habitat and population monitoring of the large least Bell's vireo population associated with the reservoir.

Chevron Lokern HCP EIR, Chevron Oil Corporation. Senior biologist overseeing EIR assessment of proposed HCP for over 14,400 acres of sensitive habitats and 31 sensitive species within Kern County.

Santa Monica Mountains National Recreation Area General Development Plan EIS, National Parks Service. Senior biologist overseeing biological assessment of the master plan for the 150,000-acre NRA in coastal Los Angeles County.

California Gnatcatcher Sweetwater River HCP, Home Capital Corporation/San Diego Association of Governments. Project manager and principal author of the first HCP developed for the California gnatcatcher. This HCP presented a program designed to ensure the continued existence of the California gnatcatcher in the Rancho San Diego/Sweetwater River Drainage and proposed to merge the management of the upland habitats with the riparian habitat proposed for management of the least Bell's vireo. This document presented information on the status and biology of the gnatcatcher, including a population viability analysis of the Sweetwater River gnatcatcher subpopulation as an isolate. The plan set guidelines for the conservation and management of coastal sage scrub designated as Conserved Habitat. Management actions were identified in a structured program within the Sweetwater River Drainage through preservation and active management of sage scrub habitat, specifically applied land use controls, and local private and public agreements.

City-wide Biological Resource Assessment and Environmental Planning for the City of Poway, San Diego County, Department of Planning, City of Poway. Task manager for a city-wide California gnatcatcher survey encompassing over 8,000 acres of suitable habitat and development of habitat assessment for coastal sage scrub habitats. Suitable California gnatcatcher habitat within Poway and its Sphere of Influence was identified and recommendations for habitat acquisition priorities and management of biological open space to sustain viable California gnatcatcher populations were made. This project won an Orchid award in the Orchids and Onions Community Awareness Program.

The Headlands, Dana Point CA, Headlands Reserve, LLC. Assisted with the processing of the development plan and California Coastal Commission coastal permit process for this 121-acre coastal property that supports California gnatcatcher, Pacific pocket mouse and several rare plants. Developing & implementing the habitat management, mitigation and restoration plans.

Otay Mountain/Kuchamaa Cooperative Planning Area Biological Monitoring Plan, GIS Database Development, and Cultural Resources Study, BLM. URS prepared a complete GIS Database, Biological Monitoring Plan, and Cultural Resources Study for the Otay/Kuchamaa Cooperative Planning Area managed by the Bureau of Land Management in San Diego County, Ca. The objective of this task order was the development of the baseline database – developed as GIS data layers – needed to conduct the planning process and EIS analysis, including development of a reasonable range of land management alternatives. The focus of the baseline conditions was related directly to the biological and cultural resources for the management area. This project received a Merit Award from the San Diego AEP.

BLM Resource Management Plan Revision, and EIS, and Biological Assessment, Socorro, New Mexico. Biology task manager for impacts analyses on special status species, vegetation, wildlife and livestock grazing sections for an EIS and BA.

Oceanside Subarea Habitat Conservation Plan/NCCP, Department of Planning, City of Oceanside. A principal participant in habitat and target species assessments and the evaluation of a regional California gnatcatcher movement corridor between San Marcos and Camp Pendleton through Carlsbad and Oceanside.

Point Loma Habitat Management Plan, U.S. Navy. Participated in the development of a habitat evaluation model to aid in the relative valuation of habitat areas and assignment of conservation and habitat management priorities within the study area.

Escondido Master Plan of Parks, Trails, and Open Space/EIR, Department of Planning, City of Escondido. Task manager for identification of regionally significant wildlife corridors throughout the City of Escondido. Regional and site-specific analyses of Escondido's biological resources were made as part of the city's commitment to expand park and recreation facilities, establish long-term open space, and identify mitigation priorities. The regional analysis identified a primary wildlife corridor system to be retained within the city, and concentrations of high quality biological resources recommended for protection through open space easements or for use as mitigation.

Wetlands Management Plan for the Island of Saipan, Coastal Resource Management Office, Commonwealth Government of the Northern Mariana Islands. Project manager/zoologist for a comprehensive wetlands

management plan for the island of Saipan. Study involved habitat evaluation and assessment. Recommendations for habitat acquisition priorities and management were made for the conservation of significant wetland resources on Saipan.

The Oasis Project, U.S. Air Force, Air Combat Command. Senior wildlife biologist involved in landscape level evaluation of biodiversity on two Air Force training ranges (in Idaho and North Carolina) compared to adjacent areas where land use patterns differ from the training ranges.

DeLuz Habitat Mitigation Bank, The Eadington Companies. Biological consultant assisting the formation and wildlife agency approval of a 141-acre San Diego County mitigation bank dominated by riparian and oak woodlands.

San Elijo Hills Open Space Management, San Marcos, CA
Oversaw implementation of habitat management plan for 1000 acres of natural open space in the San Elijo Hills community. Monitored fire fuel management task, invasive weed removal, habitat restoration, and prevention of unauthorized dumping. Included a population census of California gnatcatcher to measure success of the conservation effort. Prepared yearly summary reports.

FEMA/CDF and FEMA/City of San Bernardino Prescribed Burn Program - Prepared Programmatic Biological Assessments for proposed prescribed burns in San Bernardino County.

FEMA/City of San Diego Vegetation Management Program - Sr. Reviewer of Biological Assessment for proposed $3M vegetation reduction projects in San Diego.

BIOLOGICAL ASSESSMENT/MITIGATION

Department of Defense

SEA for MCAS Miramar Housing Project, U.S. Navy. Sr. Biologist overseeing the biological impact assessment for a SEA document. Provided technical support to ESA Section 7 consultation through the delineation of historically occupied gnatcatcher habitat.

USMC BEQ Housing Siting Studies – NEPA and Operational Constraints, MCB Camp Pendleton. US Navy. Provided senior technical review of biological constraints assessments.

EA/BA for New Hospital and Exchange projects at Camp Pendleton. US Navy. Sr. Biologist overseeing biological assessment of proposed new facilities. Issues include California gnatcatcher and vernal pool habitat.

Biological Assessment/EIS of BRAC Actions at MCAS Camp Pendleton, U.S. Navy. Principal Investigator for an intensive behavioral ecology study of potential effects of helicopter over-flight activity on the vocalization behavior of the endangered least Bell's vireo. This study also included a statistical analysis of vireo breeding success in relation to CNEL noise contours for the MCAS. Senior Biologist overseeing preparation of NEPA/EIS documents that focused on indirect effects to least Bell's vireo, southwestern willow flycatcher, and California gnatcatcher.

Biological Assessment/EIS of BRAC Actions at NAS Miramar, U.S. Navy. Senior Biologist overseeing biological assessment of realigning NAS Miramar as MCAS Miramar. NEPA/EIS documents that focused on potential adverse effect to vernal pool habitat and associated sensitive species, wetlands, California gnatcatcher, and regional wildlife corridors.

Programmatic EIS for Testing and Operations at Pt. Mugu Air Warfare Center, U.S. Navy. Senior Biologist overseeing biological assessment of testing and operation programs. Emphasis was on associated biological effects on sensitive waterbirds and marine mammals within the 36,000 square mile Sea Test Range in the Southern California bight.

Biological Assessment/EA of Helicopter Outlying Landing Field, MCB Camp Pendleton, U.S. Navy. Senior Biologist overseeing preparation of NEPA/ESA documents for proposed HOLF facility. Biological issues included potential impacts to vernal pool habitat and associated sensitive species, Stephen's kangaroo rat, arroyo southwestern toad, and indirect effects to California gnatcatcher and least Bells' vireo.

Construction Biological Monitoring Program for VertRep Project, Camp Pendleton, Stronghold Electric/U.S. Navy. Project manager for implementation of construction monitoring and environmental awareness program for contractor staff for a construction of a helicopter landing facility at a coastal bluff site. Sensitive resources protected included vernal pools, coastal sage scrub, and California gnatcatcher.

Homeporting Project EIS, San Diego Bay, U.S. Navy. Senior Biologist assessing impacts on wildlife associated with dredging and site improvements for the homeporting of two aircraft carriers in San Diego Bay.

San Nicolas Island Barge Landing EA, U.S. Navy. Principal biologist for the biological assessment of existing barge landing activities and evaluation of alternative landing sites on the island. EA focused on potential impacts to marine mammals, snowy plover, seabird colonies and sensitive plants.

Preconstruction Survey for Micronesian Megapode at the Saipan Radar Installation, Commonwealth of the Northern Marian Islands, U.S. Air Force. Principal investigator that conducted focused surveys for the sensitive Micronesian megapode and recommended mitigation to minimize impacts to this species.

Transportation Projects

Mammoth Lakes Airport Expansion EIS, FAA. Senior biologists overseeing the biological assessment of new commercial service at regional airport. Issues included indirect impacts to breeding grounds of sage grouse.

Teledyne-Ryan Demolition EIR, Port of San Diego/Airport Authority. Biology Task Manager for the EIR for the proposed demolition of existing aviation manufacturing facilities located on North harbor Drive in San Diego, CA. Wildlife agency coordination, and least tern nesting BMP measures are key issues.

Mitigation Credit Valuation and Biological Assessments. San Diego Airport Authority. Project Manager assisting airport staff in the valuation of mitigation credits assigned to wildlife refuge lands being restored with Airport Authority funds. Biological assessments associated with least tern breeding and foraging areas at the airport.

Natural Environment Study, Interstate 805 Widening Project, SANDAG. Task Manager overseeing NES assessment, vegetation mapping, and T&E species surveys for 25-mile freeway widening project. Species included least Bell's vireo, San Diego fairy shrimp, and California gnatcatcher.

On-call Environmental Services, County of San Diego Public Works. Biology Task Manager for numerous public works (road and utility) projects.

Coastal Rail Trail EIR/CE, San Diego, California. Biology Task Manager for an EIR/CE for a proposed trail that would start near Del Mar and run south to connect to the existing Rose Canyon bike path. Three proposed Class I bike path areas are the focus: Sorrento Valley Road between Carmel Valley Road and Carmel Mountain Road, Roselle Street to Eastgate, and Genesee (Nobel Drive) to Gillman Drive. The project includes multiple agency review including Caltrans/FHWA, City of San Diego and others.

Mira Sorrento Place Extension EIR. City of San Diego. Project Manager and Biology task manager. ASCE award-winning project.

Carmel Valley Road Improvement Project EIR, City of San Diego. Biology task manager.

Construction Monitoring and Burrowing Owl Removal Program for SR 7, El Centro, Caltrans. Project Manager.

Exotic Predator Removal Program, San Mateo Creek and Lagoon, Caltrans. Project Manager for an exotic predator control program at San Mateo Creek in San Diego County. Removed exotic species including bullfrogs, crayfish, and mosquito fish using gigs and seines to benefit native rare tidewater gobies and arroyo toads.

Natural Environment Study (NES) of SR 11, East Otay Mesa Border Crossing, Caltrans. Project manager for biological assessment of a 1,000-acre study area.

Endangered Species Surveys for Interstate 5 Widening Project, Caltrans.

I-5/SR-56 Interchange Improvement Project EIR/EIS, Caltrans and City of San Diego. Project manager for biological assessment and CEQA process.

Biological Surveys for SR 52 Widening Project, Caltrans. Project manager for biological assessment.

Construction Monitoring for SR 73 Water Quality Facilities Upgrade Project, Caltrans.

Biological Assessment, Cajon Pass Triple Track Project, BNSF Railroad.

Construction Monitoring and Burrowing Owl Mitigation Program for Union Pacific Track Removal Project, Union Pacific Railroad.

Wetland Mitigation Planning and Permitting Assistance for Light Rail Transit (LRT) Projects in San Diego County, Metropolitan and North County Transit Development Boards. Project manager responsible for impact assessment, mitigation planning, and permitting assistance for several proposed commuter rail projects whose alignments must cross wetland habitat.

North County Light Rail Transit Project EIR, North County Transit Development Board. Principal wildlife biologist assessing potential biological impacts associated with a light rail transit line between Oceanside and Escondido.

Biological Assessments of Four Road Widening Projects, County of San Diego. Senior biologist overseeing the biological assessment of four road-widening projects in southeastern San Diego County. Sensitive species included least Bell's vireo and California gnatcatcher.

Biological Assessments of Proposed Widening and Extension of San Elijo Road, Twin Oaks Valley Road, Rancho Santa Fe Road, and Melrose Drive, City of San Marcos. Senior biologist and author of biological assessments for four critical regional road projects in San Marcos. Key biological issues included California gnatcatcher and regional wildlife corridors.

Biological Assessment and EIR for Scripps-Poway Parkway, City of Poway. Senior biologist for this major roadway project through the undeveloped portion of south Poway that provides a regional linkage between SR 167 and I-15. Major issues included California gnatcatcher, wildlife corridors, and potential conflicts with the City's habitat conservation plan.

Sorrento Valley Road Improvement Project EIR, City of San Diego. Senior biologist providing biological assessment for road project directly adjacent to Los Peñasquitos Lagoon. Sensitive resources included saltmarsh and riparian wetlands, clapper rail, Belding's Savannah sparrow, and California gnatcatcher and two regional wildlife corridors.

Construction Monitoring and Burrowing Owl Mitigation Program for Union Pacific Track Removal Project, Union Pacific Railroad. Project manager for implementation of biological monitoring program for track removal between Holtville and El Centro, Imperial County, California.

Las Pilitas Bridge Replacement Project, County of San Luis Obispo. Senior biologist providing technical review of Natural Environment Study documents.

Rigel Street Bridge Replacement Project, City of San Diego. Provided biological assessment and assistance in processing streambed alteration agreement.

Atchinson Avenue Bridge Replacement Project, City of Roseville. Senior biologist overseeing the preparation of Natural Environment Study document and wetlands delineation for wetlands permitting process. Sensitive species include Coho salmon, steelhead, and valley oak

Ford Avenue Bridge Replacement Project, Alameda Corridor Project Team. Provided wetlands permitting assistance.

Energy Projects

Wind Implementation Monitoring Program (WIMP IV), County of Riverside Planning Department. Biology Task Manager and lead consultant for the Planning Department to evaluate the ongoing and potential future impacts of Wind Farm Development within the San Gregornio Wind Resource Area. Document assessed visual, noise assessment, air quality, communication systems, navigation element study, fire protection, police services, retrofit and biological resources elements of an ongoing monitoring program.

Phase I Avian Risk Assessment of Wind Energy Projects in Brisco County TX, RES America Developments. Provided technical peer-review of consultant siting assessment for risk to avian mortality.

Horizon Wind Energy Project, Barstow CA. Biology task manager overseeing biological surveys for rare plants and desert tortoise within a 43,000-acre study area.

CHEVRONTEXACO de MEXICO Onshore LNG Receiving Terminal, Baja California. Senior biologist overseeing biological assessment of an offshore LNG terminal located near the Coronado Islands, Baja California, Mexico. Key issues included assessment of potential impacts to seabirds.

Kinder Morgan CalNev Pipeline. Principal Scientist supporting Biology Task Manager for 233-mile fuel pipeline project from Colton, CA to Las Vegas, NV. Task includes vegetation, jurisdictional waters, sensitive species surveys, impact assessments, and permitting.

Niland Proposed Power Plant, Small Power Plant Exemption (SPPE), Imperial County, CA. Imperial Irrigation District Peaker Development Project. Biological Construction Monitoring Task Manager for a 30-acre generating station, Imperial County.

Starwood Midway Peaker Power Plant AFC. Senior biologist overseeing biological assessment and ESA permitting of power plant project in Kern County.

Panoche Peaker Power Plant AFC. Senior biologist assisting in biological assessment and ESA permitting of power plant project in Kern County.

Ausra Solar Thermal Energy Project AFC. Senior biologist overseeing biological assessment and ESA permitting of solar thermal power plant project in San Luis Obispo County. Project involved intensive surveys for blunt-nosed leopard lizard on a 1000-acre project area.

SES Solar One Energy Project AFC. Senior biologist overseeing biological assessment and ESA permitting of power plant project in San Bernardino County. Project involved intensive surveys for desert tortoise and Mohave ground squirrel on a 16,000-acre project site and 100-mile transmission line.

SES Solar Two Energy Project AFC. Senior biologist overseeing biological assessment and ESA permitting of power plant project in Imperial County. Project involved intensive surveys for flat-tailed horned lizard on a 8,000-acre project site and 8-mile transmission line.

Bethel Solar Thermal Hybrid Power Project, Niland, Imperial Co. CA. Senior biologist overseeing biological assessment of solar thermal and biofuels hybrid power plant project.

San Joaquin Solar Hybrid, Coalinga CA AFC. Senior biologist overseeing biological assessment of solar thermal and biofuels hybrid power plant project.

CalEnergy Salton Sea Unit 6 Geothermal Power Plant AFC. Project manager overseeing AFC document preparation. The California Energy Commission processed the licensing for construction and operation of the Salton Sea Unit 6 Geothermal Power Project, a proposed 185 net megawatt power plant in Imperial County, near the southern extent of the Salton Sea. Geothermal projects from the Salton Sea Known Geothermal Resource Area rarely come to the commission for action as most of these are much smaller, ranging from 10 to 45 megawatts, not requiring Energy Commission licensing. The Salton Sea Unit 6 project was unique based upon the size of the proposed plant, the location of the project near environmentally sensitive habitat, and the Sonny Bono Salton Sea National Wildlife Refuge. In addition, Imperial County has unique socioeconomic and geographic conditions. These factors provide the complex context within which this project was evaluated. Most CEC technical staff were not initially familiar with the area, or the unique aspects of a geothermal power facility deriving steam flashed directly from produced hot brine. The AFC document prepared by URS for the project provided an excellent platform for the CEC analysis, clearly presenting the necessary technical information. The complex information was presented in a format and context that highlighted the unique aspects of geothermal power production, and the environmental and socioeconomic conditions of the project area and this region. Notably, the CEC deemed the AFC “data adequate” within nine months of initial project application.

Meadow Valley Generating Plant EIS, Southern Nevada. Biology Task Manager overseeing desert tortoise and rare plant surveys and biological assessment for a 1,000 MW gas-fired combined cycle power plant proposed north of Las Vegas.

Larkspur Power Facility AFC Amendment, San Diego County, CA. Sr. Biologist for the Post-Certification Amendment to modify the Existing Larkspur Energy Facility in Otay Mesa, San Diego, to add a third generator.

Infrastructure Facility Projects

Big Tujunga Dam Seismic Rehabilitation and Spillway Modification Project. Senior Biologist assisting FEMA and Los Angeles County Department of Public Works in the CEQA/NEPA compliance for the proposed seismic retrofit of Big Tujunga Dam, near Sunland, Los Angeles County. URS is conducting biological surveys of the project area and is preparing CEQA/NEPA and Section 7 documents. Key issues include construction and dam operational impacts to Santa Ana Sucker and Arroyo Toad Designated Critical Habitat.

Miramar Landfill Capacity Increase EIR. City of San Diego Environmental Services. Assisted with the preparation of the EIR document for the proposed increased capacity of the landfill by increasing the landfill height by 20 feet and extend the landfill life span by 4+years. This document won the top AEP San Diego Chapter environmental document award in 2007.

Miramar General Development Plan EIR/EIS, City of San Diego Waste Management Department. Participant in the evaluation of plan proposing a variety of landfill-associated facilities. Sensitive species, habitat, and wildlife corridors were issues of concern.

Biological Assessment of Proposed International Airport at Maj Po Mash, Shenzhen, China, City of Shenzhen. Principal investigator that evaluated potential impacts to biological resources at wetlands and bay adjacent to a proposed airport site.

Emergency Water Storage Project, San Diego County Water Authority. Principal author of Biological Assessment that included detailed estimation and justification of incidental take and habitat values of endangered species and their habitats expected to be impacted by the proposed reservoir project. Assessment was used in ACOE 404 permitting and ESA Section 7 consultation with the wildlife agencies. This project received an AEP planning award.

Evaluation of Biological and Water Quality Monitoring Program of the Shanghai River, China, Shanghai Sewerage Authority. Principal investigator responsible for assessment and recommendations for biological and water quality monitoring program for the Shanghai Sewerage System.

Alvarado Water Filtration Plant Project, City of San Diego. Senior biologist overseeing construction monitoring impacts to coastal sage scrub and California gnatcatchers. The gnatcatcher population within the project vicinity was monitored for 3 breeding seasons during project environmental review and implementation.

Chandler Landfill Water Recharge Basin Demonstration Project, Rolling Hills, CA, Water Replenishment District of Southern California. Senior biologist overseeing wetlands delineation and permitting assistance.

Gilroy Landslide Remediation Evaluation, Santa Clara Valley Water District. Senior biologist overseeing biological assessment and permitting for remediation of a landslide threatening a major water aqueduct. Sensitive species include red-legged frog, California tiger salamander, San Joaquin kit fox, and valley oak.

SMUSD Administration Office Complex, San Marcos Unified School District. Senior biologist overseeing biological assessment of vernal pool site proposed for a school district office complex.

Nursery Products Composting Facility Initial Study (IS)/Mitigated Negative Declaration (MND)/Environmental Impact Assessment (EIR), San Bernardino, CA. Biology Task Project for the CEQA assessment development of a 160-acre biosolids/green waste composting facility near Hinckley, San Bernardino County.

Mountain Pass Mine Expansion Project, Molycorp, Inc. Senior biologist overseeing biological assessment and wetland delineation for the 30-year expansion plan for an existing rare earth element mine in San Bernardino County. Sensitive species included desert tortoise and three rare deserts plant species.

Residential Development Projects

EIR/Mitigation Monitoring Program for San Elijo Ranch Development, City of San Marcos. EIR biologist and project manager for development and implementation of a mitigation monitoring program for the approved 2,100-acre San Elijo Ranch development. Tasks included evaluating potential impacts to sensitive plant and animal species and

negotiating mitigation measures deemed acceptable to all concerned parties. Sensitive plant and animal surveys were conducted and format mitigation plans were prepared. Habitat restoration plans and 404/1603 permit applications for impacts to wetlands, coastal sage scrub, and native grassland were prepared.

Biological Assessment and Mitigation Planning, Calavera Heights Development, Carlsbad, Lyon Communities. Project manager overseeing assessment of biological impacts and development and implementation of mitigation monitoring program. Also provided permitting assistance and resource agency liaison services.

Otay Ranch Programmatic EIR, City of Chula Vista/County of San Diego. Participated in biological assessment of proposed development and preserve design of 23,000-acre Otay Ranch in southern San Diego County. Major issues included potential impacts to wildlife corridors and a multitude of sensitive wildlife species and their habitats.

On-call Consulting Services for Otay Land Company, Otay Land Co., LLC. Senior biologist overseeing on-call environmental consulting services contract for 4,800-acre ownership within Otay Ranch planning area. Projects are listed below

- **OLC Otay River Parcel C EUC Soil Storage Project**
- **OLC Otay River Parcel C Development Project**
- **OLC Otay River Parcel B Development Project**
- **OLC Proctor Valley Parcel D Sensitive Resource Surveys**

Skeet Range Redevelopment Project, Flat Rock Land Company, Chula Vista, CA - Project manager for the biological assessment and ESA Phase I reports.

Otay River Parcel A Development, Flat Rock Land Company, Chula Vista, CA. Project manager for the biological assessment report.

University Commons EIR and Mitigation Plan, City of San Marcos. Biological assessment of a residential/commercial development and preparation and implementation of a biological mitigation monitoring program. Services included resource agency liaison and permitting assistance.

Salt Creek Ranch EIR, City of Chula Vista. Principal wildlife biologist assessing residential/commercial development and preparation of a biological mitigation monitoring program. Services included resource agency liaison and permitting assistance.

Fanita Ranch EIR, City of Santee. Participated in the biological assessment of a 5,600-acre specific plan area. Impacts to sensitive habitats, species and wildlife corridors were the primary issues of concern.

Development Constraints Assessment for Tom Dyke Ranch, Saint Vincent De Paul Society. Project manager overseeing detailed development constraints assessment for a proposed children's camp and conference center facility.

San Marcos Highlands Biological Assessment, City of San Marcos. Project manager overseeing assessment of biological impacts for a proposed residential development on a 250-acre site.

Hampton Heights Project EIR, County of San Bernardino. Provided assessment of biological impacts for a proposed residential and golf course development on a 470-acre site near Redlands, California.

Willows Development Project, Temecula, Willows Investment Group. Senior biologist for wetlands delineation and permitting program for a 32-acre residential development.

Vista Palisades Estates Project, Capital Pacific Homes. Senior biologist for assessment of biological impacts for a proposed residential development on a 390-acre site near Vista, California.

Benicia Specific Plan EIR, City of Benicia. Principal wildlife biologist assessing a residential/commercial development within a 2,500-acre specific plan area. Impacts to sensitive habitats, species, and wildlife corridors were the primary issues of concern.

East Otay Mesa Biological Assessment, County of San Diego. Participated in the biological assessment of a 5,300-acre specific plan area. Impacts to sensitive habitats, species and wildlife corridors were the primary issues of concern.

Santa Fe Valley/4S Ranch Biological Assessment, County of San Diego. Participated in the biological assessment of two specific plans areas encompassing about 6,000 acres. Developed a habitat evaluation model to aid in the relative valuation of habitat areas.

Coastal Development, Recreation Projects

ESPN X-Games, Mission Bay San Diego, ESPN. Biological consultant providing technical support of California Coastal Commission permitting process. Provided biological assessment and proposed mitigation program for potential impacts to California least tern breeding colony.

Mission Bay Park Shoreline Stabilization and Restoration Project and Natural Resource Management Plan EIR, City of San Diego. Principal wildlife biologist in the biological evaluation of methods proposed for shoreline stabilization/restoration and the proposed long-term maintenance/enhancement plan for natural resources. Primary issues of concern included impacts to wetlands, least tern foraging habitat, and shorebird foraging habitat.

Convair Lagoon Remediation Project EIR, San Diego Port Authority. Principal biologist assessing impacts of hazardous waste remediation project on waterbird species using the lagoon.

National City Marine Terminal Wharf Expansion Project EIR, San Diego Port Authority. Principal biologist assessing impacts of wharf expansion project on mariner resources, including waterbird species.

Biological Resource Inventory and Environmental Assessment of Proposed Marina at Ballona Lagoon, Marina del Rey, California, Silver Strand Marina Association. Principal investigator for a comprehensive assessment of potential impacts to biological resources from a proposed marina at a 13-acre lagoon. Studies included documentation of California least tern and shorebird use of the lagoon.

Biological Assessment of the Ormond Beach Area Concept Plan, City of Oxnard. Principal investigator for an evaluation of proposed resource management and development plan for coastal dune and wetland habitats of Ormond Beach.

Biological Assessment of Elsinore Lake Management Plan, Lake Elsinore, California, Elsinore Water Authority. Project biologist that evaluated impacts to biological resources of Elsinore Lake from a proposed water-level control facility.

Poway Amphitheater EIR, City of Poway. Principal biologist assessing impacts of proposed amphitheater. Impacts to sensitive plants, California gnatcatcher and a regional wildlife corridor were key issues addressed in the EIR.

Habitat Restoration

Dr. Mock has produced habitat restoration plans and overseen the monitoring of plan implementation and maintenance for several projects, including Dana Point Headlands, San Elijo Hills, San Elijo Road, Twin Oaks Valley Road, Mira Sorrento Place, San Marcos Universal Boot, MCAS Miramar erosion control.

Other Relevant Experience

California Department of Fish and Game Biologist. Prepared bird and mammal sections of the Department's biannual report to the State Legislature on the status of California's endangered wildlife; Conducted surveys for wintering bald eagles and riparian birds.

Teaching

Principles of Ecology for Natural Resource Management, University of California, San Diego. Dr. Mock taught a course for three years on ecology that emphasizes the application of ecological knowledge toward solving problems in conservation biology and regional land use planning.

Wildlife Management, University of California, San Diego. Dr. Mock taught a course for three years on wildlife ecology/management that emphasizes techniques for conservation of wildlife population and their habitats.

Biological Assessment, University of San Diego. Dr. Mock taught a course on Biological Assessment that emphasized the requirements of CEQA, NEPA and ESA. Project case histories were used to provide students with real world examples of the types of environmental issues, which typically need to be addressed in a biological assessment.

Masters Thesis Committee Member, Geography Department, San Diego State University. Dr. Mock served as an adjunct member of a thesis committee of a biogeography graduate student, who evaluated the umbrella species concept as it applied to the conservation of the California gnatcatcher. Dr. Mock advised the student on habitat reserve design and population viability analysis.

Teaching Fellow, Biology Department, University of California, Los Angeles. Dr. Mock taught laboratory sessions for various biology courses while a graduate student. Courses included ornithology, comparative physiology, cell physiology, animal behavior, and introductory biology.

Technical Reviewer

Dr Mock provided peer review for manuscripts submitted to Conservation Biology, The Auk, Ecology, Condor, Ecological Monographs, Western Birds, *Ornis Scandinavica*,

- Proceedings of Symposium on Wildlife Habitat Restoration and Management
- Proceedings of a Symposium on Wildlife Habitat Restoration
- Proceedings of the Wildland Interface II Symposium
- Reviewer of Partners-in-Flight conservation plan for Southern California shrubland habitats
- Natural Communities Conservation Planning (NCCP) Core Group Reviewer of the Research Agenda
- Reviewer for selected sections and species accounts of *San Diego Bird Atlas*

Reviewer of draft CDFG report on Bird Species of Special Concern

Professional Societies/Affiliates

Ecological Society of America
The Wildlife Society
Pacific Seabird Group, past Southern California Representative
Society for Conservation Biology
Association of Field Ornithologists
California Native Plant Society

Publications

At the Crossroads 1980: A report on California's endangered and rare fish and wildlife. California Department of Fish and Game report to the California Legislature. 1982. Dr. Mock contributed sections pertaining to endangered birds and mammals.

Christmas bird counts as indices of population status of brown pelicans and three gull species in Florida. American Birds 41: 1334-1339, 1987. R.W. Schreiber co-author.

Eastern brown pelicans: what does sixty years of banding tell us? Journal of Field Ornithology 59: 171-182, 1988. R.W. Schreiber co-author.

Energetics of growth and maturation in sympatric passerines that fledge at different ages. The Auk 108: 34-41, 1991. M. Khubesrian and D.M. Larcheveque co-authors.

Daily allocation of time and energy by adult western bluebirds feeding nestlings. Condor 93: 598-611, 1991.

Energetic constraints to the distribution and abundance of the California gnatcatcher. Western Birds 29:413-420.

California gnatcatcher territorial behavior. Western Birds 29:242-257. K. Preston, M. Grishaver, E. Bailey, and D. King co-authors.

California gnatcatcher vocalization behavior. Western Birds 29:258-268. K. Preston and M. Grishaver co-authors.

Dispersal capabilities of the coastal California gnatcatcher: a landscape analysis of distribution data. Western Birds 29:351-360. E. Bailey co-author.

Is the California gnatcatcher a good umbrella species for habitat reserve design? Western Birds 29:453-467. S. Fleury and J. O'Leary co-authors.

Breeding behavior of the California gnatcatcher in the vicinity of Rancho San Diego, California. Western Birds 299-322. M. Grishaver and K. Preston, co-authors.

California Gnatcatcher – Dr. Mock contributed the species account in Partners-in-Flight conservation plan for Southern California shrubland habitats.

California Gnatcatcher – Dr. Mock contributed the species account in the *San Diego Bird Atlas,* authored by Phil Unitt in 2004.

Contact Information

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Rebecca Apple, RPA
Principal/Senior Archaeologist

Education
MA, Anthropology, San Diego State University, 1990
BA, Anthropology, San Diego State University, 1978

Professional Registrations
Register of Professional Archaeologists

Accreditation
Certified Archaeology Consultant, County of San Diego

Professional Affiliations
Member, Society for American Archaeology
Member, Society for California Archaeology

Awards + Honors
Phi Kappa Phi
Phi Beta Kappa
University Scholar, 1987 and 1988

Publications + Technical Papers
Introduction to Recent Archeological Investigations at the Salton Sea Test Base, Imperial County California. Proceedings of the Society for California Archaeology, Volume 12. Fresno, California (1999).

Recent Archaeological Investigations in the North Las Vegas Valley (with J.H. Cleland and M.S. Kelly). In Crossing the Borders: Quaternary Studies in Eastern California and Southwestern Nevada. San Bernardino County Museum Association Special Publication (1991).

Presentations

Setting the Scene: Interpretive Planninag and Implementation in Old Town Histric State Park. **Paper presented at the 42nd Annual Meeting of the Society for California Archaeology, Burbank (2008).**

***Mapping and Managing Pathways to the Past*. Paper presented at the 22nd Annual ESRI International User Conference, San Diego, California (2002).**

Introduction to Recent Archaeological Investigations at Salton Sea Test Base, Imperial County, California. Paper presented at the 32nd Annual Meeting for Society for California Archaeology, San Diego (1998).

A Lake Mojave Period Site Near Silver Lake, California (with A. York). Presented at the 26th Annual Meeting of the Society for California Archaeology, Pasadena (1992).

Rebecca Apple has over 20 years of experience in cultural resource management and serves as senior archaeologist for AECOM. Her experience includes managing cultural resources compliance efforts for large complex projects. She is knowledgeable in the procedures and guidelines associated with implementation of NEPA, NHPA, and CEQA, as well as CEC reguations for Power Plant Site Certification. She has managed numerous cultural resource projects, including prehistoric, historic, and ethnographic studies. She has directed inventories, evaluations, data recovery efforts, and monitoring programs. She has also prepared management plans and conducted feasibility studies. Her work frequently includes consultation with municipal, state, and federal agencies, as well as Native American representatives and the public. As part of interdisciplinary teams, she has managed cultural resources investigations and authored cultural resource sections for AFCs, ISs, EAs, EIRs, and EISs. Her experience includes cultural resource investigations for pipelines, transmission lines, power plants, highways, landfills, water resource facilities, military installations, and commercial and residential development.

Project Experience

Energy and Transmission Projects

Imperial Valley Solar Project (formerly SES Solar Two), Imperial County, CA
Responsible for consultation regarding cultural resource compliance measures for a large solar project in Imperial County. Involves coordination with California Energy Commission Staff, Bureau of Land Management, and other consulting parties including Native American representatives on Conditions of Certification and a Programmatic Agreement.

Solar Millennium Power Projects, Riverside and Kern Counties, CA
Responsible for oversight of archaeological and architectural surveys, technical reports, coordination with CEC staff, and preparation of AFC sections for three large solar projects in the Colorado and Mojave deserts on lands managed by Bureau of Land Management.

Beacon Solar Energy Project, Kern County, CA
Responsible for oversight of archaeological and architectural surveys, technical reports, coordination with CEC staff, and preparation of AFC sections for an approximately 2,000-acre solar project.

Mojave Solar Project, San Bernardino County, CA
Responsible for oversight of archaeological and architectural surveys, technical reports, and preparation of AFC sections for an approximately 2,000-acre solar project.

North Baja LLC (TransCanada) Yuma Lateral Pipeline Project, Yuma, AZ
Responsible for cultural services, conducting records searches, archival research, Native American consultation, and survey of the preferred alignment. Identified resources included the Yuma Valley Railroad, a National Register-eligible property.

Harper Lake Cultural Resources Constraints Study, San Bernardino County, CA
Responsible for field reconnaissance and constraints analysis for a proposed 3,300-acre specific plan area. Potential development included a diary and energy park.

North Baja Pipeline Project, Ehrenberg, Arizona to Mexican Border
Responsible for cultural services, conducting records searches, archival research, Native American consultation, survey of the preferred alignment and alternatives, site evaluation, and data recovery.

DeAnza Pipeline Constraints and Permitting Analysis, Ehrenberg, AZ to Calexico, CA
Responsible for cultural services, providing information on distribution of cultural resources along the proposed pipeline corridor in report format, with accompanying maps showing these resources and other constraints.

Sempra Utilities On-call Cultural Services, CA
Resource manager for cultural resource task orders. Most recent task order dealt with artifact curation for a City project.

Imperial Irrigation District Cultural Survey, Imperial County, CA
Responsible for cultural resources component of two transmission line studies. Survey and testing were conducted in conjunction with pole replacement along the R and L transmission lines.

Los Angeles Department of Water & Power Mead-Adelanto Transmission Line, Clark County, NV, and San Bernardino County, CA
Cultural resource survey.

San Diego Gas & Electric Sycamore Canyon Substation to Rancho Carmel Substation 69-kV Transmission Line Project, San Diego County, CA
Responsible for cultural resources component of a PEA document for submittal to the CPUC that evaluated the potential environmental impacts of a proposed 69-kV transmission line.

Los Angeles Department of Water & Power Coso Known Geothermal Resource Area, Inyo County, CA
Responsible for data recovery investigations at two geothermal well-pads located in the Sugarloaf Mountain Obsidian Source National Register District.

Exxon Corporation Santa Ynez Unit Development, Santa Barbara County, CA
Supervised data recovery excavations of a prehistoric coastal site.

Southern Californian Edison Big Creek Expansion Project Transmission Line, South Central, CA
Responsible for cultural resource impact assessment of alternative routes for a proposed transmission line from the Big Creek Hydroelectric Project in the Sierras to the Los Angeles Basin.

Kern River Gas Transmission Project, WY, UT, NV, and CA
Inventory, evaluation, data recovery, and construction monitoring for California portion of this Class I overview.

Argus Cogeneration Expansion, San Bernardino and Inyo Counties, CA
Supervised cultural resource survey and documentation for a water pipeline for Kerr McGee.

Sacramento Municipal Utility District Geothermal Public Power Line Project, North Central CA
Responsible for cultural resource surveys for a proposed transmission line from the Geysers Geothermal Area to Sacramento.

San Diego Gas & Electric Southwest Powerlink 500-kV Transmission Line EIR/EIS, Imperial and San Diego Counties, CA
Participated in Section 106 compliance activities, including data recovery, analysis, and report preparation.

Military Projects

NAVFAC Southwest and MCAS Yuma Integrated Cultural Resources Management Plan and Cultural Affiliation Study, Chocolate Mountains Aerial Gunnery Range, Marine Corps Air Station Yuma, Riverside, and Imperial Counties, CA
Preparing an ICRMP for CMAGR to guide cultural resources compliance efforts to facilitate CMAGR mission. ICRMP will summarize existing inventory and provide a process to streamline the inventory and evaluation process. Components of the ICRMP are a Regional Archaeological Research Design and a Cultural Affiliation Study.

NAVFAC Southwest and Navy Region Southwest Archaeological Evaluation of Sites on San Clemente Island, Los Angeles County, CA
Responsible for National Register of Historic Places Evaluation of four archaeological sites on San Clemente Island.

NAVFAC Southwest and Navy Region Southwest Cultural Resources Survey and Evaluation for Spring Hill and Associated Access Roads, Riverside County, CA
Directed archaeological resource survey of proposed facility to improve communications for aircraft and vehicles with the Chocolate Mountain Aerial Gunnery Range (CMAGR). Two sites were evaluated for eligibility to the National Register of Historic Places. One site appeared to contain very limited information potential and did not qualify for the NRHP. Site CA-RIV-8236 appeared to possess information relevant to addressing regional research issues and was recommended eligible for the NRHP.

U.S. Navy, Naval Facilities Engineering Command and Naval Base Point Loma Integrated Cultural Resources Management Plan Naval Base Point Loma, San Diego, CA
Preparing an ICRMP for CMAGR to guide cultural resources compliance efforts to facilitate CMAGR mission. ICRMP will summarize existing inventory and provide a process to streamline the inventory and evaluation process. Components of the ICRMP are a Regional Archaeological Research Design and a Cultural Affiliation Study.

NAVFAC Southwest and MCAS Yuma Archaeological Survey for the Chocolate Mountains Aerial Gunnery Range Central Training Area, Marine Corps Air Station Yuma, Imperial, CA
Responsible for cultural resource survey of proposed central training area on CMAGR. The 1,580-acre survey identified fours sites on R-2507S and four on R-2507 N. One of the sites on the South Range (the remains of a ranch complex) and three of the sites on the North Range (rock art, ceramics scatter, and a rock ring) were identified as potentially eligible for the National Register of Historic Places.

NAVFAC Southwest and MCAS Yumav Chocolate Mountains Aerial Gunnery Range: Cultural Resources Survey of 12 Targets and Monitoring of 14 Archaeological Sites, Riverside and Imperial Counties, CA
Directed cultural resource survey of 1,523 acres and site monitoring program on CMAGR. Inventoried site types were lithic scatters, trail segments, pot-drops, rock features, and a mining area. Monitoring program included lithic scatters, rock art, cleared circles, mining complexes, and a segment of historic road.

NAVFAC Southwest and MCAS Yuma Cultural Resources Survey of Six Areas on the Chocolate Mountains Aerial Gunnery Range, Imperial County, CA
Directed cultural resource survey of proposed Forward Air Reporting Position, range access, and target areas.

NAVFAC Southwest and MCAS Yuma Evaluation of 24 Sites at the Chocolate Mountains Aerial Gunnery Range, Imperial County, CA
Responsible for National Register of Historic Places evaluation of 24 sites in the Chocolate Mountains.

NAVFAC Southwest and MCAS Yuma Historic and Archaeological Resources Protection Plan, Chocolate Mountain Aerial Gunnery Range, Imperial and Riverside Counties, CA
Directed archival archaeological research and field visit for the Chocolate Mountain Aerial Gunnery Range. Prepared HARP Plan for the installation.

NAVFAC Southwest and MCAS Yuma Evaluation of Two Sites, MCAS Yuma, AZ
Evaluation of two archaeological sites near the MCAS Yuma airfield.

NAVFAC Southwest and MCAS Yuma San Clemente Island Operations Management Plan EIS, Naval Auxiliary Air Field, San Clemente Island, Los Angeles County, CA
Assessed current cultural resource inventory and supplemented in specific areas. Project

involved preparation of technical report documenting inventory efforts, including shipwreck study. Impact analysis conducted for existing and proposed military operations on San Clemente Island.

NAVFAC Southwest Indefinite Quantity Contract for Cultural Resource Services, CA and AZ
Contract manager for multiple task orders on a variety of projects involving archaeological surveys and archaeological evaluations throughout California and Arizona. Tasks include managing budget, overseeing staff, acting as point of contact, and preparation of final reports.

NAVFAC Southwest Archaeological Support for Environmental Assessment of Wind Farm Project, Naval Auxiliary Landing Field, San Clemente Island, Los Angeles County, CA
As Resource Manager, prepared cultural resource portion of the EA and placed protective signs at nine archaeological sites near or adjacent to the Wind Farm construction area.

NAVFAC Southwest Special Warfare Training and Range Survey, Naval Auxiliary Landing Field, San Clemente Island, Los Angeles County, CA
As Senior Archaeologist, performed cultural resource survey of proposed training ranges on San Clemente Island. Prepared technical report in support of an EA.

U.S. Navy, North Island Evaluation of Six Sites near the Missile Impact Range, Naval Auxiliary Landing Field, San Clemente Island, Los Angeles County, CA
As Project Manager, provided technical assistance for the NRHP evaluation of six archaeological sites on the Central Plateau of San Clemente Island.

NAVFAC Southwest and MCAS Yuma Historic and Archaeological Resources Protection Plan, MCAS Yuma, AZ
As Project Manager, directed archival archaeological research and building inventory for MCAS Yuma. Lead author on Historic and Archeological Resources Protection Plan for the installation.

NAVFAC Southwest Pumped-Hydro Storage Wind/Energy System, Naval Auxiliary Air Field, San Clemente Island, Los Angeles County, CA
As Resource Manager, relocated and recorded 76 archaeological sites in proposed water storage and wind/energy development area. Prepared existing conditions report.

NAVFAC Southwest Tactical Aircrew Combat Training System Range Upgrade, MCAS Yuma, AZ
As Project Manager, performed cultural resource survey of proposed transmission line and 17 threat emitter stations. Prepared testing plan.

NAVFAC Southwest Cultural Resource Inventory Survey at Salton Sea Test Base, Imperial County, CA
As Project Archaeologist, conducted intensive cultural resource survey for approximately 6,000 acres and evaluation program for 170 sites. Survey and test excavations were conducted in compliance with the NHPA, NAGPRA, and other federal regulations.

NAVFAC Southwest Historic and Archeological Resources Protection Plans, Los Angeles, Imperial, and San Diego Counties, CA
As Resource Manager, prepared HARP Plans for the following six Naval installations: Morris Dam Test Facility, Azusa; Naval Air Facility, El Centro; Naval Shipyard, Long Beach; Point Loma Complex, San Diego; Naval Station, San Diego; and the Naval Radio Receiving Facility, Imperial Beach.

NAVFAC Southwest Cultural Resources Technical Studies, MCAS Yuma, Yuma Training Range Complex, AZ and CA
As Project Archaeologist, directed cultural resource sample survey in the Chocolate Mountains Gunnery Range.

U.S. Army Corps of Engineers Mission Trails Regional Park Explosive Ordnance Demolition Environmental Assessment, San Diego County, CA
As Project Manager, directed cultural resource survey in support of an environmental assessment addressing the removal of ordnance from the former location of Camp Elliott.

U.S. Marine Corps Archeological Survey of Sierra I Impact Area, MCB Camp Pendleton, San Diego County, CA
As Resource Manager, performed cultural resource survey of approximately 2,500 acres on the northern portion of MCB Camp Pendleton.

Water Projects

San Diego County Water Authority Emergency Water Storage Project, San Diego County, CA
Resource Manager responsible for the cultural Resources Evaluation Program and Treatment Program. Assisted SDCWA with Native American consultation, implementation of a programmatic agreement, and coordination with ACOE. Project involved evaluation of over 20 cultural resources including San Vicente Dam. Under a Historic Properties Treatment Plan prepared by AECOM, research designs were prepared and carried out for prehistoric and historic period resources. Treatment measures included data recovery, site stabilization, and preparation of Historic American Engineering Record documentation for San Vicente Dam. Prepared Public Interpretive Plan.

City of San Diego Water Department North City Water Treatment Plant, San Diego, CA
As Resource Manager, managed cultural resource component of the North City Water Treatment Plant EIR. Project included survey and limited testing.

City of San Diego Balboa Park Wastewater Treatment, San Diego County, CA
As Archaeologist, participated in cultural resource documentation for a facility siting study.

City of San Diego Mission Valley Water Reclamation Plant, San Diego County, CA
Resource Manager responsible for archaeological testing and monitoring program in an area of potential archaeological sensitivity.

City of San Diego North Metro Interceptor Sewer, San Diego County, CA
Resource Manager responsible for cultural resource investigations for constraints analysis of proposed sewer alignments.

Los Angeles Department of Water and Power Freeman Junction, Kern County, CA
Resource Manager responsible for the survey of portions of 1st Los Angeles Aqueduct for cap strengthening project.

Southern California Edison Eastern Sierra Hydroelectric Relicensing, Mono and Inyo Counties, CA
As Field Director, participated in assessment of 22 sites within three hydroelectric project areas.

Pacific Gas and Electric Company Pit 3, 4, and 5 Hydroelectric Relicensing Project, Shasta County, CA
As Project Archaeologist, directed limited data recovery efforts at six archaeological sites threatened by shoreline erosion prior to stabilization.

City of San Diego Rose Canyon Trunk Sewer EIR, San Diego County, CA
As Archaeologist, conducted windshield reconnaissance and records search and prepared overview for proposed sewer.

San Diego County Water Authority Pamo Dam and Reservoir, San Diego County, CA
As Archaeologist, assisted in preparation of research design and conducted archaeological monitoring of geotechnical investigations.

Otay Water District Reservoir 657-2, San Diego County, CA
As Archaeologist, supervised survey and report preparation of proposed covered reservoir site in Spring Valley.

Pacific Gas and Electric Company Mokelumne River Hydroelectric Relicensing, Alpine, Amador, and Calaveras Counties, CA
As Crew Chief, participated in archaeological test excavations and NRHP evaluations.

Transportation Projects

VHB and Clark County Department of Aviation Southern Nevada Supplemental Airport EIS, Clark County, NV
Co-Principal Investigator responsible for cultural resource inventory of over 17,000 acres for a BLM and transfer. Class III survey also included Radar and Navaid facilities and retention basins. Class I studies for multiple alternatives. Project involved consultation with BLM, USFS, FAA, SHPO, Native American groups, and 106 other interested parties.

Caltrans and SANDAG SR-76 East, San Diego County, CA
Principal Investigator responsible for the cultural resource inventory and evaluation program for the SR-76 East widening project. Oversaw the survey of three alternative routes for archaeological and architectural resources, along with Extend Phase I excavations, ASR, HRER, and HPSR.

City of San Diego SR-56, San Diego County, CA
Resource Manager responsible for the cultural resource evaluation program for the SR-56 EIR. Evaluated 16 sites along two alternative freeway alignments.

Caltrans La Costa Avenue/I-5 Interchange, San Diego County, CA
As Project Archaeologist, directed an archaeological survey of proposed interchange improvements in the City of Carlsbad. The project requires close coordination with City and Caltrans staff.

County of San Diego SA 680/SF 728 Roadway Project Environmental Studies/EIR, San Diego County, CA
As Project Archaeologist, directed the test excavation and NRHP evaluation of four sites on the proposed project alignment. These investigations addressed the potential association of the sites with the Harris Site Complex.

Riverside County Transportation Commission SR-79, Riverside County, CA
Resource Manager responsible for cultural resource investigations for widening and realigning two highway segments. Prepared cultural resource sections for ISs and coordinated archaeological survey reports, historic architectural survey reports, and historic study report.

City of Victorville La Mesa/Nisqually Road Overpass, San Bernardino County, CA
As Project Archaeologist, supervised survey and prepared positive archaeological survey report and historic property survey report.

Landfill and Waste-Related Projects

Elsmere Corporation Canyon Landfill, Los Angeles County, CA
As Project Archaeologist, directed cultural resource assessment for the EIR/EIS.

County of San Diego Southwest San Diego Landfill Siting Study, San Diego County, CA
Resource Manager responsible for cultural resource assessments of potential landfill sites throughout the southwestern quadrant of San Diego County. Ranked the relative sensitivity of each potential site.

Land Development Projects

State of California Department of Parks and Recreation Heber Dunes Off-Highway Vehicle Park, Imperial County, CA
State Parks recently acquired Heber Dunes and is in the process of preparing a General Plan and EIR for the Park. As part of these efforts approximately 350 acres were inventoried for cultural resources. Ms. Apple served as the Cultural Resources Project Manager for the project.

State of California Department of Parks and Recreation and Riverside County Economic Development Authority Laborde Canyon Off-Highway Vehicle Park, Riverside County, CA
The areas of the SVRA that would be open to some level of OHV use would cover approximately 1,480 acres within the 2,640-acre Laborde Canyon site. We were contracted to conduct environmental studies for the Laborde Canyon site, including a cultural resource records search and an intensive cultural resources pedestrian survey of the proposed OHV park. Two prehistoric sites and the Lockheed Facility (Beaumont Site No. 2) were recorded within the study area during the survey. A preliminary assessment of the complex at Beaumont Site No. 2 was made to determine eligibility for the California Register of Historical Resources. Ms. Apple served as the Cultural Resources Project Manager.

State of California Department of Parks and Recreation Data Recovery for Goat Canyon Retention Basin Border Field State Park, San Diego County, CA
As Cultural Resources Project Manager, conducted data recovery under stringent time constraints based on wildlife issues and construction schedule. Excavation of 50 units at CA-SDI-16,047 Locus B indicated that the site was a buried temporary camp whose occupants exploited littoral, near-shore, and terrestrial subsistence resources. Data recovery investigations successfully collected data important in local and regional prehistory. The identification of a single component locus dating to the Archaic-Late transition is an important contribution.

Del Mar Land Management Company Fairbanks Country Villas, San Diego, CA
As Project Manager, prepared testing plan and implemented testing program for proposed residential development.

County of San Diego Inmate Reception Center, San Diego County, CA
Project Manager responsible for testing and data recovery of half a city block in downtown San Diego.

Gerald D. Hines Interests 343 Sansome Street, San Francisco County, CA
As Project Archaeologist, participated in archaeological data recovery excavations at a Gold Rush-period site in downtown San Francisco.

City of North Las Vegas Land Transfer, Clark County, NV
As Project Archaeologist, directed cultural resource survey of 4,000-acre land transfer from the BLM to the City of North Las Vegas.

Kerr-McGee Apex Industrial Park, Clark County, NV
As Project Archaeologist, conducted archaeological survey and NRHP evaluations for BLM land transfer.

Fargo Industries Walnut Hills Subdivision, San Diego County, CA
As Archaeological Monitor, conducted archaeological monitoring of site preparation and grading in San Marcos.

Fellowship Center, Inc. Alcoholism Service Center, San Diego County, CA
As Project Archaeologist, conducted archaeological survey of proposed rehabilitation center adjacent to Mission San Luis Rey in Oceanside.

Other Projects

County of San Diego Peñasquitos Park, San Diego County, CA
As Archaeologist, participated in survey, including documentation of three adobes.

California Department of Parks and Recreation/FIR Old Town State Historic Park, San Diego County, CA
As Archaeologist, participated in excavation before placement of underground utilities in San Diego.

County of San Diego Rancho Guajome Adobe, San Diego County, CA
As Archaeologist, participated in excavation, cataloging, and analysis for work conducted before building stabilization efforts.

California Department of Parks and Recreation Anza Borrego Desert State Park, Riverside County, CA
As Archaeologist, participated in resource inventory survey.

Glamis Imperial Corporation Project, Imperial County, CA
As Archaeologist, conducted cultural resource survey for proposed gold mine.

Fort Cady Minerals Corporation Boric Acid Mining and Processing Facility, San Bernardino County, CA
As Project Archaeologist, directed survey, testing, and evaluation of 24 sites in Newberry Springs.

U.S. Sprint Rialto-to-El Paso Fiber Optics Cable, San Bernardino and Riverside Counties, CA
As Archaeologist, conducted cultural resource survey along western extent of project.

Selected Reports

A View Across the Cultural Landscape of the Lower Colorado Desert: Cultural Resource Investigations for the North Baja Pipeline Project (with Jamie Cleland). Prepared for TetraTech and North Baja, LLC. EDAW, Inc., San Diego (2003).

Cultural Resources Evaluation for the North Baja Gas Pipeline (with C. Dolan, J. Underwood, and J.H. Cleland). Prepared for Foster Wheeler Environmental, Inc. EDAW, Inc., San Diego (2001).

Historical and Archeological Resources Protection Plan (HARP) for the Chocolate Mountain Aerial Gunnery Range, Imperial County, California (with J.H. Cleland). Prepared for U.S. Navy Southwest Division, Naval Facilities Engineering Command. EDAW, Inc., San Diego (2001).

Archaeological Resources Evaluation Report State Route 56 Between Coast and Foothill, City of San Diego, California (with J.H. Cleland, A. York, T. Wahoff, and D. James). Prepared for the City of San Diego. KEA Environmental, Inc., San Diego (1997).

Archeological Survey and Evaluation Program for the Salton Sea Test Base, Imperial County, California (with A. York, A. Pignolo, J.H. Cleland, and S. Van Wormer). Prepared for U.S. Navy, Southwest Division, Naval Facilities Engineering Command. KEA Environmental, Inc., San Diego (1997).

Two Sides of the River: Cultural Resources Technical Studies Undertaken as Part of Environmental Documentation for Military Use of the MCAS Yuma Training Range Complex in Arizona and California (with G. Woodall, L. Peterson, and J.S. Bruder). Prepared for the Southwest Division Naval Facilities Engineering Command and MCAS Yuma. Dames & Moore Intermountain Cultural Resource Services Research Paper No. 5, San Diego (1993).

Bank Stabilization at Lake Britton: Limited Data Recovery (with A. MacDougall). Prepared for Pacific Gas and Electric. Dames & Moore, San Diego (1990).

Kern River Pipeline Cultural Resource Survey Report (with J.H. Cleland, A.L. York, and P. Friedman). Submitted to the Federal Energy Regulatory Commission. Dames & Moore, San Diego (1990).

Sugarloaf Mountain in Prehistory: Archaeological Testing and Data Recovery for the Exploratory Drilling Program II and the Unit No. 1 Project (with J.H. Cleland and E. Nilsson). Prepared for the Los Angeles Department of Water and Power. Dames & Moore, San Diego (1990).

An Archaeological Research Design for the Evaluation of Cultural Resources in Pamo Valley, San Diego, California (with J.H. Cleland, J.R. Cook, and J. Schaefer). Wirth Environmental Services, a Division of Dames & Moore, San Diego (1985).

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Helping preserve the past for the future

Dr. Lanny H. Fisk, PhD, PG

Principal Paleontologist

Experience Summary

Over 25 years experience as a professional geologist/paleontologist and 20 years as a paleontological consultant doing paleontological resource impact assessments and surveys, preparing CEQA and NEPA environmental documents and mitigation measures, managing environmental compliance monitoring programs, and coordinating and consulting with city, county, state, and federal resource agencies to resolve environmental concerns regarding paleontological resources. Supervised paleontological resource impact mitigation programs requiring monitoring of major earth-moving projects, recovery and collection of fossil remains and fossiliferous rock samples, supervision of field personnel, and preparation of progress and final reports. Projects involved extensive coordination and consultation with project sponsors, other consulting firms, and permitting agencies; adherence to strict delivery schedules; and completion within specified budget limits. Supervised paleontological monitoring and salvaging of fossils, evaluated fossiliferous rock samples to determine need for microfossil processing, and identified fossil remains as part of paleontological monitoring and resource recovery programs for such major projects as the Cominco American Resources Buckhorn Mine; Pacific Gas and Electric Company-Pacific Gas Transmission Company Pipeline Expansion Project from Alberta, Canada, to Southern California; Chemical Waste Management of the Northwest Landfill; 360networks Northern California Fiber Optic Cable Project; Los Angeles Metro Rail Project; Eastern Transportation Corridor Tollway Project; Foothills Transportation Corridor Oso Tollway Project; Prima Deshecha Landfill; Kettleman Hills Landfill; Sutter Energy Center Project; Newark Power Plant Project; Delta Energy Center Project; Los Medanos Energy Center Project; Blythe Energy Project; Gilroy Energy Center; Metcalf Energy Center; King City Energy Center; Pastoria Energy Facility; Otay Mesa Generating Project; Contra Costa Power Plant; Woodland Generating Station; Granite-Fox Power Plant; Caltrans Highway 41 Reef Ridge Project; and Caltrans Highway 50 Sacramento Project. Extensive research in paleobotany, palynology, paleornithology, biostratigraphy, and paleoecology of Cretaceous, Tertiary, and Quaternary formations of the western United States, including research in eight national parks and monuments. Research interests in and numerous scientific publications on fossil floras of the Western U. S. and Mexico. Developed laboratory research facilities at two universities for studying fossil floras, processing fossiliferous rock samples to recover plant microfossils, and interpreting age and paleoenvironment.

Experience Record

1982-present	Paleontological and Geological Consultant. PaleoResource Consultants., Auburn, CA. Conducted geological investigations, natural resource assessments, and paleontological resource impact assessments and surveys for environmental, engineering, petroleum, mining, and manufacturing firms, and government agencies. Prepared and supervised paleontological monitoring and mitigation programs for such large projects as the Delta Energy Center, Los Medanos Energy Center, King City Energy Center, Gilroy Energy Center, Magnolia Power Project, Metcalf Energy Center, Pastoria Energy Facility, Otay Mesa Generating Project, Blythe Energy Project, Woodland Generating Station, Kettleman Hills Landfill, and 360networks Fiber Optic Cable Project. Identified fossils (including microfossils) and provided age and paleoenvironmental interpretations for Los Angeles Metro Rail Project, Los Angeles Metropolitan Water District Project, Santiago Canyon Estates Project, and Puente Landfill Project.
1997-present	Adjunct Professor. Department of Earth Sciences, American River College, Sacramento, CA. Taught undergraduate courses in physical and historical geology, marine environment, and physical science.
1991-1999	Senior Paleontologist, Field Supervisor, and Project Paleontologist. Paleo Environmental Associates, Inc., Altadena, CA. Supervised paleontological monitoring, salvaging of fossils, and processing of rock samples; identified plant fossil remains, including plant microfossils and provided paleoenvironmental analyses and age interpretations; prepared stratigraphic columns of fossil-bearing strata, and prepared monthly and final reports as part of the paleontological impact mitigation programs for the PG&E-PGT Pipeline Expansion Project, Los Angeles Metro Rail Project, Eastern Transportation Corridor Tollway Project, Sutter Power Plant Project, Texaco Sunrise Cogeneration and Power Project, Prima Deshecha Landfill Project, Elk Hills Power Plant Project, Eagle Glen Development Project, and Amerige Heights Development Project.
1979-1989	Associate Professor. Department of Geological Sciences, Loma Linda University, Loma Linda, California. Taught both undergraduate and graduate courses in paleontology, geology, and philosophy of science; directed undergraduate and graduate student research and theses; conducted research in paleobotany, paleopalynology, and stratigraphy and presented and published the results; administered the department (1980-1986), and served as president of the faculty (1987-1988).

1973-1979	Assistant to Associate Professor. Department of Biological Sciences and School of Engineering, Walla Walla College, College Place, Washington. Taught both undergraduate and graduate courses in paleontology, physical and historical geology, environmental science, ecology, and philosophy of science; directed undergraduate and graduate student research and theses; conducted research in paleobotany, paleopalynology, and stratigraphy and presented and published the results. Also Visiting Professor 1996-97 and 2003 teaching engineering geology, paleobotany, and environmental science.
1967-1969	U. S. Army Medical Specialist. Pentagon, Washington, DC. Performed medical testing and administered medical services to White House and Pentagon staffs and visiting foreign dignitaries.

Education

Post-Doctoral Research and ABD in Geology, 1979-1986, Michigan State University, East Lansing, Michigan
Ph.D., Paleobiology, 1976, Loma Linda University, Loma Linda, California
B.A. with Honors, Biology, 1971, Andrews University, Berrien Springs, Michigan

Professional Registrations

Professional Geologist #6985, State of California
Certified Professional Paleontologist, Orange County, California
Registered Geologist #G1390, State of Oregon

Professional Organizations - Selected

Paleontological Society
Society of Vertebrate Paleontology (Vice Chairman, Ad Hoc Standard Guidelines Revision Committee 2009-2010)
Western Association of Vertebrate Paleontologists
Paleontological Research Institute
Society of Economic Paleontologists and Mineralogists (Rocky Mountain Section session chairman 1985)
Paleobotanical Section of the Botanical Society of America (convention session chairman 1981)
International Organisation of Palaeobotanists
American Association of Stratigraphic Palynologists (symposium organizer 1983 and 2009; North American Paleontological Convention Committee 1986)
National Association of Geology Teachers
National Association of State Boards of Geology (National Examination Committee 1994-1999)
Geological Society of America (Central Oregon representative 1990-1995; Partners for Excellence 1992-1998)
American Association of Petroleum Geologists (Rocky Mountain Section field trip leader 1987, member of the House of Delegates 1990-1996)
Association of Environmental Professionals
Southern California Academy of Sciences

Professional Activities

2009	Convener and Chairman, Ronald O. Kapp Symposium, 42nd Annual Meeting of AASP -- The Palynological Society
1994-1999	National Examination Committee, National Association of State Boards of Geology
1993-1998	Member and Vice Chairman, Oregon State Board of Geologist Examiners
1992-1999	Oregon State Geologic Mapping Advisory Committee
1990-1991	President, Northwest Energy Association
1986	Representative to the Organizing Committee for North American Paleontological Convention IV
1983-1985	Founding Member, Program Chairman, and Vice President, Inland Geological Society
1983	Convener, Chairman, and Editor, Harry D. MacGinitie Symposium on Palynology of Tertiary Fossil Floras

Publications - Selected

Fisk, L. H., 1976, Paleoecological investigations of the Eocene Fossil Forest, pp. 436-437, *in*: Annual Report of the Chief Scientist of the National Park Service, CY 1975. U. S. Department of Interior, National Park Service, Washington, D.C., 556 p.

Fisk, L. H., 1976, The Gallatin "Petrified Forest": a Review, pp. 53-72, *in*: Montana Bureau of Mines and Geology Special Publication 73, Butte, Montana, 165 p.

Fisk, L. H., 1976, Palynology of the Amethyst Mountain "Fossil Forest", Yellowstone National Park, Wyoming: unpublished doctoral dissertation, Loma Linda University, Loma Linda, California, 340 p.

Fisk, L. H., 1976, Paleoenvironmental interpretations of the Eocene "Fossil Forest", Yellowstone National Park, Montana and Wyoming, 25th International Geological Congress, Abstracts, vol. 1, p.303.

Fritz, W. J., and Fisk, L. H., 1976, Paleoecology of petrified woods from Amethyst Mountain "Fossil Forest", Yellowstone National Park, Wyoming, First Conference on Scientific Research in the National Parks, Abstracts Volume, p. 92.

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Fisk, L. H., 1976, Palynology and paleoecology of the Eocene "Fossil Forest" of Yellowstone National Park, Wyoming, U.S.A., Fourth International Palynological Conference, Abstracts, p. 52-53.

Fisk, L. H., Christenson, M., and Biaggi, R. E., 1976, Pollen and spore distribution in the nearshore environment of Puget Sound, Washington, U.S.A., Fourth International Palynological Conference, Abstracts, p. 53-54.

Biaggi, R., Fisk, L. H., and Martinez-Hernandez, E., 1977, Palinologia y paleoecologia de sedimentos de la Formacion La Quinta (Oligo-Mioceno), Chiapas, Mexico, III Coloquio sobre Paleobotanica y Palinologia, Programa y Resumenes, Museo Nacional de Antropologia, Chapultepec, Mexico, D.F., p. 19.

Fritz, W. J., and Fisk, L. H., 1978, Eocene petrified woods from one unit of the Amethyst Mountain "Fossil Forest", Northwest Geology 7:10-19.

Fritz, W. J., and Fisk, L. H., 1979, Paleoecology of petrified woods from Amethyst Mountain "Fossil Forest", Yellowstone National Park, Wyoming, pp. 743-749 in: Proceedings of the First Conference on Scientific Research in the National Parks, Vol. II, U.S. Department of Interior, National Park Service Transactions and Proceedings Series, no. 5, 1325 p.

Barnett, J., and Fisk, L. H., 1980, Palynology and paleoecology of a sedimentary interbed in the Yakima Basalt (Miocene), Palouse Falls, Washington, Northwest Science 54(4):259-278.

Fisk, L. H., 1983, A survey of fossil plant biology: a review of Paleobotany--an Introduction to Fossil Plant Biology, American Association of Stratigraphic Palynologists Newsletter 15(3):4.

Fisk, L. H. (Editor), 1983, Palynology of Tertiary Floras of Western North America -- Harry D. MacGinitie Symposium, American Association of Stratigraphic Palynologists, 16th Annual Meeting, Program with Abstracts, 21 p.

Fisk, L. H., and Fritz, W. J., 1984, Pseudoborings in petrified wood from the Yellowstone "Fossil Forests": Journal of Paleontology 58:58-62.

Gilliland, D. S., and Fisk, L. H., 1986, Paleoethnobotany of the Tell Hesbon, Jordan: p. 286-297 in Hesban 2: Environmental Foundations, Andrews University Press, Berrien Springs, Michigan, 538 p.

Fisk, L. H., and Fritts, S. G., 1987, Field guide and roadlog to the geology and petroleum potential of north-central Oregon: Northwest Geology 16:105-125.

Fisk, L. H., Spencer, L. A., Lander, E. B., Gustafson, E. P., and Wagner, H. M., 1994, Beneficial impacts of large construction projects on paleontologic resources -- results from construction of the PGT-PG&E Pipeline Expansion Project, WA-OR-CA: in Proceedings of the Fourth Conference on Fossil Resources, "Partners in Paleontology: Protecting Our Fossil Heritage", Colorado Springs, CO, 276 p.

Fisk, L. H., and Spencer, L. A., 1994, Highway construction projects have legal mandates requiring protection of paleontologic resources (fossils): p. 213-225, in Proceedings of the 45th Highway Geology Symposium, Portland, Oregon, 258 p.

Fisk, L. H., Lander, E. B., Alderson, J. M., Anderson, E. S., Walker, S. I., Anderson, C. B., and Whistler, D. P., 2001, Late Oligocene and Early to Middle(?) Miocene land plants, upper Piuma Member, Sespe Formation, and Fernwood Member, Topanga Canyon Formation, central Santa Monica Mountains, Los Angeles County, California: Geological Society of America 2001 Abstracts with Programs, vol. 33, no. 3, p. 43.

Fisk, L. H., and Peck, P. R., 2004, A large fossil flora from the Pleistocene older alluvium, Triple M Ranch, Corona, California: Southern California Academy of Sciences Annual Meeting Abstracts, p. 20-21.

Fisk, L. H., 2004, [Review of the book] In Quest of Great Lakes Ice Age Vertebrates: American Association of Stratigraphic Palynologists Newsletter, vol. 37, no. 4, p. 7-9.

Fisk, L. H., 2005, Paleoclimate and vegetation record in the Late Pleistocene Palos Verdes Formation ("Older Alluvium") in the San Fernando Valley, southern, California: Southern California Academy of Sciences Abstracts of Papers, vol. 104, Supplement to no. 2, p. 29.

Fisk, L. H., 2005, An unusual vegetation record in the Late Pleistocene Palos Verdes Formation ("Older Alluvium") at Burbank in the San Fernando Valley, southern, California, USA: Palynology, in press.

Fisk, L. H., 2005, [Review of the book] History of Life: American Association of Stratigraphic Palynologists Newsletter, vol. 38, no. 4, p. 6-7.

Erwin, D. M., Schorn, H. E., Myers, J., Thompson, A., Kouwenberg, L., and Fisk, L. H., 2006, Flora of the northern Sierra Nevada – past and present: [Field trip guidebook for] Centennial Celebration of the Botanical Society of America, Chico, CA, 44 p.

Wagner, H. M., and Fisk, L. H., 2007, Revised temporal resolution of the late Irvingtonian age Fairmead Landfill fauna, Madera County, California: Southern California Academy of Sciences Bulletin, vol. 106, no. 2, p. 141-142.

Fisk, L. H., and Roeder, M. A., 2007, Paleoenvironmental interpretations of Pleistocene deposits at the Pacific City Project site in Huntington Beach, southern California: Southern California Academy of Sciences Bulletin, vol. 106, no. 2, p. 143-144.

Fisk, L. H., 2009, Paleontological resource protection – a critique of the California model: Proceedings of the Eight Conference on Fossil Resources, St. George, UT, p. 64-65.

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Fisk, L. H., and Haasl, D. M., 2009, Panoche Energy Center final report on the results of the paleontological resources monitoring and mitigation program: Report prepared for California Energy Commission and URS Corporation, Santa Ana, CA, by PaleoResource Consultants, Auburn, CA, 61 p.

Fisk, L. H., and Blakely, S. J., 2009, Soda Mountain Solar Project application for certification paleontological resources section: Report prepared for California Energy Commission and Far Western Anthropological Research Group, Inc., Las Vegas, NV, by PaleoResource Consultants, Auburn, CA, 44 p.

Fisk, L. H., and Haasl, D. M., 2009, Panoche Energy Center evaporation ponds petition to amend final Commission decision paleontological resource impact assessment: Report prepared for California Energy Commission and URS Corporation, Santa Ana, CA, by PaleoResource Consultants, Auburn, CA, 6 p.

Fisk, L. H., and Blakely, S. J., 2009, Paleontological resource survey of portions of the Soda Mountains, San Bernardino County, California: Report prepared for Bureau of Land Management, Barstow, CA, by PaleoResource Consultants, Auburn, CA, 51 p.

Fisk, L. H., Haasl, D. M., and Maloney, D. F., 2009, Fossil plant remains from the Metropolitan Water District of Southern California Inland Feeder Project, Riverside County, California: Report prepared for Paleo Environmental Associates, Inc., Altadena, CA, by PaleoResource Consultants, Auburn, CA, 22 p.

Areas of Expertise	NEPA and CEQA Compliance Environmental and Land Use Planning Regional and International Planning Visual Resources Oceanographic Sampling Military Planning
Years of Experience	5
URS	2
Other Firms	>3
Education	MA/2004/Urban Planning/University of California, Los Angeles BA/1998/Environmental Studies/University of California, Santa Barbara BA/1998/Philosophy/University of California, Santa Barbara
Overview	Seth Hopkins has 5 years of environmental planning experience. He is experienced in the preparation of CEQA compliant documents including AFC, Initial Studies, Negative Declarations, and Environmental Impact Reports, as well as resource agency and entitlement permit preparation. Before joining URS Corporation, he was a Military Planner at Onyx Group, Inc., San Diego and a Marine Science Educator at Hawaii Pacific University. Mr. Hopkins holds Bachelors Degrees in Environmental Studies and Philosphy, and a Masters in Urban Planning with an emphasis on Regional and International Development.
Project Experience	**Land Use and Planning Documentation** **Ausra, Inc. 180MW Solar Power Plant AFC, San Luis Obispo County, CA.** Wrote Land Use and Socioeconomics analyses for the Application for Certification for an 180MW thermal generating facility located within San Luis Obispo County. Once licensed, this project will likely be the first utility-scale solar power project under the CEC in California. The project covers two sections of land within the Carrizo Plain area in San Luis Obispo County. Project will include agency consultation and coordination including with the California Energy Commission (as lead CEQA agency) and ACOE, USFWS, and CDFG. The project requires consideration of a Conditional Use Permit and Re-Zoning according to County regulations. **Bethel Energy 100MW Solar/Bio-Fuel Power Plant CEQA Documentation, Fresno County, CA.** Assistant Project Manager for the Application for Certification. Wrote Land Use, Socioeconomics, Visual Resources, Alternatives and Cumulative Impacts sections. The California Energy Commission will act as lead CEQA agency, however the County requires a Conditional Use Permit (CUP) and Williamson Act Cancellation. **Solar Two Energy Facility AFC and EIS, Imperial County, CA.** Application for Certification for an 750MW solar thermal generating facility located within Imperial County. The project will cover 7,000 acres and will include 12,000 – 36,000 solar dishes. Wrote Land Use, Visual Resources and Socioeconomics sections. Although CEC would be lead CEQA permitting agency, the County would require consideration of a Conditional Use Permit for project approval. **Solar One Energy Facility AFC and EIS, San Bernardino County, CA.**

Application for Certification for an 800MW thermal generating facility located within San Bernardino County. The project will cover 10,500 acres and will include over 34,000 solar dishes. Wrote Land Use and Visual Resources sections, including helping to facilitate an MOU with the BLM for a joint AFC/EIS document to comply with both NEPA and CEQA requirements. This project will require a General Plan Amendment by the County and Conditional Use Permit. In addition a Special Use Energy Overlay is necessary.

Port of San Diego/Airport Authority Demolition EIR, San Diego, CA. EIR for the proposed demolition of existing aviation manufacturing facilities located on North harbor Drive in San Diego, CA. The project includes removal of approximately 50 existing structures; removal of asphault and other paving materials; removal and disposal of all hazardous and contaminated construction materials; removal and disposal of chlorofluorocarbons; cutting, capping and removal of all underground piping and utility systems, and capping storm drain and sanitary sewer laterals. Multiple agency coordination, potential historic building demolition, least tern nesting mitigation, hazardous material coordination, and coastal zone permitting required. Wrote Land Use and Visual Resources impacts sections for the EIR.

High Speed Rail EIR/EIS, Counties of Placer, Sutter and Sacramento, CA. Task Manager for preparation of visual impact assessment (VIA) and subsequent Visual Resources section for the EIR/EIS. The VIA required Federal Highway Administration and Caltrans aesthetic guideline adherence. Responsible for analysis relating to the portion of the project covering Los Angeles Union Station (North end of the Station) to the Palmdale Transportation Center in Palmdale, CA.

Bethel 1 Hybrid Power Station Initial Study, El Centro, CA (2007)
Completed an initial study to identify potential environmental impacts and/or fatal flaws, and determine the necessity of an Environmental Impact Report for the Bethel 1 Hybrid Power Facility. This facility will be a hybrid solar/ biomass power facility of 49.5MW in phase one, increasing to 99MW in phase two.

Coastal Rail Trail Initial Study, City of San Diego, CA (2007-present)
Currently working on an initial study that will identify potential environmental impacts and/or fatal flaws, and determine the necessity of an Environmental Impact Report for the Coastal Rail Trail. The Coastal Rail Trail is a series of bike paths connecting the coastal cities of Oceanside, Carlsbad, Encinitas, Solana Beach and San Diego.

Larkspur 3 Energy Facility AFC Amendment, San Diego, CA (2007). Completed several resource area sections for the Amendment, including Land Use, Agriculture, and Socioeconomics. The project includes an Amendment to the 2001 Application for Certification to add a General Electric (GE) LM6000-PC Sprint® natural gas combustion turbine generator (CTG) to the existing Larkspur Energy Facility which currently contains two CTG units. The nominal power plant rating will be increased from 94MW to 141MW.

Consultation on Property Acquisition and Development, Rancho Mirage, CA (2007)
Investigated and reported on the environmental constraints facing the development of several parcels of commercial land within the city of Rancho Mirage, CA.

Pursued a development agreement with the economic development and planning departments of the City of Rancho Mirage for lands within a specific area targeted for mixed use development.

Environmental Studies

City of San Diego Flood Mitigation Plan, San Diego, CA (2007).
Assisted in the preparation of the City of San Diego Flood Mitigation Plan (FMP). The FMP focuses on identifying the flood hazards and risk assessment including a vulnerability analysis, capabilities assessment, and mitigation plan. The plan targets repetitive loss properties, critical facilities, and infrastructure throughout the City of San Diego. The plan complies with all FEMA regulations and guidelines and increases the likelihood of future grant funding for flood mitigation projects from FEMA.

Bethel 1 Hybrid Power Station Alternate Fuel Study, El Centro, CA (2007)
Investigated and reported on the available quantities, locations, and properties of various forms of biomass fuel throughout Riverside, Imperial and San Diego counties. Determined biomass fuel properties and suitability for energy production.

Biological Surveys

Bethel 1 Hybrid Power Station Biological Surveys, El Centro, CA (2007)
Investigated and reported on the presence of endangered or threatened species/ habitats within the project area that could be affected by project development. Survey focused on the Burrowing Owl, a California Species of Special Concern.

Coastal Rail Trail Biological Surveys, City of San Diego, CA (2007-present)
Conducted Least Bell's Vireo, presence/absence and monitoring surveys. Assisted with presence/absence surveys for Coastal California Gnatcatcher. Assisted Wetland delineation and vegetation mapping efforts.

US Highway 101 and SR46 East Interchange Project Visual Impact Assessment, City of Paso Robles and Caltrans, CA (2007)
Conducted a Visual Impact Assessment to identify any impacts to the visual environment resulting from the proposed widening of the US 101 Highway, the additional lanes or on-off ramp termini.

Interstate 805 Corridor Project Biological Surveys, City of San Diego, CA (2007)

Conducted Least Bell's Vireo, presence/absence and monitoring surveys. Assisted with presence/absence surveys for Coastal California Gnatcatcher.

Arroyo toad surveys(2007)
Assisted monitoring and presence/absence surveys in Gregory Canyon.

Least Bell's Vireo surveys
Experience conducting presence/absence and monitoring surveys for least Bell's vireos in San Diego County, CA.

Coastal California Gnatcatcher surveys Assisted with presence/absence surveys throughout San Diego County.

Military Planning

Naval Base Ventura County, Encroachment Action Plan, Ventura, CA (2006)
Conducted various analyses to identify potential future sources of encroachment facing the operations of NBVC.

Naval Base Ventura County, Activity Overview Plan, Ventura, CA (2005)
Completed a master planning document for NBVC that planned for present and future activities and operations for NBVC Point Mugu and Port Hueneme. Included plans to integrate civilian activities in Port Hueneme.

Marine Science

Hawaii Pacific University, Marine Science Lab Field Assistant, (1999-2001)
Assisted marine science lab activities and exercises. Taught oceanographic sampling techniques, small boat handling and navigation. Collected biological samples for use in lab exercises. Maintained scientific equipment and research vessels.

Hazardous Materials Handling

High Technology Solutions, Inc., Kaneohe, HI, (2001)
Managed hazardous materials and supervised use of HAZMAT by military personnel at the Kaneohe Bay Marin Corps Base, HI.

Professional Societies	American Planning Association
Professional History	URS Corporation, Environmental Specialist, San Diego, California, 2007-Present
	Onyx Group, Military Planner, San Diego, California, 2004-2006
	No Borders/ Sin Fronteras, International Economic Development/ Poverty Abatement Strategist, Los Angeles, California, 2003-2004
	High Technology Solutions, HAZMAT Manager, 2001
	Hawaii Pacific University, Marine Science Field Lab Assistant, Kaneohe Bay, Hawaii, 1999-2001
Countries and Territories Worked In	United States, Mexico, and Italy
Language Proficiency	English, Spanish
Citizenship	United States

Noel Casil, PE, TE, PTOE

Senior Traffic Engineer

Areas of Expertise

Traffic Engineering,
Transportation Planning,
ITS Planning

Years of Experience

With URS: 9 Years
With Other Firms: 18 Years

Education

BS/1982/Civil Engineering

Registration/Certification

Registered Professional Civil Engineer/CA/65179
Registered Professional Traffic Engineer/CA/2391
Certified Professional Traffic Operations Engineer/ITE/2143

Professional Affiliations

Institute of Transportation Engineers (Fellow)
Society of American Military Engineers (Member)
Transportation Research Board (TRB) AHB40 - Highway Capacity and Quality of Service Committee, User Liaison Group (Member), Research Subcommittee (Member), Active Traffic Management Task Force (Member)

Publications

Casil, N.V. and Chapman, J., "The Bakersfield Systems Study - A Long Awaited Solution Rises to the Forefront". Institute of Transportation Engineers District 6 Annual Meeting, July 16, 2002, Palm Desert, CA

Overview

Mr. Casil has over twenty years of civil and transportation engineering experience in California and overseas. He is actively involved in the field of traffic engineering, highway engineering and transportation planning. He has performed responsible office and field engineering work including surveys, data collection, traffic signal timing utilizing PASSER II and TRANSYT 7-F, signal timing, fine tuning of 170 controllers, traffic signal/detection system installation, cost estimates, ramp metering installation inspection, and design of freeway surveillance. In addition, Mr. Casil has extensive experience in transportation planning projects including impact studies utilizing TRAFFIX, Synchro and HCM software. He has also served as traffic study task leader for projects ranging from stand-alone traffic studies to multi-discipline project study, design, planning and environmental documentations.

Project Specific Experience

Transportation Planning Projects

- Pasadena Soccer Academy TIA (City of Pasadena)
- Vault Self Storage (3 Sites) Facilities TIA (City of Pasadena)
- Pasadena AMF 300 Parking Study (City of Pasadena)
- Empire Center Burbank Traffic Analysis (City of Burbank)
- Palmdale Airport Master Plan (LAWA)
- LAX/South (Orange County) High-Speed Ground Access Study (SCAG)
- City of Fullerton General Plan Update (City of Fullerton)
- Ontario Agricultural Preserve Sphere of Influence Study (City of Ontario)
- City of El Segundo Circulation Element Update (City of El Segundo)
- City of Santa Monica Master Environmental Assessment (City of Santa Monica)
- West Haven Specific Plan EIR (City of Ontario)
- City of Chico Growth Feasibility Study (City of Chico)
- Moonridge Corridor Specific Plan EIR (City of Big Bear Lake)

- Bakersfield Systems Study (Kern Council of Governments)
- Los Angeles County Park and Ride Master Plan (LACMTA)
- UCLA-Santa Monica Hospital EIR (UCLA Capital Improvements)
- Santa Monica Zoning EIR (City of Santa Monica)
- Arboretum EIR Analysis (Arboretum Development Partners)
- Metro Red Line Eastside Extension FEIS/FEIR (LACMTA)
- Santa Monica Bayside District EIR (City of Santa Monica)
- Los Angeles Zoo Master Plan EIR Traffic Study (City of Los Angeles)
- Griffith Observatory EIR (City of Los Angeles)
- Fullerton Impact Fee Study (City of Fullerton)
- House of Blues Traffic Study (City of West Hollywood)
- Los Amigos School EIR (Santa Monica-Malibu Unified School District)
- Ritter Ranch Specific Plan (Ritter Ranch Associates)
- Santa Monica/Doheny/Melrose Improvement Study (City of West Hollywood)
- MCB Camp Pendleton New Hospital Project EA (NAVFAC)
- MCB Camp Pendleton Main Exhange Project EA (NAVFAC)
- Seal Beach Naval Station BEAP (NAVFAC)
- Long Beach Naval Shipyard Reuse EIR (Port of Long Beach)
- MCAGCC Twentynine Palms Master Plan (EDAW)
- TRAFFIX Modeling Training (various city staff)

Traffic Operations and Signal Systems

- Hollister Corridor Signal Coordination Project (County of Santa Barbara)
- Sacramento FETSIM Project (City of Sacramento)
- South Bay Traffic Signal Improvements and Communication Design (LACMTA)
- City of Mission Viejo Interconnect PS&E (City of Mission Viejo)
- Palmdale “On-Call” Signals (City of Palmdale)

- Fuel Efficient Traffic Signal Management (FETSIM) (City of Anaheim)
- "On-Call" Traffic Engineering, Ramp Metering/Surveillance (Caltrans, District 7)
- 15th Street Signals Progression (City of Lancaster)
- Olympic Boulevard Traffic Signals (City of Beverly Hills)

Traffic Engineering Projects

- I-5 Far North Widening (OCTA)
- SR-22 Design Build HOV Project (OCTA)
- Central County Corridor Study (OCTA)
- I-5/SR-134 Congestion Management Study (Cities of Burbank, Glendale, Los Angeles and Caltrans District 7)
- I-15/I-40 Interchange Reconstruction Project Report/PS&E (DMJM)
- Atlantic/Bandini/I-710 Interchange PSR (City of Vernon, Caltrans Dist. 7)
- Katella Avenue Superstreet Project Study (OCTC)
- SR-73/Moulton-La Paz Interchange Design (Transportation Corridor Agencies)

Energy Sector Studies, Licensing and Support Services

- Tehachapi Renewables Transmission Project (SCE)
- Antelope Valley Solar Ranch 1 Traffic Study (NextLight)
- Watson Cogen Expansion AFC (BP Alternative Energy)
- Niland Energy Center AFC (Imperial Irrigation District)
- El Centro Generating Center Expansion (IID)
- Salton Sea Unit 6 Power Project AFC (CalEnergy)
- SES Solar One AFC (Sterling Energy Systems Inc)
- SES Solar Two AFC (Sterling Energy Systems Inc)
- Larkspur Energy Center AFC Amendment
- Otay Mesa Energy Center AFC (Calpine)
- Carizo Energy Solar Farm (Ausra Inc.)
- Canyon Power Station AFC (SCPPA – City of Anaheim)
- Starwood Energy Center AFC (Starwood Energy Group)

- CPV Sentinel Energy Project AFC (CPV Sentinel, LLC)
- San Gabriel Generating Station AFC (SGPG LLC)
- Granite Wind Farm Project (Granite Wind LLC)
- Rancho Santa Margarita Peaker (Wellhead)
- Los Angeles Department of Water & Power (LADWP)
- Colton Energy Facility (City of Colton)
- Magnolia Power Project (SCPPA- City of Burbank)
- Roseville Energy Facility AFC (Enron)
- Bighorn Generating Project – Primm Nevada (Reliant)
- Tracy Peaker Plant AFC (GWF Energy LLC)
- Bullard Energy Center AFC
- Panoche Energy Center AFC (Panoche Energy Center, LLC)
- Kinder Morgan Carson Facility Expansion (Kinder Morgan)
- Bigwest Refinery Clean Fuels EIR (Flying J Corporation)
- Colton Phase II Expansion Project (Kinder Morgan)
- 7-11 Store and Gas Station Traffic Study (City of Vista)
- Luvs - Lost Hills Project Traffic Study (Pilot Corporation)
- Speedy Fuel Diesel Station Project Peer Review (BNSF)

Mark Storm, INCE Bd. Cert.

Senior Noise Control Engineer

Overview

Mr. Storm's career in mechanical systems noise control and architectural acoustics spans over fifteen continuous years, in various roles with established equipment manufacturers, consulting firms, and startup ventures. His market-proven skills and experience include noise analysis and sound attenuation projects for facilities, products and industrial equipment ranging from semiconductor "wafer fabs" to motorcycle exhaust mufflers.

Mark's current focus areas involve managing tasks for noise regulation and guidance review, field surveys, acoustical impact assessment, mitigation planning and compliance evaluation for various residential, commercial, municipal and industrial projects.

Areas of Expertise

Mechanical Systems Noise Control

Architectural Acoustics

Environmental Noise Assessment

Years of Experience

With URS: 3.5 Years

With Other Firms: 15 Years

Education

B.S./Aeronautics & Astronautics/1991/Massachusetts Institute of Technology

Registration/Certification

INCE Board Certified/08004

Project Specific Experience

Alternative Energy -- Wind Turbines

Noise Task Leader, Mohave County Wind Energy Project, Kingman, AZ, BP Wind Energy, 2009: Support for EIR/EIS.

Noise Task Leader, Whistling Ridge Energy Project, Salmon River, WA, Saddleback Lumber, 2008-2009: Support for EIR/EIS.

Noise Analysis Lead, Solano Wind Project – Phase III, Solano County, CA, Sacramento Municipal Utility District, 2007: Support for EIR/EIS.

Noise Representative, Wind Implementation Monitoring Program – Phase IV, Coachella, CA, Riverside County Planning Department, 2008: Peer review and public workshop participant.

Noise Task Leader, China Mountain Wind Power Project, Twin Falls County, ID, 2009: Support for EIR/EIS.

Alternative Energy -- Solar-to-Thermal

Noise Task Leader, Starwood Solar I, Maricopa County, AZ, Starwood Energy Group, 2009: Support for Arizona Corporation Commission (ACC) Certificate of Environmental Compatibility.

Noise Task Leader, Carrizo Energy Solar Farm, San Luis Obispo County, CA, Ausra, 2007-2009: Support for California Energy Commission (CEC) Application for Certification (AFC).

Noise Task Leader, Solstice Energy Project, Yuma, AZ, Ausra, 2008-2009: Support for ACC Certificate of Environmental Compatibility.

Noise Task Leader, Solar Two, Imperial County, CA, Tessera Solar / Stirling Energy Systems, 2008-2009: Support for CEC AFC.

Noise Task Leader, Solar One, Riverside County, CA, Tessera Solar / Stirling Energy Systems, 2008-2009: Support for CEC AFC.

Alternative Energy -- Solar/Biomass Hybrid

Noise Task Leader, Mt. Signal, Imperial County, CA, Southwestern Power Group II, LLC, 2008: Support for EIR/EIS.

Noise Task Leader, San Joaquin Solar 1&2, Coalinga, CA, Spinnaker Energy Inc., 2008-2009: Support for CEC AFC.

Energy/Industrial – Natural Gas

Noise Task Leader, Niland Gas Turbine Plant, Niland, CA, Imperial Irrigation District, 2008: Compliance noise survey per CEC permit.

Noise Task Leader, Midway Peaking Project, Fresno County, CA, Starwood Energy, 2009: Compliance noise survey per CEC permit.

Noise Task Leader, Elk Mountain Compressor Station, Carbon County, WY, SourceGas, 2007: Support for EIR/EIS and FERC RR9.

Noise Task Leader, Fayetteville Express Pipeline, AR and MS, Kinder-Morgan, 2008-2009: Support for FERC RR9.

Noise Task Leader, Norwood Compressor Station, San Miguel County, CO, SourceGas, 2008: Support for EIR/EIS.

Noise Task Leader, Liquefied Natural Gas (LNG) Storage Facility, West Conshohocken, PA, (Confidential Client), 2007-2008: Noise investigation, mitigation design recommendations and post-install evaluation.

Noise Task Support, Riverton Metering Station, Kern River, 2009: Buried piping and valve noise analysis.

Noise Task Leader, Bradwood LNG Facility, Bradwood, OR, NorthStar, 2006-2008: Support for EIR/EIS.

Architectural Acoustics

Noise Task Leader, Montefaro, La Jolla, CA, Centex Homes, 2007-2009: Support for post-construction exterior and interior noise issues.
Noise Task Leader, San Jose Police Department – PAB Interview Room, City of San Jose, 2008: Evaluated speech privacy upgrade proposals.
Noise Task Leader, MediaFlo Server Expansion, San Diego, CA, Qualcomm, 2008: Assessed sound isolation impact.
Noise Task Leader, BC Christensen Ranch, Menifee, CA, Brenson Communities, 2007: Recommended party-wall sound insulation upgrades.
Noise Task Leader, Forrester Creek, El Cajon, CA, Pacific Scene Development, 2008: Support for EIR/EIS.

HVAC/Mechanical System Noise Control

Noise Task Leader, Building 2 – Data Center Exhaust Air Units, Sunnyvale, CA, Network Appliance, 2007: Designed noise attenuation.
Noise Task Leader, Qualcomm - Building N, San Diego, CA, California Comfort Systems USA, 2007: Fancoil noise mitigation surveys.
Noise Task Leader, Terminal 1 East – TSA Inspection Area, San Diego International Airport, 2008: Occupational noise surveys and mitigation.
Noise Task Support, Calabasas Library, Tijuana, BC, Mexico, Energy Labs, 2007: Witnessed performance tests of air handling units.

Surface Transportation

Noise Task Leader, Bluegrass Motorsports Park, Gallatin County, KY, 2007: Predictive noise impact assessment to expedite project permitting.
Noise Task Support, Placer Parkway, 2006-2007: Support for Tier 1 study.
Noise Task Support, Folsom Bridge, Folsom, CA, Army Corps of Engineers, 2006: Reviewed traffic noise modeling for bridge ramp design.
Noise Task Support, Tehachapi Rail Expansion, Kern County, CA, BNSF, 2009: Vibration measurement surveys to support EIR/EIS.

Other Industrial, Commercial and Municipal

Noise Task Support, Three Rivers Quarry Expansion, Clayton, ID, L&W Stone Corporation, 2006: Support for EIR/EIS.
Noise Task Leader, Teledyne-Ryan Site Demolition, Port of San Diego, 2008-2009: Support for EIR/EIS.
Noise Task Leader, Main Exchange & Hospital Replacement Projects, Camp Pendleton, CA, USMC, 2009: Support for EIR/EIS.
Noise Task Leader, Terminal 2 SmartCurb, San Diego International Airport, 2009: Recommendations for reverberation noise control.

Professional Societies/Affiliates

Institute of Noise Control Engineering
Society of Automotive Engineers

Publications

U.S. Patent No. 7,581,619 – Movable Baffle Columns for Use with Air Handling Units.
U.S. Patent No. 6,571,910 – Method and Apparatus for Improved Noise Attenuation in a Dissipative Internal Combustion Engine Exhaust Muffler.
“Prediction of Sintered Fibrous Metal Liner Influence on Muffler Sound Attenuation Performance and Noise Emission for Single-Cylinder Motorcycle Engine Exhaust”, NCAD2008-73022, Proceedings of NCAD2008, NoiseCon2008-ASME NCAD, Dearborn, MI.
“Apparent Trends in Wind Turbine Generator Noise Criteria and Regulation Guidance”, 10935, submitted for Proceedings of InterNoise-2009, Ottawa.

Chronology

01/06 – present: URS Corporation, San Diego
06/04 – 03/07: Energy Labs Inc., San Diego
08/02 – 06/04: Acentech Inc., Cambridge
08/01 – 08/02: Quietstorm LLC, Phoenix
01/97 – 08/01: Metal Form Mfg. Inc. - Commercial Acoustics, Phoenix

Contact Information

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Tricia Winterbauer

Senior Environmental Specialist

Areas of Expertise

Environmental Regulatory Compliance and Permitting
NEPA/CEQA
Energy Development Projects
Occupational Health & Safety
Phase I & II Environmental Site Assessments

Years of Experience

With URS: 13 Years

Education

BA/Environmental Studies/1992

Overview

Ms. Winterbauer has 13 years of experience in environmental regulatory compliance and permitting projects, NEPA/CEQA, energy development projects, occupational health and safety projects, hazardous waste soil and groundwater investigations and individual and multi-site Phase I and Phase II Environmental Assessments.

Project Specific Experience

NEPA/CEQA/Energy Development Projects

Ms. Winterbauer has conducted Environmental Impact Reports (EIRs), Environmental Impact Statements (EISs) and Environmental Assessments (EAs) through the NEPA/CEQA process, as well as the permitting of power generating facilities through the California Energy Commission's Application for Certification (AFC) permitting processes for new power generation facilities. She has also assisted existing power generation facilities with the development of environmental and health and safety compliance plans and documentation.

- **Stirling Energy Systems Solar One Generating Facility**. Served as task leader for Hazardous Materials, Hazardous Waste, and Worker Safety for the AFC of a 850 MW solar power generating facility in San Bernardino County. The AFC was submitted to the CEC in December, 2008.

- **San Joaquin Solar 1&2 Hybrid Solar Thermal Generating Facility.** Served as the task leader for Hazardous Materials, Hazardous Waste, and Worker Safety for the AFC of a 106.8 MW solar power generating facility in Fresno County. The AFC was submitted to the CEC in November, 2008.

- **Stirling Energy Systems Solar Two Generating Facility**. Served as task leader for Hazardous Materials, Hazardous Waste, and Worker Safety for the AFC of a 750 MW solar power generating facility in Imperial County. The AFC will be submitted to the CEC in June, 2008

- **Carrizo Solar Power Generating Facility Project**. Served as task leader for Hazardous Materials, Hazardous Waste, and Worker Safety for the AFC of a 163 MW solar power generating facility in San Luis Obispo County. The AFC was submitted to the CEC in October, 2007.

- **Anaheim Municipal Power Station**. Served as task leader for Hazardous Materials, Hazardous Waste and Worker Safety for the AFC of a 200 MW energy facility in Anaheim, Orange County. The AFC was be submitted to the CEC 2008.

- **Larkspur 3 Energy Facility Project**. Served as task leader for Hazardous Materials, Hazardous Waste, and Worker Safety for the AFC Amendment for the facility located in San Diego. The AFC Amendment was submitted to the CEC in May, 2007.

- **Panoche Energy Center**. Served as task leader for Hazardous Materials, Hazardous Waste and Worker Safety for the AFC of a 400 MW energy facility in Fresno County. The AFC will be submitted to the CEC July, 2006.

- **Bullard Energy Center**. Served as task leader for Hazardous Materials, Hazardous Waste and Worker Safety for the AFC of a 200 MW peaking energy facility within Fresno County. The AFC was be submitted to the CEC November, 2006.

- **Magnolia Power Project**. Served as task leader for Hazardous Materials, Hazardous Waste, and Worker Safety for the AFC of a 250 MW energy facility within the City of Burbank. The project was licensed in 2003. Assisted in the management of condition compliance activities from 2003-2005. Developed construction and operations Hazardous Materials and Hazardous Waste Management Plans, Stormwater Pollution Prevention Plans, A Health & Safety Program and a Risk Management Plan for the facility.

- **Agua Mansa Power Project**. Assisted in the preparation ad processing of an application to develop a 49 MW power facility in Colton, California. Project was constructed in 2003. Assisted in environmental compliance activities from 2003-2004. Developed Construction and Operations Hazardous Materials and Hazardous Waste Management Plans, a Spill Prevention Countermeasures and Contingency Plan, the operations Health & Safety Program and a Risk Management Plan for the facility.

- **Duke Energy Moapa Power Project**. Assisted Duke Energy of North America in environmental permitting and construction compliance activities for a power plant in Clark County, Nevada from 2000-2002. Prepared and submitted compliance documents to various local, state and federal agencies. Prepared a permit matrix to track the completion of each of the permits required prior to construction, during construction, and prior to operations. Also assisted with NEPA compliance and coordination with the Bureau of Land Management for the power plant and project linears.

- **AES Southland**. Prepared an Occupational Health & Safety Program to comply with Cal-OSHA requirements for 5 California AES power plants in 2004. Safety Plans and Programs included Injury Illness Prevention Program, Hazard Communication Program, Industrial Hygiene Program, Hearing Conservation Program, Respiratory Protection Program, Confined Space Entry Program, Hot Work Program, Elevated Work and Fall Protection Program, Lockout/Tagout

Program, Emergency Action/Fire Prevention Plans, Personal Protective Equipment Program, and Training Programs.

Environmental Regulatory Compliance

- Ms. Winterbauer has provided regulatory compliance assistance to various industrial and commercial facilities. Has developed and updated regulatory compliance documentation including hazardous waste management programs, hazardous materials management programs, Form R evaluations, hazardous material business plans, risk management plans, storm water pollution prevention plans, spill prevention control and countermeasure plans risk management plans and training programs.
- Has completed numerous Environmental Compliance Audits for industrial, commercial, and medical facilities.
- Has provided daily and weekly onsite regulatory compliance assistance for various industrial and commercial businesses. Activities included, weekly inspections of hazardous waste areas, development and daily implementation of a hazardous management and hazardous waste programs, assistance with storage requirements for hazardous materials, development of a chemical spill prevention programs, and assistance with air permit compliance documentation and training of employees.

Occupational Health and Safety

- Has provided occupational health and safety compliance assistance to various industrial and commercial facilities. Has developed health and safety programs that include all required Cal-OSHA plans and programs.
- Conducted occupational health and safety audits for the numerous industrial and manufacturing facilities to determine compliance of the Occupation Safety and Health Administration standards.

Phase I and Phase II Site Assessments

- Managed and conducted more than 200 Phase I Site Assessments of industrial and commercial facilities in Northern and Southern California. Investigations have focused on the potential for soil and groundwater contamination resulting from past and present site use. Specific tasks have included proposal preparation, budget tracking, site reconnaissance, historical land use investigation, topographic map and aerial photo review, and review of regulatory agency records concerning site compliance issues. Additional tasks have included collection of drinking water samples for analysis of lead content, and visual inspections and characterization of possible asbestos containing materials.
- Has Performed groundwater and soil sampling, at hazardous waste sites throughout California. Responsibilities have included well purging, sample collection, measurement of field parameters, report preparation and recommendations for further sampling analysis and remediation

activities. Has assisted on large Phase II projects conducting field work and preparing reports of findings.

Contact Information

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ECOSPHERE
ENVIRONMENTAL SERVICES

CAROLYN DUNMIRE

SENIOR PROJECT MANAGER & RESOURCE ECONOMIST

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QUALIFICATIONS SUMMARY

Ms. Dunmire has over 20 years of experience conducting and managing economic, technical, and market analyses related to natural resources policies and decisions. She has worked all over the world researching and developing forecasting tools for resource allocation and valuation. Areas of expertise include:

- NEPA Planning and Compliance
- Resource and Environmental Economics
- Resource Planning and Decision Analysis
- Environmental Externality and Global Climate Change Policy Analysis
- Electric Utility Integrated Resource Planning
- Carbon emission inventory and Mitigation Strategy
- Computer Simulation and Economic Forecasting

Her recent project focus has been analyzing the cumulative and socioeconomic impacts of renewable energy and electric transmission projects in California, Colorado, New Mexico, Texas, and Wyoming. Ms. Dunmire also conducts socioeconomic impact analyses and natural resource valuation studies particularly for proposed actions related to fluid mineral development on public lands.

EDUCATION

M.S., Engineering-Economic Systems ▪ Stanford University ▪ 1989

B.S., Chemical Engineering ▪ University of Colorado ▪ 1983

PROFESSIONAL EXPERIENCE

Senior Project Manager/Resource Economist ▪ Ecosphere Environmental Services ▪ 2009 - present

Senior Natural Resource Economist and Planner ▪ Walsh Environmental Scientists and Engineers, LLC ▪ Boulder, CO ▪ 2007 - 2009

President ▪ Forest Energy Systems ▪ Show Low, AZ ▪ 2006-2007

Technical Consultant ▪ Dunmire Consulting ▪ Cahone, CO ▪ 1996-2006

Senior Associate ▪ Hagler Bailly Consulting ▪ Boulder, CO ▪ 1989-1996

Research Assistant ▪ Electric Power Research Institute ▪ Palo Alto, CA ▪ 1988-1989

RELEVANT TESTIMONY, DEPOSITIONS, AND APPLICATIONS

Testimony Pennsylvania Public Utilities Commission v. West Penn Power Company. Docket Nos P-910511; P-910512. (Acid Rain Compliance Plan Review)

Testimony Maryland Public Service v. Potomac Edison Company. PSC Case No. 91-8341 Phase II

Deposition U.S. EPA, Environmental Defense v. Duke Energy Corp. US Fourth District Court of Appeals Case No. 04-1763 February 2003 (WEPCO case)

Certificate of Convenience and Necessity (CCN) applications for transmission projects for El Paso Electric before the Public Utilities Commission of Texas.

RELEVANT PROJECT EXPERIENCE

CUMULATIVE IMPACTS ANALYSIS AND ALTERNATIVES FOR SOLAR THERMAL ELECTRIC PROJECT IN CALIF.

Ms. Dunmire is the task manager and socioeconomics specialist for cumulative impacts and alternatives analysis for the Application for Certification (AFC) for Stirling Energy Systems' Solar Two 750 MW solar thermal electric development located near El Centro, California. As a thermal energy project larger than 50MW, the California Energy Commission (CEC) is the lead agency for the environmental impact analysis. Additionally this project is to be located on BLM managed land. Ms Dunmire is working for the applicant to design and implement an approach that will meet the cumulative impact analysis requirements of both CEC Preliminary Staff Assessment and BLM Draft Environmental Impact Assessment. Additionally, she is developing project alternatives that consider alternative technologies, site locations, and land use classifications as well as conducting the socioeconomic and land use cumulative impact analysis.

PERMITTING FOR TESSERA SOLAR SAN LUIS VALLEY SOLAR PROJECT

Ms. Dunmire is the task manager for Social Resource Assessment in support of environmental permitting activities associated with the San Luis Valley Solar (SLVS) Project, a 200 MW solar plant located in Saguache County, Colorado, on approximately 4500 acres of land. Tessera and Ecosphere are working together with the Saguache County Planning Department to submit a county application (1041) that demonstrates compliance with local land use planning policy and regulations. The permit application will contain general project information, such as a description of the project, project maps and graphics, construction methods and timing, and discussion of pertinent resources potentially affected by the project and measures to minimize effects. The application will also include environmental resource impact disclosures as required in the land use code (cultural resources, biological, geotechnical, land use, visual, etc.).

ECONOMIC AND SOCIAL IMPACT ASSESSMENTS FOR SOLAR THERMAL ELECTRIC PROJECTS IN CALIFORNIA

Ms. Dunmire prepared the economic and social impact assessment for an appendix to the Application for Certification for Sterling Energy System's Solar One power plant project to be located near Barstow, California. The AFC Appendix included an environmental report that included a description of environmental resources and evaluated the potential environmental impacts of Southern California Edison Company's (SCE) proposed 500kV Transmission Line and substation, and its alternatives that would be developed in conjunction with the Solar One project. The report generally describes the affected environment and summarizes potential issues and areas of concern associated with these upgrades.

EIS FOR PROPOSED COTTONWOOD POWER STATION, NAVAJO RESERVATION NEW MEXICO

Ms. Dunmire analyzed the potential social and economic impacts to the Navajo Nation and surrounding community associated the development of a 500 MW coal-fired power station on Navajo lands in New Mexico. For this analysis, she examined extensive demographic data to determine economic impacts on Navajo Nation and local communities. She also conducted interviews of Navajo and other community leaders to determine the potential social impacts associated with the power plant development.

ENERGY SUPPLY SCENARIOS ANALYSIS, ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

Ms. Dunmire designed and analyzed five scenarios for future energy supply options for Cook Inlet or the Railbelt area of Alaska. For each of the scenarios, she estimated annual household energy bills (natural gas and electric) from 2005 to 2025. This analysis was included in the market analysis included in ANGDA's application to the Alaska Gas Inducement Act program.

ENERGY ALTERNATIVES STUDY, ALASKA NATURAL GAS DEVELOPMENT AUTHORITY

Ms. Dunmire conducted an analysis of the energy alternatives that could be used to fill the potential natural gas shortfall caused by depleted natural gas reserves in Cook Inlet. She

investigated over 25 different energy options from clean coal technologies to renewable energy (wind, hydro, geothermal) and energy conservation. These alternatives were ranked against eight criterion including energy services, environmental impacts, and changes to customer's monthly bills. Ms. Dunmire presented her results at the Alaska Oil and Gas Conservation Commission's 2006 South Central Alaska Energy Forum.

ENVIRONMENTAL EXTERNALITIES AND UTILITY PLANNING, EMPIRE STATE ELECTRIC ENERGY RESEARCH CORPORATION (ESEERCO)

Ms. Dunmire was deputy project manager for this three year, $1.3 million study to develop a valuation model for environmental externalities related to fuel cycle, energy production, and waste disposal for each major type of electric generation resource in New York including fossil-fired, nuclear, hydro, and demand-side management. Ms. Dunmire provided technical expertise in the characterization and impact identification of electric power resources. Some of the tasks that she coordinated during this study included surveying existing literature for each externality endpoint and determining whether damages could be quantitatively or qualitatively estimated, and developing a methodology for estimating externality values with a damage function approach. Ms. Dunmire also conducted the research for estimating externality values for greenhouse gas emissions.

BLM: RMP/EIS CANYONS OF THE ANCIENTS NATIONAL MONUMENT

Ms. Dunmire conducted the socioeconomic analysis for this RMP/EIS for a new national monument. She completed the analysis and drafted the affected environment and impact analysis for potential economic and social effects. For this analysis, she collected and analyzed State, local, and regional demographic and economic data to quantitatively and qualitatively estimate the socioeconomic aspects of proposed management actions. Additionally, Ms. Dunmire interviewed and consulted with local government and tribal leaders to calibrate and confirm potential impacts and the extent to which local and regional populations (especially minorities) could be affected by management actions on public lands. Key issues for this RMP/EIS include grazing, fluid mineral development, and recreation/transportation management in an area with the highest density of cultural resources in the U.S.

BLM: RMP/EIS JARBIDGE FIELD OFFICE, IDAHO

Ms. Dunmire directed the socioeconomic analysis for an update of the RMP/EIS for BLM lands managed by the Jarbidge Field Office. She coordinated efforts by professors at University of Nevada-Reno to conduct IMPLAN modeling of the surrounding communities to estimate impacts to changes in rangeland and recreational management actions as well as incorporating survey results to estimate potential social impacts associated with proposed management actions.

RELEVANT PUBLICATIONS AND PRESENTATION

"Cook Inlet Energy Supply Alternatives Study" Presented at the 2006 South Central Alaska Energy Forum. Anchorage. September 21-22, 2006. Presentation available at: http://www.state.ak.us/aogcc/EnergyForum/EnergyForum2006.shtml.

Note: the following publications are listed under Ms. Dunmire's maiden name Carolyn Lang.

"The Effect of a Shadow Price on Carbon Emission in the Energy Portfolio of The World Bank: A Carbon Backcasting Exercise". ESM 212. February 1999.

New York State Environmental Externalities Cost Study. R.D. Rowe, C.M. Lang, L.G. Chestnut, D. Latimer, D. Rae, S.M. Bernow, and D. White. Oceana Publications: Dobbs Ferry, NY. December 1995.

JASON PFAFF

VISUAL SIMULATIONS SPECIALIST

YEARS OF EXPERIENCE
16

EDUCATION
> B.S., Landscape Architecture, University of Idaho, 1993

SEMINARS
> AIA Luncheon Series, Guest Lecturer, 2007
> Idaho Transportation Department, Road Builders Conference, Guest Lecturer, 2006
> Virtual Fire Training Lecturer, Long Distance Learning Center, Boise, ID
> University of Idaho Department of Landscape Architecture, Guest Lecturer "Applications for Virtual Technology in Planning," 2005
> IHEEP (International Highway Engineering Exchange Program) "Applications in visualization technology," 2004
> EPA Collaborative Communities Conference, Guest Lecturer, 2004
> International Highway Engineering Exchange Program, Guest Speaker, 2004
> Applications in Graphic Communication, 2003
> Idaho AICP Planning Conference Guest Lecturer - Planning Technology, Presented to Idaho AICP, 2002
> Civil Engineers Work Session, Applications in Visualization Technology, 2001
> 4th District Bar CLE, Applications of Simulation Technology in the Courtroom, 2000
> AutoCAD/3-D Studio Applied in Landscape Architecture, Assistant Instructor, 1991-1992

EXPERIENCE SUMMARY

Mr. Pfaff is an expert in the creation of visual solutions relating to planning, engineering, architecture and litigation. He specializes in scenic inventory, agency visual management systems, visual analysis reporting, visual simulations, data visualization, and public presentation and graphics. Mr. Pfaff has extensive experience in the field of visualization technology, environmental planning, GIS development and marketing. His responsibilities include overall project development, project management, client correspondence, GIS visualizations, video and DVD authoring, and 3-D modeling and rendering.

URS, Wind Study, Idaho

Visualization Specialist preparing and managing the development of 8 photosimulations of a proposed wind farm located in southern Idaho (location withheld). The photosimulations were developed to aid planners in mitigating the visual impacts. Additionally, photosimulations were used during the regulatory process.

URS, Cotterel Wind Study, Idaho

Visualization Specialist for a proposed wind farm located along the Cotterel Mountains in Idaho. Visualizations were developed to support the public input and regulatory review process. Information was well received, and aided in the approval of this controversial project.

NorthWestern Energy, Mountain States 500 kV Transmission Intertie Montana Major Facility Siting Act Application and Environmental Report, Multiple States

Visualization Specialist responsible for developing animations for a proposed 400-mile, 500 kV transmission line in Montana and Idaho. Animations described the purpose of the project and general routing. Micro-scale animations described the visual impacts in areas where the transmission line is crossing residential land uses. POWER is supporting the client in obtaining federal, state and local permits and approvals for a 400-mile, 500 kV transmission intertie from Montana to southern Idaho. POWER prepared a Montana Major Facilities Siting Application and an Environmental Report to facilitate the environmental review processes under NEPA and MEPA, and is now providing support for development of the EIS by the third-party contractor. The BLM and Montana Department of Environmental Quality are lead agencies for the process, which will analyze alternative routes and select a preferred route and substation sites for the project. The environmental analysis includes land use, visual, cultural, biological, water, and earth resources. POWER's scope includes development of cost estimates for line route alternatives, design criteria, equipment specifications, and design documents to support the environmental analysis.

AREAS OF EXPERTISE

> Visualization technology
> Federal agency visual management systems and methodology
> Environmental planning (visual resources)
> Public involvement
> Public hearings
> Litigation support

PacifiCorp, Gateway West 500 kV and 230 kV Lines, Multiple States

Visualization Specialist responsible for producing simulated videos for the public involvement program for the 500 kV Gateway West transmission project. Separate videos depicted a flyover of the full length of the more than 1,100 miles of alternatives considered for the lines, details to explain the selection of certain segments, and the line's impacts to timber removal and agricultural operations. The project will result in the construction of approximately 920 miles of 500 kV and 230 miles of 230 kV transmission line segments from a new substation at Glenrock, Wyoming, to a new substation southwest of Boise, Idaho. POWER is assisting in the process of obtaining required environmental permits and is completing the initial engineering for the project.

Idaho Power Company, Boardman to Hemingway Transmission Line EIS, Idaho and Oregon

Visual Simulation Manager to develop a series of animations for the regulatory compliance and public involvement process for the environmental review of a 230 kV transmission lines. The animations described the purpose and need, existing conditions, opportunities and constraints and subsequent project mitigation that will be described in the 260-mile project's EIS with the BLM as the federal lead agency.

Progress Energy, Inglis Island Transmission Line, Florida

Visual Simulations Manager for the development of a 10-minute animation of the Inglis Island transmission line project. The animation served as a project summary for public involvement and regulatory review. Inventory, opportunities and constraints, alternatives analysis and final route description was conveyed in the video.

Central Maine Power, Farnum Substation, Maine

Visual Simulation Manager for the development of a full 3-D model of the Farnum Substation. The 3-D model was developed into an animation to describe vehicle circulation and equipment maintenance operations.

Alabama Power, Grelot Transmission Project, Alabama

Visual Simulation Manager for the development of a four-minute animation of the Grelot transmission line project in response to public concerned with the right-of-way and its proximity to existing neighborhoods. The animation served as a project summary for public involvement and regulatory review. Inventory, opportunities and constraints, alternatives analysis and final route description was conveyed in the video.

Sean Gallagher

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Berkeley, CA 94707
510 525 5493
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Education

University of California, Berkeley (Boalt Hall), J.D.
University of California, Berkeley (Boalt Hall), M.A. Jurisprudence & Social Policy

University of Virginia, B.A. (High Honors), Philosophy; B.A. (High Honors), Psychology

Experience

2008 – present **Tessera Solar North America & Stirling Energy Systems,** Berkeley, CA
Vice-President, Market Strategy & Regulatory Affairs

- Responsible for creating an effective representation of TSNA & SES in particular and the CSP industry in general in the appropriate governmental, regulatory and public affairs forums
- Set and execute on legislative, regulatory and public affairs objectives
- Oversee public and media relations and marketing

1998 – 2008 **California Public Utilities Commission,** San Francisco, CA

2005 – 2008 *Director, Energy Division*

- Advised Commissioners, the Legislature, the Administration, and other public and private officials on high-level policy development and strategic issues
- Implemented California's Energy Action Plan, developed energy policy and rates, and planned infrastructure
- Directed the strategic response to Commission-sponsored initiatives on Energy Efficiency, Demand Response, Solar, and Renewable Energy
- Lead a staff of over 100 analysts, auditors, accountants, and engineers

1998 – 2004 *Senior Attorney*

- Prosecuted the California energy crisis refund cases at the Federal Energy Regulation Commission (FERC) and in the courts; negotiated energy crisis settlements worth billions of dollars to California ratepayers; and articulated California Public Utility Commission (CPUC) policy on California electricity market redesign
- Advised Commissioners, Administrative Law Judges, and staff on electricity policy and litigation
- Represented the CPUC in regulatory proceedings in the U.S. Courts of Appeals, and before the state Legislature, with a focus on market structure, resource adequacy, market redesign, and market power issues

1997 – 1998 **Arter & Hadden,** San Francisco, CA
Senior Associate

- Prepared for and tried civil actions

1991 – 1997 **Sedgwick, Detert, Moran & Arnold,** San Francisco, CA
Senior Litigation Associate

- Represented plaintiffs and defendants in employment, insurance, and environmental litigation matters, through jury trial

Attachment C

Applicant's Exhibit List – Exhibits 1 through 25

Updated 3/11/2010

Exhibit	Description	Docket Date
1	Application for Certification, Volume I and II	June 6, 2008
2	Air Quality Information for Data Adequacy	July 25, 2008
3	Responses to Imperial County questions	September 3, 2008
4	E-mail regarding school impact fees	September 10, 2008
5	E-mail regarding property taxes	September 10, 2008
6	Data Adequacy Supplement	September 26, 2008
7	CEC/BLM DR Responses 1-52	December 8, 2008
8	SES Alternatives and Cumulative Impacts	February 8, 2009
9	CEC/BLM DR Responses 1-3, 5-10, 14-15, 24-26, 31-32, 36-38, 44, 111-127	March 19, 2009
10	CEC/BLM DR Responses 53-110	March 26, 2009
11	Supplemental Cumulative Analysis	April 29, 2009
12	CEC/BLM DR Responses 128-141	June 5, 2009
13	CURE DR Responses 1-143	June 6, 2009
14	Supplement to AFC	June 12, 2009
15	CEC/BLM DR Responses 31-32	July 2, 2009
16	CEC/BLM DR Responses 151-155	July 7, 2009
17	CURE DR Responses 143-178	August 5, 2009
18	Additional Supportive Materials, Biology & Water	September 23, 2009
19	CEC/BLM DR Response 142-150	October 17, 2009
20	Current Project Acreage	October 28, 2009
21	Supplemental Biology and Water Information	October 30, 2009
22	Revised page 300-1 of SWPP	December 21, 2009
23	Corridor Conflict Analysis	January 8, 2010
24	San Diego MTS Agreement	January 8, 2010
25	Glint and Glare Study	(to be provided)

Attachment D
Imperial Valley Solar
Applicant Proposed Changes to Conditions

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
1	AQ-SC	01	Name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM Delegates.	Air Quality Construction Mitigation Manager (AQCMM): The project owner shall designate and retain an on-site AQCMM who shall be responsible for directing and documenting compliance with Conditions of Certification AQ-SC3, AQ-SC4 and AQ-SC5 for the entire project site and linear facility construction. The on-site AQCMM may delegate responsibilities to one or more AQCMM Delegates. The AQCMM and AQCMM Delegates shall have full access to all areas of construction on the project site and linear facilities, and shall have the authority to stop any or all construction activities as warranted by applicable construction mitigation conditions. The AQCMM and AQCMM Delegates may have other responsibilities in addition to those described in this condition. The AQCMM shall not be terminated without written consent of the CPM. At least 60 days prior to the start of ground disturbance, the project owner shall submit to the BLM's Authorized Officer and CPM for approval, the name, resume, qualifications, and contact information for the on-site AQCMM and all AQCMM Delegates.	None
2	AQ-SC	02	AQCMP	Air Quality Construction Mitigation Plan (AQCMP): The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with Conditions of Certification AQ-SC3, AQ-SC4, and AQ-SC5 (regarding contents of AQCMP) At least 60 days prior to the start of any ground disturbance, the project owner shall submit the AQCMP to the BLM's Authorized Officer and CPM for approval. The AQCMP shall include effectiveness and environmental data for the proposed soil stabilizer. The BLM's Authorized Officer or CPM will notify the project owner of any necessary modifications to the plan within 30 days from the date of receipt.	Staff states "The project owner shall provide an AQCMP, for approval, which details the steps that will be taken and the reporting requirements necessary to ensure compliance with Conditions of Certification AQ-SC3, AQ-SC4, and AQ-SC5. Verification must be at least 60 days prior to the start of any ground disturbance." Comment: Applicant requests that verification of the condition be revised from 60 days to 30 days.
3	AQ-SC	03	Monthly Compliance Report (to include documentation that demonstrates compliance with the AQCMP re: fugitive dust control)	Construction Fugitive Dust Control: The AQCMM shall submit documentation to the BLM's Authorized Officer and CPM in each Monthly Compliance Report that demonstrates compliance with the Air Quality Construction Mitigation Plan (AQCMP) mitigation measures for the purposes of preventing all fugitive dust plumes from leaving the project. Any deviation from the AQCMP mitigation measures shall require prior BLM Authorized Officer and CPM notification and approval. The AQCMM shall provide the BLM's Authorized Officer and the CPM a Monthly Compliance Report to include the following to demonstrate control of fugitive dust emissions: (See SA/DEIS for further details)	None
4	AQ-SC	04	Monthly Compliance Report (to include a section that demonstrates compliance with AQCMP re: dust plume requirements)	Dust Plume Response Requirement: The AQCMM or an AQCMM Delegate shall monitor all construction activities for visible dust plumes. Observations of visible dust plumes that have the potential to be transported (A) off the project site and within 400 feet upwind of any regularly occupied structures not owned by the project owner or (B) 200 feet beyond the centerline of the construction of linear facilities indicate that existing mitigation measures are not resulting in effective mitigation. The AQCMP shall include a section detailing how the additional mitigation measures will be accomplished within the time limits specified. The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed...The AQCMM shall provide the BLM's Authorized Officer and the CPM a Monthly Compliance Report to include: (See Staff Assessment for further details)	Condition of Certification AQSC-4 states, "The AQCMM or Delegate shall implement the following procedures for additional mitigation measures in the event that such visible dust plumes are observed: Step 1…Step 3 Comment: The Applicant requests, that because of the specific nations of this language that it be presented as verification for Condition AQSC-4 rather than as part of the condition itself.
5	AQ-SC	05	Monthly Compliance Report (to include a Construction Mitigation Report that demonstrates compliance with AQCMP re: diesel-fueled engine control)	Diesel-Fueled Engine Control: The AQCMM shall submit to the CPM, in the Monthly Compliance Report, a construction mitigation report that demonstrates compliance with the AQCMP mitigation measures for purposes of controlling diesel construction-related emissions. Any deviation from the AQCMP mitigation measures shall require prior and CPM notification and approval. The AQCMM shall include in the Monthly Compliance Report the following to demonstrate control of diesel construction-related emissions: (See Staff Assessment for further details)	None
6	AQ-SC	06	Plan that identifies the size & type of the on-site vehicle and equipment fleet/vehicle and equipment purchase orders/contracts and/or purchase schedule.	The project owner, when obtaining dedicated on-road or off-road vehicles for mirror washing activities and other facility maintenance activities, shall only obtain new model year vehicles that meet California on-road vehicle emission standards or appropriate U.S.EPA/California off-road engine emission standards for the model year when obtained. At least 60 days prior to the start of commercial operation, the project owner shall submit to the CPM a copy of the plan that identifies the size and type of the on-site vehicle and equipment fleet and the vehicle and equipment purchase orders and contracts and/or purchase schedule.	Comment: Applicant proposes the following revisions: The project owner, when obtaining dedicated on-road or off-road vehicles for mirror washing activities and other facility maintenance activities, shall only obtain ~~new~~ model year vehicles that meet California on-road vehicle emission standards or appropriate U.S.EPA/California off-road engine emission standards for the model year when obtained.
7	AQ-SC	06	Update Plan every other year and submit in the Annual Compliance Report.	The plan (that identifies the size & type of the on-site vehicle and equipment fleet/vehicle and equipment purchase orders/contracts and/or purchase schedule) shall be updated every other year and submitted in the Annual Compliance Report.	None
8	AQ-SC	07	Operations Dust Control Plan	The project owner shall provide a site Operations Dust Control Plan, including all applicable fugitive dust control measures identified in the verification of AQ-SC3 that would be applicable to reducing fugitive dust from ongoing operations. At least 60 days prior to the start of commercial operation, the project owner shall submit to the BLM's Authorized Officer and the CPM for review and approval a copy of the site Operations Dust Control Plan that identifies the dust and erosion control procedures, including effectiveness and environmental data for the proposed soil stabilizer, that will be used during operation of the project and that identifies all locations of the speed limit signs. (See Staff Assessment for further details)	Staff states "The project owner shall provide a site Operations Dust Control Plan including all applicable fugitive dust control measures identified in the verification of AQ-SC3 that would be applicable to reducing fugitive dust from ongoing operations. Plan identifies the dust and erosion control procedures, including effectiveness and environmental data for the proposed soil stabilizer, that will be used during operation of the project and that identifies all locations of the speed limit signs. The performance requirements of AQ-SC4 shall also be included in the Operations Dust Control Plan. At least 60 days prior to the start of commercial operation, the project owner shall submit… for review and approval a copy of the site Operations Dust Control Plan." Comment: Applicant requests that submittal date of the condition be revised from 60 days to 30 days prior to the start of commercial operation.
9	AQ-SC	07	Report identifying the locations of all speed limit signs and a copy of the project employee and contractor training manual	At least 60 days after the start of commercial operation, the project owner shall provide to the BLM's Authorized Officer and the CPM a report identifying the locations of al speed limit signs, and a copy of the project employee and contractor training manual that clearly identifies that project employees and contractors are required to comply with the dust and erosion control procedures and on-site speed limits.	
10	AQ-SC	08	ATC, PTO, and proposed air permit modifications	The project owner shall provide the CPM copies of all District issued Authority-to-Construct (ATC) and Permit-to-Operate (PTO) document for the facility. The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project owner shall submit to the CPM any modification to any permit proposed by the District or U.S. Environmental Protection Agency (U.S. EPA), and any revised permit issued by the District or U.S. EPA, for the project...The project owner shall submit any ATC, PTO, and proposed air permit modifications to the CPM within 5 working days of its submittal either by 1) the project owner to an agency, or 2) receipt of proposed modifications from an agency.	None

Attachment D
Imperial Valley Solar
Applicant Proposed Changes to Conditions

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
11	AQ-SC	08	Modified Air Permits	The project owner shall provide the CPM copies of all District issued Authority-to-Construct (ATC) and Permit-to-Operate (PTO) document for the facility The project owner shall submit to the CPM for review and approval any modification proposed by the project owner to any project air permit. The project owner shall submit to the CPM any modification to any permit proposed by the District or U.S. Environmental Protection Agency (U.S. EPA), and any revised permit issued by the District or U.S. EPA, for the project...The project owner shall submit all modified air permits to the CPM within 15 days of receipt	None
12	AQ-SC	09	Emergency Engine Specifications	The emergency generator engine procured for this project will meet or exceed the NSPS Subpart IIII emission standards for the model year that corresponds to the date of purchase. The project owner shall submit the emergency engine specifications to the CPM at least 30 days prior to purchasing the engines for review and approval.	None
13	AQ-SC	10	Gasoline tank / refueling equipment specifications & documentation of compliance with effective vapor recovery and standing loss requirements.	The gasoline tank and appurtenances procured for this project will meet or exceed all vapor recovery and standing loss requirements in affect at the time of construction. The project owner shall submit the gasoline tank and refueling equipment specifications and documentation of compliance with effective vapor recovery and standing loss requirements to the CPM at least 30 prior to purchasing the equipment for review and approval.	None
14	AQ	01	Make all records and reports available	General Conditions - Emergency Generator Engine/5000 gallon above ground fuel storage tank: Operation of this equipment shall be in compliance with all data and specifications submitted with the application on August 11th, 2008 (FR#574708) under which this permit is issued unless otherwise noted. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	Under the Equipment Description, Part A, Emergency Generator Engine, staff describes the engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: The Applicant request that one manufacturer not be specified, however, and the general type of diesel engine should instead be listed.
15	AQ	02	Make all records and reports available	General Conditions - Emergency Generator Engine/5000 gallon above ground fuel storage tank: Operation of the described equipment shall be in compliance with all applicable Imperial County Air Pollution Control District Rules and Regulations. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	Under the Equipment Description, Part A, Emergency Generator Engine, staff describes the engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: The Applicant request that one manufacturer not be specified, however, and the general type of diesel engine should instead be listed.
16	AQ	03	Make all records and reports available	General Conditions - Emergency Generator Engine/5000 gallon above ground fuel storage tank: This Permit does not authorize the emissions of air contaminants in excess of those allowed by U.S.EPA (Title 40 of the Code of Federal Regulations), the State of California Division 26, Part 24, Chapter 3 of the Health and Safety Code, or the APCD (Rules and Regulations). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	Under the Equipment Description, Part A, Emergency Generator Engine, staff describes the engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: The Applicant request that one manufacturer not be specified, however, and the general type of diesel engine should instead be listed.
17	AQ	04	N/A	General Conditions - Emergency Generator Engine/5000 gallon above ground fuel storage tank: This permit cannot be considered permission to violate applicable existing laws, regulations, rules, or statutes of other governmental agencies.	Under the Equipment Description, Part A, Emergency Generator Engine, staff describes the engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: The Applicant request that one manufacturer not be specified, however, and the general type of diesel engine should instead be listed.
18	AQ	05	Make all records and reports available	General Conditions - Emergency Generator Engine/5000 gallon above ground fuel storage tank: No air contaminant shall be released into the atmosphere which causes a public nuisance, caused by permitted operation. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	Under the Equipment Description, Part A, Emergency Generator Engine, staff describes the engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: The Applicant request that one manufacturer not be specified, however, and the general type of diesel engine should instead be listed.
19	AQ	06	N/A	Facility Roads: Materials used for Chemical Stabilization of soils, including petroleum resins, asphaltic emulsions, acrylics, and adhesives shall not violate State Water Quality Control Board standards for use as a soil stabilizer. Materials accepted by the California Air Resources Board (ARB) and the United States Environmental Protection Agency (EPA), and which meet State water quality standards, shall be considered acceptable to the ICAPCD. Compliance with Conditions AQ-SC3 and AQ-SC4 during construction, and Condition AQ-SC7 during operation will demonstrate compliance with this condition.	None
20	AQ	07	N/A	Facility Roads: Any use of dust suppressants or gravel pads, and paving materials such as asphalt or concrete for paving, shall comply with other applicable District rules. Compliance with Conditions AQ-SC3 and AQ-SC4 during construction, and Condition AQ-SC7 during operation will demonstrate compliance with this condition.	None
21	AQ	08	N/A	Facility Roads: The project owner shall apply Soiltac soil conditioner or a similar product on all unpaved roads once per year or as necessary to comply with application information. Compliance with Conditions AQ-SC3 and AQ-SC4 during construction, and Condition AQ-SC7 during operation will demonstrate compliance with this condition.	None
22	AQ	09	N/A	Facility Roads: The project owner must clean up any bulk material tracked out or carried out onto a paved road at the end of the work day. Compliance with Conditions AQ-SC3 and AQ-SC4 during construction, and Condition AQ-SC7 during operation will demonstrate compliance with this condition.	None
23	AQ	10	N/A	Facility Roads: All paved and unpaved roads shall limit Visible Dust Emissions (VDE) to 20% opacity, as determined by the test methods for "Visual Determination of Opacity" in Rule 800 Appendix A. Compliance with Conditions AQ-SC3 and AQ-SC4 during construction, and Condition AQ-SC7 during operation will demonstrate compliance with this condition.	None
24	AQ	11	N/A	Facility Roads: The project owner shall compile and retain records that provide evidence of control measure application. The project owner shall describe, in the records, the type of treatment or control measure, extent of coverage, and date applied. For control measures which require multiple daily applications, recordings the frequency of application will fulfill the recordkeeping requirements of this rule (i.e., water being applied three times a day and the date). Records shall be provided to the ICAPDC upon request. Compliance with Conditions AQ-SC3 and AQ-SC4 during construction, and Condition AQ-SC7 during operation will demonstrate compliance with this condition.	None
25	AQ	12	Make all records and reports available; maintain log	Emergency Generator Engine: A log shall be maintained on the premises showing hours of operation and routine repairs of emergency generator engine. This log shall be made available for inspection by the ICAPCD. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.
26	AQ	13	Make all records and reports available	Emergency Generator Engine: The emergency generator engine shall be restricted to operate a total of 50 hours per year for non-emergency testing and maintenance purposes. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.
27	AQ	14	Annual Compliance Report (to include monthly fuel consumption, hour operated records, photo)	Emergency Generator Engine: The project owner shall submit to the ICAPCD an annual report by the end of February of each operating year containing the monthly fuel consumption and hours operated per month for the unit. As part of the Annual Compliance Report, the project owner shall include the monthly fuel consumption and hour operated records required by this condition, including a photograph showing the annual reading of engine hours.	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.
28	AQ	15	Make all records and reports available	Emergency Generator Engine: The emergency generator shall not be used to provide power to sources other than the SES Solar Two Power Plant. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
29	AQ	16	Make all records and reports available	Emergency Generator Engine: The diesel engine shall not discharge into the atmosphere any visible air contaminant other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour, which is 20% opacity or greater. During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.
30	AQ	17	Specification of the engine's hour timer	Emergency Generator Engine: Hour Meter, with a minimum display capability of 9,999 hours, shall be installed and maintained to proper working condition for the unit. At least thirty (30) days prior to the installation of the engine, the project owner shall provide the District and the CPM the specification of the hour timer.	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.
31	AQ	18	Emergency engine specifications	Emergency Generator Engine: Emergency generator set's diesel is subject to New Source Performance Standards (NSPS) Subpart IIII and shall meet Tier 3 emissions standards (40 CFR 60.4205 (b)). The project owner shall submit the emergency engine specifications to the District and the CPM for review and approval at least 30 days prior to purchasing the engine.	Under the Equipment Description, the original document describes the Emergency Generator Engine being driven by a Cummins, QSL9 GNR3, 335 hp, T2 diesel engine. Comment: One manufacturer should not be specified, however, so the general type of diesel engine should instead be listed.
32	AQ	19	ARB Phase I Vapor Recovery System specifications	5000 gallon above ground fuel storage tank: The Phase I Vapor Recovery System shall be installed and operated in accordance with the requirements of the California Air Resources Board (ARB) Executive Order G-70-102-A – Certification of a Phase I Vapor Recovery System for Aboveground Storage Tanks with less than 40,000 Gallons Capacity for Gasoline or gasoline/Methanol Blended Fuels (ARB E.O. G-70-102-A). The project owner shall submit the ARB Phase I Vapor Recovery System specifications to the District for approval, if required by District rules, and to the CPM for review at least 30 days prior to installing the system.	None
33	AQ	20	ARB Phase II Vapor Recovery System specifications	5000 gallon above ground fuel storage tank: The Phase II Vapor Recovery System, including all associated underground and aboveground plumbing, shall be installed, operated, and maintained in accordance with ARB's Executive Order G-70-52-AM – Certification of Components for Red Jacket, Hirt, and Balance Phase II Vapor Recovery System and Executive Order G-70-162-A – Steel Tank Institute Fireguard Aboveground Tank Vapor Recovery System. Section 41954(f) of the California Health and Safety Code prohibits the sale, offering for sale, or installation of any vapor control system unless the system has been certified by ARB (ARB E.O. G-70-52-AM; ARB E.O. G-70-162-A). The project owner shall submit the ARB Phase II Vapor Recovery System specifications to the District for approval, if required by District rules, and to the CPM for review at least 30 days prior to installing the system.	None
34	AQ	21	Make all records and reports available	5000 gallon above ground fuel storage tank: All applicable components shall be maintained to a state that is leak free and vapor tight (ICAPCD Rule 415). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
35	AQ	22	Notification of Completion	5000 gallon above ground fuel storage tank: The District shall be notified when installation of all piping and control fittings required by aforementioned Rules has been completed. Vapor control piping and fittings shall remain exposed until the District has inspected the installation or given approval to complete back fill (ICAPCD Rule 415 & 108).	None
36	AQ	22	Make all records and reports available	5000 gallon above ground fuel storage tank: The District shall be notified when installation of all piping and control fittings required by aforementioned Rules has been completed. Vapor control piping and fittings shall remain exposed until the District has inspected the installation or given approval to complete back fill (ICAPCD Rule 415 & 108). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
37	AQ	23	Make all records and reports available	5000 gallon above ground fuel storage tank: Each vent pipe shall be equipped with an ARB certified pressure/vacuum relief valve. Plumbing may be manifolded to reduce the number of relief valves needed. The settings of the pressure/vacuum relief valve(s) shall be as follows: a) Positive Pressure Setting: 2.5 to 6.0 inches H2O b) Negative Pressure Setting: 6.0 to 10.0 inches H2O (ARB E.O.G-70-102-A). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
38	AQ	24	Performance Test of Phase I Vapor Recovery System	5000 gallon above ground fuel storage tank: The project owner shall successfully conduct the following performance tests of the Phase I Vapor Recovery System within thirty (30) days of start-up: a) ARB TP-201.3B – Determination of Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities with Aboveground Storage Tanks (ARB E.O. G-70-102-A; ICAPCD Rule 415)	None
39	AQ	24	Make all records and reports available	5000 gallon above ground fuel storage tank: The project owner shall successfully conduct the following performance tests of the Phase I Vapor Recovery System within thirty (30) days of start-up: a) ARB TP-201.3B – Determination of Static Pressure Performance of Vapor Recovery Systems of Dispensing Facilities with Aboveground Storage Tanks (ARB E.O. G-70-102-A; ICAPCD Rule 415) During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
40	AQ	25	Make all records and reports available	5000 gallon above ground fuel storage tank: For the purpose of compliance determination, all tests shall be conducted after all back-filling, paving, and installation of all Phase I and Phase II components, including P/V valves, have been completed (ICAPCD Rule 415). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
41	AQ	26	Initial performance test results	5000 gallon above ground fuel storage tank: The project owner shall submit all test results for the initial performance tests required pursuant to condition AQ-24 within twenty (20) days of start-up (ICAPCD Rule 415).	None
42	AQ	26	Make all records and reports available	5000 gallon above ground fuel storage tank: During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	None
43	AQ	27	Annual Compliance Report	5000 gallon above ground fuel storage tank: The performance tests required pursuant to condition AQ-24 shall be successfully conducted at least once in each twelve (12) month period after the date of successful completion of the startup performance testing.	None
44	AQ	27	Test results	5000 gallon above ground fuel storage tank: Test results shall be submitted to the Air District within twenty (20) days of conducting these annual tests (ICAPCD Rule 415).	None
45	AQ	27	Make all records and reports available	5000 gallon above ground fuel storage tank: Make all records and reports available	None
46	AQ	28	Report containing the gasoline throughput from the preceding calendar year	5000 gallon above ground fuel storage tank: The project owner shall annually submit to the Air District a report containing the gasoline throughput from the preceding calendar year. This annual report shall be submitted to this office no later than February 28th. As part of the Annual Compliance Report (COMPLIANCE-8), the project owner shall include gasoline throughput and annual VOC emission estimates.	None
47	AQ	28	Annual Compliance Report (to include Report on gasoline throughput and VOC emission estimates from preceding calendar year)	5000 gallon above ground fuel storage tank: The project owner shall annually submit to the Air District a report containing the gasoline throughput from the preceding calendar year. This annual report shall be submitted to this office no later than February 28th. As part of the Annual Compliance Report (COMPLIANCE-8), the project owner shall include gasoline throughput and annual VOC emission estimates.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
48	AQ	29	Operational and maintenance manual; make all records and reports available	5000 gallon above ground fuel storage tank: The project owner shall maintain an operational and maintenance manual for the Phase I and Phase II vapor recovery system of the facility. The manual must be kept at the facility and made available to the APCD upon request (ICAPCD Rule 415). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff.	None
49	AQ	30	Make all records and reports available	5000 gallon above ground fuel storage tank: The project owner shall perform monthly liquid and vapor leak inspections during product transfer operations. Information record shall include date of inspection, findings, leak determination method, corrective action, and name and signature of person performing the inspection (ICAPCD Rule 415). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
50	AQ	31	Make all records and reports available	5000 gallon above ground fuel storage tank: Uncertified, missing, or improperly installed equipment and emission related defects shall be tagged out of service immediately. Such defects include, but are not limited to, suffered damage or wear which prevents proper operation of equipment (ICAPCD Rule 415). During site inspection, the project owner shall make all records and reports available to the District, ARB, U.S.EPA or CEC staff	None
51	BIO	01	Resume, 3+ references, contact info	The project owner shall assign at least one Designated Biologist to the project. The project owner shall submit the resume of the proposed Designated Biologist, with at least three references and contact information, to the Energy Commission Compliance Project Manager (CPM) and BLM's Authorized Officer for approval in consultation with CDFG and USFWS. (refer to SES Solar Two SA DEIS Conditions for more info) The project owner shall submit the specified information at least 90 days prior to the start of any project-related site disturbance activities.	None
52	BIO	01	Resume, 3+ references, contact info of proposed replacement	If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM and BLM's Authorized Officer at least ten working days prior to the termination or release of the preceding Designated Biologist. In an emergency, the project owner shall immediately notify the CPM and BLM's Authorized Officer to discuss the qualifications and approval of a short-term replacement while a permanent Designated Biologist is proposed to the CPM and BLM's Authorized Officer for consideration.	Staff states "If a Designated Biologist needs to be replaced, the specified information of the proposed replacement must be submitted to the CPM and BLM's Authorized Officer at least ten working days prior to the termination or release of the preceding Designated Biologist." Comment: Applicant will need more time than stated in the condition to replace a Designated Biologist should the need arise. Applicant requests that the condition be revised from "ten working days prior to termination or release" to "as soon as possible."
53	BIO	02	Monthly Compliance Report, including copies of written reports and summaries	The project owner shall ensure that the Designated Biologist performs the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the project owner, BLM's Authorized Officer, and CPM. The Designated Biologist shall prepare written reports and summaries that document construction activities that have the potential to affect biological resources. The Designated Biologist Duties shall include the following: (refer to SES Solar Two SA DEIS Conditions for more info) The Designated Biologist shall submit in the Monthly Compliance Report to the BLM's Authorized Officer and the CPM copies of all written reports and summaries that document construction activities that have the potential to affect biological resources.	Staff states "The project owner shall ensure that the Designated Biologist performs the following during any site (or related facilities) mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities. The Designated Biologist may be assisted by the approved Biological Monitor(s) but remains the contact for the project owner, BLM's Authorized Officer, and CPM. The Designated Biologist shall prepare written reports and summaries that document construction activities that have the potential to affect biological resources. The Designated Biologist Duties shall include the following: • Inspect active construction areas where animals may have become trapped prior to construction commencing each day. At the end of the day, inspect for the installation of structures that prevent entrapment or allow escape during periods of construction inactivity. Periodically inspect areas with high vehicle activity (e.g., parking lots) for animals in harm's way." Comment: Applicant would like to know if it is possible to train other workers through WEAP for the daily inspection activities in the Active Construction Area. Applicant suggests revising condition to state that other workers trained through WEAP may make the daily inspection activities and report to the Designated Biologist.
54	BIO	02	Annual Compliance Report, including Record Summaries	If actions may affect biological resources during operation a Designated Biologist shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless their duties cease, as approved by BLM's Authorized Officer and the CPM.	None
55	BIO	03	Resume, 3+ references, contact info / Written statement confirming Biological Monitor(s) training completion and date completed	The project owner's BLM- and CPM-approved Designated Biologist shall submit the resume, at least three references, and contact information of the proposed Biological Monitors to BLM's Authorized Officer and the CPM for approval. The Designated Biologist shall submit a written statement to BLM's Authorized Officer and the CPM confirming that individual Biological Monitor(s) have been trained including the date when training was completed. Specifically, the Biological Monitors shall have experience regarding FTHL. (refer to SES Solar two SA DEIS Conditions for more info) The project owner shall submit the specified information to BLM's Authorized Officer and the CPM for approval at least 30 days prior to the start of any project-related site disturbance activities. The Designated Biologist shall submit a written statement to BLM's Authorized Officer and the CPM confirming that individual Biological Monitor(s) have been trained including the date when training was completed.	None
56	BIO	03	Resume, 3+ references, contact info / Written statement confirming Biological Monitor(s) training completion and date completed	If additional biological monitors are needed during construction, the specified information shall be submitted to BLM's Authorized Officer and the CPM for approval at least ten days prior to their first day of monitoring activities.	Staff states "If additional biological monitors are needed during construction, the specified information shall be submitted to BLM's Authorized Officer and the CPM for approval at least ten days prior to their first day of monitoring activities." Comment: Applicant would like to revise the condition from submitting information ten days prior to the first day of monitoring activities to five days prior.
57	BIO	04	Monthly Compliance Report, including copies of all written reports and summaries that document biological resources activities by Biological Monitors / Monthly Compliance Report	The Biological Monitors shall assist the Designated Biologist in conducting surveys and in monitoring of mobilization, ground disturbance, grading, construction, operation, closure, and restoration activities. The Designated Biologist shall remain the contact for the project owner, BLM's Authorized Officer, and the CPM. The Designated Biologist shall submit in the Monthly Compliance Report to BLM's Authorized Officer and the CPM copies of all written reports and summaries that document biological resources activities, including those conducted or monitored by Biological Monitors.	None
58	BIO	04	Annual Compliance Report, including Record Summaries	If actions may affect biological resources during operation a Biological Monitor, under the supervision of the Designated Biologist, shall be available for monitoring and reporting. During project operation, the Designated Biologist shall submit record summaries in the Annual Compliance Report unless their duties cease, as approved by BLM's Authorized Officer and the CPM.	None
59	BIO	05	Notification of non-compliance or halt in construction activities	The project owner's construction/operation manager shall act on the advice of the Designated Biologist and Biological Monitor(s) to ensure conformance with the biological resources conditions of certification. If required by the Designated Biologist and Biological Monitor(s) the project owner's construction/operation manager shall halt all site mobilization, ground disturbance, grading, construction, and operation activities in areas specified by the Designated Biologist. The Designated Biologist shall: (refer to SES Solar Two SA DEIS Conditions for more info) The project owner shall ensure that the Designated Biologist or Biological Monitor notifies BLM's Authorized Officer and the CPM immediately (and no later than the morning following the incident, or Monday morning in the case of a weekend) of any non-compliance or a halt of any site mobilization, ground disturbance, grading, construction, and operation activities.	None
60	BIO	05	Notification of corrective actions taken	The project owner shall notify BLM's Authorized Officer and the CPM of the circumstances and actions being taken to resolve the problem. Whenever corrective action is taken by the project owner, a determination of success or failure would be made by BLM's Authorized Officer and the CPM within five working days after receipt of notice that corrective action is completed, or the project owner would be notified by BLM's Authorized Officer and the CPM that coordination with other agencies would require additional time before a determination can be made.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
61	BIO	06	Draft WEAP & supporting written/electronic materials & resume of person(s) administering the program	The project owner shall develop and implement SES Solar Two-specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP from BLM's Authorized Officer, USFWS, CDFG, and the CPM. The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, ground disturbance, grading, construction, operation, and closure. The WEAP shall: (refer to SES Solar Two SE DEIS Conditions for more info) At least 60 days prior to the start of any project-related site disturbance activities, the project owner shall provide to BLM's Authorized Officer and the CPM a copy of the draft WEAP and all supporting written materials and electronic media prepared or reviewed by the Designated Biologist and a resume of the person(s) administering the program.	Staff states "The project owner shall develop and implement SES Solar two specific Worker Environmental Awareness Program (WEAP) and shall secure approval for the WEAP… The WEAP shall be administered to all onsite personnel including surveyors, construction engineers, employees, contractors, contractor's employees, supervisors, inspectors, subcontractors, and delivery personnel. The WEAP shall be implemented during site mobilization, ground disturbance, grading construction, operation, and closure… At least 60 days prior to the start of any project-related site disturbance activities, the project owner shall provide to BLM's Authorized Officer and the CPM a copy of the draft WEAP all supporting written materials and electronic media…" Comment: Applicant requests that verification of the condition be revised from 60 days to 30 days.
62	BIO	06	Number of persons who completed the training in the prior month & running total of trainees	The project owner shall provide in the Monthly Compliance Report the number of persons who have completed the training in the prior month and a running total of all persons who have completed the training to date.	None
63	BIO	06	2 copies of Final WEAP	At least ten days prior to site and related facilities mobilization, the project owner shall submit two copies of the BLM- and CPM-approved final WEAP	None
64	BIO	06	N/A	Training acknowledgement forms signed during construction shall be kept on file by the project owner for at least six months after the start of commercial operation.	None
65	BIO	06	Annual Worker Education Program for permanent employees	Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attend the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to BLM's Authorized Officer and the CMP upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.	None
66	BIO	06	Worker Education Program	Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attend the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to BLM's Authorized Officer and the CMP upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.	None
67	BIO	06	Completion of orientation forms for new/old employees	Throughout the life of the project, the worker education program shall be repeated annually for permanent employees, and shall be routinely administered within one week of arrival to any new construction personnel, foremen, contractors, subcontractors, and other personnel potentially working within the project area. Upon completion of the orientation, employees shall sign a form stating that they attend the program and understand all protection measures. These forms shall be maintained by the project owner and shall be made available to BLM's Authorized Officer and the CMP upon request. Workers shall receive and be required to visibly display a hardhat sticker or certificate that they have completed the training.	None
68	BIO	06	N/A	During project operation, signed statements for operational personnel shall be kept on file for six months following the termination of an individual's employment.	None
69	BIO	07	2 copies of Draft BRMIMP	The project owner shall develop a BRMIMP and submit two copies of the proposed BRMIMP to BLM's Authorized Officer and the CPM (for review and approval) and shall implement the measures identified in the approved BRMIMP. The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Raven Management Plan, the USFWS Biological Opinion, Burrowing Owl Mitigation and Monitoring Plan, and the Noxious Weed Management Plan, and the Closure Plan. The BRMIMP shall be prepared in consultation with the Designated Biologist and shall and shall include the following: (refer to SES Solar Two SA DEIS Conditions for more info) The project owner shall submit the BRMIMP to the BLM's Authorized Officer and the CPM at least 60 days prior to start of any project-related site disturbance activities. The BRMIMP shall contain all of the required measures included in all biological conditions of certification. The BLM's Authorized Officer and the CPM, in consultation with other appropriate agencies, would determine the BRMIMP's acceptability within 45 days of receipt.	Staff states "The project owner shall develop a BRMIMP and submit two copies of the proposed BRMIMP… and shall implement the measures identified in the approved BRMIMP. The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the Raven Management Plan, the USFWS Biological Opinion, Burrowing Owl Mitigation and Monitoring Plan, the Noxious Weed Management Plan, and the Closure Plan… The project owner shall submit the BRMIMP to the BLM's Authorized Officer and the CPM at least 60 days prior to start of any project-related site disturbance activities." Comment: Applicant requests that verification of the condition be revised from 60 days to 30 days. Comment: The Applicant assumes the Closure Plan identified in BIO-7 is the decommissioning and Reclamation Plan.
70	BIO	07	Frac-Out Contingency Plan	A Frac-Out Contingency plan approved by CDFG and the CPM prior to commencement of construction of the reclaimed water pipeline for horizontal directional drilling under the waterways	Staff states "A Frac-Out Contingency Plan approved by CDFG and the CPM prior to commencement of construction of the reclaimed water pipeline for horizontal directional drilling under the waterways." Comment: Applicant requests that the submittal date of the condition be revised from 60 days to 30 days.
71	BIO	07	Biological Opinion	The BRMIMP shall incorporate avoidance and minimization measures described in final versions of the ... the USFWS Biological Opinion, …	Staff states "The BRMIMP shall incorporate avoidance and minimization measures described in the final versions of the… USFWS Biological Opinion…" Comment: Applicant requests that the submittal date of the condition be revised from 60 days to 30 days.
72	BIO	07	Other permits not received by Project Owner until after submittal of BRMIMP	If there are any permits that have not yet been received when the BRMIMP is first submitted, these permits shall be submitted to BLM's Authorized Officer and the CPM within five days of their receipt.	None
73	BIO	07	Revised BRMIMP?	The BRMIMP shall be revised or supplemented to reflect the permit condition within at least ten days of their receipt by the project owner.	None
74	BIO	07	Revised BRMIMP?	Ten days prior to site and related facilities mobilization the revised BRMIMP shall be resubmitted to BLM's Authorized Officer and the CPM	None
75	BIO	07	Notification of modifications to approved BRMIMP	The project owner shall notify the CPM no less than five working days before implementing any modifications to the approved BRMIMP to obtain BLM's Authorized Officer and CPM approval. Any changes to the approved BRMIMP must also be approved by BLM's Authorized and the CPM in consultation with appropriate agencies to ensure no conflicts exist.	None
76	BIO	07	Monthly Compliance Report	Implementation of BRMIMP measures (construction activities that were monitored, species observed) would be reported in the Monthly Compliance Reports by the Designated Biologist.	None
77	BIO	07	Construction Termination Report	Within 30 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM, for review and approval, a written construction termination report identifying which items of the BRMIMP have been completed, a summary of all modifications to mitigation measures made during the project's site mobilization, ground disturbance, grading, and construction phases, and which mitigation and monitoring items are still outstanding.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
78	BIO	08	Monthly Compliance Report (to include implementation of mitigation measures)	The project owner shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to biological resources during construction and operation: (refer to SES Solar Two SE DEIS Conditions for more info) ... All mitigation measures and their implementation methods shall be included in the BRMIMP and implemented. Implementation of the measures would be reported in the Monthly compliance Reports by the Designated Biologist.	The Applicant requests the bullet point within the condition be revised as follows: • Vehicular traffic during project construction and operation shall be confined to existing routes of travel to and from the project site, and cross country vehicle and equipment use outside designated work areas shall be prohibited. The speed limit shall not exceed 25 miles per hour on the project site. Staff states "The project owner shall undertake the following measures to manage the construction site and related facilities in a manner to avoid or minimize impacts to biological resources during construction and operation: • To the extent possible, existing roads shall be used for travel and equipment storage. New and existing roads that are planned for construction, widening or other improvements shall not extend beyond the flagged impact area as described above. All vehicles passing or turning around would do so within the planned impact area or in previously disturbed areas. Where new access is required outside of existing roads (e.g. new spur roads associated with both transmission line options) or the construction zone, the route would be clearly marked (i.e., flagged and/or staked) prior to the onset of construction. • During construction, examine areas of active surface disturbance periodically – at least hourly when surface temperatures exceed 29°C (85°F) for the presence of FTHL." Comment: Applicant needs clarification for the second bulleted condition regarding who is allowed to perform hourly inspections. Are workers trained under WEAP allowed to make inspections, or must they be completed by a Biological Monitor?
79	BIO	08	Construction Termination Report	Within 30 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM, for review and approval, a written construction termination report identifying how measures have been completed.	None
80	BIO	09	FTHL removal surveys and accurate records (including the Horned Lizard Observation data Sheet and a Project Reporting Form)	FTHL Removal Protocol: Removal surveys shall be conducted prior to construction activities. Surveys shall follow the guidelines described in Appendix 6 of the Flat-tailed Horned Lizard Rangewide Management Strategy (FTHL ICC 2003). Removal surveys would be conducted by experience biological monitors only during appropriate survey conditions. The surveys shall be conducted from April 1 through September 30 when air temperatures are between 25 and 37°C (75 and 100°F). Surveys would not be conducted during inclement weather conditions (e.g., rain, high winds) that could affect the movement of FTHLs. FTHL removal from the area could continue outside of protocol survey periods since the intent is to move animals from harm's way.	The Applicant requests the bullet points outlining the specific measures be presented as verification rather than in the condition itself. Additionally, the Applicant requests the following edits be made to the second bulleted measure: • Removal surveys would be conducted by experience biological monitors only during appropriate survey conditions unless other times are approved by the CPM. The surveys can be conducted from April 1 through September 30 when air temperatures are between 25 and 37°C (75 and 100°F) or if approved by the CPM, at other times of the year when these conditions exist. Surveys would not be conducted during inclement weather conditions (e.g., rain, high winds) that could affect the movement of FTHLs. FTHL removal from the area could continue outside of protocol survey periods since the intent is to move animals from harm's way.
81	BIO	09	FTHL report describing how mitigation measures have been satisfied	The project owner shall undertake measures to manage construction at the plant site and linear facilities in a manner to avoid or minimize impacts to FTHL consistent with those described in the Flat-tailed Horned Lizard Rangewide Management Strategy by the FTHL Interagency Coordinating Committee (FTHL ICC 2003) or more current guidance provided by the FTHL ICC. These measures include, but are not limited to, the following: (refer to SES Solar Two SA DEIS Conditions for more info). ...Within 30 days of completion of FTHL clearance surveys the Designated Biologist shall submit a report to the CPM, BLM's Authorized Officer, USFWS, and CDFG describing how mitigation measures described above have been satisfied. The report shall include the FTHL survey results, capture and release locations of any FTHL encountered, and any other information needed to demonstrate compliance with the measures described above.	
82	BIO	10	Proof of FTHL habitat compensation payment	To fully mitigate for habitat loss and potential take of FTHL, in lieu of the project owner acquiring compensation lands, shall pay BLM a monetary equivalent for 6,619.9 acres of land suitable for these species, at a cost of no less than $5,717,028.34 (see Biological Resources Table 4) to replace the impacted acreage. The BLM may use the compensation funds to acquire, protect, or restore FTHL habitat within and contiguous with the FTHL Mgmt Areas (MA) in coordination with the FTHL ICC. Responsibilities for habitat acquisition and management of the compensation lands are delegated to BLM. If habitat disturbance exceeds that described in this analysis, the project owner shall be responsible for additional in-lieu fees for habitat acquisition and management of additional compensation lands or additional funds required to compensate for any additional habitat disturbances. Additional funds shall be based on the FMV of compensation lands at the time of construction to acquire habitat. Project owner must provide proof of FTHL habitat compensation payment at least 30 days prior to ground disturbing project activities to BLM's AO and the CPM.	None
83	BIO	10	Verification that disturbance to habitat was within regulations	Within 90 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM verification that disturbance to Sonoran creosote scrub habitat did not exceed 6,619.9 acres, and that construction activities at the plant site and along the transmission line and reclaimed water pipeline alignment did not result in impacts to Sonoran creosote scrub habitat adjacent to work areas.	None
84	BIO	10	Payment for any additional habitat disturbances	If habitat disturbance exceeded that described in this analysis, the CPM and BLM's Authorized Officer would notify the project owner of any additional funds required to compensate for any additional habitat disturbances at the adjusted market value at the time of construction to acquire and manage habitat. Payment for any additional funds must be made within 30 days of notification by the CMP and BLM's Authorized Officer.	None
85	BIO	11	Notification	Notify BLM's Authorized Officer and the CPM at least 14 calendar days before initiating ground-disturbing activities.	None
86	BIO	11	Notification (writing)	Immediately notify in writing if the project owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods specified in the conditions of certification.	Staff states "Immediately notify in writing if the project owner is not in compliance with any conditions of certification, including but not limited to any actual or anticipated failure to implement mitigation measures within the time periods specified in the conditions of certification. In the event of a sighting in an active construction area (e.g., with equipment, vehicles, or workers), injury, kill, or relocation of any FTHL, notify BLM's Authorized Officer, the CPM, CDFG, USACE, and USFWS immediately by phone and in no event later than noon on the business day following the event if it occurs outside normal business hours so that agencies can determine what further actions, if any, are required to protect the FTHL. Include the following information as relevant: 1) If an FTHL is killed by project-related activities during construction, or if an FTHL is otherwise found dead, submit a written report with the same information as the injury report. Written notification shall include, at a minimum, the date, time, location, circumstances of the incident; 2) The BLM's Authorized Officer and the CPM may issue the project owner a written stop work order to suspend any activity related to the construction or operation of the project for an appropriate period determined in consultation with BLM's Authorized Officer and the CPM in order to prevent or remedy a violation of one or more conditions of certification (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. The project owner shall comply with the stop work order immediately upon receipt thereof. In the case of a sighting in an active construction area, the project owner shall, at the same time, submit a map (e.g., using Geographic Information Systems) depicting both the limits of construction and sighting." Comment: Applicant requests that the condition be modified to allow a Designated Biological Monitor to be responsible for performing the duties in the condition. Applicant requests that the condition be modified to change the verification of the above from two calendar days to five calendar days.
87	BIO	11	Notification (phone)	In the event of a sighting in an active construction area (e.g., with equipment, vehicles, or workers), injury, kill, or relocation of any FTHL, notify BLM's Authorized Officer, the CPM, CDFG, USACE, and USFWS immediately by phone and in no event later than noon on the business day following the event if it occurs outside normal business hours so that the agencies can determine what further actions, if any, are required to protect the FTHL.	See above for Applicant's comment on BIO-11

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
88	BIO	11	Written report (via fax or electronic comm.) describing all reported incidents of injury, kill, or relocation of a listed species; who was notified; and when the incidents occurred / Map	Prepare written follow-up notification via FAX or electronic communication to these agencies within two calendar days of the incident...Include the following information: 1) If a FTHL is killed by project-related activities during construction, or if a FTHL is otherwise found dead, submit a written report with the same information as an injury report. Written notification shall include, at a minimum, the date, time, location, circumstances of the incident; 2) The BLM's AO and the CPM may issue the project owner a written stop work order to suspend any activity related to the construction or operation of the project for an appropriate period determined in consultation with BLM's AO and the CPM in order to prevent or remedy a violation of one or more conditions of certification (including but not limited to failure to comply with reporting, monitoring, or habitat acquisition obligations) or to prevent the illegal take of an endangered, threatened, or candidate species. The project owner shall comply with the stop work order immediately upon receipt thereof. In the case of a sighting in an active construction area, the project owner shall, at the same time, submit a map (e.g., using Geographic I	See above for Applicant's comment on BIO-11
89	BIO	11	Monthly Compliance Report	Designated Biologist to remain onsite daily while grubbing and grading are taking place to avoid or minimize take of special status species, to check for compliance with all impact avoidance and minimization measures, and to check all FTHL clearance areas to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones. Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to BLM's Authorized Officer and the CPM...Ensure that all observations of FTHL and their sign during construction project activities are reported to the Designated Biologist for inclusion in the monthly compliance report.	Staff states "Designated Biologist to remain onsite daily while grubbing and grading are taking place to avoid or minimize take of special status species, to check for compliance with all impact avoidance and minimization measures, and to check all FTHL clearance areas to ensure that signs, stakes, and fencing are intact and that human activities are restricted in these protective zones. Conduct compliance inspections at a minimum of once per month after clearing, grubbing, and grading are completed and submit a monthly compliance report to BLM's Authorized Officer and the CPM." Comment: Applicant requests a change in the condition that will allow a Designated Bio-Monitor to perform the specified duties as necessary.
90	BIO	11	Annual FTHL Status Report	No later than January 31 of every year the SES Solar Two facility remains in operation, provide the CPM, BLM's Authorized Officer, USFWS, CDFG, and the FTHL ICC an annual FTHL Status Report, which shall include, at a minimum: 1) a general description of the status of the project site and construction activities, including actual or projected completion dates, if known; 2) a copy of the table in the BRMIMP with notes showing the current implementation status of each mitigation measure; 3) an assessment of the effectiveness of each completed or partially completed mitigation measure in minimizing and compensating for project impacts; 4) completed Horned Lizard Observation Data Sheet Sheets and a Project Reporting Form from the Flat-tailed Horned Lizard Rangewide Management Strategy (FTHL ICC 2003); 5) a summary of information regarding the numbers of captured, relocated, and dead FTHLs; and 6) other relevant information associated with SES Solar Two.	None
91	BIO	11	FTHL Mitigation Report	No later than 45 days after the initial production of energy in the project's equipment, provide BLM's Authorized Officer and the CPM a FTHL Mitigation Report that shall include, at a minimum: 1) a copy of the table in the BRMIMP with notes showing when each of the mitigation measures was implemented; 2) all available information about project-related incidental take of FTHLs; 3) information about other project impacts on the FTHL; 4) construction dates; 5) an assessment of the effectiveness of conditions of certification in minimizing and compensating for project impacts; 6) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects on the FTHL; and 7) any other pertinent information, including the level of take of the FTHL associated with the project.	None
92	BIO	12	Final version of the Raven, Monitoring, Management and Control Plan	The project owner shall implement a Raven Monitoring, Management, and Control Plan that is consistent with the most current USFWS-approved raven management guidelines, and which meets the approval of the USFWS, CDFG, BLM, and Energy Commission staff. The draft Raven Monitoring, Management, and Control Plan submitted by the applicant (SES 2009f) shall provide the basis for the final plan, subject to review and revisions from USFWS, CDFG, BLM, and the Energy Commission staff. At least 60 days prior to start of any project-related ground disturbance activities, the project owner shall provide the CPM, BLM's Authorized Officer, USFWS, and CDFG with the final version of the Raven Monitoring, Management, and Control Plan that has been reviewed and approved by USFWS, CDFG, BLM's Authorized Officer, and Energy Commission staff. The CPM would determine the plan's acceptability within 15 days of receipt of the final plan.	None
93	BIO	12	Notification of modifications to RMMCP	All modifications to the approved Raven Monitoring, Management, and Control Plan must be made only after consultation with the BLM, Energy Commission Staff, USFWS, and CDFG. The project owner shall notify BLM's Authorized Officer and the CPM no less than five working days before implementing any BLM- and CPM-approved modifications to the Raven Monitoring, Management, and Control Plan.	None
94	BIO	12	Written report on the Raven Monitoring, Management, and Control Plan	Within 30 days after completion of project construction, the project owner shall provide to BLM's Authorized Officer and the CPM for review and approval, a written report identifying which items of the Raven Monitoring, Management, and Control Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.	None
95	BIO	13	As-built drawings and photographs of the ponds indicating that the bird exclusion netting has been installed.	The project owner shall install exclusionary fencing around the evaporation ponds and cover the evaporation ponds prior to any discharge with 1.5-inch mesh netting designed to exclude birds and other wildlife from drinking or landing on the water of the ponds. The netted ponds shall be monitored regularly to verify that the netting remains intact, is fulfilling its function in excluding birds and other wildlife from the ponds, and does not pose an entanglement threat to birds and other wildlife. The ponds shall include a visual deterrent in addition to the netting, and the pond shall be designed such that the netting will never contact the water. Monitoring of the evaporation ponds shall include the following: (refer to SES Solar Two SA DEIS Conditions for more info)	None
96	BIO	13	Verbal Notification	Operations staff at the SES Solar 2 site shall also report finding any dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass.	None
97	BIO	13	Verbal Notification	The Designated Biologist shall report any bird or other wildlife deaths or entanglements within two days of the discovery to the CPM, BLM's Authorized Officer, CDFG, and USFWS.	None
98	BIO	13	Remedial action to prevent further mortality of birds or other wildlife at the evap ponds	If dead or entangled birds are detected, the Designated Biologist shall take immediate action to correct the source of mortality or entanglement. The Designated Biologist shall make immediate efforts to contact and consult the CPM, BLM's Authorized Officer, CDFG, and USFWS by phone and electronic communications prior to taking remedial action upon detection of the problem, but the inability to reach these parties shall not delay taking action that would, in the judgment of the Designated Biologist, prevent further mortality of birds or other wildlife at the evaporation ponds.	None
99	BIO	13	Annual Evaporation Pond Monitoring Report	The Designated Biologist or Biological Monitor shall regularly survey the ponds at least once per month starting with the first month of operation of the evaporation ponds. The purpose of the surveys shall be to determine if the netted ponds are effective in excluding birds, and to determine if the nets pose an entrapment hazard to birds and wildlife. Annual monitoring reports describing the dates, durations and results of site visits conducted at the evaporation ponds. The annual reports shall fully describe any bird or wildlife death or entanglements detected during the site visits or at any other time, and shall describe actions taken to remedy these problems. The report shall be submitted to the CPM, BLM's Authorized Officer, CDFG, and USFWS no later than January 31st of every year for the life of the project. If after 12 consecutive monthly site visits no bird or wildlife deaths or entanglements are detected by or reported to the Designated Biologist, monitoring can be reduced to quarterly visits. If after 12 consecutive quarterly site visits no bird or wildlife deaths or entanglements are detected by or reported to the Designated Biologist, the site visits can be reduced to two su	None
100	BIO	14	Pre-construction nest surveys	Where practicable, ground-disturbing activities would be conducted outside the bird nesting season (February 1 through July 31). Pre-construction nest surveys shall be conducted if construction activities would occur from February 1 through July 31. The Designated Biologist or Biological Monitor shall perform surveys in accordance with the following guidelines: ...At least two pre-construction surveys shall be conducted, separated by a minimum 10-day interval. One of the surveys needs to be conducted within the 14-day period preceding initiation of construction activity. (refer to SES Solar Two SA DEIS for more info)	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
101	BIO	14	Pre-Construction Nest Survey Letter Report	At least 10 days prior to the start of any project-related ground disturbance activities or construction equipment staging, the project owner shall provide BLM's Authorized Officer and the CPM a letter-report. The letter report shall describe the findings of the preconstruction nest surveys, including the time, date, and duration of the survey; identity and qualifications of the surveyor (s); and a list of species observed. If active nests are detected during the survey, the report shall include a map or aerial photo identifying the location of the nest and shall depict the boundaries of the no-disturbance buffer zone around the nest. Additional copies shall be provided to CDFG and USFWS.	None
102	BIO	15	Pre-construction surveys for American badgers and desert kit fox (concurrent with FTHL surveys)	To avoid direct impacts to American badgers and desert kit fox, pre-construction surveys shall be conducted for these species concurrent with the FTHL clearance surveys. Surveys shall be conducted as described below: (refer to SES Solar Two SA DEIS Conditions for more info)	None
103	BIO	15	Badger & Kit Fox Survey Report	The project owner shall submit a report to BLM's Authorized Officer, the CPM, and CDFG at least 30 days prior to the start of any project-related site disturbance activities that describes when badger and kit fox surveys were completed, field observations, implemented mitigation measures, and the results of the mitigation.	None
104	BIO	16	Pre-construction surveys for burrowing owl	The project owner shall implement the following measures to avoid and offset impacts to burrowing owls: Complete a pre-construction survey for burrowing owls for any areas subject to disturbance from construction no less than 30 days prior to the start of initial ground disturbance activities; monitor burrowing owl pairs within 500 feet of any activities that exceed ambient noise and/or vibration levels; establish a 500-foot set back; post signs designating presence of sensitive area; passively relocate all owls. (refer to SES Solar Two SA DEIS Conditions for more infc	None
105	BIO	16	Burrowing Owl Survey Report	The project owner shall submit a report to CDFG, USFWS, BLM's Authorized Officer, and the CPM at least 30 days prior to the start of any project-related site disturbance activities that describes when surveys were completed, observations, mitigation measures, and the results of the mitigation.	None
106	BIO	16	Burrowing Owl Mitigation and Monitoring Plan	If burrowing owls are to be protected on site or relocated, the project owner shall coordinate with and report to CDFG, USFWS, BLM, and Energy Commission staff on these proposed activities in a Burrowing Owl Monitoring and Mitigation Plan. Submit a Burrowing Owl Mitigation and Monitoring Plan for review and approval prior to relocation of owls (and incorporate it into the project's BRMIMP)	None
107	BIO	16	Construction Termination Report	Project owner shall submit a written construction termination report identifying how measures have been completed 30 days after completing owl relocation and monitoring and at least 30 days prior to the start of commercial operation. Within 30 days after completion of owl relocation and monitoring, and the start of ground disturbance or at least 90 days prior to the sale of power, the project owner shall provide to the CDFG, BLM's Authorized Officer, and CPM a written construction termination report identifying how measures have been completed.	None
108	BIO	17	Formal acquisition proposal describing the parcel(s) intended for purchase	Acquire Off-Site Desert Ephemeral Wash: No less than 90 days prior to acquisition of the parcel(s) containing no less than 312 acres of jurisdictional state waters, the project owner, or a third-party approved by the CPM, in consultation with CDFG, shall submit a formal acquisition proposal to the CPM and CDFG describing the parcel(s) intended for purchase.	Staff states "Acquire Off-Site Desert Ephemeral Wash: No less than 90 days prior to acquisition of the parcel(s) containing no less than 312 acres of jurisdictional state waters, the project owner, or a third-party approved by the CPM in consultation with CDFG, shall submit a formal acquisition proposal to the CPM and CDFG describing the parcel(s) intended for purchase." Comment: Applicant requests that the submittal time period be revised from 90 days to at the time of CEC decision/BLM ROD. Staff states "Precise details of the required mitigation will be determined after the federal CWA 404(b)(1) Alternative Analysis is complete. When this occurs, staff's proposed Condition of Certification BIO-17 would be updated to reflect mitigation requirements by the USACE. Mitigation that satisfies CWA 404 requirements can also be applied toward meeting some or all of the 1602 mitigation requirements." Comment: Please confirm that any mitigation to satisfy CWA 404 requirements can also be applied toward meeting 1602 mitigation requirements.
109	BIO	17	Written verification that the compensation lands have been acquired & recorded in favor of the approved recipient(s) (or Security)	Draft agreements to delegate land acquisition to CDFG or an approved third party and agreements to manage compensation lands shall be submitted to Energy Commission staff for review and approval (in consultation with CDFG) prior to land acquisition. Such agreements shall be mutually approved and executed at least 60 days prior to start of any project-related ground disturbance activities. The project owner shall provide written verification to the CPM that the compensation lands have been acquired and recorded in favor of the approved recipient(s). Alternatively, before beginning project ground-disturbing activities, the project owner shall provide Security in accordance with this condition.	None
110	BIO	17	Letter of Credit, pledged savings account, or certificate of deposit	Security for Implementation of Mitigation: A security in the form of an irrevocable letter of credit, pledged savings account, or certificate of deposit for the amount of all mitigation measures pursuant to this condition of certification shall be submitted to, and approved by the CPM, in consultation with CDFG, prior to commencing project activities within areas of CDFG jurisdiction. This amount shall be based on a cost estimate produced by a PAR or PAR-like process, which shall be submitted to CDFG for review and to the CPM for approval within 60 days of the Energy Commission Decision's publication and prior to commencing project activities within areas of CDFG jurisdiction. The security shall be approved by the CPM, in consultation with CDFG's legal advisors, prior to its execution, and shall allow the CPM at its discretion to recover funds immediately if the CPM, in consultation with CDFG, determines there has been a default.	Staff states "Security for Implementation of Mitigation: A security in the form of an irrevocable letter of credit, pledged savings account, or certificate of deposit for the amount of all mitigation measures pursuant to this condition of certification shall be submitted to, and approved by the CPM, in consultation with CDFG, prior to commencing project activities within areas of CDFG jurisdiction." Comment: Applicant requests that the submittal time period be revised from "prior to commencing project activities" to "at the time of CEC decision and BLM ROD."
111	BIO	17	Draft Management Plan	The project owner shall submit a draft Management Plan that reflects site-specific enhancement measures for the drainages on the acquired compensation lands. The objective of the Management Plan shall be to enhance the wildlife value of the drainages and may include enhancement actions such as weed control, fencing to exclude livestock, or erosion control.	None
112	BIO	17	Final Management Plan	No later than 12 months after publication of the Energy Commission Decisions the project owner shall submit a final Management Plan for review and approval to the CPM, in consultation with CDFG.	None
113	BIO	17	Written Verification that BMPs will be implemented	The project owner shall provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that the above best management practices (refer to SES Solar Two SA DEIS Conditions for more info) will be implemented.	The Applicant notes that written verification that BMPs will be implemented is due 30 days prior to commencing activities within areas of CDFG jurisdiction; however, the verification implies that this written verification occur through incorporation into the BRMIMP (and the draft BRMIMP is due 60 days prior to start of ground disturbance)
114	BIO	17	Written Notification	The project owner shall notify the CPM and CDFG in writing, at least five days prior to initiation of project activities in jurisdictional areas as notec	None
115	BIO	17	Written Notification	The project owner shall notify the CPM and CDFG in writing, at least five days prior to completion of project activities in jurisdictional areas.	None
116	BIO	17	Notifying Change of Conditions Report	The project owner shall notify the CPM and CDFG of any change of conditions to the project, the jurisdictional impacts, or the mitigation efforts, if the conditions at the site of a proposed project change in a manner which changes risk to biological resources that may be substantially adversely affected by the proposed project. The notifying report shall be provided to the CPM and CDFG no later than seven days after the change of conditions is identified. As used here, change of condition refers to the process, procedures, and methods of operation of a project; the biological and physical characteristics of a project area; or the laws or regulations pertinent to the project as defined below. (refer to SES Solar Two SA DEIS Conditions for more info)	None
117	BIO	17	Monthly Compliance Report	Also provide a discussion of work in jurisdictional state waters in Compliance Reports for the duration of the project.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
118	BIO	17	Annual Compliance Report	A copy of the notifying change of conditions report shall be included in the annual reports. Also provide a discussion of work in jurisdictional state waters in Compliance Reports for the duration of the project.	None
119	BIO	17	Copy of Lake Streambed Impact Minimization and Compensation Measures	Code of Regulations: The project owner shall provide a copy of the Lake Streambed Impact Minimization and Compensation Measures from the Energy Commission Decision to all contractors, subcontractors, and the Applicant's project supervisors. Copies shall be readily available at work sites at all times during periods of active work and must be presented to any CDFG personnel or personnel from another agency upon demand. The CPM reserves the right to issue a stop work order or allow CDFG to issue a stop work order after giving notice to the project owner and the CPM, if the CPM in consultation with CDFG, determines that the project owner has breached any of the terms or conditions or for other reasons, including but not limited to the following (refer to SES Solar Two SA DEIS Conditions for more info)	None
120	BIO	18	(Second) Draft Noxious Weed Management Plan	The project owner shall implement a Noxious Weed Management Plan that meets the approval of BLM and Energy Commission staff. The draft Noxious Weed Management Plan submitted by the applicant (SES 2009e) shall provide the basis for the final plan, subject to review and revisions from BLM, USFWS, CDFG, and the Energy Commission staff. In addition to describing weed eradication and control methods, and a reporting plan for weed management during and after construction, the final Noxious Weed Management Plan shall include at least the following Best Management Practices to prevent the spread and propagation of noxious weeds: (refer to SES Solar Two SA DEIS Conditions for more info)	None
121	BIO	18	Final Noxious Weed Management Plan	Final Noxious Weed Management Plan: BLM's Authorized Officer and the CPM would determine the plan's acceptability within 15 days of receipt of the final plan.	None
122	BIO	18	Coordination for & Notification of Modification to Weed Plan; Implementation	All modifications to the approved Noxious Weed Management Plan shall be made only after consultation BLM, Energy Commission staff, USFWS, and CDFG. Project owner shall notify BLM's Authorized Officer and the CPM before implementing any BLM and CPM approved modifications to the Noxious Weed Management Program.	None
123	BIO	18	Noxious Weed Management Plan Summary Report	Written report that identifies which items of the Noxious Weed Management Plan have been completed, a summary of all modifications to mitigation measures made during the project's construction phase, and which items are still outstanding.	None
124	BIO	18	Annual Compliance Report	Summary report on noxious weed management on the project site shall be submitted in the Annual Compliance Report during plant operations.	None
125	BIO	19	Spring Pre-Construction Floristic Survey	Spring Pre-Construction Floristic Survey. A qualified botanist shall conduct floristic surveys on the SES Solar Two project site and along linear facilities in all areas subject to ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, pulling and tensioning sites, assembly yards, and areas subject to grading for new access roads. Surveys shall be conducted within 100 feet of all surface-disturbing activities at the appropriate time of year and according to guidelines from the BLM (2009), California Department of Fish and Game (CDFG 2009b) and the California Native Plant Society (CNPS 2001).	Applicant requests that condition BIO-19 be revised as follows: To avoid impacts to state and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate or California Rare Plant Society List 1A, 1B, or 2 plants that might occur on the SES Solar Two site or along the proposed auxiliary features, pre-construction surveys shall be conducted in these areas in spring 2010. Verification surveys will be conducted in fall 2010 to verify the presence of any fall blooming species likely to be found on the site but that may not have been detected during spring surveys. If special status plant species are detected within 100 feet of the project footprint, a qualified botanist shall prepare a Sensitive Plant Protection Plan to be implemented to avoid direct and indirect impact.
126	BIO	19	Fall Pre-Construction Survey	Fall Pre-Construction Floristic Survey. A qualified botanist shall conduct floristic surveys on the SES Solar Two project site and along linear facilities in all areas subject to ground-disturbing activity, including, but not limited to, tower pad preparation and construction areas, pulling and tensioning sites, assembly yards, and areas subject to grading for new access roads. Surveys shall be conducted within 100 feet of all surface-disturbing activities at the appropriate time of year and according to guidelines from the BLM (2009), California Department of Fish and Game (CDFG 2009b) and the California Native Plant Society (CNPS 2001).	
127	BIO	19	Spring Pre-Construction Floristic Survey Report	The report shall describe qualifications of the surveyor, survey methods, dates and times, a discussion of visits to reference sites, figures depicting the area(s) surveyed, figures depicting the locations of any special status plants observed, and a list of all plant species detected.	
128	BIO	19	Fall Pre-Construction Survey Report	The report shall describe qualifications of the surveyor, survey methods, dates and times, a discussion of visits to reference sites, figures depicting the area(s) surveyed, figures depicting the locations of any special status plants observed, and a list of all plant species detected.	Applicant requests that the portion of the verification be revised to read as follows: The project owner shall submit two or more reports : 1) no later than July 31, 2010 describing the results of the spring floristic surveys and 2) no later than October 31, 2010 describing the results of the fall floristic surveys conducted on the SES Solar Two power plant site and along the proposed auxiliary features. The reports shall be submitted to BLM's Authorized Officer, the CPM, USFWS, and CDFG and shall describe qualifications of the surveyor, survey methods, dates and times, a discussion of visits to reference sites, figures depicting the area(s) surveyed, figures depicting the locations of any special status plants observed, and a list of all plant species detected.
129	BIO	19	Special Status Plant Protection Plan	Special Status Plant Protection Plan: If special status plant species are detected during pre-construction surveys, a qualified botanist shall prepare a Sensitive Plant Protection Plan. Populations of rare plants shall be flagged and mapped prior to any ground disturbance. Where possible the owner shall modify the placement of structures, access roads, laydown areas, and other ground-disturbing activities in order to avoid the plants. (refer to SES Solar Two SA DEIS Conditions for more info) The BLM's Authorized Officer and the CPM would determine the Plan's acceptability in consultation with BLM, Energy Commission staff, CDFG, and USFWS within 15 days of receipt of the Plan.	The Applicant requests that the portion of the second paragraph of the verification be revised as follows: If special status plant species were detected during the 2010 surveys the project owner shall submit to BLM's Authorized Officer, the CPM, USFWS, and CDFG a Sensitive Plant Protection Plan (Plan) at least 3060 days prior to the start of any ground-disturbing activities. The BLM's Authorized Officer and the CPM would determine the Plan's acceptability in consultation with BLM, Energy Commission staff, CDFG, and USFWS within 15 days of receipt of the Plan. Any modifications to the approved Plan shall be made only after approval by Energy Commission staff and BLM in consultation with CDFG and USFWS.
130	BIO	19	Coordination for & Notification of Modification Implementation	Any modifications to the approved Plan shall be made only after approval by Energy Commission staff and BLM in consultation with CDFG and USFWS. The project owner shall notify BLM's Authorized Officer and the CPM no fewer than five working days before implementing any BLM- and CPM-approved modifications to the Plan.	None
131	BIO	19	Construction Termination Report	The project owner shall provide to BLM's Authorized Officer, the CPM, USFWS, and CDFG a construction termination report discussing how mitigation measures described in the Plan were implemented.	None
132	BIO	20	Draft Decommissioning and Reclamation Plan	Upon project closure the project owner shall implement a Decommissioning and Reclamation Plan to remove all structures from the project site and fill from Waters of the U.S. and restore the natural topography, hydrology and vegetation/wildlife habitat. The Decommissioning and Reclamation Plan shall include a cost estimate for implementing the proposed decommissioning and reclamation activities, and shall be consistent with the guidelines in BLM's 43 CFR 3809.550 et seq., subject to review and revisions from BLM's Authorized Officer and the CPM in consultation with USFWS, USACE, and CDFG	Comment: the Draft is due no less than 30 days from Decision or ROD (whichever comes first), but the Final is due 60 days prior to construction. This is a potential conflict with the Applicant's proposed initiation of construction activities.
133	BIO	20	Final Decommissioning and Reclamation Plan	The project owner shall provide BLM's Authorized Officer and the CPM with the final version of a Decommissioning and Reclamation Plan that has been reviewed and approved by BLM's Authorized Officer and the CPM, in consolation with USFWS, and CDFG. All modifications to the approved Channel Decommissioning Plan shall be made only after approval from BLM's Authorized Officer and the CPM, in consultation with USFWS, USACE, and CDFG	Comment: BIO-20 refers to the Decommissioning and Reclamation Plan in the header and in the condition. The verification mentions a Channel Decommissioning Plan which does not seem applicable.
134	BIO	20	Financial Assurances	The project owner shall provide financial assurances to BLM's Authorized Officer and the CPM to guarantee that an adequate level of funding will be available to implement measures described in the Decommissioning and Reclamation Plan.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
135	CUL	01	All required documentation under the programmatic agreement	The applicant shall be bound to abide, in total, to the terms of the programmatic agreement that the BLM is to execute under 36 CFR § 800.14(b)(3) for the proposed action. If for any reason, any party to the programmatic agreement were to terminate that document and it were to have no further force or effect for the purpose of compliance with Section 106 of the National Historic Preservation Act, the applicant would continue to be bound to the terms of that original agreement for the purpose of compliance with CEQA until such time as a successor agreement had been negotiated and executed with the participation and approval of Energy Commission staff.	The Applicant is concerned that the SA/DEIS relies on the PA to resolve adverse effects/significant impacts, but it does not consistently show how and when this will occur. Please revise CUL 1 as follows: BLM will consult with SHPO, ACHP, and invited and concurring parties to execute a PA under 36 CFR 800.14(b)(3) prior to the ROD. The PA will specify that the applicant will prepare a Historic Properties Treatment Plan (HPTP) subject to BLM and CEC review and approval. Minimally, the HPTP will include (1) additional cultural resources inventory and evaluation procedures, (2) procedure to avoid or reduce impacts to significant archaeological, historical, and ethnographic sites, (3) measures to treat sites where impacts cannot be avoided, and (4) an unanticipated discoveries plan. If, at its option, BLM proceeds with another approach to Section 106 requiremetns, the HPTP will remain a required mitigation measure.
136	PAL	01	Resume and Statement of Availability of designated PRS	The project owner shall provide BLM's Authorized Officer and the Compliance Project Manager (CPM) with the resume and qualifications of its PRS for review and approval. If the approved PRS is replaced prior to completion of project mitigation and submittal of the Paleontological Resources Report, the project owner shall obtain BLM's Authorized Officer and CPM approval of the replacement PRS. The project owner shall keep resumes on file for qualified Paleontological Resource Monitors (PRMs). If a PRM is replaced, the resume of the replacement PRM shall also be provided to BLM's Authorized Officer and the CPM:(refer to SES Solar Two SA DEIS Conditions for more info). At least 60 days prior to the start of ground disturbance, the project owner shall submit a resume and statement of availability of its designated PRS for on-site work.	
137	PAL	01	Letter and Resumes of PRMs	The PRS or project owner shall provide a letter with resumes naming anticipated monitors for the project, stating that the identified monitors meet the minimum qualifications for paleontological resource monitoring required by the condition.	None
138	PAL	01	Letter and Resumes of additional PRMs	If additional monitors are obtained during the project, the PRS shall provide additional letters and resumes to BLM's Authorized Officer and the CPM. The letter shall be provided to BLM's AO and the CPM no later than one week prior to the monitor's beginning on-site duties.	None
139	PAL	01	Resume of proposed new PRS	Prior to the termination or release of a PRS, the project owner shall submit the resume of the proposed new PRS to BLM's Authorized Officer and the CPM for review and approval.	None
140	PAL	02	All Maps and Drawings	The project owner shall provide to the PRS, BLM's Authorized Officer and the CPM, for approval, maps and drawings showing the footprint of the power plants, construction lay down areas, and all related facilities. Maps shall identify all areas of the project where ground disturbance is anticipated. If the PRS requests enlargements or strip maps for linear facility routes, the Project owner shall provide copies to the PRS, BLM's Authorized Officer and CPM. The site grading plan and plan and profile drawings for the utility lines would be acceptable for this purpose. The plan drawings should show the location, depth, and extent of all ground disturbances and be at a scale of 1 inch = 40 feet to 1 inch = 100 feet range. If the footprint of the project or its linear facilities change, the project owner shall provide maps and drawings reflecting those changes to the PRS, BLM's Authorized Officer and CPM.	None
141	PAL	02	N/A	Project owner shall ensure that the PRS or PRM consults with the project superintendent or construction field manager to confirm area(s) to be worked the following week, and until ground disturbance is completed.	None
142	PAL	02	Revised Maps and Drawings	If there are changes to the footprint of the project, revised maps and drawings shall be provided to the PRS, BLM's Authorized Officer and CPM at least 15 days prior to the start of ground disturbance.	None
143	PAL	02	Letter of notification regarding changes to scheduling	If there are changes to the scheduling of the construction phases of each power plant, the project owner shall submit a letter to BLM's AO and the CPM within 5 days of identifying the changes.	Condition PAL-2 references the phasing of each power plant for the ISEGS Project. Comment: Please remove reference to ISEGS and replace with Solar Two. Additionally, while the Project will be built in two phases, each phase is only a portion of the power plant as a whole and should not be referred to individual power plants.
144	PAL	03	PRMMP with affidavit and signature	If after review of the plans provided pursuant to PAL-2, the PRS determines that materials with moderate, high, or unknown paleontological sensitivity could be impacted, the project owner shall ensure that the PRS prepares, and the project owner submits to BLM's Authorized Officer and the CPM for review and approval, a paleontological resources monitoring and mitigation plan (PRMMP) to identify general and specific measures to minimize potential impacts to significant paleontological resources. The PRMMP shall function as the formal guide for monitoring, collecting, and sampling activities, and may be modified with BLM's Authorized Officer and CPM approval. This document shall be used as the basis of discussion when on-site decisions or changes are proposed. Copies of the PRMMP shall reside with the PRS, each monitor, the project owner's on-site manager, BLM's Authorized Officer and the CPM. The PRMMP shall be developed in accordance with the guidelines of the Society of Vertebrate Paleontology (SVP 1995) and shall include, but not be limited, to the following: (refer to SES Solar Two SA DEIS Conditions for more info)	None
145	PAL	04	Proposed WEAP, Brochure & Reporting Procedures	Worker Environmental Awareness Program (WEAP). If after review of the plans provided pursuant to PAL-2, the PRS determines that materials with moderate, high, or unknown paleontological sensitivity could be impacted then, prior to ground disturbance the Project owner should prepare and submit a WEAP. Worker training shall consist of an initial in-person PRS training during the project kick-off. The WEAP shall address the possibility of encountering paleontological resources in the field, the sensitivity and importance of these resources, and legal obligations to preserve and protect those resources. (refer to SES Solar Two SA DEIS Conditions for more info)	Condition PAL-4, as written, does not have verification. Comment: The Applicant requests that the following language, currently inserted into condition PAL-4, be used as the verification: (1) At least 30 days prior to ground disturbance, the project owner shall submit the proposed WEAP, including the brochure, with the set of reporting procedures for workers to follow. (2) At least 30 days prior to ground disturbance, the project owner shall submit the script and final video to BLM's Authorized Officer and the CPM for approval if the project owner is planning to use a video for interim training. (3) If the owner requests an alternate paleontological trainer, the resume and qualifications of the trainer shall be submitted to BLM's Authorized Officer and the CPM for review and approval prior to installation of an alternate trainer. Alternate trainers shall not conduct training prior to BLM's Authorized Officer and CPM authorization. (4) In the monthly compliance report (MCR, the project owner shall provide copies of the WEAP certification of completion forms with the names of those trained and the trainer or type of training (in-person or video) offered that month. The MCR shall also include a running total of all persons who have completed the training to date.
146	PAL	04	Script and final video	Following initial training, a CPM-approved video or in-person training may be used for new employees. The training program may be combined with other training programs prepared for cultural and biological resources, hazardous materials, or other areas of interest or concern. No ground disturbance shall occur prior to BLM's Authorized Officer and CPM approval of the Worker Environmental Awareness Program (WEAP), unless specifically approved by the CPM. (refer to SES Solar Two SA DEIS Conditions for more info)	See above for Applicant's comment on PAL-4
147	PAL	04	Prepare and conduct weekly approved training for workers	The project owner and the PRS shall conduct weekly BLM Authorized Officer- and CPM approved training for the following workers: project managers, construction supervisors, foremen and general workers involved with or who operate ground-disturbing equipment or tools. (refer to SES Solar Two SA DEIS Conditions for more info).	See above for Applicant's comment on PAL-4
148	PAL	04	Resume and Quals of alternate Paleo Trainer	If the owner requests an alternate paleontological trainer, the resume and qualifications of the trainer shall be submitted to BLM's Authorized Officer and the CPM for review and approval prior to installation of an alternate trainer. Alternate trainers shall not conduct training prior to BLM's Authorized Officer and CPM authorization.	See above for Applicant's comment on PAL-4

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149	PAL	04	Copies of WEAP certification of completion forms signed by employees in Monthly Compliance Report	In the monthly compliance report, the project owner shall provide copies of the WEAP certification of completion forms with the names of those trained and the trainer or type of training (in-person or video) offered that month. The MCR shall also include a running total of all persons who have completed the training to date.	See above for Applicant's comment on PAL-4
150	PAL	05	Paleontological Resources Monitoring	The project owner shall ensure that the PRS and PRM(s) monitor consistent with the PRMMP all construction-related grading, excavation, trenching, and augering in areas where potential fossil-bearing materials have been identified, both at the site and along any constructed linear facilities associated with the project. The project owner shall ensure that the PRS and PRM(s) have the authority to halt or redirect construction if paleontological resources are encountered. The project owner shall ensure that there is no interference with monitoring activities unless directed by the PRS. Monitoring activities shall be conducted as follows: (refer to SES Solar Two SA DEIS Conditions for more info)	None
151	PAL	05	Notification	The project owner shall ensure that the PRS notifies BLM's Authorized Officer and the CPM within 24 hours of the occurrence of any incidents of non-compliance with any paleontological resources conditions of certification. The PRS shall recommend corrective action to resolve the issues or achieve compliance with the conditions of certification.	None
152	PAL	05	Notification	For any significant paleontological resources encountered, either the project owner or the PRS shall notify BLM's Authorized Officer and the CPM within 24 hours, or Monday morning in the case of a weekend event where construction has been halted because of a paleontological find.	None
153	PAL	05	Notify and seek concurrence	In the event that the PRS determines full-time monitoring is not necessary in locations that were identified as potentially fossil-bearing in the PRMMP, the project owner shall notify and seek the concurrence of BLM's Authorized Officer and the CPM.	None
154	PAL	05	Notification (and include in Monthly Compliance Report)	BLM's Authorized Officer and the CPM shall be notified of any proposed changes in monitoring different from the plan identified in the PRMMP. When feasible, BLM's AO and the CPM shall be notified 10 days in advance of any proposed changes in monitoring different from the plan identified in the PRMMP. If there is any unforeseen change in monitoring, the notice shall be given as soon as possible prior to implementation of the change. Any change of monitoring from the accepted scheduled in the PRMMP shall be proposed in a letter or email from the PRS and the project owner to BLM's Authorized Officer and the CPM prior to the change in monitoring and will be included in the monthly compliance report. The letter or email shall include the justification for the change in monitoring and be submitted to BLM's Authorized Officer and the CPM for review and approval.	None
155	PAL	05	Daily Monitoring Log	The project owner shall ensure that the PRM(s) keep a daily monitoring log of paleontological resource activities.	None
156	PAL	05	Monthly Summary of Monitoring and other Paleontological Activities	The project owner shall ensure that the PRS prepares a summary of monitoring and other paleontological activities placed in the monthly compliance reports. The summary will include the name(s) of PRS or PRM(s) active during the month, general descriptions of training and monitored construction activities, and general locations of excavations, grading, and other activities. A section of the report shall include the geologic units or subunits encountered, descriptions of samplings within each unit, and a list of identified fossils. A final section of the report will address any issues or concerns about the project relating to paleontological resource monitoring, including any incidents of noncompliance or any changes to the monitoring plan that have been approved by BLM's Authorized Officer and the CPM. If no monitoring took place during the month, the report shall include an explanation in the summary as to why monitoring was not conducted.	None
157	PAL	06	Copy of transmittal letter submitting fossils to curating institution	The project owner, through the designated PRS, shall ensure that all components of the PRMMP are adequately performed including collection of fossil materials, preparation of fossil materials for analysis, analysis of fossils, identification and inventory of fossils, the preparation of fossils for curation, and the delivery for curation of all significant paleontological resource materials encountered and collected during project construction. The project owner shall be responsible for paying any curation fees charged by the museum for fossils collected and curated as a result of paleontological mitigation. A copy of the letter of transmittal submitting the fossils to the curating institution shall be provided to BLM's Authorized Officer and the CPM.	None
158	PAL	06	Maintain contracts or agreements with PRS	The project owner shall maintain in his/her compliance file copies of signed contracts or agreements with the designated PRS and other qualified research specialists. The project owner shall maintain these files for a period of three years after project completion and approval of BLM Authorized Officer- and CPM-approved paleontological resource report (see PAL-7).	None
159	PAL	07	Paleontological Resources Report (Confidential)	The project owner shall ensure preparation of a Paleontological Resources Report (PRR) by the designated PRS. The PRR shall be prepared following completion of the ground-disturbing activities. The PRR shall include an analysis of the collected fossil materials and related information, and submit it to the CPM for review and approval. The report shall include, but is not limited to, a description and inventory of recovered fossil materials; a map showing the location of paleontological resources encountered; determinations of sensitivity and significance; and a statement by the PRS that project impacts to paleontological resources have been mitigated below the level of significance.	None
160	HAZ	01	Annual Compliance Report (to include list of hazardous materials contained at facility)	The project owner shall not use any hazardous materials not listed in Appendix A, below, or in greater quantities than those identified by chemical name in Appendix A, unless approved in advance by the BLM's authorized officer and Compliance Project Manager (CPM). The project owner shall provide to BLM's authorized officer and the CPM in the Annual Compliance Report, a list of hazardous materials contained at the facility.	None
161	HAZ	02	Draft Hazardous Materials Business Plan	The project owner shall concurrently provide a Hazardous Materials Business Plan to the Imperial County Department of Toxic Substances Control, BLM's authorized officer and the CPM for review.	None
162	HAZ	02	Proceed with preparation of Hazardous Materials Business Plan	After receiving comments from the Imperial County, BLM's authorized officer and the CPM, the project owner shall reflect all received recommendations in the final documents. If no comments are received from the county within 30 days of submittal, the project owner may proceed with preparation of final documents upon receiving comments from BLM's authorized officer and the CPM.	None
163	HAZ	02	Final Hazardous Materials Business Plan	Copies of the final Hazardous Materials Business Plan shall then be provided to the Imperial County Department of Toxic Substances Control for information and to the BLM's authorized officer and CPM for approval.	None
164	HAZ	03	Safety Management Plan	The project owner shall develop and implement a Safety Management Plan for delivery of liquid hazardous materials. The plan shall include procedures, protective equipment requirements, training and a checklist. It shall also include a section describing all measures to be implemented to prevent mixing of incompatible hazardous materials. This plan shall be applicable during construction, commissioning, and operation of the power plant.	None
165	HAZ	04	Site-specific Construction Site Security Plan	Site-specific Construction Site Security Plan for the construction phase shall be prepared and made available to BLM's authorized officer and the CPM for review and approval. The Construction Security Plan shall include the following: (refer to SES Solar two SA DEIS Conditions for more info)	Staff states "Site-specific Construction Site Security Plan for the construction phase shall be prepared and made available to BLM's authorized officer and the CPM for review and approval." Comment: The Applicant would like to verify that construction may commence before establishing a perimeter fence for security. Applicant would like to revise the condition to state that construction may begin before establishing a perimeter for security. Site will be secure due to presence of construction activity.

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
166	HAZ	05	Site-specific Operation Site Security Plan	The project owner shall prepare a site-specific Security Plan for the operational phase and shall be made available to BLM's authorized officer and the CPM for review and approval. The project owner shall implement site security measures addressing physical site security and hazardous materials storage. The level of security to be implemented shall not be less than that described below (as per NERC 2002). The Operation Security Plan shall include the following: (refer to SES Solar two SA DEIS Conditions for more info)	Condition HAZ-5 requires, "A statement (refer to sample, attachment "A") signed by the project owner certifying that background investigations have been conducted on all project personnel. Background investigations shall be restricted to ascertain the accuracy of employee identity and employment history, and shall be conducted in accordance with state and federal law regarding security and privacy" Comment: Applicant believes that this requirement may be unduly onerous, especially during peak construction periods where Project personnel could number as much as over 700 people, and requests that background investigations shall be conducted on any Project personnel who comes into contact with hydrogen or hazardous materials and planned operations personnel. This will be adequate to ensure that the necessary safety measures are in place.
167	HAZ	05	Annual Compliance Report (to include statement of background investigations/certification of security plan completed)	In the Annual Compliance Report, the project owner shall include a statement that all current project employee and appropriate contractor background investigations have been performed, and updated certification statements are appended to the Operations Security Plan. In the Annual Compliance Report, the project owner shall include a statement that the Operations Security Plan includes all current hazardous materials transport vendor certifications for security plans and employee background investigations.	None
168	HAZ	06	Copy of report re: reportable release or spill of toxic substances	The holder (project owner) shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder(s) shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to BLM's authorized officer and the CPM concurrent with the filing of the reports to the involved Federal agency or State government.	None
169	SOIL&WATER	01	DESCP	Prior to site mobilization, the project owner shall obtain both BLM's Authorized Officer (AO) and the Compliance Project Manager's (CPM) approval for a site specific DESCP that ensures protection of water quality and soil resources of the project site and all linear facilities for both the construction and operation phases of the project. This plan shall address appropriate methods and actions, both temporary and permanent, for the protection of water quality and soil resources, demonstrate no increase in offsite flooding or sedimentation potential, and identify all monitoring and maintenance activities. The project owner shall complete all necessary engineering plans, reports, and documents necessary for both the AO and CPM to conduct a review of the proposed project and provide a written evaluation as to whether the proposed grading, drainage improvements, sediment control measures, and flood management activities comply with all requirements presented herein. The plan shall contain the following elements: (refer to SES Solar two SA DEIS Conditions for more info)	Comment: Request to revise submission of the final DESCP from 90 days to 60 days prior to start of construction.
170	SOIL&WATER	01	Monthly Compliance Report (to include monthly report on monitoring and effectiveness of DESCP)	During construction, the project owner shall provide an analysis in the monthly compliance report on the effectiveness of the drainage-erosion- and sediment-control measures and the results of monitoring and maintenance activities. The property owner shall provide the AO and CPM with two (2) copies each of all reports, including monitoring reports.	
171	SOIL&WATER	01	Annual Compliance Report (to include annual report on results of storm water BMP monitoring and maintenance activities)	Once operational, the project owner shall provide in the annual compliance report information on the results of storm water BMP monitoring and maintenance activities. The property owner shall provide the AO and CPM with two (2) copies each of all reports, including monitoring reports.	None
172	SOIL&WATER	02	Evidence of metering device installation & operation on water pipelines	Prior to the use of recycled wastewater for operation of the SES Solar Two Project, the project owner shall install and maintain metering devices as part of the water supply and distribution system to monitor and record in gallons per day the volume of water supplied to the SES Solar Two Project. The metering devices shall be operational for the life of the project.	Staff states "Prior to the use of recycled wastewater for operation of the SES Solar Two Project, the project owner shall install and maintain metering devices as part of the water supply and distribution system to monitor and record in gallons per day the volume of water supplied to the SES Solar Two Project. The metering devices shall be operational for the life of the project. Verification: At least 60 days prior to the use of any water source for SES Solar Two Project operation, the project owner shall submit to the AO and CPM evidence that metering devices have been installed and are operational on all water pipelines serving the project." Comment: Applicant requests that the verification of installed and operational meters be modified from 60 days prior to use of any water source to the time when the water system would be used.
173	SOIL&WATER	02	Annual Compliance Report (to include report on servicing, testing, and calibration of metering devices and Water Use Summary Report)	In the annual compliance report, the project owner shall provide a report on the servicing, testing, and calibration of the metering devices. The project owner shall submit a water use summary report to the AO and CPM in the annual compliance report for the life of the project. The annual summary report shall be based on the volume of water used and shall distinguish recorded daily use of potable and recycled water. Included in the annual summary of water use, the project owner shall submit copies of meter and/or delivery records from the potable water and recycled water supplies documenting the volume of water supplied over the previous year. The report shall include calculated monthly range, monthly average, and annual use by the project in both gallons per day and acre-feet. After the first year and for subsequent years, this information shall also include the yearly range and yearly average potable and recycled water used by the project.	None
174	SOIL&WATER	03	Industrial Facility SWPPP	The project owner shall comply with the requirements of the General NPDES Permit for Discharges of Storm Water Associated with Industrial Activity, including development of an Industrial Facility SWPPP. The project owner shall submit a copy of the Industrial Facility SWPPP for operation of the project to the BLM AO and CPM at least 60 days prior to the start of commercial operation.	None
175	SOIL&WATER	03	Retain a copy of approved SWPPP on site	The project owner shall retain a copy of the approved SWPPP on site throughout the life of the project.	None
176	SOIL&WATER	03	Copies of all correspondence between the project owner and the Colorado River RWQCB	The project owner shall submit copies of all correspondence between the project owner and the Colorado River RWQCB regarding the general NPDES permit for discharge of storm water associated with industrial activity to the AO and CPM within 10 days of its receipt or submittal. Copies of correspondence shall include the Notice of Intent sent by the project owner to the SWRCB, the confirmation letter indicating receipt and acceptance of the Notice of Intent, and any permit modifications or changes.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
177	SOIL&WATER	04	Two copies of the executed agreement with a licensed water purveyor for the potable water supply	Potable water shall be provided by a potable water purveyor licensed to provide potable water in the state of California. Potable water delivered by the purveyor to SES Solar Two shall be within the licensed capacity of the water purveyor. The SES Solar Two project shall not operate without an executed agreement for potable water on file with the AO and CPM. No later than 30 days prior to the initiation of construction the project owner shall submit two copies of the executed agreement with a licensed water purveyor for the potable water supply. The agreement shall specify that the potable water purveyor can deliver potable water sufficient for the needs of the SES Solar Two Project construction and operation, specify the amount of water that shall be delivered on a monthly basis, document that the amount of water delivered is within the licensed capabilities of the water purveyor, and specify the contract time limit.	None
178	SOIL&WATER	04	New or revised agreement	The project owner shall ensure that this or an equivalent potable water agreement is in place and valid at all times the SES Solar Two project is in operation. New or revised agreements shall be delivered to the AO and CPM 30 days prior to the expiration of any agreement.	None
179	SOIL&WATER	05	Construction SWPPP	The project owner shall comply with the requirements of the general National Pollutant Discharge Elimination System (NPDES) permit for discharge of storm water associated with construction activity. The project owner shall also develop and implement a construction Storm Water Pollution Prevention Plan (SWPPP) for construction on the SES Solar Two main site, laydown areas, pipeline, and transmission line. The project owner shall submit a copy of the construction SWPPP to the AO and CPM at least 10 days prior to site mobilization for review and approval.	None
180	SOIL&WATER	05	Retain a copy of approved SWPPP on site	The project owner shall retain a copy of the approved SWPPP on site throughout construction.	None
181	SOIL&WATER	05	Copies of correspondence between project owner and SWRCB or Colorado River RWQCB	The project owner shall submit copies of all correspondence between the project owner and the SWRCB or the Colorado River RWQCB regarding the NPDES permit for the discharge of storm water associated with construction activity to the AO and CPM within 10 days of its receipt or submittal. Copies of correspondence shall include the Notice of Intent sent to the SWRCB, the confirmation letter indicating receipt and acceptance of the Notice of Intent, any permit modifications or changes, and completion/permit Notice of Termination.	None
182	SOIL&WATER	06	Copy of the plan for monitoring and reporting program	The project owner shall comply with the requirements of the Waste Discharge Requirements (WDR) in Soil and Water Appendices B, C, and D for the proposed evaporation ponds. The project owner shall develop, obtain AO and CPM approval of, and implement a monitoring and reporting program for the operation of the project. At least 60 days prior to commercial operation, the project owner shall submit to the AO and CPM, for review and approval, a copy of the plan for the monitoring and reporting program in compliance with the requirements outlined in Soil and Water Appendices B, C, and D.	None
183	SOIL&WATER	06	Retain a copy of the monitoring and reporting plan	The project owner shall retain a copy of the plan onsite.	None
184	SOIL&WATER	06	Copy of correspondence regarding Requirements of Waste Discharge of water	The project owner shall submit copies to the AO and CPM of all correspondence between the project owner and the Colorado River RWQCB regarding the Requirements of Waste Discharge of water associated with industrial activity within 10 days of its receipt or submittal.	None
185	SOIL&WATER	07	Final drainage map	The project owner shall prepare a detailed drainage map for existing conditions showing the location of all watercourses on the site, including those not mapped in Soil and Water Resources Figure 3 of this report, recognizing that site areas with visible evidence of past flows are subject to future flows. The drainage map may be based on a geomorphic evaluation based on aerial photographs, topographic maps, site visits, and other relevant factors, and may be supplemented by a two-dimensional flow analysis at the discretion of the project owner... The project owner shall submit the final drainage map, the Foundation Depth and Stability Report, and the Storm Water Damage Monitoring and Response Plan, with supporting analysis, to the AO and CPM for review and approval. (refer to SES Solar Two SA DEIS Conditions for more info)	Comment: Can the requested drainage plan in Soil and Water 7 be submitted with the DESCP?
186	SOIL&WATER	07	Foundation Depth and Stability Report	The project owner shall ensure that all SunCatchers within flow areas as identified in the above-referenced drainage map are designed to withstand 100-year storm water scour as estimated by a SunCatcher Foundation Depth and Stability Report to be completed by the project owner. The report shall include estimates of hydraulic conditions at each location where SunCatchers are to be located in flood hazard areas and relevant scour calculations for each location. Scour calculations shall be developed by a registered civil engineer competent in scour calculation and include all relevant scour components including ... An assessment shall be made whether foundation widths should be increased for debris production... The project owner shall submit the final drainage map, the Foundation Depth and Stability Report, and the Storm Water Damage Monitoring and Response Plan, with supporting analysis, to the AO and CPM for review and approval. (refer to SES Solar Two SA DEIS Conditions for more info)	Comment: Is the intent of the scour analysis to provide scour estimates on a reach by reach basis or for each individual SunCatcher unit? Comment: Not clear on the statement: “an assessment shall be made to determine if foundation widths should be increased to account for debris production”?
187	SOIL&WATER	07	Storm Water Damage monitoring and Response Plan with supporting analysis	The project owner shall also develop a Storm Water Damage Monitoring and Response Plan to evaluate potential impacts from storm water, including SunCatchers that fail due to storm water flow or otherwise break and scatter mirror debris on to the ground surface. The Storm Water Damage Monitoring and Response Plan shall include the following elements:... The project owner shall submit the final drainage map, the Foundation Depth and Stability Report, and the Storm Water Damage Monitoring and Response Plan, with supporting analysis, to the AO and CPM for review and approval. (refer to SES Solar Two SA DEIS Conditions for more info)	Comment: Request to revise submission of the Stormwater Damage Monitoring and Response Plan from 90 days to 60 days prior to start of construction.
188	SOIL&WATER	07	Retain a copy of Final drainage map, the Foundation Depth and Stability Report, Storm Water Damage monitoring and Response Plan onsite	The project owner shall retain a copy of the Final drainage map, the Foundation Depth and Stability Report, and the Storm Water Damage Monitoring and Response Plan, with supporting analysis onsite at the power plant at all times.	None
189	SOIL&WATER	07	Monitor and inspect periodically	Monitor and inspect periodically, before first seasonal and after every storm event.	Staff says “Monitor and inspect periodically, before first season and after every storm event.” Comment: Applicant recommends monitoring after 5 year storm events.
190	SOIL&WATER	07	Annual summary of SunCatcher fails and mitigations	The project owner shall prepare an annual summary of the number of SunCatchers failed, cause of the failure, and cleanup and mitigation performed for each failed SunCatcher.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
191	SOIL&WATER	08	All information and fees in compliance with waste disposal facilities requirements	The project owner shall comply with the requirements of the County of Imperial Land Use Ordinance Title 9 and the California Plumbing Code (California Code of Regulations Title 24, Part 5) regarding sanitary waste disposal facilities such as septic systems and leach fields. The septic system and leach fields shall be designed, operated, and maintained in a manner that ensures no deleterious impact to groundwater or surface water. Compliance shall include an engineering report on the septic system and leach field design, operation, maintenance, and loading impact to groundwater. The project owner shall submit all necessary information and the appropriate fee to the County of Imperial and the RWQCB to ensure that the project has complied with county and state sanitary waste disposal facilities requirements.	None
192	SOIL&WATER	08	Written assessments prepared by County of Imperial and RWQCB	Written assessments prepared by the County of Imperial and the RWQCB regarding the project's compliance with these requirements must be submitted to the AO and CPM for review and approval 30-days prior to the start of power plant operation.	How long does it take for agencies to complete "assessments"
193	SOIL&WATER	09	Two copies of Recycled Water Purchase Agreement	The project owner shall provide the AO and CPM two copies of the executed Recycled Water Purchase Agreement (agreement) with the recycled waste water purveyor for the long-term supply (30-35 years) of disinfected tertiary recycled water to the SES Solar Two Project. The project shall not operate without a long term agreement for recycled water delivery and connection to a recycled water pipeline for project use. The agreement shall specify a delivery rate to meet SES Solar Two Project's maximum operation requirements and all terms and costs for the delivery and use of recycled water at the SES Solar Two Project. (refer to SES Solar Two SE DEIS Conditions for more info)...No later than 60 days prior to the connection to the recycled water pipeline, the project owner shall submit two copies of the executed agreement for the supply and on-site use of disinfected tertiary recycled water at the SES Solar Two Project. The agreement shall specify that the recycled wastewater purveyor can deliver recycled water at a maximum rate up to 250,000 gpd and would provide the SES Solar Two Project a minimum of 33 acre feet per year.	None
194	SOIL&WATER	09	Copy of the Producer/User Water Recycling Requirements	The project owner shall submit to the AO and CPM a copy of the Producer/User Water Recycling Requirements, the recycled wastewater criteria, the Engineering Report, the Cross Connection Inspection report, and RWQCB water rights approval under Section 1211 of the Water Code for the SWWTP diversion prior to the connection to the disinfected tertiary recycled wastewater pipeline.	None
195	SOIL&WATER	09	Copy of the recycled wastewater criteria	The project owner shall submit to the AO and CPM a copy of the Producer/User Water Recycling Requirements, the recycled wastewater criteria, the Engineering Report, the Cross Connection Inspection report, and RWQCB water rights approval under Section 1211 of the Water Code for the SWWTP diversion prior to the connection to the disinfected tertiary recycled wastewater pipeline.	None
196	SOIL&WATER	09	Copy of the Engineering Report	The project owner shall submit to the AO and CPM a copy of the Producer/User Water Recycling Requirements, the recycled wastewater criteria, the Engineering Report, the Cross Connection Inspection report, and RWQCB water rights approval under Section 1211 of the Water Code for the SWWTP diversion prior to the connection to the disinfected tertiary recycled wastewater pipeline.	None
197	SOIL&WATER	09	Copy of the Cross Connection Inspection report	The project owner shall submit to the AO and CPM a copy of the Producer/User Water Recycling Requirements, the recycled wastewater criteria, the Engineering Report, the Cross Connection Inspection report, and RWQCB water rights approval under Section 1211 of the Water Code for the SWWTP diversion prior to the connection to the disinfected tertiary recycled wastewater pipeline.	None
198	SOIL&WATER	09	Copy of the RWQCB water rights approval	The project owner shall submit to the AO and CPM a copy of the Producer/User Water Recycling Requirements, the recycled wastewater criteria, the Engineering Report, the Cross Connection Inspection report, and RWQCB water rights approval under Section 1211 of the Water Code for the SWWTP diversion prior to the connection to the disinfected tertiary recycled wastewater pipeline.	None
199	SOIL&WATER	10	Decommissioning Plans	The project owner shall identify likely decommissioning scenarios and develop specific decommissioning plans for each scenario that will identify actions to be taken to avoid or mitigate long-term impacts related to water and wind erosion after decommissioning. Actions may include such measures as a decommissioning SWPPP, revegetation and restoration of disturbed areas, post-decommissioning maintenance, collection and disposal of project materials and chemicals, and access restrictions. At least 90 days prior to the start of site mobilization, the project owner shall submit decommissioning plans to the AO and CPM for review and approval prior to site mobilization. The project owner shall amend these documents as necessary, with approval from the AO and CPM, should the decommissioning scenario change in the future.	None
	SOIL&WATER			Applicant is requesting this condition be considered for addition to the SSA/FEIS	Please consider adding the following condition of certification: SOIL&WATER-XX Prior to the use of temporary/back-up water for the Solar Two project, the project owner shall consult with and obtain approval of the CPM. The project owner shall maintain and submit records of temporary/back-up water use to the CPM. Verification: At least 30 days prior to delivery of temporary/back-up water to the project site, the project owner shall submit a report to the AO and CPM giving the reasons for the required use of this water. The report shall identify the source of water, the intended use, the estimate the amount of water required, and the estimated date the primary water supply will be available. The project owner shall update this report and records on the amount of temporary/ back up water delivered monthly as long as temporary/back-up water is required and approved.
200	LAND	01	Evidence indicating approval of the merger of parcels by Imperial County	At least 30 days prior to construction of the SES Solar Two Project, the project owner shall submit evidence to the CPM, indicating approval of the merger of parcels by Imperial County, or written approval of another process (i.e., to adjust lot lines) that is acceptable to the county. The submittal to the CPM shall include evidence of compliance with all conditions and requirements associated with the approval of the Certificate of Merger and/or Notice of Lot Line Adjustment by the county.	General Comment: The Applicant is concerned with Staff's assertion that impacts to recreation will be mitigated to a level less than significant with the adoption of Condition of Certification LAND-1. However, LAND-1 refers to compliance with the Subdivision Map Act and not mitigating impacts to recreation. While the Applicant, as discussed below, does not believe the Project would result in adverse impacts to recreation, a clear understanding of the proposed condition is necessary. The Applicant requests that staff clarify what condition of certification they were proposing.
201	LAND	01	Copy of the Recorded Deed	If all parcels or portions of parcels are not owned by the project owner at the time of the merger, a separate deed shall be executed and recorded with the county recorder. A copy of the recorded deed shall be submitted to the CPM, as part of the compliance package.	None
202	NOISE	01	Notification of project, establish telephone number for noise reports, automatic answering feature	At least 15 days prior to the start of ground disturbance, the project owner shall notify all residents within two miles of the site, by mail or other effective means, of the commencement of project construction. At the same time, the project owner shall establish a telephone number for use by the public to report any undesirable noise conditions associated with the construction and operation of the project and include that telephone number in the above notice. If the telephone is not staffed 24 hours per day, the project owner shall include an automatic answering feature, with date and time stamp recording, to answer calls when the phone is unattended. This telephone number shall be posted at the project site during construction in a manner visible to passersby.	None
203	NOISE	01	Maintenance of telephone number	This telephone number shall be maintained until the project has been operational for at least one year.	None
204	NOISE	01	Statement of verification that notification has been performed and telephone number is established	Prior to ground disturbance, the project owner shall transmit to the Compliance Project Manager (CPM) a statement, signed by the project owner's project manager, stating that the above notification has been performed and describing the method of that notification, verifying that the telephone number has been established and posted at the site, and giving that telephone number.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
205	NOISE	02	Copy of Noise Complaint Resolution Form	Within five days of receiving a noise complaint, the project owner shall file a copy of the Noise Complaint Resolution Form with the CPM, documenting the resolution of the complaint. If mitigation is required to resolve a complaint, and the complaint is not resolved within a three-day period, the project owner shall submit an updated Noise Complaint Resolution Form when the mitigation is implemented. (refer to SES Solar Two SA DEIS Conditions for more info)	None
206	NOISE	03	Noise control program and signed statement	The project owner shall submit to the CPM for review and approval a noise control program and a statement, signed by the project owner's project manager, verifying that the noise control program will be implemented throughout construction of the project. The noise control program shall be used to reduce employee exposure to high noise levels during construction and also to comply with applicable OSHA and Cal/OSHA standards.	None
207	NOISE	03	Noise control program	The project owner shall make the program available to Cal/OSHA upon request.	None
208	NOISE	04	Conduct a 25-hour community noise survey	Within 30 days of the project first achieving a sustained output of 80% or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a minimum. The survey shall also include the octave band pressure levels to ensure that no new pure-tone noise components have been introduced. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. If the results from the survey indicate that the project noise levels are in excess of 45 dBA Leq at the residence located at 1510 Painted Gorge Road, additional mitigation measures shall be implemented to reduce noise to a level of compliance with this limit.	The SA/DEIS proposed a 25-hour community noise study described in Condition of Certification NOISE-4, which includes a monitoring location at 1510 Painted Gorge Road. Comment: The applicant is unsure that a Project-only operation noise level of 45 dBA Leq or less can be accurately or reliably measured there. Because the daytime ambient pre-Project noise level is 49 dBA Leq, as shown in Noise Table 4, and therefore 4 dBA higher than this threshold for noise produced only by Project operation, it may be impossible to quantitatively distinguish Project operation noise from that of other sound generators that comprise the ambient noise environment at the Painted Gorge Road sensitive receiver or other locations. For this reason, the applicant proposes that two sentences (see underlined text) be added to NOISE-4 as appearing below, which in summary provides an alternative method for evaluating Project-only noise and appears consistent with what the applicant has found in staff assessments of conventional power plant projects (e.g., gas turbine peaker plants): Within 30 days of the project first achieving a sustained output of 80% or greater of rated capacity, the project owner shall conduct a 25-hour community noise survey, utilizing the same monitoring sites employed in the pre-project ambient noise survey as a minimum. The survey shall also include the octave band pressure levels to ensure that no new pure-tone noise components have been introduced. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. If the results from the survey indicate that the project noise levels are in excess of 45 dBA Leq at the residence located at 1510 Painted Gorge Road, additional mitigation measures shall be implemented to reduce noise to a level of compliance with this limit. The measurement of power plant noise for the purposes of demonstrating compliance with this Condition of Certification may alternatively be made at a location, acceptable to the CPM, closer to the plant (e.g., 400 feet from the plant boundary) and this measured level then mathematically extrapolated to determine the plant noise contribution at the potentially affected residence. This extrapolation will include the affects of sound propagation with distance, acoustical absorption due to air (e.g., temperature and relative humidity) and ground conditions, and the presence of terrain features per applicable methods as detailed in the International Organization of Standardization (ISO) 9613-2:1996(E) "Acoustics – Attenuation of sound during propagation outdoors – Part 2: general method of calculation." Although the Applicant understands that its Project relates to a type of alternative energy production, rather than conventional, the applicant believes the above "extrapolation" technique involving measurements made closer to the Project is suitable for the same reasons it has been offered for the evaluation of conventional power plant operation noise (i.e., when the aggregate sound from other sources measured at a sensitive receiver may be higher than that of the newly operating power plant).
209	NOISE	04	Summary report of Community Noise Survey	Within 30 days after completing the survey, the project owner shall submit a summary report of the survey to the CPM. Included in the report will be a description of any additional mitigation measures necessary to achieve compliance with the above listed noise limits, and a schedule, subject to CPM approval, for implementing these measures.	None
210	NOISE	04	Summary report of new Community Noise Survey	Within 30 days of completion of installation of these measures, the project owner shall submit to the CPM a summary report of a new noise survey, performed as described above and showing compliance with this condition.	None
211	NOISE	05	Conduct an occupational noise survey	Following the project's first achieving a sustained output of 80% or greater of rated capacity, the project owner shall conduct an occupational noise survey to identify the noise hazardous areas in the facility. The survey shall be conducted by a qualified person in accordance with the provisions of Title 8, California Code of Regulations sections 5095–5099 and Title 29, Code of Federal Regulations section 1910.95. The survey results shall be used to determine the magnitude of employee noise exposure.	None
212	NOISE	05	Occupational Noise Survey Report	The project owner shall prepare a report of the survey results and, if necessary, identify proposed mitigation measures that will be employed to comply with the applicable California and federal regulations. Within 30 days after completing the survey, the project owner shall submit the noise survey report to the CPM.	None
213	NOISE	05	Make available Occupational Noise Survey Report	The project owner shall make the report available to OSHA and Cal/OSHA upon request.	None
214	NOISE	06	Statement acknowledging restrictions will be observed throughout project construction	Heavy equipment operation and noisy construction work relating to any project features shall be restricted to the times of day delineated below: Mondays through Fridays: 7:00 a.m. to 7:00 p.m. Saturdays: 9:00 a.m. to 5:00 p.m. Sundays and Holidays: No Construction Allowed Haul trucks and other engine-powered equipment shall be equipped with mufflers that meet all applicable regulations. Haul trucks shall be operated in accordance with posted speed limits. Truck engine exhaust brake use shall be limited to emergencies. Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project.	Applicant requests that the condition be changed to allow construction for 24 hours, 7 days a week. A variance may be issued from Imperial County to allow construction outside of the outlined times in the SA/DEIS. Typically, this would be handled through a condition of the CUP that would allow for variance beyond the normal construction period with prior approval of the Imperial County planning department. Typically Imperial County approves a construction time variance including but not limited to the need to accelerate a construction schedule, meet a milestone, or complete a time-sensitive activity such as pouring concrete. Given the site location, the Applicant believes that a restriction on construction time periods is not necessary to avoid potentially significant impacts. Please revise the verification as follows: Prior to ground disturbance, the project owner shall transmit to the CPM a statement acknowledging that the above restrictions will be observed throughout the construction of the project. If the project owner desires a variance from the restrictions on construction times, the project owner shall notify the CPM no less than 24 hours in advance of such a request. The request shall
215	TRANS	01	Construction Traffic Control Plan	The SES Solar Two project owner shall, in coordination with Imperial County, develop and implement a construction traffic control plan prior to earth moving activities. The plan should include scheduled delivery of heavy equipment and building material deliveries, coordination with the County of Imperial to mitigate any potential adverse traffic impacts from other proposed construction projects that may occur during the construction phase of SES Solar Two, and adequate access for emergency vehicles to the SES Solar Two site. (refer to SES Solar Two SA DEIS Conditions for more info) At least 60 days prior to start of site mobilization, the project owner shall provide to the County of Imperial for review and comment and the Compliance Project Manager (CPM) for review and approval a copy of the construction traffic control plan.	None
216	TRANS	02	Copy of executed agreement with MTS	Prior to construction, the project owner shall receive the signed agreement from the San Diego Metropolitan Transit System (MTS) regarding the authority to construct the proposed railroad crossing. At least 60 days prior to the start of site mobilization, the project owner shall provide the CPM a copy of the executed agreement with MTS regarding the proposed railroad crossing.	None
217	TRANS	02	Copy of written approval from MTS	After the physical improvements are completed to the railroad crossing, the project owner shall receive written approval from the MTS as to the adequacy of the improvements. No more than 3 months after completion of the railroad crossing improvements, the project owner shall provide the CPM with a copy of written approval from MTS regarding the adequacy of the grade crossing improvements.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
218	TRANS	03	Document existing condition of primary roadways (prior to construction)	Prior to construction, the project owner shall document the existing condition of the primary roadways that will be used by the construction workers and heavy vehicle deliveries (up to 3 miles of the site).	None
219	TRANS	03	Review of existing roadway pavement conditions	At least 3 moths prior to the start of site mobilization, the project owner shall submit a review of existing roadway pavement conditions to Imperial County for review and comment and the CPM for review and approval. This review will include photographs and the analysis of pavement and sub-surface conditions. The CPM will need to approve the summary of existing pavement conditions prior to the commencement of construction.	The Verification to Condition of Certification TRANS-3 states, "At least 3 months prior to the start of site mobilization, the project owner shall submit a review of existing roadway pavement conditions to Imperial County for review and comment and the CPM for review and approval. This review will include photographs and the analysis of pavement and sub-surface conditions. Comment: Applicant requests that the analysis of sub-surface conditions be deleted. Using photographic and/or video-graphic documentation, the Applicant would be able to ensure complete documentation of existing roadway conditions.
220	TRANS	03	Document existing condition of primary roadways (post-construction)	Subsequent to construction, the project owner shall document the condition of these same roadways and either directly reconstruct or reimburse the County of Imperial for needed repairs.	None
221	TRANS	03	Analysis of roadway pavement conditions	No later than 2 months after the end of construction activities, the applicant shall submit an analysis of the roadway pavement conditions to Imperial County for review and comment and the CPM for review and approval. The review will include photographs, the analysis of pavement and sub-surface conditions, and a schedule for repair.	None
222	TRANS	03	Letter indicating repairs are finished and ready for inspection	After the repairs are completed, the applicant shall submit a letter to Imperial County and the CPM indicating such repairs are finished and ready for inspection.	None
223	TRANS	04	SunCatcher Mirror Positioning Plan (MPP)	The project owner shall prepare and implement a SunCatcher Mirror Positioning Plan that would avoid the potential for human health and safety and significant visual distractions from solar radiation exposure. At least 90 days before the commercial operation of either of the SES Solar Two power plants, the project owner shall submit the SunCatcher Mirror Positioning Plan (MPP) to BLM's Authorized Officer and the CPM for review and approval. The project owner shall also submit the plan to California Department of Transportation (Caltrans), California Highway Patrol (CHP), the Federal Aviation Administration (FAA), and Imperial County for review and comment and forward any comments received to BLM's Authorized Officer and the CPM. The Mirror Positioning Plan shall accomplish the following:(refer to SES Solar Two SA DEIS Conditions for more info)	None
224	TRANS	04	Forward any comments on MPP from Caltrans, CHP, FAA, and Imperial County	The project owner shall also submit the plan to California Department of Transportation (Caltrans), California Highway Patrol (CHP), the Federal Aviation Administration (FAA), and Imperial County for review and comment and forward any comments received to BLM's Authorized Officer and the CPM.	None
225	TRANS	04	Monitoring Plan [included within Mirror Positioning Plan]	[Included with Mirror Positioning Plan] Prepare a monitoring plan that would a) obtain field measurements in response to legitimate complaints; b) verify that the Mirror Positioning Plan would avoid the potential for health and safety hazards, including temporary or permanent blindness, at locations of possible observers; c) provide requirements and procedures to document, investigate, and resolve legitimate complaints regarding glare or excessive brightness. The monitoring plan shall be coordinated with the FAA, Caltrans, CHP, and Imperial County and be updated on an annual basis for the first five years and at 2-year intervals after that.	None
226	TRANS	04	Updated Monitoring Plan	The monitoring plan shall be coordinated with the FAA, Caltrans, CHP, and Imperial County and be updated on an annual basis for the first five years and at 2-year intervals after that.	None
227	TLSN	01	Letter (signed by California registered electrical engineer) affirming lines will be constructed according to requirements	The project owner shall construct the proposed transmission line according to the requirements of California Public Utility Commission's GO-95, GO-52, GO-131-D, Title 8, and Group 2. High Voltage Electrical Safety Orders, sections 2700 through 2974 of the California Code of Regulations, and Sand Diego Gas and Electric's EMF reduction guidelines. At least 30 days before starting the transmission line or related structures and facilities, the project owner shall submit to the Compliance Project Manager (CPM) a letter signed by a California registered electrical engineer affirming that the lines will be constructed according to the requirements stated in the condition.	None
228	TLSN	02	Measure strengths of electric and magnetic fields (before and after energization)	The project owner shall use a qualified individual to measure the strengths of the electric and magnetic fields from the line at the points of maximum intensity along the route for which the applicant provided specific estimates. The measurements shall be made before and after energization according to the American National Standard Institute/Institute of Electrical and Electronic Engineers (ANSI/IEEE) standard procedures. These measurements shall be completed no later than 6 months after the start of operations.	None
229	TLSN	02	Copies of pre and post energization measurements	The project owner shall file copies of the pre-and post-energization measurements with the CPM within 60 days after completion of the measurements.	None
230	TLSN	03	Annual Compliance Report (to include summary of inspection results and fire prevention activities)	The project owner shall ensure that the rights-of-way of the proposed transmission line are kept free of combustible material, as required under the provisions of section 4292 of the Public Resources Code and section 1250 of Title 14 of the California Code of Regulations. During the first 5 years of plant operation, the project owner shall provide a summary of inspection results and any fire prevention activities carried out along the right-of-way and provide such summaries in the Annual Compliance Report.	None
231	TLSN	04	Letter confirming compliance with condition	The project owner shall ensure that all permanent metallic objects within the right-of-way of the project-related lines are grounded according to industry standards regardless of ownership. At least 30 days before the lines are energized, the project owner shall transmit to the CPM a letter confirming compliance with this condition.	None

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No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
232	VIS	01	Surface Treatment Plan	The project owner shall treat all non-mirror surfaces of all project structures and buildings visible to the public such that a) their colors minimize visual intrusion and contrast by blending with the existing tan and brown color of the surrounding landscape; b) their colors and finishes do not create excessive glare; and c) their colors and finishes are consistent with local policies and ordinances...(refer to SES Solar Two SA DEIS Conditions for more info) At least 90 days prior to specifying to the vendor the colors and finishes of the first structures or buildings that are surface treated during manufacture, the project owner shall submit the proposed treatment plan to BLM's AO and the CPM for review and approval and simultaneously to Imperial County for review and comment...If BLM's AO and the CPM determine that the plan requires revision, the project owner shall provide to BLM's AO and the CPM a plan with the specified revision(s) for review and approval by BLM's AO and the CPM before any treatment is applied. Any modifications to the treatment plan must be submitted to BLM's AO and the CPM for review and approval.	Staff states "The project owner shall treat all non-mirror surfaces of all project structures and buildings visible to the public such that a) their colors minimize visual intrusion and contrast by blending with the existing tan and brown color of the surrounding landscape; b) their colors and finishes do not create excessive glare; and c) their colors and finishes are consistent with local policies and ordinances. The transmission line conductors shall be non-specular and non-reflective, and the insulators shall be non-reflective and non-refractive. This measure shall include coloring of security fencing with vinyl or other non-reflective coating; or with slats or similar semi-opaque, non-reflective material, to blend to the greatest feasible extent with the background soil. The project owner shall submit for CPM and BLM Authorized Officer review and approval, a specific Surface Treatment Plan that will satisfy these requirements." Comment: While the Applicant is currently investigating the feasibility of painting the backs of the mirror facets a color that would minimize the visual intrusion, there are many surfaces on the SunCatchers that cannot be painted due to the temperatures they would reach in the production of energy. The Applicant requests that this condition be deleted as it may be infeasible to comply. Additionally, the Applicant does not believe that this would be necessary to mitigate any potentially significant visual impacts.
233	VIS	01	Notification that surface treatment has been completed and is ready for inspection, electronic color photographs	Prior to the start of commercial operation, the project owner shall notify BLM's Authorized Officer and the CPM that surface treatment of all listed structures and buildings has been completed and they are ready for inspection and shall submit to each one set of electronic color photographs from the same key observation points identified in (d) above.	See above for Applicant's comment on VIS-1
234	VIS	01	Annual Compliance Report (to include status report regarding surface treatment maintenance)	The project owner shall provide a status report regarding surface treatment maintenance in the Annual Compliance Report. The report shall specify a): the condition of the surfaces of all structures and buildings at the end of the reporting year; b) maintenance activities that occurred during the reporting year; and c) the schedule of maintenance activities for the next year.	See above for Applicant's comment on VIS-1
235	VIS	02	Contact and discuss documentation required in the lighting mitigation plan	At least 90 days prior to ordering any permanent exterior lighting or temporary construction lighting, the project owner shall contact BLM's Authorized Officer and the CPM to discuss the documentation required in the lighting mitigation plan.	Comment: Applicant proposes to change 90 days prior to 30 days prior.
236	VIS	02	Lighting Mitigation Plan	The project owner shall submit to BLM's Authorized Officer and the CPM for review and approval and simultaneously to Imperial County for review and comment a lighting mitigation plan that includes the following: (refer to SES Solar Two SA DEIS Conditions for more info) At least 60 days prior to ordering any permanent exterior lighting, the project owner shall submit to BLM's Authorized Officer and the CPM for review and approval and simultaneously to Imperial County for review and comment a lighting mitigation plan. If BLM's Authorized Officer and the CPM determine that the plan requires revision, project owner shall provide to BLM's Authorized Officer and the CPM a revised plan for review and approval by BLM's Authorized Officer and the CPM. The project owner shall not order any exterior lighting until receiving BLM Authorized Officer and CPM approval of the lighting mitigation plan.	None
237	VIS	02	Notification that lighting has been completed and is ready for inspection	Prior to commercial operation, the project owner shall notify BLM's Authorized Officer and the CPM that the lighting has been completed and is ready for inspection.	None
238	VIS	02	Notification that modifications have been completed and are ready for inspection	If after inspection, BLM's Authorized Officer and the CPM notify the project owner that modifications to the lighting are needed, within 30 days of receiving that notification the project owner shall implement the modifications and notify BLM's Authorized Officer and the CPM that the modifications have been completed and are ready for inspection.	None
239	VIS	02	Complaint Resolution Form Report	Within 48 hours of receiving a lighting complaint, the project owner shall provide BLM's Authorized Officer and the CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation.	None
240	VIS	02	Notification of implementation of the proposal (included with the Complaint Resolution Form Report)	[If Complaint Resolution Form Report is submitted, then,] the project owner shall notify BLM's Authorized Officer and the CPM within 48 hours after completing implementation of the proposal.	None
241	VIS	02	Copy of complaint resolution form	A copy of the complaint resolution form report shall be submitted to BLM's Authorized Officer and the CPM within 30 days.	None
242	VIS	03	Revised plan depicting proposed transmission line	To reduce the prominence of the proposed new segment of transmission line paralleling Highway I-8, the applicant shall set back the transmission line at least 1/2 mile from Highway I-8 within the project site. This measure applies only to that portion of the proposed transmission line paralleling Highway I-8 within the project site boundaries. At least 90 days prior to start of construction, the project owner shall present to BLM's Authorized Officer and the CPM a revised plan depicting how the proposed transmission line will be set from the highway. If BLM's Authorized Officer and the CPM determine that the plan requires revision, the project owner shall provide to BLM's Authorized Officer and the CPM a revised plan for review and approval by BLM's Authorized Officer and the CPM. The project owner shall not begin construction until receiving BLM Authorized Officer and CPM approval of the revised plan.	VIS-3: To reduce the prominence of the proposed new segment of transmission line paralleling Highway I-8, the applicant shall set back the transmission line at least 1/2 mile from Highway I-8 within the project site. This measure applies only to that portion of the proposed transmission line paralleling Highway I-8 within the project site boundaries. Comment: Per the Project Map docketed on October 28, 2009, the transmission line interconnection no longer parallels I-8 within the project boundary.

Attachment D
Imperial Valley Solar
Applicant Proposed Changes to Conditions

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
243	VIS	04	Revised plan depicting how SunCatchers will be set back from highway	To reduce the visual dominance and glare effects of the SunCatchers to motorists on Highway I-8, the applicant shall employ a combination of measures as necessary, including set-backs of the nearest SunCatcher units to a distance of 500 feet from the adjoining roadway or as necessary to avoid excessive glare and reduce visual height and dominance of SunCatchers, slatted fencing as described under Condition of Certification VIS-6, and setbacks of SunCatcher units from project fencing. At least 90 days prior to start of construction, the project owner shall present to BLM's AO and the CPM a revised plan depicting how the proposed SunCatchers will be set back from the highway. If BLM's AO and the CPM determine that the plan requires revision, the project owner shall provide to BLM's AO and the CPM a revised plan for review and approval by BLM's AO and the CPM. The project owner shall not begin construction until receiving BLM AO and CPM approval of the revised plan.	The Applicant is currently preparing an additional Glint and Glare study to address concerns of potential Glint and Glare to motorists on I-8 and Evan Hewes Highway. The additional Glint and Glare Study will be submitted to the CEC and BLM prior to the SSA/FEIS. VIS-4 does not accomplish a significant reduction in the size and scale of the project that would diminish its overall visual dominance in the viewshed by applying minimal increase in the setback. VIS-4 suggests a setback distance that is not based on any verifiable potential of the project to cause glint/glare effects. Furthermore the reasoning as to why a 500 foot setback is the appropriate threshold for diminishing glint/glare effects is arbitrary and unsupported by the assessment. However this arbitrarily assigned and ineffective setback will diminish the overall value and benefit of the project. Applicant requests that VIS-4 be revised as follows: VIS-4: To reduce the visual dominance and glare effects of the SunCatchers to motorists on Highway I-8, the applicant shall employ a combination of measures as necessary, including set-backs of the nearest SunCatcher units to a minimum distance of 360 feet from I-8 and 50 feet from Evan Hewes as necessary to avoid excessive glare and reduce visual height and dominanc
244	VIS	05	Provide funds to BLM and NPS	The project owner shall coordinate closely with the BLM and, NPS, and contribute funds to mitigate for visual impacts to recreational users of the Anza Trail. The funds will be used by the agencies to improve the recreational experience for Anza Trail visitors through such means as interpretive signage, improvements to camping facilities, provision of view scopes at campsites or vista points, or other measures as appropriate. The amount and payment of funds will be determined by the two agencies commensurate with the loss scenic integrity of the Anza Trail experience. The project owner shall provide funds to the two agencies as approved by the Compliance Project Manager (CPM) within 180 days of the start of construction, and specify that the funds would be used for the area affected by the SES Solar Two Project.	Staff says "The project owner shall coordinate closely with the BLM and NPS and contribute funds to mitigate for visual impacts to recreational users of the Anza Trail. The funds will be used by the agencies to improve the recreational experience for the Anza Trail visitors… The project owner shall provide funds to the two agencies as approved by the CPM within 180 days of the start of construction." Comment: Applicant requests that the timeline for providing funds be revised from 180 days to 30 days.
245	VIS	05	Documentation that the funds have been paid to the satisfaction of BLM	The project owner shall provide documentation to the CPM that the funds have been paid to the satisfaction of the BLM.	None
246	VIS	06	Glare Mitigation Plan (including SunCatcher Mirror Positioning Plan [MPP] and glare complaint resolution form). *If earth berms proposed, then a grading plan and revegetation plan are also required	The project owner shall develop and implement a glare mitigation plan...[which] must include a SunCatcher Mirror Positioning Plan (MPP) describing how the outermost rows of SunCatchers could be positioned in order to avoid or minimize the most intensive potential glare incidents on motorists as called for under TRANS-4. The plan shall include a glare complaint resolution form to be distributed to the CPM, BLM, NPS, and Imperial County as a means to identify glare issues.(refer to SES Solar Two SA DEIS Conditions for more info) At least 90 days prior to start of construction, the project owner shall present to the AO and CPM a glare mitigation plan describing a proposed set of measures to reduce the most intensive potential glare events to motorists. (If earth berms are proposed as part of the plan, applicant shall submit a grading plan including contour grading, and a revegetation plan.) If the AO and CPM determine that the plan requires revision, the project owner shall provide to the AO and CPM a revised plan for review and approval. The project owner shall not begin construction until receiving AO and CPM approval of the revised plan.	Applicant requests that the presentation of the glare mitigation plan be revised from 90 days to 30 days. Applicant is currently preparing an additional Glint/Glare Plan to be submitted to the CEC and BLM prior to the SSA/FEIS to determine what if any potential for Glint/Glare effects to nearby roadway travellers exists. These measures are focused and may effectively reduce the unverifiable potential for a glint/glare impact without increasing the actual potential cause of increased spatial dominance. The Applicant proposes that VIS-6 be revised as follows: VIS-6: The project owner shall develop and implement a glare mitigation plan that minimizes visibility of the SunCatcher mirrors to both east-and west-bound traffic on Highway I-8 utilizing one or more measures, which must include a SunCatcher Mirror Positioning Plan (MPP) describing how the outermost rows of SunCatchers could be positioned in order to avoid or minimize the most intensive potential glare incidents on motorists as called for under Condition of Certification TRANS-4. The plan shall include a glare complaint resolution form to be distributed to the CPM, BLM, NPS, and Imperial County as a means to identify glare issues.
248	VIS	06	Glare complaint resolution form (included within Glare Mitigation Plan)	The plan shall include a glare complaint resolution form to be distributed to the CPM, BLM, NPS, and Imperial County as a means to identify glare issues.	None
249	VIS	06	Complaint resolution form report	Within 48 hours of receiving a glare complaint, the project owner shall provide the BLM Authorized Officer and CPM with a complaint resolution form report as specified in the Compliance General Conditions including a proposal to resolve the complaint, and a schedule for implementation.	None
250	VIS	06	Notification of implementation of the proposal (included with the Complaint Resolution Form Report)	[If Complaint Resolution Form Report is submitted, then,] the project owner shall notify the BLM Authorized Officer and CPM within 48 hours after completing implementation of the proposal.	None
251	VIS	06	Copy of complaint resolution form report	A copy of the complaint resolution form report shall be submitted to the BLM Authorized Officer and CPM within 30 days	None
252	VIS	07	Revised staging area site plan (including re-vegetation plan)	The project owner shall provide a revised site plan for staging that includes a set-back of at least ¼-mile or more from the highway, and a description of measures to identify and address biological and cultural issues potentially connected to the plan. In addition, the project owner shall provide a re-vegetation plan describing how the staging site will be restored following construction. The plan shall call for beginning of restoration of the site within the shortest feasible time following completion of construction. At least 90 days prior to start of construction, the project owner shall present to BLM's Authorized Officer and the CPM a revised staging area site plan.	Staff says "The project owner shall provide a revised site plan for staging that includes a set-back of at least 1/4 –mile or more from the highway, and a description of measures to identify and address biological and cultural issues potentially connected to the plan. In addition, the project owner shall provide a re-vegetation plan describing how the staging site will be restored following construction… At least 90 days prior to start of construction, the project owner shall present to BLM's Authorized officer and the CPM a revised staging area site plan." Comment: Applicant requests that the presentation of the staging area site plan be revised from 90 days to 30 days.
253	WASTE	01	Resume of qualified professional engineer or professional geologist	The SES Solar Two project owner (project owner) shall provide the resume of an experienced and qualified professional engineer or professional geologist, who shall be available for during site characterization (if needed), demolition, excavation, and grading activities, to the CPM and AO for review and approval. The resume shall show experience in remedial investigation and feasibility studies.	None
254	WASTE	02	Written report	If potentially contaminated soil is identified during site characterization, demolition, excavation or grading at either the proposed site or linear facilities, as evidenced by discoloration, odor, detection by handheld instruments, or other signs, the professional engineer or professional geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project owner, representatives of Department of Toxic Substances Control or Regional Water Quality Control Board, and the CPM and AO stating the recommended course of action.	None
255	WASTE	02	Reports filed by Prof. Engineer or Prof. Geologist	If potentially contaminated soil is identified the professional engineer or professional geologist shall inspect the site, determine the need for sampling to confirm the nature and extent of contamination, and provide a written report to the project owner, representatives of Department of Toxic Substances Control or Regional Water Quality Control Board, and the CPM and AO stating the recommended course of action. The project owner shall submit any reports filed by the professional engineer or professional geologist to the CPM and AO within five days of their receipt.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
256	WASTE	02	Contact for guidance and possible oversight	Depending on the nature and extent of contamination, the professional engineer or professional geologist shall have the authority to temporarily suspend construction activity at that location for the protection of workers or the public. If in the opinion of the professional engineer or professional geologist, significant remediation may be required, the project owner shall contact the CPM and AO and representatives of the Department of Toxic Substances Control or Regional Water Quality Control Board, for guidance and possible oversight.	None
257	WASTE	02	Notification of any orders issued to halt construction	The project owner shall notify the CPM and AO within 24 hours of any orders issued to halt construction	None
258	WASTE	03	Construction Management Plan	The project owner shall prepare a Construction Waste Management Plan for all wastes generated during construction of the facility and shall submit the plan to the CPM and AO for review and approval prior to the start of construction. The plan shall contain, at a minimum, the following: (refer to SES Solar Two SA DEIS Conditions for more info) The project owner shall submit the Construction Waste Management Plan to the CPM and AO for approval no less than 30 days prior to the initiation of construction activities at the site.	None
259	WASTE	04	Obtain a hazardous waste generator identification number	The project owner shall obtain a hazardous waste generator identification number from the United States Environmental Protection Agency (USEPA) prior to generating any hazardous waste during project construction and operations.	None
260	WASTE	04	Monthly Compliance Report (to include documentation of the hazardous waste generation and notification and receipt of the number)	The project owner shall keep a copy of the identification number on file at the project site and provide documentation of the hazardous waste generation and notification and receipt of the number to the CPM and AO in the next scheduled Monthly Compliance Report after receipt of the number. Submittal of the notification and issued number documentation to the CPM and AO is only needed once unless there is a change in ownership, operation, waste generation, or waste characteristics that requires a new notification to USEPA. Documentation of any new or revised hazardous waste generation notifications or changes in identification number shall be provided to the CPM and AO in the next scheduled compliance report.	None
261	WASTE	05	Notification (in writing)	Upon notification of any impending waste management-related enforcement action by any local, state, or federal authority, the project owner shall notify the CPM and AO of any such action taken or proposed against the project itself, or against any waste hauler or disposal facility or treatment operator with which the owner contracts, and describe how the violation will be corrected. The project owner shall notify the CPM and AO in writing within 10 days of becoming aware of an impending enforcement action. The CPM shall notify the project owner of any changes that will be required in the way project-related wastes are managed.	None
262	WASTE	06	Reuse Recycling Plan	The project owner shall provide a reuse/recycling plan for at least 50% of construction and demolition materials prior to any building or demolition, including closure/decommissioning. At least 60 days prior to the start of any construction or demolition activities, the project owner shall submit a reuse recycling plan to the CPM and AO for review and approval.	Staff says "The project owner shall provide a reuse/recycling plan for at least 50% of construction and demolition materials prior to any building or demolition, including closure/decommissioning. At least 60 days prior to the start of any construction or demolition activities, the project owner shall submit a reuse/recycling plan to the CPM and AO for review and approval." Comment: Applicant requests that the submittal timeline for the reuse/recycling plan be revised from 60 days to 30 days.
263	WASTE	06	Documentation of compliance with the diversion program requirements (including a recycling and reuse summary report, receipts and records of measurement)	The project owner shall ensure compliance and shall provide proof of compliance documentation to the CPM and AO, including a recycling and reuse summary report, receipts, and records of measurement. The project owner shall ensure that project activities are consistent with the approved reuse/recycling plan and provide adequate documentation of the types and volumes of wastes generated, how the wastes were managed, and volumes of wastes diverted. Project mobilization and construction shall not proceed until the CPM and AO issue an approval document. Not later than 60 days after completion of project construction, the project owner shall submit documentation of compliance with the diversion program requirements to the CPM and AO. The required documentation shall include a recycling and reuse summary report along with all necessary receipts and records of measurement from entities receiving project wastes.	None
264	WASTE	07	Operation Waste Management Plan	The project owner shall prepare an Operation Waste Management Plan for all wastes generated during operation of the SES Solar Two facility and shall submit the plan to the CPM and AO for review and approval. The plan shall contain, at a minimum, the following: (refer to SES Solar Two SA DEIS Conditions for more info) The project owner shall submit the Operation Waste Management Plan to the CPM and AO for approval no less than 30 days prior to the start of project operation.	None
265	WASTE	07	Required revisions to OWMP	The project owner shall submit any required revisions to the CPM and AO within 20 days of notification from the CPM and AO that revisions are necessary.	None
266	WASTE	07	Annual Compliance Report (to include volume of wastes generated, waste mgmt methods used, comparison to OWMP, update OWMP)	The project owner shall also document in each Annual Compliance Report the actual volume of wastes generated and the waste management methods used during the year; provide a comparison of the actual waste generation and management methods used to those proposed in the original Operation Waste Management Plan; and update the Operation Waste Management Plan as necessary to address current waste generation and management practices.	None
267	WASTE	08	Copy of the unauthorized release/spill documentation	The project owner shall document management of all unauthorized releases and spills of hazardous substances, hazardous materials, or hazardous wastes that occur on the project property or related linear facilities. The documentation shall include, at a minimum, the following information: location of release; date and time of release; reason for release; volume released; how release was managed and material cleaned up; amount of contaminated soil and/or cleanup wastes generated; if the release was reported; to whom the release was reported; release corrective action and cleanup requirements placed by regulating agencies; level of cleanup achieved and actions taken to prevent a similar release or spill; and disposition of any hazardous wastes and/or contaminated soils and materials that may have been generated by the release. A copy of the unauthorized release/spill documentation shall be provided to the CPM and AO within 30 days of the date the release was discovered.	None
268	WORKER SAFETY	01	Construction Personal Protective Equipment Program	The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to BLM's authorized officer and the CPM for review and approval concerning compliance of the program with all applicable Safety Orders.	None
269	WORKER SAFETY	01	Construction Exposure Monitoring Program	The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to BLM's authorized officer and the CPM for review and approval concerning compliance of the program with all applicable Safety Orders.	None
270	WORKER SAFETY	01	Construction Injury and Illness Prevention Program	The Personal Protective Equipment Program, the Exposure Monitoring Program, and the Injury and Illness Prevention Program shall be submitted to BLM's authorized officer and the CPM for review and approval concerning compliance of the program with all applicable Safety Orders.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
271	WORKER SAFETY	01	Construction Emergency Action Plan	The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the El Centro Fire Department for review and comment prior to submittal to the BLM's authorized officer and CPM for approval.	None
272	WORKER SAFETY	01	Construction Fire Prevention Plan	The Construction Emergency Action Plan and the Fire Prevention Plan shall be submitted to the El Centro Fire Department for review and comment prior to submittal to the BLM's authorized officer and CPM for approval.	None
273	WORKER SAFETY	01	Project Construction Safety and Health Program (to include the Personal Protective Equipment Program, Exposure Monitoring Program; Injury and Illness Prevention Program; Emergency Action Plan; and Fire Prevention Plan	The project owner shall submit to BLM's authorized officer and the Compliance Project Manager (CPM) a copy of the Project Construction Safety and Health Program containing the following: • A Construction Personal Protective Equipment Program; • A Construction Exposure Monitoring Program; • A Construction Injury and Illness Prevention Program; • A Construction Emergency Action Plan; and • A Construction Fire Prevention Plan. At least thirty (30) days prior to the start of construction, the project owner shall submit to BLM's authorized officer and the CPM for review and approval a copy of the Project Construction Safety and Health Program.	None
274	WORKER SAFETY	01	Comment Letter from El Centro Fire Dept. (re: Emergency Action Plan and Fire Prevention Plan)	The project owner shall provide a copy of a letter to the BLM's authorized officer and CPM from the El Centro Fire Department stating the Fire Department's comments on the Construction Fire Prevention Plan and Emergency Action Plan	None
275	WORKER SAFETY	02	Operation Injury and Illness Prevention Plan	The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to BLM's authorized officer and the CPM for review and approval concerning compliance of the program with all applicable Safety Orders.	None
276	WORKER SAFETY	02	Emergency Action Plan	The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to BLM's authorized officer and the CPM for review and approval concerning compliance of the program with all applicable Safety Orders.	None
277	WORKER SAFETY	02	Hazardous Materials Management Program	The Operation Injury and Illness Prevention Plan, Emergency Action Plan, and Personal Protective Equipment Program shall be submitted to BLM's authorized officer and the CPM for review and approval concerning compliance of the program with all applicable Safety Orders.	None
278	WORKER SAFETY	02	Fire Prevention Program (8 CCR § 3221)	The Operation Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the El Centro Fire Department for review and comment.	None
279	WORKER SAFETY	02	Personal Protective Equipment Program (8 CCR §§ 3401-3411).	The Operation Fire Prevention Plan and the Emergency Action Plan shall also be submitted to the El Centro Fire Department for review and comment.	None
280	WORKER SAFETY	02	Project Operations and Maintenance Safety and Health Program (to include Operation Injury and Illness Prevention Plan; Emergency Action Plan; Hazardous Materials Management Program; Fire Prevention Program; and; Personal Protective Equipment Program	The project owner shall submit to BLM's authorized officer and the CPM a copy of the Project Operations and Maintenance Safety and Health Program containing the following: • An Operation Injury and Illness Prevention Plan; • An Emergency Action Plan; • Hazardous Materials Management Program; • Fire Prevention Program (8 CCR § 3221); and; • Personal Protective Equipment Program (8 CCR §§ 3401-3411). At least thirty (30) days prior to the start of first-fire or commissioning, the project owner shall submit to BLM's authorized officer and the CPM for approval a copy of the Project Operations and Maintenance Safety and Health Program.	None
281	WORKER SAFETY	02		The project owner shall provide a copy of a letter to BLM's authorized officer and the CPM from the El Centro Fire Department stating the Fire Department's comments on the Operations Fire Prevention Plan and Emergency Action Plan.	None
282	WORKER SAFETY	03	Name and contact information for the Construction Safety Supervisor	The project owner shall provide a site Construction Safety Supervisor (CSS) who, by way of training and/or experience, is knowledgeable of power plant construction activities and relevant laws, ordinances, regulations, and standards, is capable of identifying workplace hazards relating to the construction activities, and has authority to take appropriate action to assure compliance and mitigate hazards. The CSS shall: (refer to SES Solar Two SA DEIS Conditions for more info) At least thirty (30) days prior to the start of site mobilization, the project owner shall submit to BLM's authorized officer and the CPM the name and contact information for the Construction Safety Supervisor (CSS).	None
283	WORKER SAFETY	03	Name and contact information for the replacement Construction Safety Supervisor	The contact information of any replacement (CSS) shall be submitted to the CPM within one business day.	None
284	WORKER SAFETY	03	Annual Compliance Report (to include documentation of monthly safety inspection reports)	The CSS shall submit in the Annual Compliance Report documentation of monthly safety inspection reports to include: • Record of all employees trained for that month (all records shall be kept on site for the duration of the project); • Summary report of safety management actions and safety-related incidents that occurred during the month; • Report of any continuing or unresolved situations and incidents that may pose danger to life or health; and • Report of accidents and injuries that occurred during the month.	None

Attachment D
Imperial Valley Solar
Applicant Proposed Changes to Conditions

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
285	WORKER SAFETY	04	Proof of agreement to fund the Safety Monitor services	The project owner shall make payments to the Chief Building Official (CBO) for the services of a Safety Monitor based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. The Safety Monitor shall be selected by and report directly to the CBO, and will be responsible for verifying that the Construction Safety Supervisor, as required in Worker Safety 3, implements all appropriate Cal/OSHA and Commission safety requirements. The Safety Monitor shall conduct on-site (including linear facilities) safety inspections at intervals necessary to fulfill those responsibilities. At least thirty (30) days prior to the start of construction, the project owner shall provide proof of its agreement to fund the Safety Monitor services to BLM's authorized officer and the CPM for review and approval.	None
286	WORKER SAFETY	05	Proof that a portable AED exists on site	The project owner shall ensure that a portable automatic external defibrillator (AED) is located on site during construction and operations...At least thirty (30) days prior to the start of site mobilization the project owner shall submit to BLM's authorized officer and the CPM proof that a portable AED exists on site and a copy of the training and maintenance program for review and approval.	None
287	WORKER SAFETY	05	Copy of the training and maintenance program	The project owner shall...implement a program to ensure that workers are properly trained in the automatic external defibrillator's use and that the equipment is properly maintained and functioning at all times. During construction and commissioning, the following persons shall be trained in its use and shall be on-site whenever the workers that they supervise are on-site: the Construction Project Manager or delegate, the Construction Safety Supervisor or delegate, and all shift foremen. During operations, all power plant employees shall be trained in its use. The training program shall be submitted to the AO and CPM for review and approval. At least thirty (30) days prior to the start of site mobilization the project owner shall submit to the AO and CPM proof that a portable AED exists on site and a copy of the training and maintenance program for review and approval	None
288	WORKER SAFETY	06	Copy of the Best Management Practices	The project owner shall prepare and implement a Best Management Practices (BMPs) for the storage and application of herbicides used to control weeds beneath and around the solar array. These plans shall be submitted to BLM's authorized officer and the CPM for review and approval. At least thirty (30) days prior to the start of site mobilization, the project owner shall submit to BLM's authorized officer and the CPM for review and approval a copy of the Best Management Practices (BMPs) for the storage and application of herbicides.	None
289	GEN	01	Certificate of occupancy	The project owner shall provide the CPM a copy of the certificate of occupancy within 30 days of receipt from the CBO.	None
290	GEN	01	Statement of verification	The project owner shall design, construct, and inspect the project in accordance with the 2007 California Building Standards Code (CBSC), and all other applicable engineering LORS in effect at the time initial design plans are submitted to the CBO for review and approval (the CBSC in effect is the edition that has been adopted by the California Building Standards Commission and published at least 180 days previously). The project owner shall ensure that all the provisions of the above applicable codes are enforced during the construction, addition, alteration, moving, demolition, repair, or maintenance of the completed facility. Within 30 days following receipt of the certificate of occupancy, the project owner shall submit to the CPM a statement of verification, signed by the responsible design engineer, attesting that all designs, construction, installation, and inspection requirements of the applicable LORS and the Energy Commission's decision have been met in the area of facility design.	None
291	GEN	01	Notification of any need of maintenance, addition, alterations, etc.	Once the certificate of occupancy has been issued, the project owner shall inform the CPM at least 30 days prior to any construction, addition, alteration, moving, demolition, repair, or maintenance to be performed on any portion(s) of the completed facility that requires CBO approval for compliance with the above codes. The CPM will then determine if the CBO needs to approve the work.	None
292	GEN	02	Schedule, master drawing, master specifications lists of documents	Before submitting the initial engineering designs for CBO review, the project owner shall furnish the CPM and the CBO with a schedule of facility design submittals, and master drawing and master specifications lists. The schedule shall contain a list of proposed submittal packages of designs, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide specific packages to the CPM upon request. At least 60 days (or a project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO and CPM the schedule, the master drawing and master specifications lists of documents to be submitted to the CBO for review and approval. These documents shall be the pertinent design documents for the major structures and equipment listed in Facility Design Table 2. Major structures and equipment shall be added to or deleted from the table only with CPM approval.	None
293	GEN	02	Monthly Compliance Report (to include schedule updates)	The project owner shall provide schedule updates in the monthly compliance report.	None
294	GEN	03	Make required payments to CBO	The project owner shall make payments to the CBO for design review, plan checks, and construction inspections, based upon a reasonable fee schedule to be negotiated between the project owner and the CBO. These fees may be consistent with the fees listed in the 2007 CBC, adjusted for inflation and other appropriate adjustments; may be based on the value of the facilities reviewed; may be based on hourly rates; or may be otherwise agreed upon by the project owner and the CBO. The project owner shall make the required payments to the CBO in accordance with the agreement between the project owner and the CBO.	None
295	GEN	03	Copy of the CBO's receipt of payment	The project owner shall send a copy of the CBO's receipt of payment to the CPM in the next monthly compliance report indicating that applicable fees have been paid.	None
296	GEN	04	Resume and registration number of the RE and any other delegated engineers assigned to the project	Prior to the start of rough grading, the project owner shall assign a California registered architect, or a structural or civil engineer, as the resident engineer (RE) in charge of the project. The RE may delegate responsibility for portions of the project to other registered engineers. The RE shall: (refer to SES Solar Two SA DEIS Conditions for more info) At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, the resume and registration number of the RE and any other delegated engineers assigned to the project.	None
297	GEN	04	Notification of CBO's approval of RE and any other delegated engineers assigned to the project	The project owner shall notify the CPM of the CBO's approvals of the RE and other delegated engineer(s) within five days of the approval.	None
298	GEN	04	Resume and registration number of the newly assigned RE	If the RE or the delegated engineer(s) is subsequently reassigned or replaced, the project owner has five days to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval.	None
299	GEN	04	Notification of CBO's approval of newly assigned RE	The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
300	GEN	05	Resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer and engineering geologist	Prior to the start of rough grading, the project owner shall assign at least one of each of the following California registered engineers to the project: a civil engineer; a soils, geotechnical, or civil engineer experienced and knowledgeable in the practice of soils engineering; and an engineering geologist. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of rough grading, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible civil engineer, soils (geotechnical) engineer and engineering geologist assigned to the project.	None
301	GEN	05	Resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer	Prior to the start of construction, the project owner shall assign at least one of each of the following California registered engineers to the project: a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; a mechanical engineer; and an electrical engineer. (California Business and Professions Code section 6704 et seq., and sections 6730, 6731 and 6736 require state registration to practice as a civil engineer or structural engineer in California). At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction, the project owner shall submit to the CBO for review and approval, resumes and registration numbers of the responsible design engineer, mechanical engineer, and electrical engineer assigned to the project.	None
302	GEN	05	Notification of CBO's approval of responsible engineers	The project owner shall notify the CPM of the CBO's approvals of the responsible engineers within five days of the approval.	None
303	GEN	05	Resume and registration number of newly assign engineers	If the designated responsible engineer is subsequently reassigned or replaced, the project owner has five days in which to submit the resume and registration number of the newly assigned engineer to the CBO for review and approval.	None
304	GEN	05	Notification of CBO's approval of newly assigned engineer	The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of the approval.	None
305	GEN	06	Name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s)	Prior to the start of an activity requiring special inspection, including prefabricated assemblies, the project owner shall assign to the project, qualified and certified special inspector(s) who shall be responsible for the special inspections required by the 2007 CBC. At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of an activity requiring special inspection, the project owner shall submit to the CBO for review and approval, with a copy to the CPM, the name(s) and qualifications of the certified weld inspector(s), or other certified special inspector(s) assigned to the project to perform one or more of the duties set forth above.	None
306	GEN	06	Copy of the CBO's approval of all special inspectors	The project owner shall also submit to the CPM a copy of the CBO's approval of the qualifications of all special inspectors in the next monthly compliance report.	None
307	GEN	06	Name and qualifications of the newly assigned special inspector	If the special inspector is subsequently reassigned or replaced, the project owner has five days in which to submit the name and qualifications of the newly assigned special inspector to the CBO for approval.	None
308	GEN	06	Notification of CBO's approval of newly assigned special inspectors	The project owner shall notify the CPM of the CBO's approval of the newly assigned inspector within five days of the approval.	None
309	GEN	07	Discrepancy documentation	If any discrepancy in design and/or construction is discovered in any engineering work that has undergone CBO design review and approval, the project owner shall document the discrepancy and recommend required corrective actions. The discrepancy documentation shall be submitted to the CBO for review and approval. The discrepancy documentation shall reference this condition of certification and, if appropriate, applicable sections of the CBC and/or other LORS.	None
310	GEN	07	Copy of the CBO's approval of any corrective action taken to resolve a discrepancy	The project owner shall transmit a copy of the CBO's approval of any corrective action taken to resolve a discrepancy to the CPM in the next monthly compliance report.	None
311	GEN	07	Reason for disapproval and revised corrective action	If any corrective action is disapproved, the project owner shall advise the CPM, within five days, of the reason for disapproval and the revised corrective action to obtain CBO's approval.	None
312	GEN	08	Monthly Compliance Report (to include written notice that the completed work is ready for inspection, signed statement that work done conforms to final approved plan)	Within 15 days of the completion of any work, the project owner shall submit to the CBO, with a copy to the CPM, in the next monthly compliance report, (a) a written notice that the completed work is ready for final inspection, and (b) a signed statement that the work conforms to the final approved plans.	None
313	GEN	08	Letter stating the documents have been stored and the storage location	The project owner shall retain one set of approved engineering plans, specifications, and calculations (including all approved changes) at the project site or at another accessible location during the operating life of the project. After storing the final approved engineering plans, specifications, and calculations described above, the project owner shall submit to the CPM a letter stating both that the above documents have been stored and the storage location of those documents.	None
314	GEN	08	Three sets of electronic copies of the above documents	Within 90 days of the completion of construction, the project owner shall provide to the CBO three sets of electronic copies of the above documents at the project owner's expense. These are to be provided in the form of "read only" (Adobe .PDF 6.0) files, with restricted (password-protected) printing privileges, on archive quality compact discs.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
315	CIVIL	01	Design of the proposed drainage structures and the grading plan	The project owner shall submit to the CBO for review and approval the following: 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and 4. Soils, geotechnical, or foundation investigations reports required by the 2007 CBC. At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval.	None
316	CIVIL	01	An erosion and sedimentation control plan	The project owner shall submit to the CBO for review and approval the following: 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and 4. Soils, geotechnical, or foundation investigations reports required by the 2007 CBC. At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval.	None
317	CIVIL	01	Related calculations and specifications, signed and stamped by the responsible civil engineer	The project owner shall submit to the CBO for review and approval the following: 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and 4. Soils, geotechnical, or foundation investigations reports required by the 2007 CBC. At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval.	None
318	CIVIL	01	Soils, geotechnical, or foundation investigations reports required by the 2007 CBC	The project owner shall submit to the CBO for review and approval the following: 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications, signed and stamped by the responsible civil engineer; and 4. Soils, geotechnical, or foundation investigations reports required by the 2007 CBC. At least 15 days (or project owner- and CBO-approved alternative time frame) prior to the start of site grading the project owner shall submit the documents described above to the CBO for design review and approval.	None
319	CIVIL	01	Written statement certifying approval of documents by CBO	In the next monthly compliance report following the CBO's approval, the project owner shall submit a written statement certifying that the documents have been approved by the CBO.	None
320	CIVIL	02	Modified plans, specifications, and calculations based on these new conditions	The resident engineer shall, if appropriate, stop all earthwork and construction in the affected areas when the responsible soils engineer, geotechnical engineer, or the civil engineer experienced and knowledgeable in the practice of soils engineering identifies unforeseen adverse soil or geologic conditions. The project owner shall submit modified plans, specifications, and calculations to the CBO based on these new conditions.	None
321	CIVIL	02	Notification of stop work due to unforeseen geo/soil conditions	The project owner shall notify the CPM within 24 hours, when earthwork and construction is stopped as a result of unforeseen adverse geologic/soil conditions.	None
322	CIVIL	02	CBO's approval to resume work	The project owner shall obtain approval from the CBO before resuming earthwork and construction in the affected area.	None
323	CIVIL	02	Copy of CBO's approval to resume work	Within 24 hours of the CBO's approval to resume earthwork and construction in the affected areas, the project owner shall provide to the CPM a copy of the CBO's approval.	None
324	CIVIL	03	Notification	The project owner shall perform inspections in accordance with the 2007 CBC. All plant site-grading operations, for which a grading permit is required, shall be subject to inspection by the CBO. If in the course of inspection, it is discovered that the work is not being performed in accordance with the approved plans, the discrepancies shall be reported immediately to the resident engineer, the CBO, and the CPM.	None
325	CIVIL	03	Non-conformance report (NCR) and proposed corrective action	The project owner shall prepare a written report, with copies to the CBO and the CPM, detailing all discrepancies, non-compliance items, and the proposed corrective action. Within five days of the discovery of any discrepancies, the resident engineer shall transmit to the CBO and the CPM a non-conformance report (NCR), and the proposed corrective action for review and approval.	None
326	CIVIL	03	Details of the corrective action	Within five days of resolution of the NCR, the project owner shall submit the details of the corrective action to the CBO and the CPM.	None
327	CIVIL	03	Monthly Compliance Report (to include List of NCRs)	A list of NCRs, for the reporting month, shall also be included in the following monthly compliance report.	None
328	CIVIL	04	Final grading plans, signed statement by civil engineer, copy of transmittal letter to CPM	After completion of finished grading and erosion and sedimentation control and drainage work, the project owner shall obtain the CBO's approval of the final grading plans (including final changes) for the erosion and sedimentation control work. The civil engineer shall state that the work within his/her area of responsibility was done in accordance with the final approved plans. Within 30 days (or project owner- and CBO-approved alternative time frame) of the completion of the erosion and sediment control mitigation and drainage work, the project owner shall submit to the CBO, for review and approval, the final grading plans (including final changes) and the responsible civil engineer's signed statement that the installation of the facilities and all erosion control measures were completed in accordance with the final approved combined grading plans, and that the facilities are adequate for their intended purposes, along with a copy of the transmittal letter to the CPM.	None
329	CIVIL	04	Monthly Compliance Report (to include Copy of CBO's approval of final grading plans)	The project owner shall submit a copy of the CBO's approval to the CPM in the next monthly compliance report.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
330	STRUC	01	Final design plans, specifications and calculations, copy of transmittal letter to CPM	Prior to the start of any increment of construction of any major structure or component listed in Facility Design Table 2 of condition of certification GEN-2, above, the project owner shall submit to the CBO for design review and approval the proposed lateral force procedures for project structures and the applicable designs, plans and drawings for project structures. Proposed lateral force procedures, designs, plans and drawings shall be those for the following items (from Table 2, above): 1. Major project structures; 2. Major foundations, equipment supports, and anchorage; and 3. Large field-fabricated tanks. (refer to SES Solar Two SA DEIS Conditions for more info) At least 60 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of construction of any structure or component listed in Facility Design Table 2 of condition of certification GEN-2,above, the project owner shall submit to the CBO the above final design plans, specifications and calculations, with a copy of the transmittal letter to the CPM.	None
331	STRUC	01	Monthly Compliance Report (to include Copy of CBO's approval of proposed structural plans, specifications, calculations)	The project owner shall submit to the CPM, in the next monthly compliance report, a copy of a statement from the CBO that the proposed structural plans, specifications, and calculations have been approved and comply with the requirements set forth in applicable engineering LORS.	None
332	STRUC	02	Concrete cylinder strength test reports	The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets; 3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC.	None
333	STRUC	02	Concrete pour sign-off sheets	The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets; 3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC.	None
334	STRUC	02	Bolt torque inspection reports	The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets; 3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC.	None
335	STRUC	02	Field weld inspection reports	The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets; 3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC.	None
336	STRUC	02	Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC	The project owner shall submit to the CBO the required number of sets of the following documents related to work that has undergone CBO design review and approval: 1. Concrete cylinder strength test reports (including date of testing, date sample taken, design concrete strength, tested cylinder strength, age of test, type and size of sample, location and quantity of concrete placement from which sample was taken, and mix design designation and parameters); 2. Concrete pour sign-off sheets; 3. Bolt torque inspection reports (including location of test, date, bolt size, and recorded torques); 4. Field weld inspection reports (including type of weld, location of weld, inspection of non-destructive testing (NDT) procedure and results, welder qualifications, certifications, qualified procedure description or number (ref: AWS); and 5. Reports covering other structural activities requiring special inspections shall be in accordance with the 2007 CBC.	None
337	STRUC	02	Non-conformance report (NCR) and proposed corrective action, copy of transmittal letter to CPM	If a discrepancy is discovered in any of the above data, the project owner shall, within five days, prepare and submit an NCR describing the nature of the discrepancies and the proposed corrective action to the CBO, with a copy of the transmittal letter to the CPM. The NCR shall reference the condition(s) of certification and the applicable CBC chapter and section.	None
338	STRUC	02	Copy of corrective action	Within five days of resolution of the NCR, the project owner shall submit a copy of the corrective action to the CBO and the CPM.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
339	STRUC	02	Copy of CBO's approval or disapproval	The project owner shall transmit a copy of the CBO's approval or disapproval of the corrective action to the CPM within 15 days.	None
340	STRUC	02	Reason for disapproval and revised corrective action	If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action to obtain CBO's approval.	None
341	STRUC	03	Notification and revised drawings and other documents, copy of transmittal letter to CPM	The project owner shall submit to the CBO design changes to the final plans required by the 2007 CBC, including the revised drawings, specifications, calculations, and a complete description of, and supporting rationale for, the proposed changes, and shall give to the CBO prior notice of the intended filing. On a schedule suitable to the CBO, the project owner shall notify the CBO of the intended filing of design changes, and shall submit the required number of sets of revised drawings and the required number of copies of the other abovementioned documents to the CBO, with a copy of the transmittal letter to the CPM.	None
342	STRUC	03	Monthly Compliance Report (to include notification of CBO's approval of revised plans)	The project owner shall notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.	None
343	STRUC	04	Final design plans, specifications, calculations, copy of the signed and stamped engineer's certification	Tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2007 CBC shall, at a minimum, be designed to comply with the requirements of that chapter. At least 30 days (or project owner- and CBO-approved alternate time frame) prior to the start of installation of the tanks or vessels containing the above specified quantities of toxic or hazardous materials, the project owner shall submit to the CBO for design review and approval final design plans, specifications, and calculations, including a copy of the signed and stamped engineer's certification.	None
344	STRUC	04	Monthly Compliance Report (to include copies of CBO's approval of plan checks)	The project owner shall send copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report.	None
345	STRUC	04	Monthly Compliance Report (to include copies of CBO's inspection approvals)	The project owner shall also transmit a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.	None
346	MECH	01	Plant major piping and plumbing systems - Final plans, specifications, and calculations; QA/QC procedures; including a copy of the signed and stamped statement from the responsible mechanical engineer	The project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in Facility Design Table 2, condition of certification GEN-2, above. The submittal shall also include the applicable QA/QC procedures. The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in Facility Design Table 2, condition of certification GEN-2, above, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.	None
347	MECH	01	Monthly Compliance Report (to include copy of transmittal letter re: final plans, specs, and calcs)	The project owner shall submit, for CBO design review and approval, the proposed final design, specifications and calculations for each plant major piping and plumbing system listed in Facility Design Table 2, condition of certification GEN-2, above. The submittal shall also include the applicable QA/QC procedures. The responsible mechanical engineer shall stamp and sign all plans, drawings, and calculations for the major piping and plumbing systems, subject to CBO design review and approval, and submit a signed statement to the CBO when the proposed piping and plumbing systems have been designed, fabricated, and installed in accordance with all of the applicable laws, ordinances, regulations and industry standards. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of any increment of major piping or plumbing construction listed in Facility Design Table 2, condition of certification GEN-2, above, the project owner shall submit to the CBO for design review and approval the final plans, specifications, and calculations, including a copy of the signed and stamped statement from the responsible mechanical	None
348	MECH	01	Request CBO's inspection approval	Upon completion of construction of any such major piping or plumbing system, the project owner shall request the CBO's inspection approval of that construction.	None
349	MECH	01	Copy of transmittal letter (conveying CBO's inspection approvals)	The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's inspection approvals.	None
350	MECH	02	Pressure vessels - Code certification papers and other docs required by applicable LORS, copy of the signed and stamped engineer's certification, copy of transmittal letter to CPM	For all pressure vessels installed in the plant, the project owner shall submit to the CBO and California Occupational Safety and Health Administration (Cal-OSHA), prior to operation, the code certification papers and other documents required by applicable LORS. The project owner shall: 1. Ensure that all boilers and fired and unfired pressure vessels are designed, fabricated, and installed in accordance with the appropriate section of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, or other applicable code. Vendor Certification, with identification of applicable code, shall be submitted for prefabricated vessels and tanks; and 2. Have the responsible design engineer submit a statement to the CBO that the proposed final design plans, specifications, and calculations conform to all of the requirements set forth in the appropriate ASME Boiler and Pressure Vessel Code or other applicable codes. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of on-site fabrication or installation of any pressure vessel, the project owner shall submit to the CBO for design review and approval, the above listed documents, including a copy of the signed and stamped engineer's certification, with a copy of the transmittal letter to the CPM.	None
351	MECH	02	Request inspection of installation	Upon completion of the installation of any pressure vessel, the project owner shall request the appropriate CBO and/or Cal-OSHA inspection of that installation.	None
352	MECH	02	Copy of transmittal letter of CBO or Cal-OSHA approvals	The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter conveying the CBO's and/or Cal-OSHA inspection approvals.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
353	MECH	03	HVAC and refrigeration calculations, plans, specifications, QA procedures, LORS, copy of the signed and stamped statement from mechanical engineer; copy of transmittal letter to CPM	The project owner shall submit to the CBO for design review and approval the design plans, specifications, calculations, and quality control procedures for any heating, ventilating, air conditioning (HVAC) or refrigeration system. Packaged HVAC systems, where used, shall be identified with the appropriate manufacturer's data sheets. The project owner shall design and install all HVAC and refrigeration systems within buildings and related structures in accordance with the CBC and other applicable codes. The final plans, specifications and calculations shall include approved criteria, assumptions, and methods used to develop the design. In addition, the responsible mechanical engineer shall sign and stamp all plans, drawings and calculations and submit a signed statement to the CBO that the proposed final design plans, specifications and calculations conform with the applicable LORS. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of construction of any HVAC or refrigeration system, the project owner shall submit to the CBO the required HVAC and refrigeration calculations, plans, and specifications, including a copy of the signed and stamped statement from the responsible mechanical engineer certifying compliance with the CBC and other applicable codes, with a co	None
354	MECH	03	Request inspection and approval of construction	Upon completion of any increment of construction, the project owner shall request the CBO's inspection and approval of that construction.	None
355	ELEC	01	Documents listed, including final design, specs, calcs, copy of signed and stamped statement from electrical engineer	Prior to the start of any increment of electrical construction for all electrical equipment and systems 480 Volts or higher (see a representative list, below), with the exception of underground duct work and any physical layout drawings and drawings not related to code compliance and life safety, the project owner shall submit, for CBO design review and approval, the proposed final design, specifications, and calculations. Upon approval, the above listed plans, together with design changes and design change notices, shall remain on the site or at another accessible location for the operating life of the project. At least 30 days (or project owner- and CBO-approved alternative time frame) prior to the start of each increment of electrical construction, the project owner shall submit to the CBO for design review and approval the above listed documents. The project owner shall include in this submittal a copy of the signed and stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS, and shall send the CPM a copy of the transmittal letter in the next monthly compliance report.	None
356	ELEC	01	Monthly Compliance Report (to include copy of transmittal letter)	The project owner...shall send the CPM a copy of the transmittal letter (re: electrical construction for all electrical equipment and systems 480 Volts or higher) in the next monthly compliance report.	None
357	ELEC	01	Request inspection of installation	The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS.	None
358	ELEC	01	Monthly Compliance Report (to include receipt/delay of equip., testing/energization of equip., signed statement)	The following activities shall be reported to the CPM in the monthly compliance report: 1. Receipt or delay of major electrical equipment; 2. Testing or energization of major electrical equipment; and 3. A signed statement by the registered electrical engineer certifying that the proposed final design plans and specifications conform to requirements set forth in the Energy Commission decision.	None
359	TSE	01	Schedule of transmission facility design submittals	The project owner shall furnish to the Compliance Project Manager (CPM) and to the Chief Building Official (CBO) a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested. At least 60 days prior to the start of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval.	None
360	TSE	01	Master Drawing List	The project owner shall furnish to the Compliance Project Manager (CPM) and to the Chief Building Official (CBO) a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested. At least 60 days prior to the start of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval.	None
361	TSE	01	Master Specifications List	The project owner shall furnish to the Compliance Project Manager (CPM) and to the Chief Building Official (CBO) a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested. At least 60 days prior to the start of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval.	None
362	TSE	01	Major Equipment and Structure List	The project owner shall furnish to the Compliance Project Manager (CPM) and to the Chief Building Official (CBO) a schedule of transmission facility design submittals, a Master Drawing List, a Master Specifications List, and a Major Equipment and Structure List. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment. To facilitate audits by Energy Commission staff, the project owner shall provide designated packages to the CPM when requested. At least 60 days prior to the start of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit the schedule, a Master Drawing List, and a Master Specifications List to the CBO and to the CPM. The schedule shall contain a description and list of proposed submittal packages for design, calculations, and specifications for major structures and equipment (see a list of major equipment in Table 1: Major Equipment List below). Additions and deletions shall be made to the table only with CPM and CBO approval.	None
363	TSE	01	Schedule updates	The project owner shall provide schedule updates in the Monthly Compliance Report.	None
364	TSE	02	Names, qualifications, registration numbers of all engineers assigned to the project	Prior to the start of construction, the project owner shall assign an electrical engineer and at least one of each of the following to the project: A) a civil engineer; B) a geotechnical engineer or a civil engineer experienced and knowledgeable in the practice of soils engineering; C) a design engineer who is either a structural engineer or a civil engineer fully competent and proficient in the design of power plant structures and equipment supports; or D) a mechanical engineer. (Business and Professions Code Sections 6704 et seq. require state registration to practice as a civil engineer or structural engineer in California). At least 30 days prior to the start of rough grading (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit to the CBO for review and approval, the names, qualifications, and registration numbers of all the responsible engineers assigned to the project.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
365	TSE	02	Notification of CBO's approval of assigned engineer	The project owner shall notify the CPM of the CBO's approvals of the engineers within five days of the approval.	None
366	TSE	02	Name, qualification, registration number of newly assigned engineer	If the designated responsible engineer is subsequently reassigned or replaced, the project owner shall have five days in which to submit the name, qualifications, and registration number of the newly assigned engineer to the CBO for review and approval.	None
367	TSE	02	Notification of CBO's approval of newly assigned engineer	The project owner shall notify the CPM of the CBO's approval of the new engineer within five days of that approval.	None
368	TSE	03	Discrepancy documentation and corrective action recommendation	If any discrepancy in design and/or construction is discovered in any engineering work that has previously undergone CBO design review and approval, the project owner shall document the discrepancy and recommend corrective action (California Building Code, 1998, Chapter 1, Section 108.4, Approval Required; Chapter 17, Section 1701.3, Duties and Responsibilities of the Special Inspector; Appendix Chapter 33, Section 3317.7, Notification of Noncompliance). The discrepancy documentation shall become a controlled document and shall be submitted to the CBO for review and approval and shall reference this condition of certification.	None
369	TSE	03	Copy of CBO's approval/disapproval of corrective action	The project owner shall submit a copy of the CBO's approval or disapproval of any corrective action taken to resolve a discrepancy to the CPM within 15 days of receipt.	None
370	TSE	03	Advise CPM reason for disapproval and revised corrective action	If disapproved, the project owner shall advise the CPM, within five days, the reason for disapproval, and the revised corrective action required obtaining the CBO's approval.	None
371	TSE	04	Power plant switchyard, outlet line, and termination - Final design plans, specifications, calculations, copy of signed and stamped statement from the electrical engineer	For the power plant switchyard, outlet line, and termination, the project owner shall not begin any increment of construction until plans for that increment have been approved by the CBO. These plans, together with design changes and design change notices, shall remain on the site for one year after completion of construction. At least 30 days prior to the start of each increment of construction (or a lesser number of days mutually agreed to by the project owner and the CBO), the project owner shall submit to the CBO for review and approval the final design plans, specifications, and calculations for equipment and systems of the power plant switchyard, outlet line, and termination, including a copy of the signed and stamped statement from the responsible electrical engineer attesting to compliance with the applicable LORS, and shall include a copy of the transmittal letter in the next Monthly Compliance Report.	None
372	TSE	04	Monthly Compliance Report (to include copy of transmittal letter)	The project owner...shall send the CPM a copy of the transmittal letter (re: the power plant switchyard, outlet line, and termination) in the next monthly compliance report.	None
373	TSE	04	Request inspection of installation	The project owner shall request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS.	None
374	TSE	04	Monthly Compliance Report (to include copy of transmittal letter)	The following activities shall be reported in the Monthly Compliance Report: 1. Receipt or delay of major electrical equipment; 2. Testing or energization of major electrical equipment; and 3. The number of electrical drawings approved, submitted for approval, and still to be submitted.	None
375	TSE	05	Design drawings, specifications, calculations, design criteria, discussion of calculation methods, sample calculation, and signed/sealed statement	At least 60 days prior to the start of construction of transmission facilities (or a lessor number of days mutually agreed to by the project owner and CBO), the project owner shall submit to the CBO for approval: 1. Design drawings, specifications, and calculations conforming with CPUC General Order 95 and General Order 98 or NESC; Title 8, California Code of Regulations, Articles 35, 36, and 37 of the "High Voltage Electric Safety Orders"; NEC; applicable interconnection standards, and related industry standards for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment. 2. For each element of the transmission facilities identified above, the submittal package to the CBO shall contain the design criteria, a discussion of the calculation method(s), a sample calculation based on worst-case conditions, and a statement signed and sealed by the registered engineer in responsible charge, or other acceptable alternative verification, that the transmission element(s) will conform with CPUC General Order 95 or NESC; Title 8, California Code of Regulations, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders"; NEC; applicable interconnection standards, and related industry standards.	None
376	TSE	05	Electrical one-line diagrams, signed/sealed, route map, and an engineering description	At least 60 days prior to the start of construction of transmission facilities (or a lessor number of days mutually agreed to by the project owner and CBO), the project owner shall submit to the CBO for approval: ... 3. Electrical one-line diagrams signed and sealed by the registered professional electrical engineer in responsible charge, a route map, and an engineering description of equipment and the configurations covered by requirements TSE-5 1) through 5) above.	None
377	TSE	05	Detailed Facility Study	The final Detailed Facility Study, including a description of facility upgrades, operational mitigation measures, and/or SPS sequencing and timing if applicable, shall be provided concurrently to the CPM.	None
378	TSE	05	Facility Interconnection Agreement	The project owner shall provide to the CPM the executed project owner and California ISO Facility Interconnection Agreement.	None
379	TSE	06	Notice letter stating the proposed date of synchronization	The project owner shall provide the following Notice to the California Independent System Operator (California ISO) prior to synchronizing the facility with the California transmission system: 1. At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and 2. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.	None
380	TSE	06	Telephone notification to the California ISO Outage Coordination Department	The project owner shall provide the following Notice to the California Independent System Operator (California ISO) prior to synchronizing the facility with the California transmission system: 1. At least one week prior to synchronizing the facility with the grid for testing, provide the California ISO a letter stating the proposed date of synchronization; and 2. At least one business day prior to synchronizing the facility with the grid for testing, provide telephone notification to the California ISO Outage Coordination Department.	None

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
381	TSE	06	Copy of notice letter sent to CAISO stating the proposed date of synchronization	The project owner shall provide copies of the California ISO letter to the CPM when it is sent to the California ISO one week prior to initial synchronization with the grid.	None
382	TSE	06	Report of the conversation with the California ISO	A report of the conversation with the California ISO shall be provided electronically to the CPM one day before synchronizing the facility with the California transmission system for the first time.	None
383	TSE	07	As-built engineering description(s) and one-line drawings of the electrical portion of the facilities (signed/sealed), conformance statement	Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO: 1. As-built engineering description(s) and one-line drawings of the electrical portion of the facilities signed and sealed by the registered electrical engineer in responsible charge. A statement attesting to conformance with CPUC GO 95 or NESC; Title 8, California Code of Regulations, Articles 35, 36 and 37 of the "High Voltage Electric Safety Orders"; applicable interconnection standards; NEC; and related industry standards, and these conditions shall be provided concurrently with the submittal of the as-built plans.	None
384	TSE	07	An as-built engineering description of the mechanical, structural, and civil portions of the transmission facilities (signed/sealed)	Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO: 2. An as-built engineering description of the mechanical, structural, and civil portions of the transmission facilities signed and sealed by the registered engineer in responsible charge or acceptable alternative verification. As-built drawings of the electrical, mechanical, structural, and civil portions of the transmission facilities shall be maintained at the power plant and made available, if requested, for CPM audit as set forth in the "Compliance Monitoring Plan."	None
385	TSE	07	Summary of inspections of completed transmission facilities, identification of any nonconforming work, corrective actions taken (signed/sealed)	Within 60 days after first synchronization of the project, the project owner shall transmit to the CPM and CBO: 3. A summary of inspections of the completed transmission facilities, and identification of any nonconforming work and corrective actions taken, signed and sealed by the registered engineer in charge.	None
386	TSE	07	Written notification of nonconformance and suggested corrective actions	In case of non-conformance, the project owner shall inform the CPM and CBO in writing, within 10 days of discovering such nonconformance and describe the corrective actions to be taken	None
387	COMPLIANCE	01	N/A	Unrestricted Access: BLM's AO, responsible BLM staff, the CPM, responsible Energy Commission staff, and delegated agencies or consultants shall be guaranteed and granted unrestricted access to the power plant site, related facilities, project-related staff, and the records maintained on-site, for the purpose of conducting audits, surveys, inspections, or general site visits. Although BLM's AO and the CPM will normally schedule site visits on dates and times agreeable to the project owner, BLM's AO and the CPM reserve the right to make unannounced visits at any time.	None
388	COMPLIANCE	02	N/A	Compliance Record: The project owner shall maintain project files on-site or at an alternative site approved by BLM's AO and the CPM for the life of the project, unless a lesser period of time is specified by the conditions of certification. The files shall contain copies of all "as-built" drawings, documents submitted as verification for conditions, and other project-related documents. As-built drawings of all facilities including linear facilities shall be provided to the BLM AO for inclusion in the BLM administrative record within 90-days of completion of that portion of the facility or project. BLM and Energy Commission staff and delegate agencies shall, upon request to the project owner, be given unrestricted access to the files maintained pursuant to this condition.	None
389	COMPLIANCE	03	N/A	Compliance Verification Submittals: Each condition of certification is followed by a means of verification. The verification describes the Energy Commission's procedure(s) to ensure post-certification compliance with adopted conditions. The verification procedures, unlike the conditions, may be modified as necessary by BLM's AO and the CPM. Verification of compliance with the conditions of certification can be accomplished by the following: (refer to SES Solar Two SA DEIS Conditions for more info)	None
390	COMPLIANCE	04	Pre-construction compliance matrix	Pre-construction Matrix and Tasks Prior to Start of Construction: Prior to commencing construction, a compliance matrix addressing only those conditions that must be fulfilled before the start of construction shall be submitted by the project owner to BLM's AO and the CPM. This matrix will be included with the project owner's first compliance submittal or prior to the first pre-construction meeting, whichever comes first. It will be submitted in the same format as the compliance matrix described below In order to begin any on-site mobilization or surface disturbing activities on public land, the BLM AO must approve a written Notice to Proceed (NTP). NTPs will be phased as appropriate to facilitate timely implementation of construction. (refer to SES Solar Two SA DEIS Conditions for more info)	None
391	COMPLIANCE	04	Monthly Compliance Report	During construction, the project owner or authorized agent will submit Monthly Compliance Reports.	None
392	COMPLIANCE	04	Annual Compliance Report	During operation, an Annual Compliance Report must be submitted.	None
393	COMPLIANCE	05	Post surety bond	Posting of a Surety Bond: Prior to site disturbance and each increment of construction, the project owner shall post a surety bond adequate to cover the cost of decommissioning and restoration, including the removal of the project features that have been constructed for that that portion of the site and restoring the native topography and vegetation. An "increment of construction" shall mean a significant feature of construction, such as site grading, a building, a fluid storage tank, a water treatment facility, a hydrogen production facility, a switchyard, or a group of solar collectors connected to an electrical transformer (including that transformer). This Surety bond will apply to all site disturbance features. (refer to SES Solar two SA DEIS Conditions for more info)	None

Attachment D
Imperial Valley Solar
Applicant Proposed Changes to Conditions

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
394	COMPLIANCE	06	Compliance matrix	Compliance Matrix: A compliance matrix shall be submitted by the project owner to BLM's AO and the CPM along with each monthly and annual compliance report. The compliance matrix is intended to provide BLM's AO and the CPM with the current status of all conditions of certification in a spreadsheet format. The compliance matrix must identify: 1. the technical area; 2. the condition number; 3. a brief description of the verification action or submittal required by the condition; 4. the date the submittal is required (e.g., 60 days prior to construction, after final inspection, etc.); 5. the expected or actual submittal date; 6. the date a submittal or action was approved by the Chief Building Official (CBO), BLM's AO, CPM, or delegate agency, if applicable; and 7. the compliance status of each condition, e.g., "not started," "in progress" or "completed" (include the date). 8. if the condition was amended, the date of the amendment. Satisfied conditions shall be placed at the end of the matrix.	None
395	COMPLIANCE	07	Monthly Compliance Report	Monthly Compliance Report: The first Monthly Compliance Report is due one month following the Energy Commission business meeting date upon which the project was approved, unless otherwise agreed to by BLM's AO and the CPM. The first Monthly Compliance Report shall include the AFC number and an initial list of dates for each of the events identified on the Key Events List. The Key Events List Form is found at the end of this section. (refer to SES Solar Two SA DEIS Conditions for more info)	Change COMPLIANCE-6 in previous conditions to COMPLIANCE-7 (global) for monthly reporting - Some conditions implicitly indicate the Monthly Reporting is to be performed prior to construction and during construction; however, the Applicant understands monthly compliance reporting would occur during construction.
396	COMPLIANCE	07	Monthly Compliance Report	During pre-construction and construction of each power plant, the project owner or authorized agent shall submit an original and an electronic searchable version of the Monthly Compliance Report within 10 working days after the end of each reporting month. Monthly Compliance Reports shall be clearly identified for the month being reported. The reports shall contain, at a minimum: (refer to SES Solar Two SA DEIS Conditions for more info)	None
397	COMPLIANCE	08	Annual Compliance Report	Annual Compliance Report: After construction of each power plant is complete or when a power plant goes into commercial operations, the project owner shall submit Annual Compliance Reports instead of Monthly Compliance Reports. The reports are for each year of commercial operation and are due to BLM's AO and the CPM each year at a date agreed to by BLM's AO and the CPM. Annual Compliance Reports shall be submitted over the life of the project unless otherwise specified by BLM's AO and the CPM. Each Annual Compliance Report shall include the AFC number, identify the reporting period and shall contain the following: (refer to SES Solar Two SA DEIS Conditions for more info)	Change COMPLIANCE-7 in previous conditions to COMPLIANCE-8 (global) for annual reporting.
398	COMPLIANCE	09	Application for Confidentiality	Confidential Information: Any information that the project owner deems confidential shall be submitted to the Energy Commission's Executive Director with an application for confidentiality pursuant to Title 20, California Code of Regulations, section 2505(a). Any information that is determined to be confidential shall be kept confidential as provided for in Title 20, California Code of Regulations, section 2501 et. seq. Any information the ROW holder deems confidential shall be submitted to the BLM AO with a written request for said confidentiality along with a justification for the request. All confidential submissions to BLM should be clearly stamped "proprietary information" by the holder when submitted.	None
399	COMPLIANCE	10	Annual compliance fee	Annual Energy Facility Compliance Fee: Pursuant to the provisions of Section 25806(b) of the Public Resources Code, the project owner is required to pay an annual compliance fee, which is adjusted annually. Current Compliance fee information is available on the Energy Commission's website http://www.energy.ca.gov/siting/filing_fees.html. You may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission adopts the final decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification. The payment instrument shall be made payable to the California Energy Commission and mailed to: Accounting Office MS-02, California Energy Commission, 1516 9th St., Sacramento, CA 95814.	None
400	COMPLIANCE	10	Annual compliance fee	Annual Energy Facility Compliance Fee: Pursuant to the provisions of Section 25806(b) of the Public Resources Code, the project owner is required to pay an annual compliance fee, which is adjusted annually. Current Compliance fee information is available on the Energy Commission's website http://www.energy.ca.gov/siting/filing_fees.html. You may also contact the CPM for the current fee information. The initial payment is due on the date the Energy Commission adopts the final decision. All subsequent payments are due by July 1 of each year in which the facility retains its certification. The payment instrument shall be made payable to the California Energy Commission and mailed to: Accounting Office MS-02, California Energy Commission, 1516 9th St., Sacramento, CA 95814.	None
401	COMPLIANCE	11	Letter to property owners with telephone number	Reporting of Complaints, Notices, and Citations: Prior to the start of construction, the project owner must send a letter to property owners living within one mile of the project notifying them of a telephone number to contact project representatives with questions, complaints or concerns. If the telephone is not staffed 24 hours per day, it shall include automatic answering with date and time stamp recording.	None
402	COMPLIANCE	11	Response to Complaints	All recorded complaints shall be responded to within 24 hours.	None
403	COMPLIANCE	11	Post telephone number	The telephone number shall be posted at the project site and made easily visible to passersby during construction and operation. The telephone number shall be provided to BLM's AO and the CPM who will post it on the Energy Commission's web page at: http://www.energy.ca.gov/sitingcases/power_plants_contacts.html. Any changes to the telephone number shall be submitted immediately to BLM's AO and the CPM, who will update the web page.	None
404	COMPLIANCE	11	Copies of all complaints, notices, citation forms	In addition to the monthly and annual compliance reporting requirements described above, the project owner shall report and provide copies to BLM's AO and the CPM of all complaint forms, including noise and lighting complaints, notices of violation, notices of fines, official warnings, and citations, within 10 days of receipt. Complaints shall be logged and numbered. Noise complaints shall be recorded on the form provided in the NOISE conditions of certification. All other complaints shall be recorded on the complaint form (Attachment A)	None
405	COMPLIANCE	11	Update/revision of approved Closure, Revegetation and Rehabilitation Plan (copies and CDs)	Planned Closure: In order to ensure that a planned facility closure does not create adverse impacts, a closure process that provides for careful consideration of available options and applicable laws, ordinances, regulations, standards, and local/regional plans in existence at the time of closure, will be undertaken. To ensure adequate review of a planned project closure, the project owner shall submit a revision or update to the approved Closure, Revegetation and Rehabilitation Plan to BLM and the Energy Commission for review and approval at least 12 months (or other period of time agreed to by BLM's AO and the CPM) prior to commencement of closure activities. The project owner shall file 50 copies and 50 CDs with the Energy Commission and 10 copies and 10 CDs with BLM (or other number of copies agreed upon by BLM's AO and the CPM) of a proposed facility closure plan/Closure, Revegetation and Rehabilitation Plan. The plan shall: (refer to SES Solar Two SA DEIS Conditions for more info)	None

Attachment D
Imperial Valley Solar
Applicant Proposed Changes to Conditions

No	Condition Resource	Condition Number	Submittal Action	Condition and Verification Description	ApplicantSA/DEISCommentOnCondition
406	COMPLIANCE	11	Meeting re: update/revision of approved Closure, Revegetation and Rehabilitation Plan	Prior to submittal of an amended or revised Closure, Revegetation and Restoration Plan, a meeting shall be held between the project owner, BLM's AO and the Energy Commission CPM for the purpose of discussing the specific contents of the plan.	None
407	COMPLIANCE	12	On-site contingency plan	Unplanned Temporary Closure/On-site Contingency Plan: In order to ensure that public health and safety and the environment are protected in the event of an unplanned temporary facility closure, it is essential to have an On-Site Contingency Plan in place. The On-Site Contingency Plan will help to ensure that all necessary steps to mitigate public health and safety impacts and environmental impacts are taken in a timely manner. The project owner shall submit an On-Site Contingency Plan for BLM's AO and CPM review and approval. The plan shall be submitted no less than 60 days (or other time agreed to by BLM's AO and the CPM) after approval of any NTP or letter granting approval to commence construction for each phase of construction. A copy of the approved plan must be in place during commercial operation of the facility and shall be kept at the site at all times. (refer to SES Solar two SA DEIS Conditions for more info)	None
408	COMPLIANCE	12	Notification of an unplanned temporary closure	In the event of an unplanned temporary closure, the project owner shall notify BLM's AO and the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the On-Site Contingency Plan. The project owner shall keep BLM's AO and the CPM informed of the circumstances and expected duration of the closure.	None
409	COMPLIANCE	12	Closure plan	If BLM's AO and the CPM determine that an unplanned temporary closure is likely to be permanent, or for a duration of more than 6 months, a Closure Plan consistent with the requirements for a planned closure shall be developed and submitted to BLM's AO and the CPM within 90 days of BLM's AO and the CPM's determination (or other period of time agreed to by BLM's AO and the CPM).	None
410	COMPLIANCE	13	On-site contingency plan	Unplanned Permanent Closure/On-site Contingency Plan: The On-Site Contingency Plan required for unplanned temporary closure shall also cover unplanned permanent facility closure. All of the requirements specified for unplanned temporary closure shall also apply to unplanned permanent closure. In addition, the On-Site Contingency Plan shall address how the project owner will ensure that all required closure steps will be successfully undertaken in the event of abandonment.	None
411	COMPLIANCE	13	Notification and implementation of permanent closure plan	In the event of an unplanned permanent closure, the project owner shall notify BLM's AO and the CPM, as well as other responsible agencies, by telephone, fax, or e-mail, within 24 hours and shall take all necessary steps to implement the On-Site Contingency Plan. The project owner shall keep BLM's AO and the CPM informed of the status of all closure activities.	None
412	COMPLIANCE	14	Petition for project changes, amendment	Post Certification Changes to BLM's Row Grant and/or The Energy Commission Decision: Amendments, Ownership Changes, Staff Approved Project Modifications and Verification Changes: The project owner must petition the Energy Commission pursuant to Title 20, California Code of Regulations, section 1769, in order to modify the project (including linear facilities) design, operation or performance requirements, and to transfer ownership or operational control of the facility. The BLM ROW holder must file a written requests in the form an application to the BLM AO in order to change the terms and conditions of their ROW grant or POD. Written requests will be in a manner prescribed by the BLM AO. (refer to SES Solar Two SA DEIS Conditions for more info)	None

BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
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APPLICATION FOR CERTIFICATION FOR THE
IMPERIAL VALLEY SOLAR PROJECT
(formerly known as SES Solar Two Project)
IMPERIAL VALLEY SOLAR, LLC

Docket No. 08-AFC-5
PROOF OF SERVICE
(Revised 3/9/10)

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*indicates change

DECLARATION OF SERVICE

I, Corinne Lytle, declare that on March 23, 2010, I served and filed copies of the attached, Applicant's Prehearing Conference Statement, dated, March 23, 2010.
The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at:
[http://www.energy.ca.gov/sitingcases/solartwo/index.html].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(*Check all that Apply*)

FOR SERVICE TO ALL OTHER PARTIES:

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

_____ by personal delivery;

__X__ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses NOT marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

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

OR

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

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-5
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

Original Signed By: _____
CORINNE LYTLE

*indicates change