Genesis Solar Energy Project
Eastern Riverside County, California

Genesis Solar, LLC

Monthly Compliance Report #32
June 2013

(COC COMPLIANCE-6)
09-AFC-8

Contents

Page

AQ-SC1: Air Quality Construction Mitigation Manager 5

AQ-SC3: Construction Fugitive Dust Control; AQCMM Monthly Reporting 5

AQ-SC4: Dust Plume Response Requirement 6

AQ-SC5: Diesel Engine Emissions - Monitoring and Reporting 7

BIO-2: Designated Biologist 7

BIO-4: Biological Monitors 7

BIO-7: Biological Resource Mitigation Implementation and Monitoring Plan 7

BIO-8: Impact Avoidance and Minimization Measures 7

BIO-9: Desert Tortoise Clearance Surveys and Fencing 7

BIO-11: Desert Tortoise Compliance Verification 7

BIO-17: Kit Fox Impact Avoidance, Minimization, and Compensation Measures 8

BIO-18: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures 8

BIO-19: Special-Status Plant Impact Avoidance, Minimization and Compensation 8

BIO-22: Mitigation for Impacts to State Waters 8

BIO-6, CUL-7, and PAL-4: Worker Environmental Awareness Program (WEAP) 8

CUL-8: Construction Monitoring Program 8

CUL-13: Flag and Avoid 9

SOIL&WATER-1: Drainage Erosion and Sedimentation Control Plan 9

TRANS-2: Vehicle Weight Limits 9

TRANS-3: Public ROW Encroachment 9

TRANS-4: Hazmat Transport Permits/Licenses 9

WASTE-6: Hazardous Waste Generator Identification Number 9

WORKER SAFETY-3: Construction Safety Supervisor - Staff Assignment 10

GEN-2: PRS Facility Design Submittals to CBO and CPM 10

GEN-3: CBO Payments 10

GEN-6: Special Inspector(s) - Staff Assignment 10

GEN-7: Facility Design Discrepancy Documentation 10

GEN-8: As-builts, CBO Notification of Completion and Compliance 10

CIVIL-1: CBO Submittals- Drainage and Grading, Statement of Submittal 10

CIVIL-3: CBO Inspection of 2007 CBC Compliance 11

CIVIL-4: Final Grading Plans - CBO Submittal 11

STRUC- 1: CBO Submittals - Major Structure or Facility Design Component, Statement of Submittal 11

STRUC-3: CBO Submittal - Design Changes, Revised Drawings, Specifications, Calculations 11

STRUC-4: 2007 CBC Compliance for Toxic or Hazardous Materials 11

MECH-1: CBO Submittal - Plan Piping and Plumbing System, Final Design Specifications and Calculations 11

MECH-2: CBO and Cal-OSHA Submittal - Pressure Vessel 11

ELEC-1: CBO Submittal - Electrical Equipment and Systems 11

PAL-5: PRS Monitoring and Stop Work Authority 12

TSE-1: CBO and CPM Submittal - Schedule of Design Submittals 12

TSE-4: CBO Submittal – Power Plant Switchyard, Outlet Line and Termination Design Plans 12

COMPLIANCE-5 - Compliance Matrix 12

COMPLIANCE-6 – Permits and/or filings 12

Appendix A 1

Equipment List

Appendix B 1

Biological Reports

Appendix C 1

WEAP Training

Appendix D……..…….1

Schedule of Facility Design Submittals; Master Drawings and Master Specifications

Appendix E……...1

Cultural Monitor Reports

Appendix F 1

Safety Reports and Incidents

Appendix G 1

Miscellaneous Documents (Water Usage Log, Submittals, and Correspondence)

The Genesis Solar Energy Project received authorization to construct from the California Energy Commission (CEC) on September 29, 2010 and the US Bureau of Land Management (BLM) on November 4, 2010. In accordance with the California Energy Commission's (CEC) Condition of Certification (COC) number COMPLIANCE-6, please see the following report that summarizes compliance with CEC and BLM's requirements for pre-construction and construction activities for the month of June, 2013.

During the month of June, 2013, Project activities included:

- Continued New Employee site specific Safety Training and Worker's Environmental Awareness Training.
- Above ground grid installations continue. Pulling cable to water treatment skids and water skids commenced.
- Working auxiliary steam, nitrogen, boiler steam and heater bleed and blow down stems
- Insulation of HTF piping continues through unit 2.
- Insulation of train, expansion vessel, ullage vessel, and treated water has commenced.
- Installation of HCE tubes continue in Unit 1.
- Aligning and erecting pylons in Unit 1 continues.
- Continued work on the auxiliary steam, boiler steam, heater and blow down systems.
- Attenuation testing is ongoing.

All questions or concerns regarding the contents of this report should be directed to Jennifer Gavaldon at: 951-634-2395 or email Jennifer.Gavaldon@nexteraenergy.com

Completed Compliance Activities. During the reporting period, the following documents were submitted to the CEC CPM for review and approval.

Date	To	Condition	Subject
6/11/13	CEC	COM-06	May MCR
6/12/13	CEC	HAZ-2	Hazardous Material Business Plan
6/13/13	CEC/MDAQMD	PH-1	Cooling Tower Management Plan REV 1
6/14/13	CEC	WS-9	RCFD joint training exercise
6/18/13	MDAQMD/CEC	AQ-22	Cooling tower test protocol
6/21/13	MDAQMD/CEC	AQ-13	Compliance test protocol and written test plan
6/27/13	CEC	S&W-2	1st Quarter Groundwater Level Monitoring Report
6/27/13	CBO/CEC	GEN-1	Temporary propane tanks

Required Documents Submitted With This Report. The Final Decision sets forth specific conditions, many of which include reporting requirements that must be addressed in the project's MCR. The following paragraphs describe the compliance activities that were completed during the reporting period:

Air Quality issues: In accordance with Condition of Certification AQ-SC1 an authorized Air Quality Construction Mitigation Manager (AQCMM) has been assigned to this project. As per AQ-SC2 an Air Quality Construction Mitigation Plan (AQCMP) has been submitted and approved by the California Energy Commission (CEC).

AQ-SC1: Air Quality Construction Mitigation Manager

Requirement: AQ-SC1 (AQCMM): As required by the Condition of Certification, the Air Quality Construction Mitigation Manager is responsible for directing and documenting compliance with the construction-related air quality conditions of certification at the project site and linear facilities. Additional monitors will be assigned as needed to cover times when there are multiple tasks occurring simultaneously that require oversight, extended hours of construction, or when the AQCMM is unavailable.

No new applications were submitted in June 2013.

AQ-SC3: Construction Fugitive Dust Control; AQCMM Monthly Reporting

Requirement: Minimal fugitive dust was generated by construction activities due to the effectiveness of the best management practices (BMPs) dust control measures and cool weather conditions. Water trucks were used as necessary to effectively mitigate fugitive dust during the construction activities.

A copy of the water log is included in Appendix G.

Under the direction of the AQCMM and as per the AQCMP the following measures have been taken to maintain compliance:

- All workers have been instructed in fugitive dust prevention as part of their Workers Environmental Awareness Program training.
- Fugitive dust control mitigation measures continue to be a topic at contractor tailboard meetings once a week or more, depending upon weather conditions. During the month of June, no wind activity affected production or cause a slowdown of work.
- No vehicle shall exceed 10 mile per hour on unpaved areas within the construction site, with the exception that vehicles may travel up to 25 miles per hour on stabilized unpaved roads as long as such speeds do not create visible dust emissions.
- Speed limit signs are posted at the lay-down areas and along the access roads for the full length of the project. Dusk and dawn speed limit signs annotating the 25 mph limit continue to be a discussion with contractors to remind them of the reduction in speed during the dusk and dawn hours. 45 mph is posted during the day from 5:45 AM to 7:30 PM and 25 mph posted for the night hours.
- As per AQ-SC3 all soil piles have been treated with water and/or tackifier to reduce dust plumes during windy conditions.
- All roads have had water applied to them regularly to reduce dust plumes from moving vehicles.
- Areas where dirt roads intersect asphalt roads have had a 20’ X 50’ rock pad installed to reduce tracking onto the road.
- A track out, on the entrance to the public road, has been installed to reduce any track out.
- All diesel-powered equipment over 50 HP has been required to use ultra-low sulfur diesel and have been maintained in proper operating condition.
- No diesel equipment has been allowed to idle in excess of 5 minutes.

AQ-SC4: Dust Plume Response Requirement

Requirement: Submit information on dust plume observations, response, and list of equipment onsite.

As per AQ-SC4 a policy of fugitive dust monitoring has been put into place. All slowdowns or work stoppages due to air quality concerns are recorded below, along with response taken to ameliorate Air Quality concerns.

No work stoppages or delays, due to wind, occurred during the month of June.

AQ-SC5: Diesel Engine Emissions - Monitoring and Reporting

Requirement: The AQCMM conducted an audit of all equipment on site to ensure California Air Resources Board compliance tags were properly affixed and fire extinguishers were onboard. Any deficiencies found were corrected. All diesel-powered equipment over 50 HP has been required to use ultra-low sulfur diesel and have been maintained in proper operating condition. A list of heavy equipment present on site during the month of June, are provided in Appendix A. The equipment complies with the California Tier III standards for equipment above 50 hp.

See Appendix A

BIO-2: Designated Biologist

Requirement: Provide copies of all written reports and summaries that document biological resources compliance activities.

See Appendix B.

BIO-4: Biological Monitors

Requirement: Submit copies of all written reports and summaries that document biological resources compliance activities, including those conducted by Biological Monitors.

See Appendix B.

BIO-7: Biological Resource Mitigation Implementation and Monitoring Plan

And

BIO-8: Impact Avoidance and Minimization Measures

Requirement: Submit compliance documentation for implementation of BRMIMP measures.

See Appendix B

BIO-9: Desert Tortoise Clearance Surveys and Fencing

Requirement: Submit compliance documentation for all survey and fencing activity.

See Appendix B
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BIO-11: Desert Tortoise Compliance Verification

Requirement: Submit results of Monthly Compliance Inspections to CPM, BLM, USFWS, and CDFG.

See Appendix B.

BIO-13: Monthly Raven Observation

The monthly raven observations recorded in June are included in the DB's Monthly Report. Raven count is performed on a monthly basis.

Included in Appendix B

BIO-15: Pre-Construction Nest Surveys and Avoidance Measures

See Appendix B.

BIO-17: Kit Fox Impact Avoidance, Minimization, and Compensation Measures

Desert Kit Fox den monitoring will be performed by the DB and the BM.

See Appendix B

BIO-18: Burrowing Owl Impact Avoidance, Minimization, and Compensation Measures

Requirement: Submit burrowing owl mitigation compliance documentation.

See Appendix B.

BIO-19: Special-Status Plant Impact Avoidance, Minimization and Compensation

Requirement: Submit compliance documentation of special-status plant avoidance and minimization measures.

See Appendix B

BIO-22: Mitigation for Impacts to State Waters

Requirement: Submit status of work in Waters of the State.

No rain events have resulted in flow of any channel during the month of June. Erosion control devices (silt fence, straw waddles, etc) are stock piled on site and will be installed as needed

BIO-6, CUL-7, and PAL-4: Worker Environmental Awareness Program (WEAP)

Requirement: Submit the past Month of training records.

During June, the total number of personnel who received the Construction Worker Environmental Awareness Training was 135. The number of personnel who have received the training to date is 3794. Copies of the WEAP training sign-in sheets for the monthly reporting period are included in Appendix C.

CUL-8: Construction Monitoring Program

Requirement: Submit report of any noncompliance.

No NCR's issued in the month of June.

Requirement: Submit a summary report of construction-related monitoring and any new DPR 523A forms.

All other ground disturbing activities on site were observed by our resident Cultural Resources Monitor and Native American Monitors.

CUL-13: Flag and Avoid

Requirement: Submit compliance documentation regarding flagging inspections.

Placement of steel plates covering the Exclusion zones associated with cultural resource locations occurred on June 27, 2013. The zones have been re-flagged as necessary and are inspected regularly for integrity.

SOIL&WATER-1: Drainage Erosion and Sedimentation Control Plan

Requirement: Submit documentation regarding compliance with DESCP.

Repair and completion of all channels continue.

TRANS-2: Vehicle Weight Limits

Requirement: Report permits received from Caltrans and/or County for overweight or oversized vehicles and any other necessary transportation permits.

No Permits were received for the month of June.

See Appendix G

TRANS-3: Public ROW Encroachment

Requirement: Report encroachment permits received from Caltrans and/or County.

On March 25, 2013 GSEP received an Encroachment Permit from the California Department of Transportation.

TRANS-4: Hazmat Transport Permits/Licenses

Requirement: Report hazardous material transport permits received.

HTF arrived onsite beginning May 13, 2013. Hazmat Transport Permits were submitted in the May MCR.

WASTE-6: Hazardous Waste Generator Identification Number

Requirement: Submit identification number following receipt or a new number or modification of an existing number.

GSEP EPA ID was received in MAY 2012 and submitted in the MAY 2012 MCR.

WORKER SAFETY-3: Construction Safety Supervisor - Staff Assignment

Requirement: Submit compliance documentation and inspection approvals.

There were 5 first aids and no recordable injuries in the month of June.

The details are included in the Safety Summary which can be found under Appendix F

Weekly bulletins are enclosed in Appendix F.

GEN-2: PRS Facility Design Submittals to CBO and CPM

Requirement: Include updated schedule of facility design submittals, and master drawing and master specifications.

The approved and reviewed drawings, designs and specifications are attached in Appendix D

GEN-3: CBO Payments

Requirement: Submit a copy of the CBO receipt of payment to the CPM indicating that applicable fees have been paid.

1 invoice in the amount of $301,127.36 was paid to the CBO , during the month of June.

GEN-6: Special Inspector(s) - Staff Assignment

Requirement: Submit a copy of CBO approval of the qualifications of all special inspectors.

No Special Inspectors were submitted/approved during the month of June.

See Appendix D

GEN-7: Facility Design Discrepancy Documentation

Requirement: Submit a copy of CBO approval of any corrective action taken to resolve a discrepancy.

No discrepancies reported for the Month of June.

GEN-8: As-builts, CBO Notification of Completion and Compliance

Requirement: Submit a copy of statement of work completed.

See Appendix D

CIVIL-1: CBO Submittals- Drainage and Grading, Statement of Submittal

Requirement: Submit a copy of CBO approval.

See Appendix D

CIVIL-3: CBO Inspection of 2007 CBC Compliance

Requirement: Submit list of non-conformance reports (NCR).

None received in the month of June.

See Appendix D

CIVIL-4: Final Grading Plans - CBO Submittal

Requirement: Submit a copy of CBO approval of grading plans.

See Appendix D

STRUC- 1: CBO Submittals - Major Structure or Facility Design Component, Statement of Submittal

Requirement: Submit a copy of a statement from CBO that structural plans, specifications, and calculations have been approved and comply with engineering LORS.

See Appendix D

STRUC-3: CBO Submittal - Design Changes, Revised Drawings, Specifications, Calculations

Requirement: Submit notification that the CBO has approved the revised plans.

See Appendix D

STRUC-4: 2007 CBC Compliance for Toxic or Hazardous Materials

Requirement Submit copies of the CBO approvals of plan checks.

See Appendix D

MECH-1: CBO Submittal - Plan Piping and Plumbing System, Final Design Specifications and Calculations

Requirement: Submit a copy of transmittal letter to CBO.

See Appendix D

MECH-2: CBO and Cal-OSHA Submittal - Pressure Vessel

Requirement: Submit a copy of CBO inspection approvals.

See Appendix D

ELEC-1: CBO Submittal - Electrical Equipment and Systems

Requirement: Submit:
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.

See Appendix D

PAL-5: PRS Monitoring and Stop Work Authority

Requirement: Submit a summary of paleontological monitoring activities and finds.

No Paleo activities occurred in the month of June.

TSE-1: CBO and CPM Submittal - Schedule of Design Submittals

Requirement: Submit schedule updates.

See Appendix D

TSE-4: CBO Submittal – Power Plant Switchyard, Outlet Line and Termination Design Plans

Requirement: Submit a copy of the transmittal letter of final design plans.

See Appendix D

Requirement: Include in the monthly compliance report: a) receipt or delay of major electrical equipment; b) testing or energization of major electrical equipment; and c) the number of electrical drawings approved, submitted for approval, and still to be submitted.

See Appendix D

COMPLIANCE-5 - Compliance Matrix

Requirement: Submit a compliance matrix along with each monthly report.

The Compliance Matrix is enclosed

COMPLIANCE-6 – Monthly Compliance Report

Requirement: Provide: a listing of any filings submitted to, or permits issued by, other governmental agencies during the month.

On June 1, 2013 the BLM issued GSEP a Notice of Non-Compliance for discharge of water. The original letter and response are included in Appendix G.

See Appendix G

COMPLIANCE-13 – Post Certification Amendments

No Amendments submitted/approved for the month of June.

Compliance Matrix

Mustard = Submitted and Approved Green = Submitted, waiting on approval Pink = Upcoming Submittals Light Blue = include in the MCR

#	Agency	Pre-con	Const	ops	COC	Title	Description	Responsibility	COC Verification	Internal Due Date	Date Final Due	Date Submitted to Agency	Agency Status
1	CEC	x			AQ-SC1	Air Quality Construction Mitigation Manager (AQCMM) - staff assignment	Assign Air Quality Construction Mitigation Manager	ECM	> 30d pt gd		12/17/10	11/16/2010 1/13/11	Approved 12/2/2010
2	CEC		x		AQ-SC1	Air Quality Construction Mitigation Manager (AQCMM) - staff assignment	AQCMM remain onsite to monitor construction activities	ECM	Ongoing				
3	CEC	x			AQ-SC2	Air Quality Construction Mitigation Plan (AQCMP)	Prepare Air Quality Construction Mitigation Plan (AQCMP)	ECM	> 30d pt gd		12/17/10	23-Nov-10	Approved 12/2/2010
17	CEC	x	x	x	AQ-SC8	Air permit submittals	Submit copies of District issued Authority to Construct & Permit to Operate Documents.	Fluor	< 5d from date of submittal or receipt			12-Dec-10	Approved 1/17/11
33	CEC		x		AQ-10	HTF Ullage/Exp. Tanks - Carbon absorbtion system	Submit a monitoring and change-out plan for the system.	McCord	pt initial start up		08/01/12		CEC Approval
55	CEC		x		AQ-20	Drift Eliminator Monitoring and Reporting - Cooling Towers	Submit manufacturer guarantee data for the drift eliminator.	McCord	> 30d pt cooling tower operation		03/01/14		DELETED Per Eric Veerkamp
57	CEC		x		AQ-22	Water Testing Protocol - Cooling Tower	Submit a test and emissions calculation protocol.	McCord	> 30d pt testing				DELETED Per Eric Veerkamp
101	CEC	x			BIO-1	Designated Biologist - staff assignment	Assign Designated Biologist	AECOM	> 30d pt gd		12/17/10	9/27/2010 2/18/11	Approved /German
104	CEC	x	x		BIO-2	Designated Biologist - responsibilities	Des Bio Pre-con: Consult on the preparation of the BRMIMP; Oversee survey efforts for sensitive bio resources; Mark sensitive biological resource areas and inspect regularly;	AECOM			n/a	n/a	n/a
106	CEC	x			BIO-3	Biological Monitors - Staff assignment	Assign Bio Monitors and submit training verification	AECOM	> 30d pt gd		12/17/10	10-Dec-10	Approved (various dates)
109	CEC		x		BIO-4	Biological Monitors - responsibilities	Assist with surveys and in monitoring of site mobilization activities.	Guigliano	pt construction		Ongoing		
113	CEC	x			BIO-6	Worker Environmental Awareness Program (WEAP)	Prepare and Submit WEAP (including trainer resume)	AECom/Thomas	> 30d pt gd		12/17/10	3-Dec-10	Comments received 12/08/10
117	CEC	x			BIO-6	Worker Environmental Awareness Program (WEAP)	Submit Final WEAP.	Tetra Tech	> 10d pt gd		01/06/11	1/4/2011 1/14/11	Approved 1/14/11
120	CEC	x			BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Submit Draft BRMIMP	Tetra Tech	> 30d pt site mobilization		12/17/10	23-Nov-10	comments received 12/21/10
126	CEC	x			BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Submit final BRMIMP.	Tetra Tech	> 7d pt gd		01/09/11	1/5/2011 1/11/11	Approved 1/12/11
128		x	x		BIO-8	Impact Avoidance and Minimization Measures	If an active bird nest is detected, submit Nesting Bird Monitoring and Management Plan	Tetra Tech	< 7d pt noisy construction in nesting habitat		01/10/11	1/25/2011 2/25/11	3/14/2011
128	CEC		x		BIO-8	Impact Avoidance and Minimization Measures	Flag Project boundary in consultation with Des Bio and confine all disturbance and vehicles to within boundary. - PHASE II	Fluor	pt construction		04/25/11	completed	completed
128	CEC	x			BIO-8	Impact Avoidance and Minimization Measures	Flag Project boundary in consultation with Des Bio and confine all disturbance and vehicles to within boundary. - PHASE I	Fluor	pt construction		01/10/11	completed	completed
135	CEC	x			BIO-8	Impact Avoidance and Minimization Measures	Designated Biologist must monitor ground disturbing activities prior to pre-construction site mobilization.	Tetra Tech / Fluor	pt site mobilization		01/16/11	completed	
136	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	Flag and survey the alignments for the permanent perimeter fence and utility rights-of-way fencing <24hrs PT fence construction.	German	< 24hrs pt fence construction				
137	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	Submit DT survey reports. Ph I	Tetra Tech	< 30d after survey complete		02/17/11	2/25/2011 3/28/11	Comments received 3/14/11
137	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	Submit DT survey reports. P II	Tetra Tech	< 30d after survey complete		05/15/11		
140	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	If tortoises were relocated during fence installation, inspect fences at least two times a day for the first 7 days.	Tetra Tech	Monthly		Monthly		N/A
141	CEC	x			BIO-9	Desert Tortoise Clearance Surveys and Fencing	Install exclusion (supervised by Des. Bio or Monitors) fencing PT site clearing and grubbing.	Fluor	pt clearing and grading		01/18/11	completed	CEC approval 4/15/11
143	CEC	x			BIO-10	Desert Tortoise Translocation Plan	Submit final version of Desert Tortoise Translocation Plan.	Tetra Tech	< 30d pt site mobilization		12/17/10	11/29/10, resubmitted 12/28/10 resub 1/7/11 1/10/11 2/8/11	Approved 1/10/11
150	CEC	x			BIO-11	Desert Tortoise Compliance Verification	Des Bio - Notify the CPM > 14d pt construction ground disturbance. Ph I	Tetra Tech	> 14d pt gd		01/02/11	3-Jan-11	NA
150	CEC	x			BIO-11	Desert Tortoise Compliance Verification	Des Bio - Notify the CPM > 14d pt construction ground disturbance. Ph II	Tetra Tech	> 14d pt gd		04/17/11		
151	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Submit PAR analysis for compensation lands.	AECOM	< 60d after CPM approval				N/A per Wildlands
152	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Submit an Acquisition Proposal compensation lands.	Tetra Tech	< 12m after start of construction		01/12/12		
153	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Fund activities for Des Tort compensation. Submit verification of funding to CPM.	NextEra	< 60d CPM determining requirements				
153	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Complete initial protection and improvement activities of mitigation lands. Submit verification to CPM.	Tetra Tech	< 6m CPM determining requirements				
154	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	If delegated to third party, complete acquisition within 18 months of gd activities.	NextEra	< 18m after start of gd		07/09/12		
156	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	If mitigation is not completed 30d pt gd, post security for funding.	NextEra	> 30d pt gd		04/01/11		
157	CEC	x			BIO-12	Desert Tortoise Compensatory Mitigation	Notify (written) CPM of gd activity commencement.	Tetra Tech	> 30d pt gd		12/17/10	3-Jan-10	NA
157	CEC	x			BIO-12	Desert Tortoise Compensatory Mitigation	Notify (written) CPM of gd activity commencement. Phase II	Tetra Tech	> 30d pt gd		04/02/11		
158	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Submit a Preliminary Title Report, initial hazardous materials survey report, biological analysis for compensation land.	Tetra Tech					Wildlands Approved 10/11/11
159	CEC	x	x		BIO-12	Desert Tortoise Compensatory Mitigation	Fund long-term maintenance and management activities of the compensation lands. Submit verification of funding.	NextEra	< 30d after CPM approval				Wildlands Approved 10/11/11
160	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Acquire and transfer fee title to the compensation lands, a conservation easement over the lands, or both.	Fluor			11/01/11	Complete	Complete

Mustard = Submitted and Approved Green = Submitted, waiting on approval Pink = Upcoming Submittals Light Blue = include in the MCR

#	Agency	Pre-con	Const	ops	COC	Title	Description	Responsibility	COC Verification	Internal Due Date	Date Final Due	Date Submitted to Agency	Agency Status
161	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Alternative to compensation lands, contribute funds to the Renewable Energy Action Team (REAT).	Fluor			11/01/11	Complete	Complete
162	CEC		x		BIO-12	Desert Tortoise Compensatory Mitigation	Submit a Management Plan for Compensation Lands.	Fluor	< 180d after acquisition		11/01/11	Complete	Complete
164	CEC	x			BIO-13	Raven Management Plan	Submit final Raven Management Plan.	Tetra Tech	> 30d pt construction		12/17/10	12/3/2010 1/4/11 1/8/11 1/10/11 2/8/11 2/15/11	Approved 3/2/11
165	CEC	x			BIO-13	Raven Management Plan	Post payment to the REAT Account for Regional Raven Management Program. Submit documentation of payment..	NextEra	< 10d pt Project-related gd		01/07/11	23-Dec-10	CEC Approval 10/11/11
169	CEC	x			BIO-14	Weed Management Plan	Submit final Weed Management Plan.	Alice Karl	> 10d pt Project-related gd		01/06/11	8/25/2010 resubmitted 1/5/11 1/11/11	Approved 1/10/11
171	CEC		x	x	BIO-14	Weed Management Plan	Implement the Weed Management Plan.	Alice Karl	Ongoing				
174	CEC	x	x		BIO-15	Pre-construction Nest Surveys and Avoidance Measures	If active nests are found, establish buffer and Nesting Bird Monitoring Plan (see BIO-8); map locations and submit report. Des. Bio or Monitor must monitor nest until nestlings fledge.	Thomas Darden	until fledged		After Feb 1	24-Feb-11	Complete
174	CEC	x	x		BIO-15	Pre-construction Nest Surveys and Avoidance Measures	If active nests are found, establish buffer and Nesting Bird Monitoring Plan (see BIO-8); map locations and submit report. Des. Bio or Monitor must monitor nest until nestlings fledge. PLANT SITE, PHASE II	Thomas Darden	until fledged		After Feb 1	24-Feb-11	Complete
175	CEC	x	x		BIO-15	Pre-construction Nest Surveys and Avoidance Measures	Conduct two pre-construction nest surveys. If construction is inactive for > 3 weeks, additional surveys may be required.	Thomas Darden	< 7d pt construction		02/01/11	24-Feb-11	Complete
176	CEC	x	x		BIO-15	Pre-construction Nest Surveys and Avoidance Measures	Submit letter report of nest survey results.	Thomas Darden	pt gd		04/22/11	24-Feb-11	Complete
177	CEC		x		BIO-15	Pre-construction Nest Surveys and Avoidance Measures	Avoid construction in buffer zones established for active bird nests as determined and flagged by Des Bio.	Thomas Darden	until fledged		04/22/11	24-Feb-11	Complete
179	CEC	x			BIO-16	Avian Protection Plan.	Submit a final Avian Protection Plan.	Tetra Tech	> 30d pt construction-related gd		12/17/10	12/6/2010 1/4/11	Approved 1/12/11
180	CEC		x	x	BIO-16	Avian Protection Plan.	Implement an Avian Protection Plan	Tetra Tech / Operations	Ongoing			Submitted Jan 2011.	Submitted Jan 2011.
185	CEC		x		BIO-17	American Badger and Desert Kit Fox Impact Avoidance & Minimization Measures	Submit a report of badger and kit fox survey results. Ph I	Nextera Energy	< 30d after survey complete		02/17/11	2/25/2011 3/28/11	CEC approval 4/15/11
185	CEC		x		BIO-17	American Badger and Desert Kit Fox Impact Avoidance & Minimization Measures	Submit a report of badger and kit fox survey results. Ph II	Nextera Energy	< 30d after survey complete		05/15/11		CEC approval 4/15/11
186	CEC		x		BIO-17	American Badger and Desert Kit Fox Impact Avoidance & Minimization Measures	Perform pre-construction surveys for badger and kit fox dens. Ph II	Thomas Darden	pt construction		03/15/11	Ongoing	
187	CEC	x			BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Notify agencies that a relocation of owls is necessary.	Thomas Darden	> 10d after survey complete		04/15/11		N/A
190	CEC		x		BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Provide a land management plan.	Tetra Tech	< 90d after acquisition				N/A
191	CEC		x		BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	Submit verification to agencies that compensation land or easements have been acquired.	Tetra Tech	< 18m after start of construction		07/09/12		Approved Wildlands 10/11/11
193	CEC		x		BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Submit acquisition proposal and a PAR analysis.	AECOM	> 90d pt acquisition				N/A per Approved Wildlands/REAT 10/11/11
194	CEC	x			BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	Conduct pre-construction surveys for burrowing owls. Ph I	Tetra Tech	< 30d pt construction		01/16/11	Completed	Approved report 3/14/11
194	CEC	x			BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	Conduct pre-construction surveys for burrowing owls. Ph II	Tetra Tech	< 30d pt construction		04/01/11		Approved report 3/14/11
195	CEC	x	x		BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Establish Non-Disturbance Buffer Fencing (250 radius). Provide documentation that fence has been installed. Phase II	Tetra Tech	> 10d pt construction-related gd		04/22/11		Approved Wildlands 10/11/11
195	CEC	x	x		BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Establish Non-Disturbance Buffer Fencing (250 radius). Provide documentation that fence has been installed. Phase I	Tetra Tech	> 10d pt construction-related gd		01/06/11	NA	N/A
196	CEC	x	x		BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Provide land/mitigation compensation security verification.	Tetra Tech	> 30d pt construction-related gd		12/17/10	23-Dec-10	Approved Wildlands 10/11/11
198	CEC	x			BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	If an active owl burrow is detected: Submit Burrowing Owl Relocation and Mitigation Plan.	Tetra Tech	< 30d after survey complete		12/17/10	11/26/2010 resubmitted 1/7/11	Approved 1/11/11
199	CEC	x			BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Rare Plant Surveys - Submit drawings and plans with ESAs and Section A Measures.	Tetra Tech	> 30d pt gd		12/17/10	3-Jan-11	Approved 1/12/11
200	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	If a Distribution Study is implemented as contingency mitigation, initiate study within 6 months from the start of construction.	Tetra Tech	< 6m after start of construction		07/15/11		N/A- Distribution Study not implemented
201	CEC	x			BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	If compensatory mitigation is required, post Security for acquisition and enhancement funds.	NextEra	> 30d pt gd		12/17/10	NA	NA
202	CEC	x			BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Rare Plant Surveys - Submit data, field forms and summary of results.	Tetra Tech	< 2w after survey complete			22-Oct-10	Approved 11/2/2010
205	CEC	x			BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Rare Plant Surveys - Submit the Final Summer-Fall Botanical Survey Report.	Tetra Tech	> 30d pt gd		12/17/10	N/A	NA

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206	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Habitat Enhancement: If proposed, secure approval of a Habitat Enhancement/Restoration Plan.	Tetra Tech	< 6m after start of construction		07/15/11		N/A No proposed Habitat Enhancement
207	CEC	x			BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Rare Plant Surveys - Submit draft Special-Status Plant Mitigation Plan.	Tetra Tech	> 30d pt gd		12/17/10	N/A	NA
209	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Compensatory Mitigation: Deposit the required funds and submit verification of deposit.	NextEra	> 30d after acquisition				Wildlands Approved 10/11/11
210	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Status and Distribution: Post funds for selected mitigation.	NextEra	< 18m after start of gd		07/09/12		Wildlands Approved 10/11/11
211	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Compensatory Mitigation: Submit a formal acquisition proposal and draft Management Plan.	Tetra Tech	> 90d pt acquisition				Wildlands Approved 10/11/11
213	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Compensatory Mitigation: Complete acquisition and submit verification.	Tetra Tech	< 18 m after start of gd		07/09/12		N/A per CEC on 11/02/10
214	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Habitat Enhancement: initiate activities > 12m from the start of construction.	Tetra Tech	< 12m after start of construction		01/12/12		N/A No proposed Habitat Enhancement
215	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Compensatory Mitigation: Submit any agreements with an approved, delegated third party.	Tetra Tech	> 90d pt acquisition				N/A per CEC on 11/02/10
216	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Status and Distribution: If selected, initiate study <6m after gd.	Tetra Tech	< 180d after gd		07/15/11		N/A per CEC on 11/02/10
219	CEC	x			BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Assign a Designated Botanist.	Tetra Tech	none		none	9/27/2010 2/8/11	Approved 10/15/10
220	CEC	x			BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Include Special-Status Plant discussion in the Worker Environmental Awareness Program (WEAP).	Tetra Tech			12/17/10	12/3/2010 resubmitted 1/4/11	Approved 1/14/11
222	CEC	x			BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Establish and mark boundaries for ESAs PT start of any ground- or vegetation-disturbing activities.	Tetra Tech	pt gd		01/16/11	completed	NA
230	CEC	x			BIO-19-B	Section B: Special-Status Plant Impact Avoidance, Minimization and Compensation	If a special-status plant is found, record extent of population using GPS. Assess the extent of the species (qualitatively) within one mile of Project boundaries.	Karl, Darden	pt construction		01/16/11	NA	NA
231	CEC	x			BIO-19-B	Section B: Special-Status Plant Impact Avoidance, Minimization and Compensation	Prior to the start of surveys, all crew members must visit reference sites (where available)	Tetra Tech	pt plant survey			completed	
232	CEC	x			BIO-19-C	Section C: Special-Status Plant Impact Avoidance, Minimization and Compensation	Collect seeds from affected Special-Status Plants and arrange for long-term storage prior to construction.	Tetra Tech	pt construction		01/16/11	NA	NA
235	CEC	x			BIO-19-C	Section C: Special-Status Plant Impact Avoidance, Minimization and Compensation	Special-status plants: CNDDB Rank plants -If detected within the Project Disturbance Area, prepare and implement a Mitigation Plan.	Tetra Tech	n/a		n/a	NA	NA
236	CEC	x			BIO-20	Sand Dunes / Mojave Fringe-Toed Lizard Mitigation	Post security for acquisitions and enhancement of MFTL habitat.	NextEra	> 30d pt construction-related gd		12/17/10	23-Dec-10	1/4/2011
237	CEC		x		BIO-20	Sand Dunes / Mojave Fringe-Toed Lizard Mitigation	Submit a MFTL Compensation Land Management Plan and associated funding.	Tetra Tech	< 180d after acquisition				Wildlands Approval 11/10/11
239	CEC		x		BIO-20	Sand Dunes / Mojave Fringe-Toed Lizard Mitigation	Submit a formal acquisition proposal and PAR analysis.	AECOM	> 90d pt acquisition				N/A per CEC on 11/02/10
240	CEC		x		BIO-20	Sand Dunes / Mojave Fringe-Toed Lizard Mitigation	Complete MFTL compensation land acquisition and submit verification.	Tetra Tech	< 18m after start of construction		07/09/12		Wildlands Approval 11/10/11
242	CEC		x		BIO-20	Sand Dunes / Mojave Fringe-Toed Lizard Mitigation	Provide funding for MFTL compensation lands OR deposit funds into NFWF's REAT Account.	NextEra					Wildlands Approval 11/10/11
250	CEC		x		BIO-21	Evaporation Pond Netting and Monitoring	Install a visual deterrent in addition to the mesh cover.	McCord					CEC Approval on 3/18/13
254	CEC		x		BIO-22	Mitigation for Impacts to State Waters	Submit a draft Management Plan for the drainages on the acquired compensation lands.	Tetra Tech / Fluor	< 180d after acquisition				Wildlands Approved 11/10/11
257	CEC	x			BIO-22	Mitigation for Impacts to State Waters	Notify agencies prior to disturbance and completion of work in jurisdictional waters.	Tetra Tech / Fluor	> 5d pt construction-related gd in state waters		01/10/11	3-Jan-11	NA
260	CEC		x		BIO-22	Mitigation for Impacts to State Waters	Transfer fee title or submit a conservation easement for compensation lands.	Genesis ECM					
261	CEC	x			BIO-22	Mitigation for Impacts to State Waters	Provide verification of Security 30d pt CR gd.	NextEra	> 30d pt construction-related gd		12/17/10	23-Dec-10	1/4/2011
262	CEC		x	x	BIO-22	Mitigation for Impacts to State Waters	Drainage BMPs: Minimize road building, construction activities and vegetation clearing within ephemeral drainages to the extent feasible. Do not allow water containing mud, silt, or other pollutants from grading, aggregate washing, or other activities to enter ephemeral drainages or be placed in locations that may be subjected to high storm flows. Comply with all litter and pollution laws. Locate spoil sites at least 30 feet from the boundaries and drainages or in locations that may be subjected to high storm flows, where spoils might be washed back into drainages. Prevent hazMat from contaminating the soil and/or entering waters of the state. Do not place any material of any kind (including soil) into or capable of going into waters of the state. Remove excess material after operations is complete. Do not perform equipment maintenance within 150ft of a drainage.	Genesis Project management/ECM	Ongoing					Wildlands Approved 11/10/11
263	CEC	x			BIO-22	Mitigation for Impacts to State Waters	Provide written verification (i.e., through incorporation into the BRMIMP) to the CPM that BMPs shall be implemented.	ECM	> 30d pt construction-related gd in state waters		01/11/11	23-Nov-10	NA

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265	CEC		x		BIO-22	Mitigation for Impacts to State Waters	Submit verification of acquisition.	McCord	< 18m after start of construction		07/09/12		
270	CEC	x			BIO-23	Decommissioning and Closure Plan	Post security for Decommissioning and Closure Plan.	NextEra	> 10d pt construction-related gd		01/06/11	4-Jan-11	Approved 1/11/11
273	CEC	x			BIO-23	Decommissioning and Closure Plan	Submit a draft Decommissioning and Closure Plan.	Worley Parsons	> 30d pt construction-related gd		12/17/10	25-Aug-10	Approved 10/15/2010
276	CEC	x			BIO-24	Revegetation of Temporarily Disturbed Areas	Submit to the CPM a final agency-approved Revegetation Plan.	Tetra Tech	> 30d pt construction-related gd		12/17/10	8/25/2010 resubmitted 12/29/10	Approved 1/12/11
280	CEC			x	BIO-27	Couch's Spadefoot Toad Impact Avoidance and Minimization Measures	Conduct Spadefoot Toad surveys. Submit findings	Alice Karl	Oct-10		10/30/10	25-Oct-10	N/A
280	CEC			x	BIO-27	Couch's Spadefoot Toad Impact Avoidance and Minimization Measures	If ponds are created, submit compliance documentation yearly.	Tetra Tech	Jan-31 Annually			n/a	N/A
282	CEC	x			BIO-27	Couch's Spadefoot Toad Impact Avoidance and Minimization Measures	Submit a final CST Protection and Mitigation Plan.	Tetra Tech	> 30d pt construction-related gd		12/17/10	11/20/2010 resubmitted 1/5/11 1/10/11	Approved 1/11/11
287	CEC		x		BIO-28	Golden Eagle Inventory and Monitoring	Submit results of eagle inventory.	Tetra Tech	< 30d of survey completion		06/30/11		
288	CEC	x			BIO-29	in-Lieu Mitigation Option	Notify CEC if an in-lieu fee is preferred for bio mitigation.	NextEra	pt construction-related gd		01/16/11	23-Dec-10	NA
289	CEC	x			CUL-1	prehistoric Trails Network Cultural Landscape (PTNCL) Documentation and Poss. NRHP Nomination	Submit notice of fund transfer.	NextEra	< 10d of transfer			27-Sep-10	Approved 10/15/10
290	CEC	x			CUL-1	PTNCL Documentation and Poss. NRHP Nomination	Contribute funds for the PTNCL Documentation and Possible NRHP Nomination program.	NextEra	upon receipt of invoice			27-Sep-10	Approved 10/15/10
291	CEC	x			CUL-2	Desert Training Center CAL-AZ Maneuver Area Cultural Landscape Documentation and Poss. NRHP Nomination	Submit notice of fund transfer.	NextEra	< 10d of transfer			27-Sep-10	Approved 10/15/10
292	CEC	x			CUL-2	Desert Training Center CAL-AZ Maneuver Area Cultural Landscape Documentation and Poss. NRHP Nomination	Contribute funds for the Documentation and Possible NRHP Nomination program (DTCCL)	NextEra	upon receipt of invoice			27-Sep-10	Approved 10/15/10
293	CEC	x			CUL-3	Cultural Resources Personnel	Assign a cultural resource specialist (CRS).	AECom	pt site mobilization		01/16/11	26-Aug-10	Approved 10/18/10
295	CEC	x			CUL-3	Cultural Resources Personnel	Obtain services of a specialist backhoe operator during excavation of CA-Riv-9072	AECom	NA		NA	5-Apr-12	
297	CEC	x			CUL-3	Cultural Resources Personnel	Submit resumes for a CRS, alternate CRS (optional), prehistoric archaeologist, ethnographer, historical archaeologist, project geoarchaeologist.	AECom	> 75d pt gd		11/02/10	26-Aug-10	CRS, Approved 10/18/10 Alt CRS (addl info submitted 10/29) PPA, Approved 10/18/10 PHA, Approved 10/18/10 GE (addl info submitted 10/29)
299	CEC	x	x		CUL-3	Cultural Resources Personnel	Submit confirmation of CR staff availability for CUL-8, 10, 11, 12 and 17.	AECom	10d pt data recovery		01/07/11	Completed with resume submittal	NA
301	CEC	x			CUL-3	Cultural Resources Personnel	Submit letter with names and quals of CR Monitors.	AECom	15d pt data recovery		01/02/11	10-Dec-10	Approved 1/13/11
301	CEC	x			CUL-3	Cultural Resources Personnel	Submit letter with names and quals of field crew members.	AECom	15d pt data recovery		01/02/11	NA	N/A
303	CEC	x	x		CUL-4	Project Documents for Cultural Resources Personnel	If construction is phased, submit maps and drawings. Provide phase schedule to CRS and CPM.	Jessica Auch	15d pt start of each phase		01/01/11	Completed with CIVIL-1	N/A
303	CEC	x	x		CUL-4	Project Documents for Cultural Resources Personnel	If construction is phased, submit maps and drawings. Provide phase schedule to CRS and CPM. Phase II	Jessica Auch	15d pt start of each phase		04/16/11		N/A
304	CEC	x			CUL-4	Project Documents for Cultural Resources Personnel	Submit CR data and maps to CR staff and CPM.	Jessica Auch	> 60d pt gd		11/17/10	1-Dec-10	Pending - addl info requested
305	CEC	x	x		CUL-4	Project Documents for Cultural Resources Personnel	Submit any changes in footprint.	Jessica Auch	15d pt gd		01/01/11	1/4/2011 3/18/11	Approved 3/30/11
307	CEC	x			CUL-5	Cultural Resources Monitoring and Mitigation Plan	Submit information from curation facility.	Jessica Auch	> 30d pt gd		12/17/10	12-Nov-10	NA
308	CEC	x			CUL-5	Cultural Resources Monitoring and Mitigation Plan	Submit letter agreement to fund curation fees.	Jessica Auch	> 20d pt gd		12/27/10	10-Dec-10	NA
309	CEC	x			CUL-5	Cultural Resources Monitoring and Mitigation Plan	Submit the CRMMP.	Jessica Auch	> 30d pt gd		03/01/11	3/1/2011 4/4/11	
313	CEC	x			CUL-7	Worker Environmental Awareness Program	CRS to submit training program.	Jessica Auch	> 30d pt gd		12/17/10	12/10/2010 resubmitted on 1/4/11	comments received 2/28/11
314	CEC	x			CUL-7	Worker Environmental Awareness Program	CRS to submit WEAP training acknowledgement form.	AECOM	> 15d pt gd		01/01/11		
317	CEC		x		CUL-8	Construction Monitoring Program	Geoarchaeologist to observe and sample all trenching of Tline as part of PTCNL documentation and possible NRHP nomination program (CUL-1).	AECOM	1-Aug-11				N/A per a memo from the CEC on 2/19/13.
326	CEC	x			CUL-8	Construction Monitoring Program	CPM to provide CRS with daily monitoring form.	AECOM	> 30d pt gd		12/17/10	26-Nov-10	NA
329	CEC	x			CUL-9	Authority to Halt Construction; Treatment of Discoveries	Submit confirmation that CRS and CR staff have stop-work authority and notification requirements.	Jessica Auch	> 30d pt gd		12/17/10	10-Dec-10	NA
332	CEC	x			CUL-10	WEAP - Cultural Considerations	Notify CPM that data recovery for small site has begun.	Jessica Auch	> 15d pt data recovery		01/01/11	21-Dec-10	NA
332	CEC	x			CUL-10	WEAP - Cultural Considerations	Notify CPM that data recovery for small site has begun.Phase II	Jessica Auch	> 15d pt data recovery		03/10/11	9-Mar-11	3/28/2011
338	CEC	x			CUL-11	Data Recovery for Large sites	Notify CPM of recovery at large sites.	AECOM	> 45d pt gd at site		12/02/10	21-Dec-10	NA
340	CEC		x		CUL-12	Surface Collection with Sampling for site CA-RIV-9073	Notify CMP of collection at CA-Riv-9072 is complete and PRIOR to CR gd in that location.	AECOM	< 7d pt gd at site		04/25/11		CEC notification on 8/05/11
341	CEC	x			CUL-12	Surface Collection with Sampling for site CA-RIV-9074	Notify CPM that collection at CA-Riv-9072 will commence.	Jessica Auch	> 15d pt data recovery		01/01/11	9-Mar-11	3/28/2011

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343	CEC	x			CUL-12	Surface Collection with Sampling for site CA-RIV-9076	Submit a preliminary letter report detailing finds at CA-Riv-9072. Can be included with report for CUL-11.	Jessica Auch					complete
346	CEC	x	x		CUL-13	Flag and Avoid	Flag buffer zone around sites CA-Riv-0260, CA-Riv-0663, and CA-Riv-9072.	AECOM	pt gd at site		05/01/11		N/A
347	CEC				CUL-14		DELETED	Jessica Auch					
348	CEC				CUL-15		DELETED	Jessica Auch					
349	CEC	x			CUL-16	Native American Assessment of Impacts and Mitigation Recommendations for Ethnographic Resources	Submit results of Native American consultation.	Jessica Auch	> 15d pt construction		01/01/11		Complete
350	CEC	x			CUL-16	Native American Assessment of Impacts and Mitigation Recommendations for Ethnographic Resources	Notify CPM of consultation.	Jessica Auch	> 30d pt construction		12/17/10	12-Dec-10	NA
350	CEC	x			CUL-16	Native American Assessment of Impacts and Mitigation Recommendations for Ethnographic Resources	Documentation that security gate/guard is in place.	Jessica Auch	pt grading		05/01/11		Complete
351	CEC	x			CUL-16	Native American Assessment of Impacts and Mitigation Recommendations for Ethnographic Resources	Consult with Native American representatives regarding to the McCoy Spring National Register Archaeological District and sites CA-Riv-0523, CA-Riv-3149, CA-Riv-4569, and CA-Riv-4699	Jessica Auch	pt construction		Ongoing through CEC specialist under CUL-1	Ongoing	
352	CEC	x			CUL-17	Historic Period Site Mapping and In-Field Artifact Analysis	Include in CRMMP a data recovery plan for the historic-period archaeological resources.	AECOM	pt gd		01/16/11	1-Mar-11	
353	CEC	x			CUL-17	Historic Period Site Mapping and In-Field Artifact Analysis	Submit to CPM letter report that data recovery is complete.	AECOM	< 7d of data recovery completion			2/1/2011 2/11/11	Approved 2/14/11
355	CEC	x	x		CUL-17	Historic Period Site Mapping and In-Field Artifact Analysis	Notify CPM that historic-period site mapping and in-field artifact analysis will commence.	AECOM	> 15d pt gd within 30m of site			17-Jan-11	Complete
355	CEC	x	x		CUL-17	Historic Period Site Mapping and In-Field Artifact Analysis	Notify CPM that historic-period site mapping and in-field artifact analysis will commence. Ph II	AECOM	> 15d pt gd within 30m of site			9-Mar-11	3/28/2011
359	CEC		x		HAZ-2	Hazardous Materials Business Plan, Spill Prevention, Control and Countermeasure Plan, Process Safety Management Plan	Submit a final Process Safety Management Plan.	Fluor	> 60d pt receipt of hazmat	02/21/13	03/07/13		NOT REQUIRED PER THE CEC 1/28/13
359	CEC		x		HAZ-2	Hazardous Materials Business Plan, Spill Prevention, Control and Countermeasure Plan, Process Safety Management Plan	Submit a final Spill Prevention, Control, and Countermeasure Plan.	Mosley	> 60d pt receipt of hazmat	02/21/13	03/07/13		Approved by the CEC on 2/12/12
360	CEC		x		HAZ-3	Safety Management Plan for Hazardous Material	Submit a Safety Management Plan.	McCord	> 60d pt receipt of hazmat	02/25/13	03/11/13	3/08/13 to the CEC # 2013-013	Approved by the CEC on 5/2/13
361	CEC		x	x	HAZ-3	Safety Management Plan for Hazardous Material	Implement Safety Management Plan.	Operations	Ongoing				
362	CEC		x		HAZ-4	HTF pipe system isolation valves	Submit design drawings showing the number, location, and type of HTF isolation valves.	Fluor	> 30d pt const. of solar array		08/31/11		
363	CEC	x			HAZ-5	Construction Site Security Plan	Submit a Construction Security Plan Verification.	Fluor	> 30d pt construction		12/17/10	2-Dec-10	Approved 12/10/10
365	CEC		x		HAZ-6	Operations Site Security Plan	Submit a Operations Site Security Plan.	McCord	> 30d pt receipt of hazmat	03/23/13	04/06/13	3/15/2013 resubmitted 4/11/13	Approved by the CEC on 5/2/13
368	CEC	x			NOISE-1	Resident Notification- Pre-construction	Notify residents within 2 miles of the site and 0.5 mile of linears of start of construction. (Include phone # for noise complaints)	Fluor	> 15d pt gd		01/01/11	14-Jan-11	CEC Approval 1/19/11
369	CEC		x	x	NOISE-1	Resident Notification- Pre-construction	Maintain telephone number for noise complaints until facility is operational for one year.	Fluor / Operations	1yr				
370	CEC		x		NOISE-1	Resident Notification- Pre-construction	Post telephone number for noise complaints at the site during construction, visible to passersby.	Fluor	Ongoing				
371	CEC	x			NOISE-1	Resident Notification- Pre-construction	Submit statement and documentation of compliance to CPM.	Fluor	pt gd		01/16/11	14-Jan-11	
376	CEC	x			NOISE-3	Noise Control Program	Submit a Noise Control Program and a statement of commitment.	Fluor	> 30d pt gd		12/17/10	30-Nov-10	Approved 12/20/10
380	CEC	x			Soil & Water-1	Drainage Erosion and Sedimentation Control Plan	Submit final Drainage Erosion and Sedimentation Control Plan. Phase II	Fluor	> 30d pt site mobilization		04/02/11	Prelim 3/9/11 Draft 3/22/11	Approved 1/21/11
380	CEC	x			Soil & Water-1	Drainage Erosion and Sedimentation Control Plan	Submit final Drainage Erosion and Sedimentation Control Plan. PHASE I	Fluor	> 30d pt site mobilization		12/22/10	27-Dec-10	Approved 1/21/11
391	CEC	x			Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Send notices to all owners and conduct a well reconnaissance within 2 miles of the project.	Worley Parsons				completed	Complete
398	CEC	x			Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Monitor wells, seeps and springs to establish preconstruction conditions.	Worley Parsons			12/17/10	completed	Complete
399	CEC	x			Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Submit report of all pre-construction items, including calculations and assumptions.	Worley Parsons	> 30d pt construction		12/17/10		Complete
401	CEC	x			Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Submit a Groundwater Level Monitoring and Reporting Plan to the CPM for review and approval.	Worley Parsons	> 30d pt construction		12/17/10	3-Dec-10	Approved 12/21/10
408	CEC	x	x		Soil & Water-4	Project GW Wells, Pre-Well Installation	Submit a copy of County concurrence that the proposed well construction activities comply with all county well requirements and the water well permit program	Fluor	> 30d pt construction of GW well		04/01/11		Complete
409	CEC		x		Soil & Water-4	Project GW Wells, Pre-Well Installation	Submit documentation that drilling was conducted in compliance with 23 CCR, sections 2510 et seq,	Fluor	< 15d after GW well completion		07/16/11		Complete
411	CEC		x		Soil & Water-4	Project GW Wells, Pre-Well Installation	Submit a Well Completion Report. Concurrently, submit a copy of well drilling logs, water quality analyses, and any inspection reports.	Fluor	< 60d after GW well constuction		08/29/11		Complete
412	CEC	x	x		Soil & Water-4	Project GW Wells, Pre-Well Installation	Submit to CPM a copy of the water well construction packet submitted to the County of Riverside.	Fluor	> 60d pt construction of GW well		03/02/11	31-Mar-11	Complete
417	CEC	x			Soil & Water-5	Construction and Operation Water Use	Install and maintain metering devices as part of the water supply and distribution system (gpd and total). Submit compliance documentation.	Fluor	> 30d pt construction		12/17/10	31-Jan-11	Complete
423	CEC	x			Soil & Water-8	Revised Project Drainage Report and Plans	Submit a Revised Project Drainage Report with the 30 percent Grading and Drainage Plans.	Fluor	> 60d pt site mobilization (plant)		04/02/11	Prelim 3/9/11 Draft 3/22/11	Complete

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424	CEC		x		Soil & Water-9	Detailed FLO-2D Analysis	Submit a detailed FLO-2D analysis with the 30 percent Grading and Drainage Plans and revised Project Drainage Report.	Fluor	> 60d pt site mobilization (plant)		04/02/11	Prelim 3/9/11 Draft 3/22/11	Complete
425	CEC		x		Soil & Water-10	Collector and Conveyance Channel Compliance with RCFCWCD	Submit two copies of the 30 percent channel design drawings.	Fluor	> 60d pt site mobilization (plant)		04/02/11	Prelim 3/9/11	Complete
426	CEC		x		Soil & Water-11	Channel Erosion Protection	Incorporate channel erosion protection methods (except "I") in the Grading and Drainage Plans and all submittals required in SOIL&WATER-8 through SOIL&WATER-10.	Fluor	> 60d pt site mobilization (plant)		03/02/11	Prelim 3/9/11	Complete
435	CEC	x			Soil & Water-14	Decommissioning and Closure Plan - Water and Wind Considerations	Submit Decommissioning Plans.	Worley Parsons	> 60d pt site mobilization		11/17/10	22-Oct-10	Approved 10/29/10
438	CEC	x			Soil & Water-15	Colroado River Flow Mitigation, Water Supply Plan	Submit a Water Supply Plan.	Jeff Harvey	> 30d pt GW extraction for const.		12/17/10	12/3/2010 resub. 2/1/11	Complete
440	CEC	x			Soil & Water-17	Ground Subsidence Monitoring and Action Plan	Submit the Ground Subsidence Monitoring and Action Plan.	Worley Parsons	> 30d pt GW extraction for const.		12/17/10	8-Dec-10	Approved 12/23/10
446	CEC	x			Soil & Water-19	Estimation of Impacts to PVMGB	Submit a report detailing results of the PVMGB underflow depletion modeling effort.	Worley Parsons	< 30d pt site mobilization		03/15/11	19-Mar-11	Complete
447	CEC	x			Soil & Water-20	Groundwater Quality Monitoring and Reporting Plan	Submit a Groundwater Quality Monitoring and Reporting Plan > 6 weeks pt start of construction.	Worley Parsons	> 45d pt construction		12/02/10	27-Oct-10	Approved 12/21/10
449	CEC	x			Soil & Water-20	Groundwater Quality Monitoring and Reporting Plan	Submit a Well Monitoring Installation and Groundwater Quality Network Report.	Worley Parsons	> 30d pt construction		12/17/10	3-Dec-10	Approved 12/21/10
450	CEC	x			Soil & Water-20	Groundwater Quality Monitoring and Reporting Plan	Commence groundwater quality monitoring prior to construction.	Worley Parsons	pt construction		12/18/10		CEC Approval 12/21/10
451	CEC	x			Soil & Water-20	Groundwater Quality Monitoring and Reporting Plan	Submit GW quality and level monitoring data.	Worley Parsons	> 30d pt GW extraction for const.		12/17/10	3-Dec-10	NA
452	CEC	x			TRANS-1	Traffic Control Plan	Submit copies of comment letters received from County and Caltrans and any associated changes to Traffic Plan.	Fluor	> 30d pt construction		12/17/10	16-Dec-10	NA
453	CEC	x			TRANS-1	Traffic Control Plan	Submit a Traffic Control Plan plus a copy of the transmittal letter to Caltran and County.	Fluor	> 60d pt gd		11/18/10	11/23/2010 resubmitted 1/6/11 1/14/11	Approved 1/17/11
453	CEC	x			TRANS-1	Traffic Control Plan	Submit a Traffic Control Plan plus a copy of the transmittal letter to Caltran and County. Phase II	Fluor	> 60d pt gd		03/02/11		
463	CEC	x			TRANS-5	Restoration of Public Roads, Easements, and ROWs	Submit photographs or video of all affected public roads, easements and ROWs.	Fluor	> 30d pt site mobilization		12/17/10	21-Dec-10	NA
464	CEC	x			TRANS-5	Restoration of Public Roads, Easements, and ROWs	Notify the County and Caltrans of schedule for construction.	Fluor	pt site mobilization		01/16/11	Completed 1/24/11	NA
469	CEC		x		TLSN-1	Compliance with Cal Pub Utility Commissions (Tline)	Submit letter signed by CA registered electrical engineer affirming the Tlines will be constructed in accordance with the stated requirements.	Fluor	> 30d pt construction of Tline		06/24/12		CEC Approval 1/16/13
476	CEC	x	x		VIS-1	Surface Treatment of Non-Mirror Project Structures and Buildings	Submit a Surface Treatment Plan.	Fluor	> 30d pt ordering		06/30/11		
494	CEC	x			VIS-5	Visual Mitigation and Re-vegetation of Staging Area	Meet with CPM to discuss how staging area site plan will minimize visibility from rest area.	Fluor	> 90d pt construction		10/18/10	12/28/2010 1/14/11	Approved 1.17.11
495	CEC	x			VIS-6	Reduction of Form, Line and Texture Contrast	Meet with the CPM to discuss incorporation of visual contrast reduction into the design plans.	Fluor	> 90d pt construction		10/18/10	12-Oct-10	Approved 10/25/10
497	CEC	x			WASTE-2	PE or PG - Staff Assignment	Submit resume for a PE or PG.	NextEra	> 30d pt site mobilization		12/17/10	4-Nov-10	Approved 11/30/10
500	CEC	x			WASTE-4	Construction Waste Management Plan	Submit a Construction Waste Management Plan.	Fluor	> 30d pt construction		12/17/10	2-Dec-10	Approved 12/16/10
501	CEC	x			WASTE-5	UXO Identification, Training and Reporting Plan	Submit a UXO Identification, Training and Reporting Plan.	Tetra Tech	> 30d pt construction		12/17/10	2-Dec-10	Approved 12/21/10
515	CEC	x			Worker Safety-1	Project Construction Safety and Health Program	Submit the Construction Emergency Action Plan and the Fire Prevention Plan to Riverside County Fire Department for review and comment prior to CPM submittal.	Fluor/Tomey Pouncy	pt CPM submittal		12/03/10	completed	Approved 1/14/11
516	CEC	x			Worker Safety-1	Project Construction Safety and Health Program	Submit the Project Construction Safety and Health Program, to include Personal Protective Equipment Program; Exposure Monitoring Program; Injury and Illness Prevention Program; Heat Stress Protection Plan; Emergency Action Plan; and a Construction Fire Prevention Plan.	Fluor	> 30d pt construction		12/17/10	12/16/2010 1/13/11	Approved 1/14/11
517	CEC		x	x	Worker Safety-2	Project Operations Safety and Health Program	Submit a Project Operations and Maintenance Safety and Health Program to include: Injury and Illness Prevention Plan; Operation Heat Stress Protection Plan; BMPs for the storage and application of herbicides; Emergency Action Plan; Hazardous Materials Management Program; Fire Prevention Plan; and Personal Protective Equipment Program.	Mosley	> 30d pt first fire or commissioning				CEC Approval on 5/02/13
519	CEC	x			Worker Safety-3	Construction Safety Supervisor - Staff Assignment	Submit name and contact information for the Construction Safety Supervisor (CSS).	Fluor	> 30d pt site mobilization		12/17/10	11/16/2010 1/11/10 1/18/11 4/4/11	CEC Approval 4/15/11
520	CEC	x	x		Worker Safety-4	Construction Safety Supervisor - Staff Assignment	CSS to include compliance documentation in Monthly Compliance Report.	Fluor	Monthly				
521	CEC	x			Worker Safety-4	CBO Payments	Submit verification of agreement with CBO for a Safety Monitor to CPM.	NextEra	> 60d pt construction		11/17/10	3-Nov-10	CEC Approval 1/19/11
522	CEC	x			Worker Safety-4	CBO Payments	Post payment to CBO for a Safety Monitor.	NextEra	TBD w CBO		01/01/11	14-Jan-11	CEC Approval 7/19/11
523	CEC		x	x	Worker Safety-5	Automatic External Defibrillator onsite	Install a portable automatic external defibrillator (AED) on site during construction and operations.	Fluor / Operations	Ongoing		05/01/11		
524	CEC	x	x	x	Worker Safety-5	Automatic External Defibrillator onsite	Conduct AED training program in accordance with CPM-approved program.	Fluor / Operations	Ongoing		05/01/11		
525	CEC	x			Worker Safety-5	Automatic External Defibrillator onsite	Submit verification that AED exists onsite and the training and maintenance program.	Fluor	> 60d pt site mobilization		11/17/10	3-Nov-10	Approved 1.14.11
526	CEC		x		Worker Safety-6	Emergency Access Gate, Spur Road	Submit to the RCFD and CPM preliminary plans of location and details for a second access gate to the site.	Fluor	> 60d pt site mobilization (plant)		03/02/11		RCFD Approved 5/16/11
527	CEC		x		Worker Safety-6	Emergency Access Gate, Spur Road	Submit revised and final plans for second access gate. Include letter or statement regarding comments from RCFD.	Fluor	> 30d pt site mobilization (plant)		04/01/11		Complete

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528	CEC		x		Worker Safety-6	Emergency Access Gate, Spur Road	Submit verification that all-terrain fire engines have been delivered and acceptable to RCFD. (see text for alternative measures requirements)	Fluor/McCord	> 180d pt receipt of HTF		11/06/12		CEC/RCFD Agreement to satisfy on 12/28/12
529	CEC	x			Worker Safety-7	Riv Co Fire Department, Capital and Operating Costs Funding	Submit either: agreement with the RCFD re funding for capital costs for fire protection/response OR documentation that a letter of credit has been provided to the RCFD and will continue annually.	NextEra	> 30d pt site mobilization		12/17/10	12/21/2010 1/12/11	CEC temp Approval 11/16/12
531	CEC	x			Worker Safety-8	Dust Control Plan	Submit Dust Control Plan.	Fluor w/ Tt support	> 60d pt site mobilization		11/17/10	1-Nov-10	Approved 1/13/11
539	CEC	x			GEN-2	Facility Design Submittals to CBO and CPM	Submit a schedule of facility design submittals, and master drawing and master specifications lists before submitting the initial engineering designs for CBO review.	Fluor	< 60d pt grading		11/17/10	17-Nov-10	Approved 12.20.10
542	CEC	x			GEN-4	Resident Engineer - Staff Assignment	Assign a California- registered architect, or a structural or civil engineer, as the resident engineer (RE) in charge of the project.	Fluor	> 30d pt grading		12/17/10	14-Jan-11	CEC Approved 1/19/11
543	CEC	x			GEN-4	Resident Engineer - Staff Assignment	Notify the CPM of the CBO's approvals of the RE and other delegated engineer(s).	Fluor	< 5d of approval		12/08/10	30-Dec-10	Approved 1/19/11
544	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Submit resume of the soils (geotechnical) engineer.	Fluor	> 30d pt grading		12/17/10	1-Dec-10	Approved
545	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Notify CPM of CBO approval of soils (geotechnical) engineer.	Fluor	< 5d of approval		12/08/10	30-Dec-10	NA
546	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Submit resume of the civil engineer.	Fluor	> 30d pt grading		12/17/10	1-Dec-10	Approved
547	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Submit resume of the mechanical engineer .	Fluor	> 30d pt construction		12/17/10	1-Dec-10	Approved
548	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Submit resume of the engineering geologist.	Fluor	> 30d pt grading		12/17/10	1-Dec-10	Approved
549	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Notify CPM of CBO approval of civil eng assignment.	Fluor	< 5d of approval		12/08/10	21-Dec-10	NA
550	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Notify CPM of CBO approval of mech eng assignment.	Fluor	< 5d of approval		12/08/10	21-Dec-10	NA
551	CEC	x			GEN-5	Civil Engineer or Structural Engineer - Staff Assignment	Notify CPM of CBO approval of eng. geologist assignment.	Fluor	< 5d of approval		12/08/10	21-Dec-10	NA
557	CEC		x		GEN-6	Special Inspector(s) - Staff Assignment	Submit resumes of special inspector(s).	Fluor	> 15d pt activity			25-Feb-11	approved by CBO 1/25/11
566	CEC	x	x		CIVIL-1	CBO Submittals- Drainage and Grading, Statement of Submittal	Submit to the CBO: (Ph I) 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications; 4. Soils, geotechnical, or foundation investigations reports.	Fluor	> 15d pt grading		12/22/10	23-Dec-10	Approved 1/21/11 no phasing
566	CEC	x	x		CIVIL-1	CBO Submittals- Drainage and Grading, Statement of Submittal	Submit to the CBO: (PH II) 1. Design of the proposed drainage structures and the grading plan; 2. An erosion and sedimentation control plan; 3. Related calculations and specifications; 4. Soils, geotechnical, or foundation investigations reports.	Fluor	> 15d pt grading		04/16/11		Approved 1/21/11 no phasing
577	CEC		x		STRUC-1	CBO Submittals - Major Structure or Facility design Component, Statement of Submittal	approval of the final grading plans (including final changes) for the	McCord	> 60d pt start of construction listed GEN-2.		03/02/11		Approved by the CEC on 12/20/10
605	CEC	x			PAL-1	Paleontological Resource Specialist - Staff Designation	Submit resume of Paleo Resource Monitors.	Tetra Tech	> 20d pt gd		04/11/11		Complete
606	CEC	x			PAL-1	Paleontological Resource Specialist - Staff Designation	Submit resume of the Paleo Resource Specialist (PRS).	Tetra Tech	> 60d pt gd		11/17/10	2-Sep-10	Approved 10/25/10
607	CEC	x			PAL-2	PRS Submittal - Stie Drawings Showing Disturbance Areas	Submit maps and drawings showing the footprint of the power plants, construction lay down areas, and all related facilities.	Fluor	> 30d pt gd		12/17/10	4-Jan-11	NA
611	CEC	x	x		PAL-2	PRS Submittal - Stie Drawings Showing Disturbance Areas	Submit schedule of construction phases before work commences on affected power plants.	Fluor	pt start of const on affected power plants		05/01/11	4-Jan-11	NA
612	CEC	x	x		PAL-2	PRS Submittal - Stie Drawings Showing Disturbance Areas	If the footprint of the project or its linear facilities change, provide maps and drawings reflecting those changes.	Fluor	> 15d pt gd		01/01/11	1/4/2011 3/8/11	Approved 3/17/11
614	CEC	x			PAL-3	Paleontological Resources Monitoring and Mitigation Plan	If PRS determines that paleontological materials could be impacted, PRS to submit a paleontological resources monitoring and mitigation plan (PRMMP).	Tetra Tech	> 30d pt gd		12/17/10	3-Dec-10	Approved 12/21/10
618	CEC	x			PAL-4	Paleontological WEAP	Include paleo resources in the WEAP.	Tetra Tech	> 30d pt gd		12/17/10	14-Dec-10	Approved 1/4/2011
619	CEC	x			PAL-4	Paleontological WEAP	Submit script and final video of paleo training.	Tetra Tech	> 30d pt gd		12/17/10	14-Dec-10	Approved 1/4/2011
627	CEC	x			TSE-1	CBO and CPM submittal - Schedule of design submittals (Master Drawing List, Master Spec List, Major Equip and Structure List)	Submit the schedule, a Master Drawing List, and a Master Specifications List.	Watson	pt construction		07/24/12		See GEN-2 Approved by CEC 12/8/10
638	CEC		x		TSE-6	CBO Submittal - TSE-5 Change Requests	Notify the CBO and the CPM of any impending changes that may not conform to requirements of TSE-5 and request approval to implement such changes pt to the construction of transmission facilities.	Watson	pt const of Tline		07/24/12		
648	CEC	x			COMPLIANCE-4	Pre-con Matrix and tasks	Submit a pre-construction matrix identifying only those conditions that must be fulfilled before the start of construction,	Tetra Tech / Fluor	pt construction		01/16/11	5-Nov-10	Complete
650	CEC	x	x		COMPLIANCE-6	Monthly Compliance Report and Key Events List	Submit Monthly Compliance Reports. Include an initial list of dates for each of the events identified on the Key Events List.	Gavaldon	1st MCR		Monthly	12/7/2010 1/12/11	Complete
653	CEC	x			COMPLIANCE-9	Complaints, Notices and Citations	Send a letter to property owners living < 1mile of the project notifying them of a telephone number to contact project representatives with questions, complaints, or concerns.	NextEra	pt construction		01/16/11		Approved 1/19/11
65	CEC		x		AQ-28	Elapsed Operating Time Meter - 1341 HP generators	Install a non-resettable hour meter on the unit to indicate elapsed engine operating time. Submit to District and CPM the specifications of the hour meter.	McCord	> 30d pt installation			1-Mar-12	Approved by the MDAQMD. CEC Approval on 6/03/13

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78	CEC		x		AQ-37	Elapsed Operating Time Meter - 315 HP fire pump engines	Install a non-resettable hour meter on this unit to indicate elapsed engine operating time. Provide the District and the CPM the specification of the hour timer.	McCord	> 30d pt installation			1-Mar-12	Approved by the MDAQMD. CEC Approval on 6/03/13
367	CEC		x		Public Health-1	Cooling Water Management Plan	Submit a Cooling Water Management Plan.	McCord	> 60d pt cooling tower operation			3/15/13 CL # 2013-016	Approved by the CEC on 6/19/13
518	CEC		x		Worker Safety-1	Project Operations Safety and Health Program	Submit The Operations Fire Prevention Plan and the Emergency Action Plan to Riverside County Fire Department for review and comment.	Mosley	pt CPM submittal				Approved by the RCFD 12/05/10, Approved by the CEC on 1/14/11
36	CEC		x		AQ-12	HTF Ullage/Exp. Tanks- Inspection, Maintenance and Monitoring Plan	Establish an HTF Piping and Exp Tank Inspection and Maintenance Program. Provide documentation to District staff upon request.	Operations	> 30d pt taking delivery of the HTF	03/22/13	04/05/13	04/11/13 to the CEC # 2013-022	Awaiting Approval from the CEC
38	CEC		x		AQ-12	HTF Ullage/Exp. Tanks- Inspection, Maintenance and Monitoring Plan	Submit to CPM an HTF Ullage/Exp. Tanks - Inspection, Maintenance and Monitoring Plan for review.	Operations	> 30d pt taking delivery of the HTF	03/15/13	04/05/13	04/11/13 to the CEC # 2013-022	Awaiting Approval from the CEC
359	CEC		x		HAZ-2	Hazardous Materials Business Plan, Spill Prevention, Control and Countermeasure Plan, Process Safety Management Plan	Submit a final Hazardous Materials Business Plan.	McCord	> 60d pt receipt of hazmat	02/25/13	03/11/13	walked in to the County by J.Wellman on 3/11/13 #2013-015 comments received by the RCEHD	Approved by the CEC on 5/10/13. resubmittal on 7/2/13 to the RCEHD. Received comments from Brad Ballen will finalize edits
432	CEC		x		Soil & Water-13	Channel Maintenance Program	Submit two copies a Channel Maintenance Program.	Gavaldon	> 60d pt start of project related activity		03/02/11		Matt McCord to work with Worley Parsons for updated Maps and numbers
585	CEC		x		STRUC-4	2007 CBC Compliance for Toxic or HAZMAT	Submit to the CBO final design plans for tanks or vessels.	McCord	> 30d pt installation			Submitted to the CBO	Unit 2 and Common Area Approved
594	CEC		x		MECH-2	CBO and Cal-OSHA Submittal - Pressure Vessel	Submit vendor certification for prefabricated vessels and tanks and Engineers verification that plans conform with ASME Code. Submit copy of transmittal letter to CPM.	McCord	> 30d pt installation				Request for Phases, CBO
596	CEC		x		MECH-2	CBO and Cal-OSHA Submittal - Pressure Vessel	Request CBO and/or Cal-OSHA inspection of pressure vessel upon completion of installation.	McCord	upon installation				Request for Phases, CBO
597	CEC		x		MECH-2	CBO and Cal-OSHA Submittal - Pressure Vessel	Ensure that all boilers and pressure vessels are designed, fabricated, and installed in accordance with ASME Code.	BV	Ongoing				Request for Phases, CBO
14	CEC			x	AQ-SC7	Dust Control Plan - Operations	Submit Operations Dust Control Plan.	Operations	30 days prior to operation			Submitted to the CEC on 5/17/13 CL# 2013-029	Comment received by CEC Staff on 6/10/13. Waiting on additions from Ops
74	CEC		x		AQ-34	NSPS Compliance -341 HP generators	Submit the engine specifications regarding NSPS and ARB ATCM emission limit requirements.	Fluor	> 30d pt purchase		06/30/11	Submitted approval from the MDAQMD to the CEC on 6/04/13 CL# 2013-031	Awaiting Approval from the CEC
84	CEC		x		AQ-41	NSPS Compliance - 315 HP fire pump engines	Submit the engine specifications demonstrating compliance with NSPS and ARB ATCM emission limit requirements.	Fluor	> 30d pt purchase		06/30/11	Submitted approval from the MDAQMD to the CEC on 6/04/13 CL# 2013-031	Awaiting Approval from the CEC
85	CEC		x	x	AQ-42	Gas tank and pump - toll free number	Post the required toll-free number on the equipment.	Gavaldon	Ongoing			submitted photo to the CEC on 6/4/13	Awaiting Approval from the CEC
35	CEC		x		AQ-11	HTF Ullage/Exp. Tanks - Inspection, Maintenance and Monitoring Plan	Submit an HTF Ullage/Exp. Tanks vent release Inspection, Maintenance and Monitoring Plan.	Operations	> 30d pt taking delivery of the HTF	03/23/13	04/06/13	submitted to the CEC on 5/08/13	Awaiting Approval from the CEC
42	CEC		x		AQ-13	HTF Ullage/Exp. Tanks - Compliance Testing Plan and Reporting	Provide a written test plan for District for approval and the **CPM** for review.	Operations	30d prior to test	03/12/13	03/26/13	Submitted to the CEC and AQMD on 6/21/13	
94	CEC		x		AQ-46	Gas tank and pump - initial and annual testing	Notify District pt testing. (initial and annual)	Gavaldon	> 10d prior to test			Notified and submitted Test Notification form to the MDAQMD on 7/3/13 via email	Test will occur on 7/15/13

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637	CEC		x		TSE-5	CBO Submittal - Tline Design Drawings, Specs and Calca	Submit to the CBO : a) Design drawings for the poles/towers, foundations, anchor bolts, conductors, grounding systems, and major switchyard equipment; b) design criteria, a discussion of the calculation method(s), a sample calculation based on "worst case conditions" and a statement by the engineer that the Tline element(s) will conform with specified codes and standards. c) Electrical one-line diagrams signed and sealed by the electrical engineer, a route map, and an engineering description of the equipment and configurations covered by requirements TSE-5 **d) The Special Protection System (SPS) sequencing and timing if applicable shall be provided concurrently to the CPM.** **e) A letter stating that the mitigation measures or projects selected by the transmission owners for each reliability criteria violation, for which the project is responsible, are acceptable,** f) The final Phase II Interconnection Study, g) A copy of the executed LGIA signed by the California ISO and the project owner.	Watson	pt const of Tline		07/24/12	Submitted to the CBO	items in bold still outstanding
434	CEC	x			Soil & Water-13	Channel Maintenance Program	Submit written commitment to adopt and implement the Program.	Operations	> 60d pt start of project related activity		03/02/11		When CMP is complete will ask for letter from Ops
41	CEC		x		AQ-13	HTF Ullage/Exp. Tanks - Compliance Testing Plan and Reporting	Notify **District** and **CPM** prior to testing.	Operations	10d prior to test	04/10/13	04/15/13		
89	CEC		x	x	AQ-45	Gas tank and pump - Vapor vent piping	Equipt the vapor vent pipes with Husky 5885 pressure relief valves or as otherwise allowed by EO.	McCord	Ongoing				Done?
91	CEC			x	AQ-46	Gas tank and pump - initial and annual testing	Submit results of pressure checks.	Operations	< 30d after test				
92	CEC			x	AQ-46	Gas tank and pump - initial and annual testing	Perform pressure, leak and liquid removal tests within 60 days of construction completion. Document test data on a Form similar to EO VR-401-A Form 1	Air Subcontractor	Annually				will occur
510	CEC		x		WASTE-9	Operation Waste Management Plan	Submit any required revisions of Ops Waste Plan.	Operations	< 20d of notification from CPM				Received edits need to submit
632	CEC		x		TSE-4	CBO Submittal - Power Plant Switchyard, Outlet Line and Termination Design Plans	Submit to the CBO the final design plans, etc for the power plant switchyard, and outlet line and termination, include statement from the electrical engineer verifying compliance with all applicable LORS.	McCord	pt start of each increment of construction				Split into increments
11B	CEC			x	AQ-SC6	Fleet Plan for operations vehicles	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	Operations	30 days prior to operation		Annual		
5	CEC		x		AQ-SC3	Construction Fugitive Dust Control; AQCMM monthly reporting -	AQCMM to submit compliance documentation to the CPM in each Monthly Compliance Report.	Gavaldon	MCR				
7	CEC		x		AQ-SC4	Dust Plume Response Requirement	Submit information on dust plume observations, response, and list of equipment onsite in Monthly Report.	Gavaldon	MCR		Monthly	Ongoing	
9	CEC		x		AQ-SC5	Diesel engine emissions - monitoring and reporting	*Implement Diesel-Fueled Engine Control*	ECM	MCR		01/17/11		
9	CEC		x		AQ-SC5	Diesel engine emissions - monitoring and reporting	Submit compliance documentation in Monthly Compliance Report.	ECM	MCR		Monthly	Ongoing	
102	CEC		x		BIO-2	Designated Biologist - responsibilities	Include documentation of biological resource compliance in the Monthly Compliance Reports.	Gavaldon	MCR		Monthly		
110	CEC		x		BIO-4	Biological Monitors - responsibilities	Include BIO-4 compliance documentation in Monthly Compliance Report.	Gavaldon	Monthly		Monthly		
115	CEC		x		BIO-6	Worker Environmental Awareness Program (WEAP)	Submit training records in the Monthly Compliance Report.	Gavaldon	Monthly				
124	CEC	x	x		BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Include BIO-7 compliance documentation in Monthly Compliance Report.	Gavaldon	MCR				
130	CEC		x		BIO-8	Impact Avoidance and Minimization Measures	Include BIO-8 compliance documentation in Monthly Compliance Report.	Gavaldon	MCR		Monthly		
192	CEC	x	x		BIO-18	Burrowing Owl Impact Avoidance,	Submit burrowing owl compliance documentation in monthly compliance	Gavaldon	MCR				
212	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Submit compliance documentation of special-status plant avoidance and minimization measures in the Monthly Compliance Reports.	Gavaldon	MCR		Monthly	n/a	
258	CEC		x		BIO-22	Mitigation for Impacts to State Waters	Include a discussion of work in waters of the state in Monthly Compliance Reports.	AECOM	Monthly, a section on the monthly report addresses		Monthly		
315	CEC		x		CUL-7	Worker Environmental Awareness Program	Submit all new WEAP acknowledgement forms and a running tally of trained employees in monthly compliance report.	Gavaldon	Monthly		Monthly		
323	CEC		x		CUL-8	Construction Monitoring Program	Include report of any NCRs in monthly compliance report.	Gavaldon	MCR				
346	CEC	x	x		CUL-13	Flag and Avoid	Inspect flagged buffer zone around sites CA-Riv-0260, CA-Riv-0663, and CA-Riv-9072 monthly. Submit compliance documentation in the Monthly	Gavaldon	Monthly		01/16/11		
381	CEC	x	x		Soil & Water-1	Drainage Erosion and Sedimentation Control Plan	Submit compliance documentation in the Monthly Compliance Report.	Gavaldon	MCR				
456	CEC	x			TRANS-2	Vehicle Weight Limits	Obtain necessary overweight/oversized and other transportation permits required by Caltrans and the County. Report receipt of permits in Monthly	Gavaldon	MCR		05/01/11		
457	CEC	x	x		TRANS-3	Public ROW Encroachment	Obtain necessary encroachment permits from Caltrans and all relevant	Gavaldon	MCR		01/16/11		
462	CEC	x	x		TRANS-4	Hazmat Transport Permits/Licenses	Obtain necessary hazardous material transport permits from Caltrans and all relevant jurisdictions. Report receipt in Monthly Report.	Gavaldon	MCR		05/01/11		
503	CEC		x	x	WASTE-6	Haz Waste Generator Idientification Number	Submit documentation of any new or revised hazardous waste generation notifications in the following Monthly Compliance Report.	Gavaldon	Monthly		Monthly		
538	CEC	x	x		GEN-2	Facility Design Submittals to CBO and CPM	Include updated schedule of facility design submittals, and master drawing and master specifications in the Monthly Compliance Report.	Gavaldon	MCR		12/04/10	17-Nov-10	NA
541	CEC	x	x	x	GEN-3	CBO Payments	Submit 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.	Gavaldon	< 30d Monthly		01/05/11		

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552	CEC		x		GEN-6	Special Inspector(s) - Staff Assignment	Include a copy of the CBO's approval of the qualifications of all special inspectors in the next monthly compliance report.	Gavaldon	MCR				
558	CEC		x		GEN-7	Facility Design Discrepancy Documentation	Submit a copy of the CBO's approval of corrective action taken to resolve a discrepancy in the next monthly compliance report.	Gavaldon	MCR		Monthly		
563	CEC		x		GEN-8	As-builts, CBO Notification of Compliletion and Compliance	Submit a copy of statement of work completed to the CPM in the next monthly compliance report.	Gavaldon	Monthly				
567	CEC	x			CIVIL-1	CBO Submittals- Drainage and Grading, Statement of Submittal	Include CBO approval in following monthly compliance report.	Gavaldon	< 30d after approval				
571	CEC		x		CIVIL-3	CBO Inspection of 2007 CBC Compliance	Include a list of NCRs in the following Monthly Compliance Report.	Gavaldon	MCR		Monthly		
574	CEC		x		CIVIL-4	Final Grading Plans - CBO submittal	Submit a copy of the CBO's approval of grading plans to the CPM in the next monthly compliance report.	Gavaldon	< 30d after approval				
584	CEC	x	x		STRUC-3	CBO Submittal - Design Changes, Revised Drawings, Specs, Calcs	Notify the CPM, via the monthly compliance report, when the CBO has approved the revised plans.	Gavaldon	< 30d of approval				
586	CEC	x	x		STRUC-4	2007 CBC Compliance for Toxic or HAZMAT	Include copies of the CBO approvals of plan checks to the CPM in the following monthly compliance report.	Gavaldon	MCR				
587	CEC		x		STRUC-4	2007 CBC Compliance for Toxic or HAZMAT	Include a copy of the CBO's inspection approvals to the CPM in the monthly compliance report following completion of any inspection.	Gavaldon	< 30d following inspection				
590	CEC		x		MECH-1	CBO Submittal -Plan Piping and Plumbing System, Final design specs	The project owner shall transmit to the CPM, in the monthly compliance report following completion of any inspection, a copy of the transmittal letter	Gavaldon	MCR		Monthly		
591	CEC		x		MECH-1	CBO Submittal -Plan Piping and Plumbing System, Final design specs	Include a copy of transmittal letter to CBO in following monthly compliance report.	Gavaldon	< 30d of submittal				
595	CEC		x		MECH-2	CBO and Cal-OSHA Submittal - Pressure Vessel	Include CBOs inspection approval in the monthly compliance report following any inspection.	Gavaldon					
602	CEC		x		ELEC-1	CBO Submittal - Electrical Equipment and Systems	Include in the monthly compliance report: 1. Receipt or delay of major electrical equipment;	Gavaldon	MCR		Monthly		
616	CEC		x		PAL-4	Paleontological WEAP	Submit Paleo training documentation in Monthly Compliance Report.	Gavaldon	MCR		Monthly		
620	CEC		x		PAL-5	PRS Monitoring and Stop Work Authority	Include summary of paleo monitoring activities and finds in the Monthly Compliance Report.	Gavaldon	MCR		Monthly		
628	CEC	x			TSE-1	CBO and CPM submittal - Schedule of design submittals (Master Drawing List,	Include TSE schedule updates in the Monthly Compliance Report.	Gavaldon	MCR				
633	CEC		x		TSE-4	CBO Submittal - Power Plant Switchyard, Outlet Line and Termination Design Plans	Submit a copy of the transmittal letter of final design plans to CBO in the next monthly compliance report.	Gavaldon	MCR				
636	CEC		x		TSE-4	CBO Submittal - Power Plant	Include in the monthly compliance report: a) receipt or delay of major	Gavaldon	MCR		Monthly		
649	CEC	x			COMPLIANCE-5	Compliance Matrix	Submit a compliance matrix with each monthly and annual compliance report	Gavaldon	MCR			7-Dec-10	
88	CEC		x	x	AQ-44	Gas tank and pump - piping or vapor recovery modifications	Submit any modification to the piping or control fitting of the vapor recovery system for review and approval.	McCord	Ongoing				
93	CEC			x	AQ-46	Gas tank and pump - initial and annual testing	Make test results available to CPM upon request.	Operations	Ongoing				
96	CEC		x	x	AQ-47	Gas tank and pump - aboveground tank and vapor recovery system compliance	Install and maintain aboveground storage tank and vapor recovery system in compliance with California Health and Safety Code.	Construction	Ongoing				
95	CEC			x	AQ-46	Gas tank and pump - initial and annual testing	Submit passing test reports to District.	Operations	< 6w pt expiration of permit				
6	CEC		x		AQ-SC3	Construction Fugitive Dust Control; AQCMM monthly reporting -	Implement Dust Control BMPs	Arneson			01/17/11		
6	CEC		x		AQ-SC3	Construction Fugitive Dust Control; AQCMM monthly reporting -	Stabilize all disturbed areas after construction activities.	Arneson	Construction Completion		07/01/14		
7	CEC		x		AQ-SC4	Dust Plume Response Requirement		Arneson			01/17/11		
8	CEC		x		AQ-SC4	Dust Plume Response Requirement	Monitor all construction activities for visible dust plumes. If plumes observed, implement mitigation as specified.	Arneson	Ongoing				
10	CEC		x		AQ-SC5	Diesel engine emissions - monitoring and reporting	AQCMM to inspect and tag all diesel-fueled engines Diesel engines and tier standards - see full text. Do not idle diesel equipment for more than 5 mins.(see full text for exceptions)	Arneson	Ongoing		Monthly	Ongoing	
11	CEC			x	AQ-SC6	Fleet Plan for operations vehicles	Update Fleet Plan every other year. Submit the Fleet Plan with Annual Report.	Operations	Bi-Annually		Annual		
16	CEC	x	x	x	AQ-SC8	Air permit submittals	Submit all modified or revised ATC/PTO documents and all federal air permits.	Gavaldon	< 15d of receipt			02/11/13 renewed	
18	CEC			x	AQ-1	Equipment Operation, Application Requirements - NG boilers	Operate NG boilers in compliance with all data and specifications submitted with application.	Operations	Ongoing				
19	CEC			x	AQ-2	Equipment fuel Use, Manufacturer Specifications - NG boilers	Fuel equipment only with NG. Operate and maintain in accordance with manufacturer recommendations.	Operations	Ongoing				
20	CEC			x	AQ-3	Emissions limits, reporting - NG boilers	Emissions shall not exceed the following hourly emission limits (see full text)	Operations	Ongoing				
21	CEC			x	AQ-3	Emissions limits, reporting - NG boilers	Submit emissions compliance documentation in Annual Compliance Report.	Operations	Annually				
22	CEC			x	AQ-4	Maintenance and Operations Log - NG boilers	Maintain an operations log on-site and current for a minimum of five (5) years.	Operations	Ongoing, 5 yrs				
23	CEC			x	AQ-4	Maintenance and Operations Log - NG boilers	Make the site available to the District, ARB, and the Energy Commission for inspection of records.	Operations	Ongoing				

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24	CEC			x	AQ-6	Initial MDAQMD Compliance Test - NG boilers	Submit test results within 180 days of initial start up.	Operations	< 180d after initial start up	11/29/13	01/28/14		
26	CEC			x	AQ-7	Annual MDAQMD Compliance Test - NG boilers	Perform annual MDAQMD compliance tests.	Operations	Annually				
27	CEC			x	AQ-7	Annual MDAQMD Compliance Test - NG boilers	Submit results report to the District no later than six weeks prior to the expiration date of this permit.	Operations	< 6w pt expiration of permit				
28	CEC			x	AQ-9	HTF Ullage/Exp. Tanks - HTF storage	Ullage tanks - This system shall store only HTF.	Operations	Ongoing				
29	CEC			x	AQ-10	HTF Ullage/Exp. Tanks - Carbon absorbtion system	Monitor VOC output, sample weekly. Calibrate FID on day of use. Maintain log of weekly sampling results and keep log onsite. Provide sampling log to District upon request.	Operations	Weekly				
30	CEC			x	AQ-10	HTF Ullage/Exp. Tanks - Carbon absorbtion system	Operate ullage tanks system with the carbon adsorption system. *[VOC and Benzene emissions cap, see full text]*	Operations	Ongoing				
31	CEC			x	AQ-10	HTF Ullage/Exp. Tanks - Carbon absorbtion system	Submit compliance documentation in Annual Compliance Report.	Operations	Annually				
32	CEC			x	AQ-10	HTF Ullage/Exp. Tanks - Carbon absorbtion system	Submit a yearly summary report of all VOC emissions.	Operations	Jan-31 Annually				
34	CEC			x	AQ-10	HTF Ullage/Exp. Tanks - Carbon absorbtion system	Submit initial test results within 180 days after startup.	Operations	< 180d after initial start up		04/30/14		
37	CEC			x	AQ-12	HTF Ullage/Exp. Tanks- Inspection, Maintenance and Monitoring Plan	Make the site available to the District, ARB, and the Energy Commission for inspection of records.	Operations	Ongoing				
39	CEC			x	AQ-12	HTF Ullage/Exp. Tanks- Inspection, Maintenance and Monitoring Plan	Submit volume of HTF removed and added in Annual Report.	Operations	Annually				
44	CEC			x	AQ-14	HTF Ullage/Exp. Tanks - Initial MDAQMD Compliance Testing and Reporting	Perform initial compliance tests in accordance with the MDAQMD Compliance Test Procedural Manual. Submit test report.	Operations	< 180d after initial start up		04/30/14		
45	CEC			x	AQ-15	HTF Ullage/Exp. Tanks - Annual MDAQMD Compliance Testing and Reporting	Make the site available to the District, ARB, and the Energy Commission for inspection of records.	Operations	Ongoing				
46	CEC			x	AQ-15	HTF Ullage/Exp. Tanks - Annual MDAQMD Compliance Testing and Reporting	Perform annual compliance tests in accordance with the MDAQMD Compliance Test Procedural Manual.	Operations	Annually				
47	CEC			x	AQ-15	HTF Ullage/Exp. Tanks - Annual MDAQMD Compliance Testing and Reporting	Submit test results and report to the District no later than six weeks prior to the expiration date of this permit.	Operations	< 6w pt expiration of permit				
48	CEC			x	AQ-15	HTF Ullage/Exp. Tanks - Annual MDAQMD Compliance Testing and Reporting	Retain all annual test records for 5 yrs.	Operations	Ongoing, 5 yrs				
49	CEC			x	AQ-16	HTF Ullage/Exp. Tanks - Emission rate caps	Include Ullage/tank emission rate caps compliance documentation in Annual Report.	Operations	Annually				
50	CEC			x	AQ-16	HTF Ullage/Exp. Tanks - Emission rate caps	Maintain emission rates below specified volumes.	Operations	Ongoing				
51	CEC		x	x	AQ-17	HTF Ullage/Exp. Tanks - Regulated Substances	Submit a Compliance Plan of the toxic or hazardous substances if current non-criteria substances in the HTF become regulated as toxic or hazardous substances.	Operations	Ongoing	IF/THEN			
52	CEC			x	AQ-18	Equipment Operation, Application Requirements - Cooling Towers	Operate cooling towers in compliance with all data and specifications submitted in application.	Operations	Ongoing				
53	CEC			x	AQ-19	Equipment Operation Manufacturer Specifications - Cooling Towers	Operate cooling towers in compliance with all manufacturer specifications.	Operations	Ongoing				
54	CEC			x	AQ-20	Drift Eliminator Monitoring and Reporting - Cooling Towers	Comply with drift rate emissions cap *(see full text)*.	Operations	Ongoing				
56	CEC			x	AQ-20	Drift Eliminator Monitoring and Reporting - Cooling Towers	Submit compliance documentation on operating emission rates with Annual Report.	Operations	Annually				
58	CEC			x	AQ-23	Operating Time Restrictions - Cooling Towers	Submit compliance documentation with Annual Report.	Operations	Annually				
59	CEC			x	AQ-23	Operating Time Restrictions - Cooling Towers	Do not operated for more than 3,200 hours per rolling twelve month period and more than 15 hours per calendar day.	Operations	Ongoing				
60	CEC			x	AQ-24	Maintenance and Operation Log - Cooling Tower	Maintain operations log onsite for 5 years.	Operations	Ongoing				
61	CEC			x	AQ-24	Maintenance and Operation Log - Cooling Tower	Make site available for inspection of records and equipment by representatives of the District, ARB, and the Energy Commission.	Operations	Ongoing				
62	CEC			x	AQ-25	Drift Eliminator Maintenance Procedures	Make available compliance documentation for inspection by representatives of the District, ARB, and the Energy Commission	Operations	Ongoing				
63	CEC			x	AQ-26	Equipment Operation Manufacturer Specifications - 341HP generators	Operate generators in compliance with all manufacturer specifications.	Operations	Ongoing				
64	CEC			x	AQ-27	Fuel Restrictions - 341 HP generators	Use only ultra-low sulfur diesel fuel. Retain fuel purchase records.	Operations	Ongoing				
66	CEC			x	AQ-29	Operating Time Restrictions - 341 HP generators	Use limited to emergency power. Operate no more than 50hr/yr for testing and maintenance.	Operations	Ongoing				
67	CEC			x	AQ-30	Operations and Maintenance log - 341 HP generators	Maintain a operations log for a minimum of two years.	Operations	Ongoing 2 yrs after start of operations				
68	CEC			x	AQ-30	Operations and Maintenance log - 341 HP generators	Make records available to the District for three years.	Operations	Ongoing 3 yrs after start of operations				
69	CEC			x	AQ-30	Operations and Maintenance log - 341 HP generators	Submit compliance documentation in Annual Report.	Operations	Annually				
70	CEC			x	AQ-30	Operations and Maintenance log - 341 HP generators	Make site and records available for inspection by representatives of the District, ARB, and the Energy Commission.	Operations	Ongoing				
71	CEC			x	AQ-31	Voluntary Power Outage Use - 341 HP generators	Do not use generators during a voluntary power outage or reduction.	Operations	Ongoing				
72	CEC			x	AQ-32	Involuntary Power Outage Use - 341 HP generators	Operate generators <30 minutes pt ordered outage. Shut down immediately after advised that the outage is no longer imminent or in effect.	Operations	Ongoing				
73	CEC			x	AQ-33	ATCM Compliance - 341 HP generators	Operate and maintain equipment in accordance with ATCM for Stationary Compression Ignition Engines.	Operations	Ongoing				
75	CEC			x	AQ-34	NSPS Compliance -341 HP generators	Operate and maintain equipment in compliance with requirements of the NSPS for Stationary Compression Ignition Internal Combustion Engines.	Operations	Ongoing				

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76	CEC			x	AQ-35	Equipment Specification Compliance - 315 HP fire pump engines	Install, operate and maintain equipment in accordance with manufacture recommendations and with all data and specifications submitted with permit application.		Site Available				
77	CEC			x	AQ-36	Fuel Restrictions - 315 HP fire pump engines	Use only ultra-low sulfur diesel fuel for equipment.	Operations	Ongoing				
79	CEC			x	AQ-38	Operating time restirctions - 315 HP fire pump engines	Limit use for emergency power. Operate < 50hrs/yr for testing.	Operations	Ongoing				
81	CEC			x	AQ-39	Operations and Maintenance log - 315 HP fire pump engines	Submit compliance documentation in Annual Report.	Operations	Annually				
82	CEC			x	AQ-40	ATCM Compliance - 315 HP fire pump engines	Operate and maintain equipment in accordance with ATCM for Stationary Compression Ignition Engines.	Operations	Ongoing				
83	CEC			x	AQ-41	NSPS Compliance - 315 HP fire pump engines	Operate and maintain equipment in compliance with requirements of the NSPS for Stationary Compression Ignition Internal Combustion Engines.	Operations	Ongoing				
90	CEC			x	AQ-46	Gas tank and pump - initial and annual testing	Perform pressure, leak and liquid removal tests annually. Document test data on a Form similar to EO VR-401-A Form 1	Operations	< 60d after construction completion		08/29/14		
97	CEC			x	AQ-48	Gas tank and pumps - certified technician	Maintenance and repair of system components shall be performed by OPW Certified Technicians.	Operations	Ongoing				
98	CEC			x	AQ-49	Gas tank and pumps - maintenance intervals	Maintenance Intervals shall be conducted by an OPW trained technician annually.	Operations	Annually				
100	CEC			x	AQ-51	Gas tank and pumps - EVR phase I and II	Maintain, and operate EVR Phase I in compliance with CARB Executive Order VR-401-A, and Phase II vapor recovery in accordance with G-70-116-F.	Operations	Ongoing				
103	CEC			x	BIO-2	Designated Biologist - responsibilities	Des Bio to submit bio compliance documentation through operations, unless approved by the CPM.	German	Annually				
105	CEC			x	BIO-2	Designated Biologist - responsibilities	Submit BRMIMP compliance summary reports in Annual Compliance Report.	German	Ongoing				
105	CEC		x		BIO-2	Designated Biologist - responsibilities	Des Bio Const: Advise Construction and Operation Managers on bio resources and COCs; Train Bio Monitors on BRMIMP, WEAP and USFWS guidelines for tortoise. Oversee monitoring for sensitive bio resources Inspect areas of active construction at beginning and end of day for trapped animals. Inpsect areas of high traffic activity for animals in harm's way; Notify Owner and CPM of any NCRs Communicate directly with CDFG, USFWS, and CEC, responding to inquiries Submit BRMIMP compliance summary reports in Monthly Compliance Report. Submit BRMIMP compliance summary reports in Annual Compliance Report.	German	Ongoing				
107	CEC		x		BIO-3	Biological Monitors - Staff assignment	Submit information on additional bio monitors, if needed	Gavaldon	> 10d pt monitoring activity				
108	CEC			x	BIO-4	Biological Monitors - responsibilities	Employ a Bio Mon during operations if any action could affect a sensitive bio resource.	AECOM	Ongoing				
111	CEC		x		BIO-4	Biological Monitors - responsibilities	Bio Mons assist DB with surveys and monitoring disturbance activities.	Guigliano	Ongoing				
112	CEC		x	x	BIO-5	Designated Biologist and Biological Monitor Authority	Des Bio to notify agencies if there a stop work order.	German	Ongoing				
114	CEC			x	BIO-6	Worker Environmental Awareness Program (WEAP)	Conduct training annually for perm. Employees and within one week of arrival for new staff.	Operations	Annually				
116	CEC		x	x	BIO-6	Worker Environmental Awareness Program (WEAP)	Conduct WEAP training to all onsite personnel within one week of arrival. Employees must sign a completion form and display a hardhat sticker. Keep all training forms on site.	Mann	Ongoing				
119	CEC	x	x		BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Submit the revised or supplemented BRMIMP.	German	< 10d of receipt of addl permits				
122	CEC			x	BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Construction disturbance verification - submit post-construction aerial images of the project site .	Holt	< 90d after construction completion	09/07/14	09/28/14		
123	CEC	x	x		BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Submit any outstanding permits within 5 days of receipt and revise BRMIMP accordingly.	Gavaldon	< 5d of receipt				
127	CEC		x	x	BIO-7	Biological Resources Mitigation Implementation and Monitoring Plan	Submit to the CPM a Construction Termination Report.	German	< 30d after construction completion		07/31/14		
129	CEC				BIO-8	Impact Avoidance and Minimization Measures	Include BIO-8 compliance documentation in Annual Compliance Report.	AECOM	Annually				
134	CEC		x		BIO-8	Impact Avoidance and Minimization Measures	If activities btwn Feb15 to Apr15 may result in noise >65 dBA in bird nesting habitat, submit nest survey results (as described in 9a).	German	< 7d before noisy construction				
138	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	Inspect temporary fencing weekly and, where drainages intersect the fencing, during and within 24 hours following major rainfall events. Repair fence immediately. If damage could have allowed tortoise entry, Des Bio must inspect area for animal presence.	German	< 24hr following rain event				
139	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	Inspect permanent fencing monthly, during and within 24 hours following all major rainfall events (flow is detectable within the fenced drainage). Repair fence immediately, with permanent repairs completed within 48 hrs.	German	< 48hrs following rain event				
141	CEC	x			BIO-9	Desert Tortoise Clearance Surveys and Fencing	Design security gates with minimal ground clearance to deter ingress by tortoises.	McCord					
141	CEC		x		BIO-9	Desert Tortoise Clearance Surveys and Fencing	Clear plant site of Tortoise following construction of permanent fence. Search and collapse all unoccupied burrows. Excavate all occupied burrows. Relocate and monitor in accordance with Translocation Plan.	German	following const of permanent fence		04/15/11		
142	CEC	x	x		BIO-10	Desert Tortoise Translocation Plan	Submit a Translocation Plan status report following translocation of a DT.	German	< 30d after initiation of relocation				
144	CEC		x		BIO-11	Desert Tortoise Compliance Verification	Des Bio must be onsite daily during ground-disturbing construction activities located beyond permanent fencing.	AECOM	Ongoing				
145	CEC		x	x	BIO-11	Desert Tortoise Compliance Verification	Provide agencies with reasonable access to the Project site and compensation lands.	NextEra	Ongoing				

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147	CEC		x		BIO-11	Desert Tortoise Compliance Verification	Des. Bio to conduct compliance inspections at least once per month after grading is completed.	German	Monthly		Monthly		
149	CEC	x	x		BIO-11	Desert Tortoise Compliance Verification	DesBio - Notify agencies immediately of any injured or dead listed species. Follow up with written notification within 2 days.	German	< 2d of discovery				
150	CEC		x		BIO-11	Desert Tortoise Compliance Verification	Notify the CPM immediately of any NCR.	AECOM	upon discovery				
155	CEC			x	BIO-12	Desert Tortoise Compensatory Mitigation	Provide to agencies a total disturbance acreage, including B/A aerial photography.	McCord	< 90d after completion of gd		09/28/14		
167	CEC			x	BIO-13	Raven Management Plan	Include the status of the Raven Management Plan implementation in Jan 31 report during operations.	AECOM	Jan-31 Annually				
168	CEC		x	x	BIO-13	Raven Management Plan	Implement the approved Raven Management Plan.	AECOM	Ongoing				
172	CEC			x	BIO-14	Weed Management Plan	Submit a status report of Weed Management Plan implementation in Jan 31 report during operation.	Alice Karl	Jan-31 Annually				
173	CEC			x	BIO-15	Pre-construction Nest Surveys and Avoidance Measures	Submit summary report of nest buffer zones in Jan 31 report during operations.	German	Jan-31 Annually				
181	CEC		x	x	BIO-16	Avian Protection Plan.	Report project-related bird deaths or injuries to agencies.	AECOM	Ongoing				
182	CEC			x	BIO-16	Avian Protection Plan.	Continue quarterly and annual reporting on APP until agencies determine not necessary.	AECOM	Ongoing, Quarterly and annually				
183	CEC			x	BIO-16	Avian Protection Plan.	Submit report of study design and results after two years of data collection.	AECOM	< 3yr after start of operation		10/15/16		
184	CEC			x	BIO-16	Avian Protection Plan.	Submit quarterly monitoring reports of APP status. Follow up with an annual report (Jan 31).	AECOM	Jan-31 Annually				
188	CEC			x	BIO-18	Burrowing Owl Impact Avoidance, Minimization and Compensation Measures	Submit results of monitoring and management of compensation lands.	AECOM	Jan-31 Annually for first 5yrs of operations				
204	CEC		x		BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Habitat Enhancement: Submit Security adequate for long-term implementation and monitoring of the Habitat Enhancement / Restoration Plan.	Alice Karl					
208	CEC	x	x	x	BIO-19	Special-Status Plant Impact Avoidance, Minimization and Compensation	Notify agencies immediately if a State- or Federal-Listed Species, or BLM Sensitive Species is identified at any time during the life of the Project.	Alice Karl					
218	CEC		x	x	BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Select, install and maintain ECDs such that special-status plants are not directly or indirectly affected (seed mixes, hay, runoff).	Alice Karl	Ongoing				
223	CEC		x	x (closure)	BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Designated Botanist: monitor disturbance acitivites weekly.	Alice Karl	Weekly		01/17/11	Submitted in monthly report	
224	CEC	x			BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Incorporate site design modifications to minimize impacts to special-status plants along the Project linears.	McCord					
225	CEC			x	BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Des Bio: Protect special-status plant species within 100ft of Project Boundaries during operations.	German	Ongoing, this task is in the daily and weekly DB reports. Included in the				
226	CEC		x	x	BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Maintain a 100-ft buffer around ESAs. (vehicles, wash stations, storage, equipment, etc)	German	Ongoing				
227	CEC		x		BIO-19-A	Section A: Special-Status Plant Impact Avoidance, Minimization and Compensation	Protect special-status plants within 100ft of site boundaries from drift of herbicides and stabilizer.	Alice Karl	Ongoing, Re-vegetation efforts to begin middle of October.				
238	CEC			x	BIO-20	Sand Dunes / Mojave Fringe-Toed Lizard Mitigation	Submit final accounting of MFTL habitat disturbed during construction within 90d of construction completion.	AECOM	< 90d after start of operation		01/29/14		
243	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	Report any dead wildlife to Des Bio <24hrs. Des Bio must report to agencies ,48hrs.	German	< 1d of detection, all dead wildlife has been reported				
244	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	If no entanglements are detected after 12 months, continue to monitor quarterly.	AECOM	quarterly		Quarterly		
245	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	Submit quarterly reports to agencies for first year of operation. Thereafter, submit reports annually.	AECOM	quarterly		Quarterly		
246	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	If after 12 quarterly inspections there are no entanglements, continue biannually (spring, fall).	AECOM	biannually				
247	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	Submit annual reports no later than January 31 of each year.	AECOM	Jan-31 Annually				
248	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	Netting cannot touch the water in evap ponds.	Operations	Ongoing				
249	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	Consult with agency regarding removal of injured wildlife in evap ponds.	AECOM	Ongoing				
252	CEC			x	BIO-21	Evaporation Pond Netting and Monitoring	Des Bio or Monitor must inspect netting monthly during operation.	German	monthly		Monthly		
256	CEC		x	x	BIO-22	Mitigation for Impacts to State Waters	Provide a copy of Condition of Certification BIO-22 to all on-site personnel (detailing Stop Work Authorities).	Mann	Ongoing, part of the WEAP training				
258	CEC			x	BIO-22	Mitigation for Impacts to State Waters	Include a discussion of work in waters of the state in Annual Compliance Reports.	Operations	Annually		Annual		
259	CEC			x	BIO-22	Mitigation for Impacts to State Waters	Submit a final accounting of disturbance to jurisdictional waters during construction.	AECOM	< 90d after start of operation		06/29/14		
264	CEC			x	BIO-22	Mitigation for Impacts to State Waters	Submit a report of monitoring and management of compensation lands.	Operations	Jan-31 Annually				
266	CEC			x	BIO-22	Mitigation for Impacts to State Waters	Include a copy of the notifying change of conditions report in the annual reports.	Operations	Annually				
268	CEC	x	x		BIO-22	Mitigation for Impacts to State Waters	Notify agencies of any change of conditions to the Project (site conditions, impacts, mitigation).	AECOM	< 7d upon discovery				
269	CEC			x	BIO-22	Mitigation for Impacts to State Waters	Include a copy of the notifying change of conditions report in the annual reports.	Operations	Annually				
271	CEC			x	BIO-23	Decommissioning and Closure Plan	Revise and submit Decommissioning and Closure Plan every 5yrs during operations.	Operations	every 5yrs				
272	CEC			x	BIO-23	Decommissioning and Closure Plan	Implement a final Decommissioning and Closure Plan.	Operations	Project closure				
274	CEC		x	x	BIO-24	Revegetation of Temporarily Disturbed Areas	Submit status report of Reveg Plan yearly.	Alice Karl	Jan-31 Annually				

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275	CEC		x	x	BIO-24	Revegetation of Temporarily Disturbed Areas	Implement Revegetation Plan.	Alice Karl	Ongoing				
277	CEC			x	BIO-24	Revegetation of Temporarily Disturbed Areas	Provide compliance documentation and status of completion of the Reveg Plan.	Alice Karl	< 30d after construction completion		07/30/14		
278	CEC				BIO-25		DELETED						
279	CEC				BIO-26		DELETED						
283	CEC		x	x	BIO-27	Couch's Spadefoot Toad Impact Avoidance and Minimization Measures	Implement a CST Protection and Mitigation Plan.	AECOM	Ongoing				
284	CEC		x		BIO-28	Golden Eagle Inventory and Monitoring	If a nest is found, notify agencies submit final Golden Eagle Monitoring and Management Plan.	AECOM	< 30d after detection				
285	CEC		x		BIO-28	Golden Eagle Inventory and Monitoring	Survey for golden eagle annually during construction.	AECOM	Annually				
294	CEC	x	x		CUL-3	Cultural Resources Personnel	Submit resume of CRS replacement (if necessary).	AECOM	10d pt CRS departure				N/A
296	CEC	x	x		CUL-3	Cultural Resources Personnel	CRS to oversee all cultural resources mitigation, monitoring, curation, and reporting activities.	Tennyson	Ongoing				
298	CEC	x	x		CUL-3	Cultural Resources Personnel	Submit letter with names and quals of *additional* CR Monitors.	Tennyson	5d pt arrival on site		as needed	30-Mar-11	
302	CEC		x		CUL-4	Project Documents for Cultural Resources Personnel	If phased construction schedule changes, submit notice of change.	Gavaldon	< 5d of decision				
306	CEC		x		CUL-4	Project Documents for Cultural Resources Personnel	Submit weekly schedule and location of activities to CRS and CPM during ground disturbance.	AECOM	Weekly		01/17/11		
310	CEC		x		CUL-6	Cultural Resources Report	Submit a draft CR Report (CRR) if requesting suspension of construction (if necessary). Retain a copy of the draft CRR onsite.	Gavaldon	> 30d after request to suspend construction				
311	CEC		x		CUL-6	Cultural Resources Report	Submit documentation of CRR distribution to parties.	AECOM	< 10d of CRR approval				
312	CEC			x	CUL-6	Cultural Resources Report	Submit the final CRR.	AECOM	< 180d after completion of gd		12/28/14		
316	CEC		x		CUL-7	Worker Environmental Awareness Program	Conduct WEAP training for all new workers prior to and during gd (including landscaping)	Mann	Ongoing				
318	CEC	x	x		CUL-8	Construction Monitoring Program	Submit statement daily during gd if "no cultural resources over 50 years of age were discovered".	AECOM	daily		01/17/11	Ongoing	
320	CEC		x		CUL-8	Construction Monitoring Program	Submit a summary report of CR-related monitoring and any new DPR 523A forms as part of the monthly compliance report.	AECOM	Monthly		Monthly	1-Apr-11	
321	CEC		x		CUL-8	Construction Monitoring Program	Submit justification for reduction or cessation of CRS daily reporting.	AECOM	< 24hrs pt change of reporting			8-Mar-11	3/28/2011
322	CEC		x		CUL-8	Construction Monitoring Program	CR Staff to monitor and maintain daily log on provided forms for all gd activity until the Qoaf alluvium is reached. (including roads)	AECOM	daily				
323	CEC		x		CUL-8	Construction Monitoring Program	Notify CPM of NCRs w/in 24 hrs, recommend corrective action.	AECOM	< 24hr of discovery				
324	CEC	x	x		CUL-8	Construction Monitoring Program	Submit a copy of any Native American employment request and a copy of a response letter.	AECOM	< 15d of receipt		02/10/11	8-Feb-11	Approved 3/2/2011
327	CEC	x	x		CUL-8	Construction Monitoring Program	Submit documentation of transmittals to Native American representatives following discovery of cultural material.	AECOM	< 30d upon discovery				
328	CEC	x	x		CUL-8	Construction Monitoring Program	Submit "discovery" responses from tribes.	AECOM	< 15d of receipt				
330	CEC	x	x		CUL-9	Authority to Halt Construction; Treatment of Discoveries	If cultural material is found, notify agencies (<24 hrs), Tribes (48hrs, as appropriate); submit a DPR 523 form; treat find in accordance with CRMMP.	Tennyson	< 24hr of discovery			Ongoing notification	
331	CEC		x		CUL-10	WEAP - Cultural Considerations	Implement CRMMP when within 30meters of these sites.	AECOM	Ongoing				
334	CEC	x			CUL-10	WEAP - Cultural Considerations	Notify CPM when data recovery is complete.	AECOM	< 1w of data recovery completion			1-Feb-11	
334	CEC	x			CUL-10	WEAP - Cultural Considerations	Notify CPM when data recovery is complete. Phase II	AECOM	< 1w of data recovery completion		03/30/11		
335	CEC		x		CUL-11	Data Recovery for Large sites	Submit letter report of data recovery.	AECOM	< 1w of data recovery completion				
335	CEC		x		CUL-11	Data Recovery for Large sites	Submit letter report of data recovery. Phase II	AECOM	< 1w of data recovery completion		03/30/11		
336	CEC		x	x	CUL-11	Data Recovery for Large sites	Submit to CPM any draft research paper to be presented at a professional organization.	AECOM	> 15d pt presentation				
345	CEC	x	x		CUL-13	Flag and Avoid	CA-Riv-0260, CA-Riv-0663, and CA-Riv-9072: avoid impacts to these sites.	AECOM	pt gd within 30m of site		01/16/11		
354	CEC	x	x		CUL-17	Historic Period Site Mapping and In-Field Artifact Analysis	Implement CRMMP within 30 meters of these sites.	AECOM	Ongoing				
356	CEC		x		CUL-18	Compliance with BLN Programmatic Agreement	Comply with BLM Programmatic Agreement.	AECOM	Ongoing				
357	CEC		x	x	HAZ-1	Hazardous Materials list of approved substances	Do not use hazmats not listed, or in quantities listed in App A.	Operations	Ongoing				
358	CEC			x	HAZ-1	Hazardous Materials list of approved substances	Submit a list of haz mats contained at the facility in the Annual Compliance Report.	Operations	Annually				
364	CEC			x	HAZ-6	Operations Site Security Plan	Submit statement confirming all employee background checks are complete and appended to Security Plan as part of the Annual Compliance Report.	Operations	Annually				
366	CEC			x	HAZ-6	Operations Site Security Plan	Submit verification Security Plan includes all current hazmat transport vendor certifications as part of the Annual Compliance Report.	Operations	Annually				
372	CEC		x	x	NOISE-2	Noise Complaint Process	Document, investigate, evaluate, and attempt to resolve all project-related noise complaints.	Gavaldon	Ongoing				
373	CEC		x	x	NOISE-2	Noise Complaint Process	Contact individual making complaint.	Gavaldon	< 24hr of receipt				
374	CEC		x	x	NOISE-2	Noise Complaint Process	Submit the Noise Complaint Resolution Form.	Gavaldon	< 5d of receipt				
375	CEC		x	x	NOISE-3	Noise Control Program	Make the Program available to OSHA upon request.	Gavaldon	Ongoing				
377	CEC			x	NOISE-4	Occupational Noise Survey	Conduct an occupational noise survey.	Operations	following first sustained output of 90%				
378	CEC			x	NOISE-4	Occupational Noise Survey	Make the report available to OSHA and Cal/OSHA upon request.	Operations	Ongoing				
379	CEC			x	NOISE-4	Occupational Noise Survey	Submit report of survey findings.	Operations	< 30d after test				
382	CEC			x	Soil & Water-1	Drainage Erosion and Sedimentation Control Plan	Submit results of monitoring and maintenance activities in Annual Compliance Report.	Operations	Annually				
383	CEC		x	x	Soil & Water-1	Drainage Erosion and Sedimentation Control Plan	Update and maintain the DESCP for the life of the Project.	Operations	Ongoing				
385	CEC	x	x		Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Map groundwater levels within the CVGB within 10 miles of the site. Update trend plots and statistical analyses, as data is available.	Worley Parsons	Ongoing				

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386	CEC		x		Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Collect water from wells, seeps and springs quarterly and at the end of the construction. Submit report on water samples, including all calculations and assumptions quarterly.	Worley Parsons	< 30d following quarter end		04/30/11		
387	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Submit documentation of monetary compensation to well owners.	NextEra	< 30d of payment				
388	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	If GW levels are lowered >5ft due to Project pumping, provide compensation or mitigation to well owners.	NextEra	Ongoing				
389	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Monitor quarterly operational parameters (i.e., pumping rate) of the water supply wells.	Worley Parsons	quarterly				
390	CEC			x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Submit a 5 year monitoring report.	Operations	5ys after start of operation				
392	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Fourth quarterly report serves as annual report. Include trend analysis. Determine where pumping has caused drawdown >5ft below baseline.	Worley Parsons	Jan-31 Annually				
393	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	If required, compensate landowners by March 31.	NextEra	Mar-31 Annually				
394	CEC		x		Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Notify owners within one month of CPM approving compensation analysis.	Worley Parsons	< 1m CPM approval of comp. analysis				
395	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	If GW levels are lowered and pumps exposed, reimburse well owner to lower pumps. If pumps cannot be lowered, deepen the well(s) or construct new ones.	NextEra	Ongoing				
396	CEC		x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Collect water level measurements semi-annually after the first year.	Worley Parsons	semi-annually after first yr of monitoring		01/17/12		
397	CEC	x	x	x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	Submit monitoring reports, complaints, studies and data.	Worley Parsons	< 10d of receipt				
400	CEC			x	Soil & Water-2	GW Level Monitoring, Mitigation and Reporting	CPM to evaluate GW level monitoring program for necessity or modification every 5 years.	CPM	5yrs				
402	CEC		x		Soil & Water-3	Groundwater Well Impact Compensation	Notify all owners of the impacted wells within one month of the CPM approval of the compensation analysis for increase energy costs.	Worley Parsons	< 1m CPM approval of comp. analysis				
403	CEC		x		Soil & Water-3	Groundwater Well Impact Compensation	Submit all calculations, calculation agreement letters signed by the well owners, and contact information for landowners that do not agree with calculations.	Worley Parsons	Ongoing				
404	CEC		x		Soil & Water-3	Groundwater Well Impact Compensation	Submit all documentation and calculations r.e. compensation for energy costs associated with additional lift requirements.	Worley Parsons	< 30d after approval				
405	CEC		x	x	Soil & Water-3	Groundwater Well Impact Compensation	Provide compensation by March 31 of each year. (one time for lump sum payments).	NextEra	Mar-31 Annually				
406	CEC		x	x	Soil & Water-3	Groundwater Well Impact Compensation	Submit a report of compensation provided for increased energy costs.	NextEra	< 30d of payment				
407	CEC		x	x	Soil & Water-4	Project GW Wells, Pre-Well Installation	Submit to CPM two copies of all operational reports required by the County of Riverside and any changes to operations of well.	Operations	Ongoing				
410	CEC		x		Soil & Water-4	Project GW Wells, Pre-Well Installation	Submit two copies of any proposed well permit changes.	McCord	< 10d of submittal or receipt				
413	CEC		x		Soil & Water-5	Construction and Operation Water Use	Submit a semi-annual report of construction water use.	Gavaldon	semi-annually		06/30/11		
414	CEC		x	x	Soil & Water-5	Construction and Operation Water Use	Submit an annual report of water usage (g/month and total).	Operations	Annually				
415	CEC		x		Soil & Water-5	Construction and Operation Water Use	GW use during construction must not exceed an annual average of 1,368 afy.	Gavaldon	Ongoing				
416	CEC			x	Soil & Water-5	Construction and Operation Water Use	GW use during operations must not exceed 202 afy	Operations	Ongoing				
419	CEC		x	x	Soil & Water-6	Waste Discharge Requirements	Submit annual waste discharge permit fee associated with this facility to the Water Boards	Worley Parsons					
419	CEC		x	x	Soil & Water-6	Waste Discharge Requirements	Submit (for rev and approve) any change to the design, construction, or operation of the evaporation basins, treatment units, or associated storm water system pt initiating changes.	Worley Parsons	pt initiating changes				
420	CEC		x	x	Soil & Water-6	Waste Discharge Requirements	Submit all monitoring reports required by the WDRs and details of any nonconformance.	Worley Parsons	Ongoing				
421A	CEC			x	Soil & Water-7	Septic System and Leach Field Reqs	Comply with County and State reqs for sanitary waste disposal facilities.	Operations	Ongoing				
428	CEC			x	Soil & Water-12	Non-Transient Non-Community Water System	Designate a CA Cert'd Water Treatment Plant Operator as well as the technical, managerial and financial requirements as prescribed by State law.	Operations					
429	CEC			x	Soil & Water-12	Non-Transient Non-Community Water System	Submit updates annually for all monitoring requirements and submittals to County related to the permit, and proof of annual renewal of the operating permit.	Operations	Annually				
430	CEC		x	x	Soil & Water-13	Channel Maintenance Program	Supervise the implementation of a Channel Maintenance Program.	Operations	Ongoing				
431	CEC		x		Soil & Water-13	Channel Maintenance Program	Ensure the Project Construction Manager receive training on the Channel Maintenance Program.	McCord	Ongoing				
433	CEC			x	Soil & Water-13	Channel Maintenance Program	Submit a Channel Maintenance Program Annual Report, Channel Maintenance Work Plan, and Lessons Learned with the Annual Compliance Report.	Operations	Annually				
436	CEC			x	Soil & Water-14	Decommissioning and Closure Plan - Water and Wind Considerations	Submit amended Decommissioning Plans should the decommissioning scenario change in the future.	Operations	Ongoing				
437	CEC		x	x	Soil & Water-15	Colroado River Flow Mitigation, Water Supply Plan	Implement Water Supply Plan mitigation measures.	Jeff Harvey	Ongoing				
439	CEC			x	Soil & Water-16	Groundwater Production Monitoring	File an annual "Notice of Extraction and Diversion of Water" with the SWRCB. Include a copy of the Notice in the Annual Compliance Report.	Operations	Annually				
441	CEC		x		Soil & Water-17	Ground Subsidence Monitoring and Action Plan	Submit quarterly reports presenting data and comparison to thresholds beginning 3 months following GW production.	Worley Parsons	quarterly 3m after GW production				
442	CEC				Soil & Water-17	Ground Subsidence Monitoring and Action Plan	Construct one monument monitoring station per production well or a minimum of three stations.	Worley Parsons	1-Jul-11				
443	CEC			x	Soil & Water-17	Ground Subsidence Monitoring and Action Plan	Submit a 5-yr monitoring report summarizing findings to date.	Operations	5yrs after GW production				
445	CEC				Soil & Water-18	Water Policy Compliance Water Supply Plan	DELETED						
448	CEC		x	x	Soil & Water-20	Groundwater Quality Monitoring and Reporting Plan	Monitor GW quality and levels semi-annually and submit data semi-annually.	Worley Parsons	semi-annually		06/30/11		
455	CEC	x	x		TRANS-2	Vehicle Weight Limits	Retain copies of transportation permits and supporting documentation on-site for inspection if requested.	Gavaldon					

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458	CEC		x	x	TRANS-3	Public ROW Encroachment	Retain copies of encroachment permits onsite for inspection for at least six months after the start of commercial operation.	Operations	> 6m after start of operation		01/01/14		
460	CEC			x	TRANS-4	Hazmat Transport Permits/Licenses	Retain copies of hazardous material transport permits onsite for inspection.	Operations	> 6m after start of operation		01/01/14		
465	CEC		x	x	TRANS-5	Restoration of Public Roads, Easements, and ROWs	Restore all public roads, easements, and rights-of-way damaged due to project-related construction activities.	Watson	Ongoing				
466	CEC			x	TRANS-5	Restoration of Public Roads, Easements, and ROWs	Submit letter of ROW repair completion, including concurrence from Caltrans or the County.	Watson					
467	CEC			x	TRANS-5	Restoration of Public Roads, Easements, and ROWs	Meet with CPM, Caltrans and the County to identify sections of public ROW needing repair < 60d after construction. Establish a schedule for repairs.	Watson	< 60d after construction completion		08/29/14		
468	CEC		x		TLSN-1	Compliance with Cal Pub Utility Commissions (Tline)	Construct Tline in accordance with CA PUC's req's, California Code of Regulations, and Southern California Edison's EMF reduction guidelines.	Watson	Ongoing				
471	CEC			x	TLSN-2	Pre- and Post- Energization Maesurements	Measure strengths of EMF after energization according to (ANSI/IEEE) standard procedures < 6months of start of operations.	Operations	< 60d of test				
471	CEC		x	x	TLSN-2	Pre- and Post- Energization Maesurements	Measure strengths of EMF before energization according to (ANSI/IEEE) standard procedures. Submit measurement report.	McCord	< 60d of test				
472	CEC			x	TLSN-3	Combustible Material Inspections	Submit summary of inspection results and fire prevention activities in the Annual Compliance Report for the first 5 years of operation.	Operations	5yrs Annually				
473	CEC			x	TLSN-3	Combustible Material Inspections	Maintain Tline ROW free of combustible material.	Operations	Ongoing				
475	CEC		x		TLSN-4	Metallic Object Grounding in ROW	Ensure all permanent metallic objects within the Tline ROW are grounded.	Watson	Ongoing				
477	CEC		x	x	VIS-1	Surface Treatment of Non-Mirror Project Structures and Buildings	Notify CPM when surface treatment is complete and ready for inspection. Submit photographs of treated structures upon completion.	Gavaldon	upon completion of installation				
478	CEC			x	VIS-1	Surface Treatment of Non-Mirror Project Structures and Buildings	Include a status report regarding surface maintenance in the Annual Compliance Report.	Operations	Annually				
479	CEC		x		VIS-2	Temporary and Permanent Exterior Lighting	Submit a Lighting Mitigation Plan.	McCord	> 60d pt ordering permanent lighting		06/30/11		
480	CEC		x	x	VIS-2	Temporary and Permanent Exterior Lighting	Notify CPM of lighting complaint resolution/implementation.	Gavaldon	< 48hr of resolution				
482	CEC		x		VIS-2	Temporary and Permanent Exterior Lighting	If after inspection lighting modifications are needed, notify CPM that modifications are complete.	Gavaldon	< 30d after notification				
483	CEC		x	x	VIS-2	Temporary and Permanent Exterior Lighting	Submit any received lighting complaints. Include proposal to resolve and schedule.	Gavaldon	< 48hr of complaint receipt				
484	CEC		x	x	VIS-2	Temporary and Permanent Exterior Lighting	Submit a copy of complaint resolution report.	Gavaldon	< 30d of resolution				
485	CEC		x		VIS-2	Temporary and Permanent Exterior Lighting	Consult with CPM regarding documentation required in the Lighting Mitigation Plan.	McCord	> 90d pt ordering permanent lighting		06/30/11		
486	CEC		x		VIS-2	Temporary and Permanent Exterior Lighting	Consult with CPM regarding documentation required in the Lighting Mitigation Plan.	McCord	> 30d pt ordering temp lighting		04/01/11		
487	CEC				VIS-3	Tline setback from I-10	DELETED						
488	CEC		x		VIS-4	Reflective Glare Mitigation	Construct perimeter chain link using dark or earth-toned opaque privacy slats of a minimum 8 feet in height.	Gavaldon	Ongoing		06/04/12	Oct-11	
489	CEC		x	x	VIS-4	Reflective Glare Mitigation	Submit copy of complaint glare resolution form.	Gavaldon	< 30d of receipt				
490	CEC		x	x	VIS-4	Reflective Glare Mitigation	Submit any glare complaints, including resolution and schedule.	Gavaldon	< 48hr of complaint receipt				
491	CEC		x	x	VIS-4	Reflective Glare Mitigation	Notify CPM resolution/implementation for glare complaints.	Gavaldon	< 48hr of resolution				
496	CEC		x		WASTE-1	Contaminated Soil Assessment and Remediation	If contaminated soil is found during construction, consult with Department of Toxic Substances Control, assess and remediate contamination in consultation with DTSC and with approval from CPM.	Gavaldon	Ongoing				
498	CEC		x		WASTE-3	Contaminated Soil Assessment and Remediation - PE or PG responsibilities	If potential contamination results in stop-work call by PE or PG, notify CPM within 24hrs.	Gavaldon	< 24hr after stop work				
499	CEC		x		WASTE-3	Contaminated Soil Assessment and Remediation - PE or PG responsibilities	If potential contamination is identified, the PE or PG must inspect and submit report to agencies any need for sampling/remediation.	Gavaldon	< 5d of receipt				
506	CEC		x	x	WASTE-7	Waste Management-related Enforcement Action Notification	Notify CPM of an impending waste-management enforcement action and owners response/resolution.	Gavaldon	< 10d of notification from authorities				
507	CEC				WASTE-8	Reuse/Recycling Plan	DELETED						
508	CEC			x	WASTE-9	Operation Waste Management Plan	Submit actual volume of waste generated and management methods used in each Annual Compliance Report.	Mosley	Annually				
511	CEC			x	WASTE-9	Operation Waste Management Plan	Update Operations Waste Management Plan as necessary.	Operations	Ongoing				
512	CEC			x	WASTE-10	HTF Contaminated Soil Hazard assessment	Document all HTF releases. If > 42 gallons, notify agencies and provide analysis of results in accordance with WASTE-10.	Operations	< 28d of release date				
512	CEC		x	x	WASTE-11	HAZMAT Waste Release/Spill Documentation and Corrective Actions	Submit release/spill documentation . If the release was reported, include agency communication.	Operations	< 30d of release date				
514	CEC		x	x	WASTE-11	HAZMAT Waste Release/Spill Documentation and Corrective Actions	Document, clean up, and dispose of hazmat released > EPA's reportable quantities in accordance with federal, state, and local requirements.	Operations	Ongoing				
530	CEC			x	Worker Safety-7	Riv Co Fire Department, Capital and Operating Costs Funding	(if opted), provide letter of credit to RCFD annually.	NextEra	Annually at the start of operations				
532	CEC			x	Worker Safety-9	Riv Co Fire Dept Joint Training Exercises	Include joint exercise training documentation with the RCFD and other solar plants in the annual compliance report.	Operations	pt start of commissioning Annually				
534	CEC			x	Worker Safety-9	Riv Co Fire Dept Joint Training Exercises	Host the annual training on a rotating yearly basis with the other solar power plants.	Operations	Rotate annually				
535	CEC		x	x	GEN-1	2007 Ca Buidling Standards Code Compliance	Provide the CPM a copy of the certificate of occupancy (CO).	BV	< 30d of receipt				
536	CEC		x		GEN-1	2007 Ca Buidling Standards Code Compliance	Once the CO issued, notify CPM pt any addition, alteration, moving, demolition, repair, or maintenance on any portion(s) of the completed facility subject to CBO approval.	BV	> 30d pt activity				
537	CEC		x		GEN-1	2007 Ca Buidling Standards Code Compliance	Submit a statement that all facility designs, construction, installation, and inspection requirements of the LORS and CEC's decision have been met.	McCord	< 30d after receipt of CO				
540	CEC	x	x	x	GEN-3	CBO Payments	Submit payments to the CBO in accordance with the agreement between the project owner and the CBO.	NextEra	ongoing				
553	CEC		x		GEN-6	Special Inspector(s) - Staff Assignment	Notify the CPM of the CBO's approval of replacement inspector.	BV	< 5d of approval				

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#	Agency	Pre-con	Const	ops	COC	Title	Description	Responsibility	COC Verification	Internal Due Date	Date Final Due	Date Submitted to Agency	Agency Status
554	CEC		x		GEN-6	Special Inspector(s) - Staff Assignment	If the special inspector is reassigned or replaced, submit resume of replacement to CBO.	BV	< 5d of replacement				
555	CEC		x		GEN-6	Special Inspector(s) - Staff Assignment	Special inspectors submit inspection reports to the CBO and RE.	BV	Ongoing				
556	CEC		x		GEN-6	Special Inspector(s) - Staff Assignment	The special inspector shall submit a final signed report to the RE, CBO, and CPM, stating compliance status.	BV	after construction completion		06/30/14		
559	CEC		x		GEN-7	Facility Design Discrepancy Documentation	If corrective action is not approved, advise CPM of the reason and the revised corrective action to obtain CBO's approval.	Koser	< 5d after CBO disapproval				
560	CEC		x		GEN-7	Facility Design Discrepancy Documentation	Document and recommend corrective actions for any discrepancy in design and/or construction engineering work subject to CBO approval. Submit documentation to CBO for review and approval.	Koser	Ongoing				
561	CEC		x		GEN-8	As-builts, CBO Notification of Completion and Compliance	Retain one set of approved engineering plans, at the project site. Submit to the CPM a statement with location of stored documents.	Gavaldon					
562	CEC		x		GEN-8	As-builts, CBO Notification of Completion and Compliance	Submit to CBO statement of work completed, in conformance with plans and ready for inspection.	McCord	< 15d after construction completion		07/15/14		
564	CEC			x	GEN-8	As-builts, CBO Notification of Completion and Compliance	Provide CBO with a full set of electronic plans.	McCord	< 90d after construction completion		09/28/14		
565	CEC		x		GEN-8	As-builts, CBO Notification of Completion and Compliance	Notify the CPM after obtaining the CBO's final approval of work completed.	BV	< 15d after construction completion		07/15/14		
568	CEC		x		CIVIL-2	RE Stop Work Authority and Notification	Submit modified plans to the CBO for review and approval based on these new conditions.	McCord	Ongoing				
569	CEC		x		CIVIL-2	RE Stop Work Authority and Notification	Submit CBO approval of modified plans to CPM.	BV	< 24hr of approval				
570	CEC		x		CIVIL-2	RE Stop Work Authority and Notification	RE to stop earthwork if he/she identifies unforeseen adverse soil or geologic conditions. Notify CPM within 24 hrs.	BV	< 24hr of discovery				
572	CEC		x		CIVIL-3	CBO Inspection of 2007 CBC Compliance	Perform inspections in accordance with the 2007 CBC. Report any discrepancies immediately.	BV	Ongoing				
573	CEC		x		CIVIL-3	CBO Inspection of 2007 CBC Compliance	RE to submit a non conformance report (NCR) < 5d of discovery. Submit details of corrective action < 5d of resolution.	BV	< 5d of discovery				
575	CEC		x		CIVIL-4	Final Grading Plans - CBO submittal	After completion of finished grading and erosion and sedimentation	BV	< 30d completion of drainage work				
576	CEC		x		STRUC-1	CBO Submittals - Major Structure or Facility design Component, Statement of Submittal	control and drainage work, the project owner shall obtain the CBO's	McCord	< 30d after approval				
578	CEC		x		STRUC-2	CBO Submittal - Concrete, Welds, Other Structural Activities	If NCR is disapproved the project owner shall notify the CPM within 5 days, the reason for the disaproval	Koser	< 5d of NCR				
580	CEC		x		STRUC-2	CBO Submittal - Concrete, Welds, Other Structural Activities	The project Owner shall transmit a copy of the CBP's Approval or disapproval of the NCR corrective Action To the CPM within 15 days	Koser	< 15d CBO response				
581	CEC		x		STRUC-2	CBO Submittal - Concrete, Welds, Other Structural Activities	Submit a copy of the NCR corrective action to the CBO and the CPM.	Koser	< 5d of resolution				
582	CEC		x		STRUC-3	CBO Submittal - Design Changes, Revised Drawings, Specs, Calcs	Notify the CBO of any intended filing of design changes, and submit revisions on a schedule suitable to the CBO.	Watson	on a sched suitable to CBO				
588	CEC	x			STRUC-4	2007 CBC Compliance for Toxic or HAZMAT	Design tanks and vessels containing quantities of toxic or hazardous materials exceeding amounts specified in the 2007 CBC to comply with the requirements of that chapter.	McCord					
589	CEC		x		MECH-1	CBO Submittal -Plan Piping and Plumbing System, Final design specs and calcs	Request CBO inspection of any such major piping or plumbing system.	McCord					
592	CEC		x		MECH-1	CBO Submittal -Plan Piping and Plumbing System, Final design specs and calcs	Submit to the CBO the final plans and a statement from the mechanical engineer certifying compliance with applicable LORS for major piping or plumbing.	McCord	> 30d pt installation				
598	CEC		x		MECH-3	CBO Submittal - HVAC Specs, etc.	Upon completion of any increment of construction, request CBO's inspection and approval of that construction.	McCord	Upon completion of increment of construction				
599	CEC		x		MECH-3	CBO Submittal - HVAC Specs, etc.	Submit to the CBO the required HVAC and refrigeration plans and a statement from the mechanical engineer certifying compliance with applicable codes. Submit copy of the transmittal letter to the CPM.	McCord	> 30d pt const of HVAC or refrig system				
600	CEC		x		ELEC-1	CBO Submittal - Electrical Equipment and Systems	Submit to the CBO the final plant design plans and a signed/stamped stamped statement from the responsible electrical engineer attesting compliance with the applicable LORS.	McCord	> 30d pt start of each increment of construction		04/01/11		
601	CEC		x		ELEC-1	CBO Submittal - Electrical Equipment and Systems	Request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS.	McCord					
603	CEC		x		ELEC-1	CBO Submittal - Electrical Equipment and Systems	At least 30d pt the start of each increment of electrical construction, submit to the CBO for design review and approval the listed documents.	McCord	> 30d pt start of each increment of construction		04/01/11		
604	CEC		x	x	ELEC-1	CBO Submittal - Electrical Equipment and Systems	Retain approved final plant design plans and calculations onsite for the life of the project.	Operations					
608	CEC	x	x		PAL-2	PRS Submittal - Stie Drawings Showing Disturbance Areas	Submit letter of any construction phase schedule changes.	SWCA	< 5d of identification				
609	CEC	x	x		PAL-2	PRS Submittal - Stie Drawings Showing Disturbance Areas	If construction proceeds in phases, submit maps and drawings.	SWCA	pt start of each increment of construction		05/01/11	4-Jan-11	
610	CEC		x		PAL-2	PRS Submittal - Stie Drawings Showing Disturbance Areas	PRS or PRM consult weekly with the superintendent or construction field manager to confirm upcoming activity locations.	SWCA	until gd is completed		01/17/11		
613	CEC		x		PAL-3	Paleontological Resources Monitoring and Mitigation Plan	Copies of the PRMMP shall reside with the PRS, each monitor, the project owner's on-site manager and the CPM.	SWCA	Ongoing				
615	CEC		x		PAL-4	Paleontological WEAP	If PRS determines that paleontological materials could be impacted, conduct weekly paleo training for all personnel supervising, directing or conducting ground-disturbing activity.	SWCA	weekly during gd		01/17/11		
617	CEC		x		PAL-4	Paleontological WEAP	Submit resume of any alternative paleo trainer (if applicable).	SWCA	Ongoing				

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#	Agency	Pre-con	Const	ops	COC	Title	Description	Responsibility	COC Verification	Internal Due Date	Date Final Due	Date Submitted to Agency	Agency Status
621	CEC		x		PAL-5	PRS Monitoring and Stop Work Authority	Notify CPM of any significant paleo resource encountered.	SWCA	< 24hrs upon discovery				
622	CEC		x		PAL-5	PRS Monitoring and Stop Work Authority	Notify CPM of any noncompliance related to paleo resources.	SWCA	< 24hrs upon discovery				
623	CEC		x		PAL-5	PRS Monitoring and Stop Work Authority	Implement PRMMP, maintain daily logs. Submit for approval any change in paleo monitoring plan.	SWCA	Ongoing				
624	CEC			x	PAL-6	Paleontological Resource Curation	Retain copies of signed contracts with the designated PRS and other specialists; also the Paleontological Resource Report.	Operations	3yr after construction completion		07/01/14		
625	CEC		x		PAL-6	Paleontological Resource Curation	Submit copy of letter to curating institution - if fossils found.	SWCA	Ongoing				
625	CEC		x		PAL-6	Paleontological Resource Curation	Ensure proper implementation of curation procedures according to the PRMMP Pay fees for curation of paleo materials. Submit letter of materials transmittal to the curation facility to CPM.	SWCA	Ongoing				
626	CEC		x		PAL-7	Paleontological Resuorces Report	Submit a Paleontological Resources Report (PRR).	Tetra Tech	< 90d after gd		09/28/14		
629	CEC		x		TSE-2	Electrical Engineer - Staff Assignment Civil Engineer - Staff Assignment	Notify the CPM of the CBO's approval of the new engineer within five days of the approval.	Watson	< 5d of approval				
629	CEC		x		TSE-2	Electrical Engineer - Staff Assignment Civil Engineer - Staff Assignment	If an engineer is reassigned or replaced, submit resume of replacement.	Watson	< 5d of replacement				
631	CEC		x		TSE-3	Design Discrepancy Submittals	Document and recommend corrective actions for any discrepancy in design and/or construction engineering work that has undergone CBO design review and approval. Submit a copy of the CBO's approval or disapproval of any corrective action taken to resolve a discrepancy to the CPM.	BV	< 15d of receipt				
631	CEC		x		TSE-3	Design Discrepancy Submittals	If resolution is disapproved, advise the CPM the reason for the disapproval, along with the revised corrective action required to obtain the CBO's approval.	Koser	< 5d of notification				
634	CEC		x		TSE-4	CBO Submittal - Power Plant Switchyard, Outlet Line and Termination Design Plans	Request that the CBO inspect the installation to ensure compliance with the requirements of applicable LORS.	Gavaldon					
635	CEC			x	TSE-4	CBO Submittal - Power Plant Switchyard, Outlet Line and Termination Design Plans	Retain all plans, including changes, on site for one year after completion of construction.	Operations	1yr after construction completion		06/26/15		
643	CEC		x	x	TSE-8	Code Compliance	In case of non-conformance of Tline construction or operation, notify CPM and CBO and describe the corrective actions to be taken.	Watson	< 10d upon discovery				
643	CEC		x	x	TSE-8	Code Compliance	Inspect transmission line to ensure conformance with applicable codes and standards.	Watson	Ongoing				
644	CEC		x	x	COMPLIANCE-1	Unrestricted Access	Provide CEC staff and delegate agencies or consultants unrestricted access to the power plant site.	NextEra					
645	CEC		x	x	COMPLIANCE-2	Compliance Record	The project owner shall maintain project files on-site.	Operations					
646	CEC		x	x	COMPLIANCE-2	Compliance Record	Energy Commission staff and delegate agencies shall be given unrestricted access to the files.	Operations					
647	CEC	x	x	x	COMPLIANCE-3	Compliance Verification Submittals	The project owner is responsible for the delivery and content of all verification submittals to the CPM, whether such condition was satisfied by work performed or the project owner or his agent.	NextEra					
651	CEC			x	COMPLIANCE-7	Annual Compliance Reports	Submit Annual Compliance Reports instead of Monthly Compliance Reports.	Operations	Annually				
652	CEC	x	x	x	COMPLIANCE-8	Confidential Information	Submit confidential information to CEC Executive Director with a request for confidentiality.	Gavaldon	Ongoing				
654	CEC			x	COMPLIANCE-10	Planned Facility Closures	Submit a closure plan to the CPM.	Operations	> 12m pt closure				
655	CEC		x		COMPLIANCE-11	Unplanned Permanent Facility Closure	Submit an on-site contingency plan.	McCord	> 90d of CPM determination				
656	CEC		x		COMPLIANCE-12	Unplanned Permanent Facility Closure	In the event of an unplanned permanent closure, notify agencies take all necessary steps to implement the on-site contingency plan.	Gavaldon	< 24 hrs of closure				
657	CEC	x	x	x	COMPLIANCE-13	Post Certification Changes to the Decision	Petition the Energy Commission to delete or change a condition of certification, modify the project design or operational requirements and/or transfer ownership of operational control of the facility.	NextEra	Ongoing				
					AQ-8		See AQ-9						
					Gen 2		Revise list						
421B	CEC			x	Soil & Water-7	Septic System and Leach Field Reqs	Project Owner shall submit necessary information and fee to the County of Riverside. Written assessment Riverside County shall be submitted to the CPM for review and approval	Operations	30 days prior to operation				

Appendix A
Equipment List and Rating

AQ-SC5

Diesel Engine Emissions Monitoring and Reporting

Genesis Solar Energy Project

BPC Master Equipment List

Equipment Type	Equip Number	Brand /Model	Registration Number	Expiration Date YYYYMMDD	Serial Number	Engine Year	Horsepower	Tier Rating	Contractor	Rental Company	Mobilization Date	Demobilization Date
International Truck	201070	International 4400	N/A	N/A	1HSMTAANX7H416035	2007	245	3	BPC	ARB, Inc	1/3/2012	
International Truck	201071	International 4400	N/A	N/A	1HSMTAANX7H416066	2006	245	3	BPC	ARB, Inc	1/3/2012	
International Truck	671187	International 4400	N/A	N/A	GHW19585	2001	245	3	BPC	ARB, Inc	1/3/2012	
International Truck	19585	International 4400	N/A	N/A	GHW21922	2006	245	3	BPC	ARB, Inc	1/3/2012	
International Truck	21922	International 4400	N/A	N/A	1FUBCXDJ26HW22243	2005	245	3	BPC	ARB, Inc	1/3/2012	
International Truck	22245	International 4400	N/A	N/A	1FUBCXDJ66HW22245	2005	245	3	BPC	ARB, Inc	1/3/2012	
International Truck	22243	International 4400	N/A	N/A	GH245528	2006	245	3	BPC	ARB, Inc	1/3/2012	
CAT 966K Loader	EW9X35	CAT	EW9x35	N/A	MME03058	2012	267	4	BPC	ARB, Inc	2/27/2012	
Backhoe 420E	RLF1940	CAT	UJ5H37	N/A	C4E17607	2011	89	3	BPC	ARB, Inc	3/23/2012	
Backhoe 420E	392086	CAT	AY7P48	N/A	CAT0420ETHLS02145	2006	93	3	BPC	ARB, Inc	4/20/2012	
Backhoe 420E	392092	CAT	KX8H98	N/A	CAT0420EEPRA00367	2009	93	3	BPC	ARB, Inc	5/1/2012	
10K Sky Trac	343891	SKYTRAK	HF5G53	NA	0160040952	2011	109	3	BPC	Sunbelt Rental	3/5/2012	5/6/2013
10K Sky Trac	321505	SKYTRAK	FG7H48	NA	0160039955	2010	110	3	BPC	Sunbelt Rental	3/6/2012	
20K Forklift Hyster 210	07-792	Hyster	EJ9A88	N/A	D019D02307U	2007	155	3	BPC	Sunbelt Rental	3/6/2012	
Water Truck 4000G	462817	CAT	N/A	N/A	WAX14043	2006	275	3	BPC	Sunbelt Rental	4/5/2012	4/1/2013
75KV generator	358392	MQ POWER	155110	20140731	7351646	2011	97	3	BPC	Sunbelt Rental	4/11/2012	
45KV generator	368855	MQ POWER	155937	20140831	8202290	2011	75	4I	BPC	Sunbelt Rental	4/11/2012	5/8/2013
10K Sky Trac 10054	381629	SKYTRAK	WW9J44	NA	0160036743	2008	82	3	BPC	Sunbelt Rental	4/9/2012	
10K Sky Trac 10054	381631	SKYTRAK	DM3H74	NA	0160034877	2008	110	3	BPC	Sunbelt Rental	4/9/2012	
10K Sky Trac 10054	321673	SKYTRAK	TN7C35	NA	0160039953	2010	110	3	BPC	Sunbelt Rental	3/30/2012	4/17/2013
10K Sky Trac 10054	381639	Cummins	CG5V33	41274	15516	2010	110	3	BPC	Sunbelt Rental	4/25/2012	
10K Sky Trac 10054	348226	SKYTRAK	LL6B53	NA	0160040955	2011	110	3	BPC	Sunbelt Rental	5/15/2012	
T-800 Water Truck	213015	Kenworth	8N99354	8/13/0000	1NKDLU0XX4R052569	2003	375	3	BPC	ARB, Inc	5/24/2012	
56KV generator	338255	MQ POWER	154840	20140630	7351550	2011	97	3	BPC	Sunbelt Rental	5/29/2012	
36KV generator	368854	MQ POWER	155936	20140831	8202291	2011	75	4I	BPC	Sunbelt Rental	5/29/2012	
100KW Diesel Generator	349720	MQ POWER	155090	20140731	7510368	2011	179	3	BPC	Sunbelt Rental	8/3/2012	
10K Shooting Boom Forklift	381645	SKYTRAK	XV9H65	NA	0160034533	2008	110	3	BPC	Sunbelt Rental	8/3/2012	6/17/2013
10K Shooting Boom Forklift	454967	SKYTRAK	XB3W68	NA	0160046153	2012	100	4I	BPC	Sunbelt Rental	8/28/2012	
100KW Diesel Generator	475209	MQ POWER	132956	7/31/2015	7800205	2011	166	3	BPC	Sunbelt Rental	8/3/2012	
25K Straight Forklift	560208	Hyster							BPC	Sunbelt Rental	8/29/2012	
45 Ton TEREX Crane	BE4512	RT345-1XL	MT8A46	7/31/2015	160952	2012	160	4	BPC	Carde Pacific	9/3/2012	
60' Art Manlift	240647	JLG	N/A	N/A	300134002	2009	82	3	BPC	Sunbelt Rental	9/28/2012	
56KW Generator	119856	MQ POWER	135311	1/31/2013	8800877	2011	90	3	BPC	Sunbelt Rental	10/10/2012	
56KW Generator	119866	MQ POWER	135313	1/31/2013	8800886	2011	90	3	BPC	Sunbelt Rental	10/10/2012	
56KW Generator	467640	MQ POWER	159017	20150731	8802292	2011	98	3	BPC	Sunbelt Rental	10/10/2012	
3394RT Scissor Lift	247011	JLG	N/A	N/A	0200191193	N/A	82	3	BPC	Sunbelt Rental	10/10/2012	
3394RT Scissor Lift	249299	JLG	N/A	N/A	0200191618	N/A	82	3	BPC	Sunbelt Rental	10/11/2012	
3394RT Scissor Lift	248357	JLG	N/A	N/A	0200190911	N/A	82	3	BPC	Sunbelt Rental	10/19/2012	
56KW Generator	494444	MQ POWER	159997	20150831	7352686	2012	98	4I	BPC	Sunbelt Rental	10/11/2012	
100KW Diesel Generator	113625	MQ POWER	134361	8/31/2015	8500589	2012	123	4	BPC	Sunbelt Rental	10/11/2012	
56KW Generator	467644	MQ POWER	159018	20150731	8802310	2011	98	3	BPC	Sunbelt Rental	10/11/2012	
3394RT Scissor Lift	178912	JLG	N/A	N/A	0200173593	N/A	82	3	BPC	Sunbelt Rental	10/30/2012	
10K Sky Trac	456904	SKYTRAK	HA9T99	NA	160046127	2012	110	3	BPC	Sunbelt	10/8/12	
10k 55' Boom Forklift	381627	SKYTRAK	VR8X43	NA	0160035426	2008	110	3	BPC	Sunbelt	1/2/13	
10k 55' Boom Forklift	381624	SKYTRAK	FK7D56	NA	0160034918	2008	110	3	BPC	Sunbelt	1/2/13	6/10/2013
10K 55' Shooting Boom Forklift	510424	SKYTRAK	BH4V73	NA	160049877	2011	110	3	BPC	Sunbelt	1/7/13	
10K SKY TRAC 10054	381625	SKYTRAK	TW7C45	NA	0160035842	2008	110	3	BPC	SUNBELT	4/25/12	
Hyster Staight Mast Cap 18,000	07-790	Hyster	EJ7J49	NA	H007E01776E	2007	155	3	BPC	Sunbelt		
Hyster Staight Mast Cap 18,000	03-244	Hyster	PH6H86	NA	G019E02241F	2008	155	3	BPC	Sunbelt		
10K 55' Shooting Boom Forklift	225991	SKYTRAK	WJ6A97	NA	0160036122	2008	110	3	BPC	Sunbelt	1/7/13	4/17/2013
10K 55' Shooting Boom Forklift	510425	SKYTRAK	ER5X38	NA	0160049879	2012	110	4i	BPC	Sunbelt		
10K 55' Shooting Boom Forklift	381615	SKYTRAK	TU7C34	NA	0160034092	2008	110	3	BPC	Sunbelt	11/23/12	
10k 55' Boom Forklift	440445	SKYTRAK	JN5W34	NA	0160045838	2012	110	4I	BPC	Sunbelt	1/28/13	5/6/2013
10K Sky Trac 10054	460412	SKYTRAK	SC7C56	NA	0160046155	2011	109.9	3	BPC	Sunbelt	12/17/12	5/31/2013
12K 55' Shoting Boom Forklift	446816	SKYTRAK	MT5B35	NA	0160045916	2012	130	4I	BPC	Sunbelt	4/19/13	
10k 55' Boom Forklift	381624	SKYTRAK	FK7D56	NA	0160034918	2008	110	3	BPC	Sunbelt	4/23/13	
30-33' RT SCISSOR 4WD DF	183258	JLG	licable. Dual fuel unit.	NA	125606	2011	67	4I		Sunbelt	5/17/13	

4400LB 16' SHOOTING BOOM FORKL	187863	JCB	LE9F58	NA	U538865V	2011	83	3		Sunbelt	5/7/13	6/10/2013
4400LB 16' SHOOTING BOOM FORKL	232894	JCB	TE9P76	NA	46904990	2008	82	3		Sunbelt	5/7/13	
10,000LB 55' SHOOTING BOOM FORK	381629	SKYTRAK	WW9J44	NA	46904990	2008	82	3		Sunbelt	5/7/13	

Genesis Solar Energy Project

Master Equipment List

Equipment Type	Brand /Model	Registration Number	Expiration Date	Serial Number	Engine Year	Horsepower	Tier Rating	Contractor	Rental Company	Mobilization Date	Demobilization Date	Notes
Drive Engine	CAT C7 Acert	148483	8/31/2013	NA	NA	NA	III	SouthWest Drilling	SouthWest Drilling	(Recorded 9/20/2011)	10/1/2011	Removed from site.
Drive Engine	CAT C7 Acert	148484	8/31/2013	NA	NA	NA	III	SouthWest Drilling	SouthWest Drilling	(Recorded 9/20/2011)	10/1/2011	Removed from site.
Air Compressor	Atlas Copco	152484	8/31/2013	JPEC-0005	NA	NA	III	SouthWest Drilling	CAT/Johnson	(Recorded 9/20/2011)	10/1/2011	Removed from site.
Engine	DDC Diesel	130415	3/31/2014	NA	NA	NA	III	SouthWest Drilling	ARB Portable Equipment	(Recorded 9/20/2011)	10/1/2011	Removed from site.
Sweeper	Broce Broom	VH3U58	NA	807664	2010	84	III	Sukut	RSC	(Recorded 9/20/2011)		
Dozer	CAT 834B	CS8P98	NA	34-07	2007	475	III	Sukut	Sukut	9/19/2011	3/22/2012	
Dozer	CAT 824C	YA9K67	NA	24-12	2007	354	III	Sukut	Sukut	9/29/2011		
Motor Grader	CAT 16G	SC5M77	NA	2801-16	2009	297	III	Sukut	Sukut	10/6/2011		
Scraper	CAT 657	PC8Y97/HB3G78	NA	57-21	2007	600	III	Sukut	Sukut	(Recorded 9/20/2011)	4/9/2012	Removed from site
Backhoe	CAT 692	KK7C43	NA	430-D	NA	NA	III	SouthWest Drilling	SouthWest Drilling	(Recorded 9/20/2011)	10/1/2011	Removed from site.
Motor Grader	CAT 140H	UN7F66	NA	4068	NA	NA	III	Sukut	Miller Blades	(Recorded 9/20/2011)	9/23/2011	Removed from site.
Scraper	CAT 657	TH4G47/UK3K99	NA	57-22	2010	440	III	Sukut	Sukut	9/28/2011	4/20/2012	
Scraper	CAT 657	XK3J33/GP8T95	NA	57-60	2007	440	III	Sukut	Sukut	9/28/2011	4/11/2012	
Scraper	CAT 657	DF9C83/DG6M34	NA	57-66	2006	600	III	Sukut	Sukut	9/28/2011	4/12/2012	
Scraper	CAT 657	VT6M63/FJ6T95	NA	57-63	2006	440	III	Sukut	Sukut	9/29/2011	4/20/2012	
Scraper	CAT 657	RX8U86/NP6Y75	NA	57-33	2007	440	III	Sukut	Sukut	9/29/2011	4/10/2012	
Scraper	CAT 657	AF3R99/AN5G44	NA	57-28	2010	440	III	Sukut	Sukut	9/30/2011	4/13/2012	
Scraper	CAT 657	CW5Y75/GJ9T48	NA	57-29	2010	440	III	Sukut	Sukut	10/4/2011	4/10/2012	
Scraper	CAT 657	KG5B54/SG3N43	NA	57-64	2010	440	III	Sukut	Sukut	10/4/2011		
Water Wagon	CAT 651	CF4M43	NA	51-83	2006	540	III	Sukut	Sukut	9/29/2011	4/4/2012	
Skiploader	John Deere	NA	NA	NA	NA	NA	III	Sukut	Sukut	9/19/2011	9/28/2011	Used less than 10 days onsite.
Skiploader	CAT 414E	ME7J57	NA	NA	NA	NA	III	Sukut	United Rentals	10/12/2011	11/3/2011	
Scraper	CAT 623	XE5H67	NA	NA	1985	350	III	Sukut	Sukut	9/28/2011		
Motor Grader 16G	CAT 16G	HK8W79	NA	NA	2009	298	III	Sukut	Miller Blades	9/19/2011		
Dozer	CAT D9T	EV5K99	NA	90-34	2005	410	III	Sukut	Sukut	9/28/2011	3/8/2012	
Skiploader	CAT 414E	CL7M35	NA	NA	2007	78	III	Sukut	Sukut	9/27/2011	10/7/2011	Removed from site
Generator	Atlas Copco QAS-30	645888	NA	645888	NA	NA	NA	Sukut	RSC	(Recorded 9/20/2011)	10/1/2011	Removed from site
Generator	Airman -SDG60S	1473A20166	NA	689	NA	NA	NA	SouthWest Drilling	SouthWest Drilling	(Recorded 9/20/2011)	10/1/2011	Removed from site
Generator	Kohler 400 Kw	138194	5/31/2013	403015	NA	99	III	Sukut	Kohler Rental	(Recorded 9/20/2011)		WI Lic. Plate 555501
Generator	MQ Power	147014	3/31/2012	1101821	NA	NA	III	SouthWest Drilling	United Rentals	(Recorded 9/20/2011)	10/1/2011	Removed from site

Genesis Solar Energy Project

Master Equipment List

Equipment Type	Brand /Model	Registration Number	Expiration Date	Serial Number	Engine Year	Horsepower	Tier Rating	Contractor	Rental Company	Mobilization Date	Demobilization Date	Notes
Generator	NA	148485	8/31/2013	NA	NA	NA	III	SouthWest Drilling	SouthWest Drilling	(Recorded 9/20/2011)	10/1/2011	removed from site
Generator	Kohler 400 Kw	138189	5/31/2013	403010	NA	99	III	Sukut	RSC	10/1/2011		
Generator	MQ Power 400 Kw	143594	5/31/2014	2263	NA	NA	III	Sukut	RSC	10/11/2011	1/30/2012	
Motor Grader	CAT 140H	LJ6V63	NA	NA	NA	NA	III	Sukut	Miller Blades	10/17/2011	10/24/2011	
Scraper	CAT 613	FW6W46	NA	NA	NA	NA	III	Sukut	Miller Blades	10/17/2011	11/14/2011	
Backhoe	CAT 420E	GH8F30	NA	NA	NA	NA	III	Sukut	United Rentals	10/12/2011		
Roller	BOMAG 177D	HV4A78	NA	NA	NA	NA	III	Sukut	United Rentals	10/20/2011	10/21/2011	
Motor Grader	CAT 16G	VX6L67	NA	NA	NA	NA	III	Sukut	Miller Blades	10/25/2011		
Scraper	CAT 657	WN3G47/TP5D95	NA	57-59	NA	440	III	Sukut	Sukut	10/25/2011		
Scraper	CAT 657	VR9W59/DU7M84	NA	57-41	NA	440	III	Sukut	Sukut	10/28/2011		
Scraper	CAT 657	XG9N34/NY8599	NA	57-40	NA	440	III	Sukut	Sukut	11/3/2011	4/10/2012	
Scraper	CAT 657	NX6E67/XF4H83	NA	57-56	NA	440	III	Sukut	Sukut	11/3/2011	4/10/2012	
Skiploader	CAT 414E	KF6F93	NA	NA	2007	78	III	Sukut	Sukut	11/3/2011		
Water Pull	CAT	EINUN7B76	NA	NA	NA	NA	III	Sukut	Sukut	11/4/2011		
Scraper	CAT 657	LK5B78/PP9G75	NA	57-41	NA	440	III	Sukut	Ren Trac	11/9/2011	4/12/2012	
Scraper	CAT 657	GW6L96/PG6J43	NA	1265	NA	440	III	Sukut	Rent Trac	1/9/2012		
Scraper	CAT 657	TP8386/4F5538	NA	1257	NA	440	III	Sukut	Rent Trac	1/9/2012		
Scraper	CAT 657	GT4449/T4GN36	NA	1229	NA	440	III	Sukut	Rent Trac	1/10/2012		
Scraper	CAT 657	PD6T47/TM7F56	NA	1248	NA	440	III	Sukut	Rent Trac	1/10/2012		
Scraper	CAT 657	XC3E93/VX8L63	NA	1355	NA	440	III	Sukut	Rent Trac	1/11/2012		
Generator	70 Kw	140035	NA	701672	NA	NA	III	Sukut	RSC	11/15/2011	1/13/2012	
Forklift	Skytrack JLG	NL5346	NA	NA	NA	NA	NA	Sukut	RSC	11/10/2011	3/26/2012	
Backhoe	JD 310	XK3X55	NA	NA	NA	NA	III	Sukut	RSC	11/30/2011	1/13/2012	
Skiploader	JD 210	NA	NA	NA	NA	NA	III	Sukut	RSC	11/12/2011	3/5/2012	
Water Wagon	CAT 651	FRX8T76/R43TG49	NA	37-05	NA	NA	III	Sukut	Sukut	1/3/2012	4/6/2012	
Generator	500 Kw	139957	8/31/2013	55-500	NA	NA	III	Sukut	RSC	1/3/2012		
Scraper	CAT 623	SF9V87	NA	1	NA	NA	III	Sukut	Miller Blades	1/16/2012		

Genesis Solar Energy Project

(SPX) Over 50hp Diesel Equipment List

6/25/2013

Equipment Type	Brand/Model	CA ARB Registration Number	Expiration Date	Vehicle Serial Number	Engine Year	Horsepower	Tier Rating	Contractor	Rental Company	Mobilization Date	Demob. Date	Notes
10K Reach Forklift	Skytrak10054	WV7G87	n/a	160045259	2012	85	4	SPX	United Rental	4/17/12	1/1/13	
Aerial Lift	JLG 600S-D-4WD	JA3S89	n/a	300100537	2006	65	2	SPX	United Rental	4/9/12	5/9/12	
12K Reach Forklift	JLG G12-55A-CAB	WS4U93	n/a	160042642	2011	130	3	SPX	United Rental	4/16/12	1/1/13	
10K Reach Forklift	SkyTrak10054	NL5S46	n/a	160028758	2006	110	3	SPX	United Rental	3/30/12	8/2/12	
10K Reach Forklift	SkyTrak10054-CAB	MG7N93	n/a	160045262	2012	85	4	SPX	United Rental	4/17/12	8/14/12	
90T Hydraulic Crane	Link Belt RTC 8090 II	PW7X77	n/a	N4J9-1414	2008	275	3	SPX	Bragg Crane	4/19/12	1/1/13	
Skid Steer Loader	Bobcat T190	JP8A55	n/a	A3LN40197	2011	66	4	SPX	United Rental	4/2/12	8/2/12	
Crawler Crane	Manitowoc 2250	UN4J99	n/a	2251187	2004	500	2	SPX	Bragg Crane	4/20/12		
Aerial Lift	Genie S80	SP9S45	n/a	S8006-5239	2008	69	3	SPX	United Rental	5/9/12	8/2/12	
Aerial Lift	JLG 1200S	LX7E63	n/a	300108357	2007	87	4	SPX	United Rental	5/9/12	5/25/12	
Aerial Lift	JLG 860S	WK3P33	n/a	300087288	2005	64.5	4	SPX	United Rental	5/9/12	8/11/12	
Off H-Way Truck	YT30	LG4V94	n/a	305188	2002	148	3	SPX	United Rental	5/16/12		
Aerial Lift	Genie S85D-4WD	MB9A48	n/a		2001	53	4	SPX	United Rental	5/25/12	8/12/12	
Crane	Tadano GR150XL-1	GK4C54	n/a	FD1373	2006	135	3	SPX	Bragg Crane	6/1/12		
Crawler Crane	Liebherr LR 1160	EW4G63	n/a	134105	2007	362	3	SPX	Bragg Crane	6/1/12		
Aerial Lift	Snorkel TB80	EB3J97	n/a	JA07011	2006	64	4	SPX	United Rental	6/6/12	6/11/12	
Forklift	Doosan D130S-5	FU8T96	n/a	FDCO2-1270-00441	2012	138	3	SPX	United Rental	3/30/12	8/2/12	
Aerial Lift	JLG 600S	GP4P96	n/a	300068195	2002	64	4	SPX	United Rental	6/11/12	7/23/12	
Aerial Lift	Genie S60X	JL4L53	n/a	1121723	2010	48.6	4	SPX	United Rental	6/11/12	10/10/12	
Aerial Lift	JLG 860SJ	VA5H57	n/a	300140695	2010	62	4	SPX	United Rental	6/8/12	7/27/12	
Aerial Lift	Genie S85-D-4WD	HA3V64	n/a	S8008-7276	2008	74	3	SPX	United Rental	6/11/12		
Aerial Lift	Genie S-40	PG4E79	n/a	S4005-8825	2005	48	3	SPX	United Rental	6/12/12	10/9/12	
Aerial Lift	Genie S-85	BA7H58	n/a	S8512-9424	2012	74	4	SPX	United Rental	6/26/12		
Aerial Lift	JLG 600S	TE7W96	n/a	300160743	2012	49	4	SPX	United Rental	7/13/12	8/2/12	
Aerial Lift	Genie S120-D-4WD	LP5R53	n/a	S12005-1090	2005	74	3	SPX	United Rental	7/29/12	8/23/12	
Aerial Lift	Genie S125-D-4WD	BA4U44	n/a	S12511-3021	2010	78	3	SPX	United Rental	12/10/12		
90T Hydraulic Crane	Link Belt RTC-8090_II	LV6S67	n/a	N4J9-0909	2008	275	3	SPX	Bragg Crane	7/27/12	10/1/12	
12K Reach Forklift	JLG G12-55A_HVY_DTY	MN3A47	n/a	160041880	2011	130	3	SPX	United Rental	8/2/12		
10K Reach Forklift	JLG 10054	AR8H47	n/a	160047046	2012	75	3	SPX	United Rental	8/14/12	1/1/13	
Tractor	Deere 210LJ	EP9H67	n/a	1T0210LJJB089	2011	75	3	SPX	United Rental	8/14/12	1/1/13	
Aerial Lift	Genie S-125	NR3S59	n/a	S12511-2966	2010	74	3	SPX	United Rental	8/23/12	1/1/13	
Aerial Lift	Genie S-125	NJ3W39	n/a	S12511-2974	2010	75	3	SPX	United Rental	8/14/12	10/9/12	
Aerial Lift	JLG 1200SJP	EM7F54	n/a	300156959	2011	75	3	SPX	United Rental	8/29/12	1/1/13	
90T Hydraulic Crane	Link Belt RTC-8090_II	UT4J94	n/a	N4J91312	2008	275	3	SPX	Bragg Crane	10/1/12		
Aerial Lift	JLG 860SJ	JV3E73	n/a	300162263	2012	62	4	SPX	United Rental	10/9/12	1/1/13	
Aerial Lift	Genie S-85	HS9W65	n/a	S8511-8742	2010	74	3	SPX	United Rental	12/10/12	1/1/13	
Aerial Lift	Genie S-85	NA3M59	n/a	S8008-6905	2008	78	3	SPX	United Rental	1/1/13		
12K Reach Forklift	JLG G12-55A-CAB	BF5N78	n/a	160045671	2012	130	3	SPX	United Rental	12/17/12		
ON ROAD VEHICLES - DO NOT REQUIRE OFF ROAD REGISTRATIONS												
RSC WATER TRUCK	F750		n/a	3FRXF75E65V122809		350		SPX	United Rental	5/2/12		

Genesis Solar Energy Project

PMI Over 50hp Diesel Equipment List

6/20/2013

Equipment Type	Brand/Model	CA ARB Registration Number	Expiration Date	Vehicle Serial Number	Engine Year	Horsepower	Tier Rating	Contractor	Rental Company	Mobilization Date	Demob. Date	Notes
Crawler Crane	Manitowoc 2250	UN6D38	N/A	2251135	2001	450	II	Dielco Crane	N/A	7/2/12		
Rough Terrain Crane	Link-Belt RTC 8090	HG4A49	N/A	N4J91247	2009	235	III	Dielco Crane	N/A	7/2/12		
Rough Terrain Crane	Link-Belt RTC 8090	SX8S46	N/A	N4J79629	2007	275	III	Dielco Crane	N/A	8/17/12		
Rough Terrain Crane	Grove RT 875E	WS9Y85	N/A	226419	2007	240	III	Dielco Crane	N/A	9/24/12		
8000# Fork Lift	SKYTRK/8042	TA7K46		849621	2012	110	IIII	PMI	United	6/25/12		
JLG Model 600 Lift	JLG/600A	MT8P58		10049251	2012	49	IIII	PMI	United	6/25/12		
Generator 70-84kva	MQ / DC70SSIU2C	151845		1160351	2010	125	III	PMI	United	7/27/12		
Generator 45-49-kva	MQ / DC45	152309		1165478	2010	69	IIII	PMI	United	7/3/12		
10000# Fork Lift	Gradall	PK4G83	NONE	GTH1006A-9236	2006	115	II	PMI	United	8/13/12	9/7/12	Returned, not used
9000# Fork Lift	Gradall	RM4R53	NONE	160027849	2007	115	II	PMI	United	8/14/12	8/27/12	Returned, not used
80 foot boom lift	JLG800AJ	MG9W35	NONE	11152570	2011	62	4	PMI	Ahern	8/20/12	11/16/12	Returned
12000# Fork lift	XRM1254	FC6P67	NONE	XRM1254050790428	2007	108	III	PMI	Ahern	8/24/12		
30K fork lift	Cat/DP150			6dpn208	2005	129	II	PMI	United	8/20/12	9/11/12	Returned, not used
Yard Goat	Ottawa	DA5H53		327393	2011	160	III	PMI	United	8/22/12	6/7/13	Off Rent
Generator	Magnum/MMG100	None	NONE	PE4045LO15137	2007	122	III	PMI	Ahern	8/29/12		
34K Fork Lift	HYSTER	VT5C39		G019E02568H	2011	155	III	PMI	United	9/11/12		
10000# Fork Lift	JLG	DY9H37	NONE	1060047242	2012	125	4	PMI	United	9/7/12		
10000# Fork Lift	SKYTRK	TN3R65		160041049	2011	125	III	PMI	United	8/7/12	9/26/12	returned
10000# Forklift	Gehl/DL11-55	PK5G37	None	DL1155HJD0741530	2012	115	4	PMI	KING EQUIP	9/7/12		
60' Articulating Boom	Genie/Z60	XY3W75	None	Z60089175	2008	49	4	PMI	KING EQUIP	9/7/12		
80' Articulating Boom	Genie/Z80-60	HT9R54	None	Z80123612	2012	74	4	PMI	KING EQUIP	9/10/12		
12000K Fork Lift	Gehl/DL12 IT4	FA3W69	NONE	DL1240HJD0850934	2012	115	4	PMI	kING EQUIP	9/27/12		
10000# Fork Lift	SKYTRK	RM6K98	NONE	160044131	2011	125	III	PMI	United	9/26/12		
65kva Generator	MMD PowerPro65	158401	5/31/2015	1478B10280	2011	97.9	III	PMI	Red-D-Arc	10/11/12		
65kva Generator	MMD PowerPro65	158402	5/31/2015	1478B10284	2011	97.9	III	PMI	Red-D-Arc	10/11/12		
45 kw gen (70)	multiquip	151846	NONE	1351373	2010	125	III	PMI	united	10/9/12		
385 CFM compressor	Atlas Capco		NONE	PE404HF285	2011	125	III	PMI	KING EQUIP	10/16/12		
375 CFM compressor	Atlas Capco	142869	NONE	PE4045H660408	2010	124	III	PMI	Ahern	10/17/12		
Carry Deck	Shuttle Lift 7755	XG3T33	N/A	321016	2009	130	III	Dielco Crane	N/A	11/13/12		
10000# Fork Lift	JLG	JB7W49	none	160049525	2012	130	IIII	PMI	United	12/10/12		
Rough Terrain Crane	Link-Belt RTC 8080	UA6D49	N/A	N4K33223	2012	260	IIII	Dielco Crane	N/A	12/17/12		
100 kva Generator	Deere		N/A	PE6068L015079	2007	216	III	PMI	United	12/21/12		
10000# Forklift	Gehl/DL11-55	XB7G76	NONE	DL1155HJD0941566	2012	115	4	PMI	KING EQUIP	1/28/13		
10000# Forklift	JCB	BJCBL04	NONE	SF320/40436U1060812	2012	85	4	PMI	United	2/4/13		
Rough Terrain Crane	Grove RT 890E	PE4V47	N/A	230418	2008	275	III	Dielco Crane	N/A	2/12/13		
Rough Terrain Crane	Link-Belt RTC 8090	WD7S57	N/A	N4K33407	2013	275	IIII	Dielco Crane	N/A	3/5/13		
125' Boom Lift	Genie/S125	SW4J67	None	S12512D-164	2012	74	T4i	PMI	KING EQUIP	3/11/13	3/28/13	
45 kw gen (70)	magnum	131912	none	63141	2008	80	III	pmi	united	3/21/13		
Truck Crane	American 8460	PT6R97	N/A	8109A02840	2008	365	III	Dielco Crane	N/A	3/26/13		carrier
Truck Crane	[redacted]				2012	425	IIII	Dielco Crane	N/A	3/26/13		upperworks
70 KVA Generator	Himoinsa/HRJW75	159075	7/31/2015	121000547	2012	99	III	PMI	Hertz	3/27/13		

Rough Terrain Crane	Link-Belt RTC 8090	TP8L34	N/A	N4K33496	2013	275	IIII	Dielco Crane	N/A	4/9/13		
80' Boom lift	Genie		N/A	Z8010-2709	2010	72	4	PMI	KING EQUIP	4/9/13		
115kva Generator	Himoinsa/HRJW115	159410	7/31/2015	121002397	2012	144	III	PMI	Hertz	4/16/13		
10,000 reach lift	Genie	DR7D89	none	gth1012-15697	2012	139	III	pmi	United	4/12/13	4/21/13	
5000 lb Reach Forklift	JLG/G5-18A	NX7L39	N/A	160046246	2011	63	IIII	PMI	Hertz	4/16/13		
10,000 reach lift	skytrack	QSB33	none	160047114	2012	100	III	pmi	United	4/22/13		
12k Reach Lift	JLG/G12-55A	EY7M85	N/A	0160050783	2013	130	T4i	PMI	Hertz	5/8/13	5/21/13	
10k Reach Lift	Skytrak/10054	VA4P83	N/A	160039094	2010	87	T3	PMI	Hertz	5/21/13		
125' Boom Lift	Genie/S125	UP5B85	N/A	S125082047	2008	58	T4i	PMI	Hertz	5/24/13		
12k Reach Lift	JLG/G12-55A	TC5Y94	NONE	160046406	2012	130	4	PMI	United	5/28/13		

Appendix B

Biological and Botany Reports

BIO-8: Impact Avoidance and Minimization Measures

BIO-19: Special-Status Plant Impact Avoidance, Minimization and Compensation

GENESIS SOLAR ENERGY PROJECT
BIOLOGICAL RESOURCES
MONTHLY COMPLIANCE REPORT
FOR JUNE 2013

Prepared for:

Genesis Solar, LLC
11995 Wiley Wells Road
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June 2013

TABLE OF CONTENTS

Section **Page**

INTRODUCTION 3

PROJECT LOCATION AND DESCRIPTION 4

MONITORED MITIGATION MEASURES AND PERMIT CONDITIONS 4

SUMMARY OF ACTIVITIES.....5

WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP).....9

GENERAL DAILY NOTES AND OBSERVATIONS.....10

ATTACHMENTS

1 Figures
2 Species Observed During June Surveys and Monitoring
3 Daily Biological Monitoring Logs
4 Survey Data Forms
5 Agency Correspondence

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INTRODUCTION

AECOM biologists are performing biological resource construction monitoring for the Genesis Solar Energy Project (Project or GSEP) on behalf of Genesis Solar, LLC. The GSEP construction activities are currently focused on the Plant Site (approximately 1,727 acres), Fiber Optic Line, Gas Line and the Transmission Line. Surveys for the transmission line, gas line, and fiber optic line installation were completed for construction outside the permanent fence. Monitoring of these facility areas are being conducted in compliance with the following agency approvals and permits issued for the Project.

- California Energy Commission's (CEC's) Final Conditions of Certification (COCs) (Genesis Solar Energy Project Final Decision, CEC-800-2010-011-CMF, 09-AFC-8 September 2010)
- Genesis Solar Energy Project Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP, Docket Number 09-AFC-8, January 2011) and appended Compliance Plans:
    - Weed Management Plan (Appendix C.1 of BRMIMP)
    - Revegetation Plan (Appendix C.2 of BRMIMP)
    - Couch's Spadefoot Toad Protection and Mitigation Plan (Appendix C.3 of BRMIMP)
    - Desert Tortoise Translocation Plan (Appendix C.4 of BRMIMP)
    - Burrowing Owl Relocation and Mitigation Plan (Appendix C.5 of BRMIMP)
    - Golden Eagle Monitoring and Management Plan (Appendix C.7 of BRMIMP)
    - Common Raven Monitoring, Management, and Control Plan (Appendix C.8 of BRMIMP)
- U.S. Fish and Wildlife Service (USFWS) Section 7 Biological Opinion (BO) on the Genesis Solar Energy Project No. FWS-ERIV-08B0060-10F0878 (November 2, 2010)
- Bureau of Land Management (BLM) Right of Way (ROW) Grant, Serial Number CACA-048880 (November 30, 2010)
- Record of Decision (ROD for the Genesis Solar Energy Project and Amendment to the California Desert Conservation Area Plan, October 2010

This report documents compliance monitoring activities conducted in June 2013. The following biological surveys and monitoring took place in June 2013:

- Weekly reconnaissance for ravens, focusing on potential subsidies; and, daily recording of raven sightings.
- Biological monitoring of the Plant Site, Gas Line and Transmission Line.
- Monthly Evaporation Pond Monitoring (BIO – 21)

Wildlife species observed and photos taken during these activities are provided in Attachment 2 and Attachment 3, respectively.

PROJECT LOCATION AND DESCRIPTION

The Project site is located in the Riverside County, California between the community of Desert Center and the city of Blythe. The Project is located on land owned by the federal government and managed by the BLM, pursuant to an ROW grant issued to Genesis Solar from BLM and the power plant certification issued by CEC. The total Project Disturbance Area (at build out) will be approximately 1,819.5 acres.

The Project is a concentrated solar electric generating facility that will use parabolic trough technology to generate electricity. The Project consists of two independent concentrated solar electric generating facilities with a nominal net electrical output of 125 megawatts (MW) each, (Units 1 and 2), for a total net electrical output of 250 MW. The Plant Site includes the solar arrays, power blocks, power generating equipment, support facilities, and evaporation ponds. The Linear Facilities include a transmission line, distribution line, natural gas pipeline, and a main access road.

MONITORED MITIGATION MEASURES AND PERMIT CONDITIONS

Biological mitigation measures for the GSEP site were developed through consultation with CEC, the California Department of Fish and Wildlife (CDFW), USFWS, and BLM. Biological mitigation measures and permit conditions were implemented under the guidance and direction of the Project Designated Biologist (DB), with assistance from approved Biological Monitors (BMs), as required.

During June 2013, Project activities were in compliance with the COCs that apply to the construction activities.

SUMMARY OF ACTIVITIES

Weekly activities for the month consisted of:

- General Construction Monitoring
  - Monitored Plant Site – General site activities including powerblocks one and two construction, permanent fence construction, mirror installation, piping and, laydown yard activities. All Plant Site construction activities occurred within the desert tortoise (DT) exclusion fencing. There were reports of foxes on site. Attempts to identify ingress and egress points are being made. There has been an emphasis on gate closures. No other special status species sightings were observed on site during the month of May. The temporary exclusion 6' high chain link fence installed in February 2013 around a pipe laydown to discourage fox use remained in place. The area the foxes occupied continues to be monitored. Neither DKF nor fox sign were observed within the temporary exclusion fence. Mirror fields were monitored as part of general site monitoring. Several bird injuries and mortalities were reported and the information for each incident is summarized in Attachment 4. No DT, American badger (AB), Couch's spadefoot toad (CST), or nesting birds were detected during monitoring on site. Variance approved night time work continued on site. A biologist is not required to be on site during night time construction but is required to be on-call. Litter and uncovered dumpsters were brought to the attention of the compliance team and efforts were made to properly cover dumpsters.
  - Monitored the Access Road for roadkill and vehicle compliance. Roadkill was removed from the road and disposed of in accordance with agency approved methods (i.e., burial). The majority of plant traffic obeyed speed limits during June 2013. Speeding vehicles, if observed, were reported to the Environmental Compliance Manager and/or construction managers. Drivers observed speeding were held accountable by contractors. Vehicle speed and speed limits were discussed with contract personnel to reinforce compliance. Daytime and nighttime speed limits continued to be in effect. (Genesis (09-AFC-08) GSEP PMI Night Work, VIS-2/BIO-8, CPM approval) The daytime (05:45 to 19:30) speed limit is 45 MPH. The nighttime (1930 to 05:45) speed limit is 25 MPH. A one thousand foot 24 hour 25 MPH zone established along the west end of the paved access road in the vicinity of a natal DKF den.

- Monitored transmission line demobilization activities outside of the tortoise exclusion fence. The final wire pulling occurred inside the CRS temporary tortoise exclusionary fence within the SCE right-of-way and was not monitored by Genesis biologists. The ground beneath equipment parked outside the tortoise exclusionary fence was inspected for wildlife and the areas of construction were surveyed for sensitive species prior to removal. No sensitive species were found during transmission line activities during the month of June.
- BMs monitored dust suppression activities and water activities that had potential to result in ponding water. These activities were monitored daily to verify that ponding water was minimized and that water was spread and mixed with soil to prevent raven and other predator attraction. Ponding water at water tanks was minimized by scheduled water tank pad maintenance. A discharge plan is in development for future water discharge events including a water discharge that occurred into a Heat Transfer Fluid (HTF) pit following input from the agencies to the Genesis compliance team. Compliance team agreements with the agencies included netting and pumps. These agreements have been reviewed with the compliance team. In accordance with conditions, if reportable spills occurred, contaminated soils from spills and drips were reported to DB and cleaned up. The contaminated soil associated with HTF will be disposed of in accordance with the conditions at the onsite bioremediation area. No HTF leaks or contaminated soil were reported to the DB requiring action. The DB was notified of a spill of 42 gallons, during the June reporting period. No biological resources were impacted and cleanup was managed by the compliance team.

- Evaporation Pond Monitoring

  One day per month operational evaporation ponds are monitored. Monitoring for bird activity and mortalities is conducted for two hours in the morning, one hour mid-day, and two hours in the evening. The ponds are checked on a more frequent incidental basis for presence of general wildlife and need for repair. Areas requiring repair were identified and reported to compliance. Zero bird mortalities occurred in June 2013 associated with the evaporation pond netting. However, the remains of the May 2013 pied-billed grebe mortality (previously reported) were still present.

- Exclusion Fence Monitoring
  - The temporary tortoise exclusion fence was inspected on a weekly basis. The fence was intact and no breaches were found during June 2013.
  - The DT grate at the Plant Site entry from the access road was inspected on a daily basis and maintenance (e.g., removal of soil build-up) was performed when necessary. The DT grate was intact and functional during June 2013.
  - Construction of the permanent DT exclusion fence around the plant site is almost complete. The temporary exclusion fencing is still in place and is located outside the permanent fence. The temporary fencing is inspected routinely. The permanent fencing will be inspected routinely upon removal of the temporary fencing. Occasional inspections of the permanent fencing occur as-needed to confirm integrity (i.e., after completion of new sections, gate installations, repairs, and fox sightings).
- Raven Monitoring
  - Monitors recorded incidental raven observations and activities during general construction monitoring. Typically, ravens were observed perched on power poles or flying in the common area or parking areas.
  - Biweekly point count surveys were conducted. The results from the raven surveys are reported below. Biweekly raven counts will continue throughout the construction phase. No raven nesting sites have been observed. Potential subsidies (i.e., possible nesting, ponded water, roadkill) were monitored per the Raven Plan.
- Monitoring of ESAs
  - All construction activities, with the exception of, gas line installation, transmission pole installation, and maintenance of unpaved portions of the access road occurred within the Plant Site.
  - All biological ESAs are outside of the tortoise exclusionary fencing. ESAs along access road are marked.
- Special Status Species Surveys and Monitoring
  - DKF monitoring with wildlife cameras and radio telemetry was conducted on behalf of CDFW and BLM. This monitoring effort is in support of a CDFW and BLM study and is not part of the Project monitoring requirements. Therefore, data and information from these monitoring efforts are not reported further in the MCR.

- One former DKF location is being monitored on site. A temporary exclusionary fence has been installed around the pipe laydown yard location which the foxes had been using. The pipe laydown yard is being monitored.

SURVEY METHODS AND RESULTS

Pre-construction surveys have been completed and the GSEP site is in the construction phase. Results of the transmission line, fiber optic line and gas line surveys are summarized upon completion and submitted to the agencies as required. Limited work occurred outside the fence in the month of June requiring surveys (surveys were only conducted for limited gas line ativities). Special status species observations (e.g., nesting birds and potential DKF burrows) were reported to the resource agencies prior to construction activities to obtain concurrence on buffers and monitoring as required by the conditions. Surveys conducted during construction per the COCs are summarized below and include nesting birds (as-needed), raven monitoring, and golden eagle surveys as appropriate. Survey methods and results for activities conducted during June 2013 are summarized below.

Nesting Bird Surveys

Nesting bird surveys were completed for the terminus of the gas line construction. Nests found during previous surveys were monitored. Avoidance, minimization, and monitoring measures proposed in the nesting reports have been implemented during off site construction. Overall monitoring and work procedure planning was effective in preventing impacts to nesting behavior. It does not appear as if there were any nest failures as a result of construction activities.

Raven Surveys.

Raven observations were recorded daily during construction activities and were recorded on the Daily Monitoring Log. Monitoring focused on potential subsidies such as waste disposal areas and staged equipment. There were approximately 65 incidental raven sightings during 22 monitoring days. This represents a month-over-month increase[1] in incidental raven observations.

[1]There were approximately 57 incidental raven sightings in May 2013. As a note, incidental raven sightings do not provide an accurate assessment of raven population changes. They are incidental sightings only and do not represent independent sightings.

Formal raven monitoring in accordance with the COCs consisted of monthly and bi-weekly surveys per the Raven Plan. There are seven raven monitoring point locations (Attachment 1). Raven recorded are within an 800m radius. Two ravens were observed during the June 13 survey and zero ravens were observed during the June 26-27 survey. Three ravens were observed during the previous monthly raven count surveys.

One raven nest was detected during May 2013 and is being monitored by the DB and/or BMs for sign of DT predation per the Raven Monitoring, Management, and Control Plan.

WEED AND ESA MONITORING

Sahara Mustard (*Brassica tournefortii*) plants were observed within the Plant Site channel and disturbance areas along the access road. Spot treatment within permanent and temporary disturbance areas was recommended in accordance with the Weed Management Plan; however, chemical treatment cannot occur until BLM approval is obtained. A Pesticide Use Proposal (PUP) was prepared for submittal to the BLM for authorization to apply herbicide to these areas. However, additional NEPA analysis was determined by the BLM to be necessary for application of herbicides at the project site. The NEPA analysis (Environmental Assessment) for the BLM PUP was submitted to BLM on May 14, 2012. It is understood that the PUP and EA have been forwarded to the State BLM office for approval as of the end of the November 2012 period. BLM review and approval is still pending. A treatment plan prepared in accordance with the Weed Management Plan will be ready for implementation in fall 2013 pending BLM approval of the PUP if weeds are present in disturbance areas at that time.

It is understood that ESA monitoring by the Designated Botanist (Alice Karl) occurred weekly during construction activities. ESAs appear to have been avoided.

WORKER ENVIRONMENTAL AWARENESS PROGRAM (WEAP)

As required by COC BIO-6, all new employees/field staff reporting to the site must receive the Worker Environmental Awareness Program (WEAP) training prior to start of work. Permanent employees are also subject to annual WEAP training. All personnel reporting to the field in June received WEAP training. WEAP training records are maintained onsite by the site Environmental Compliance Manager.

GENERAL DAILY NOTES AND OBSERVATIONS

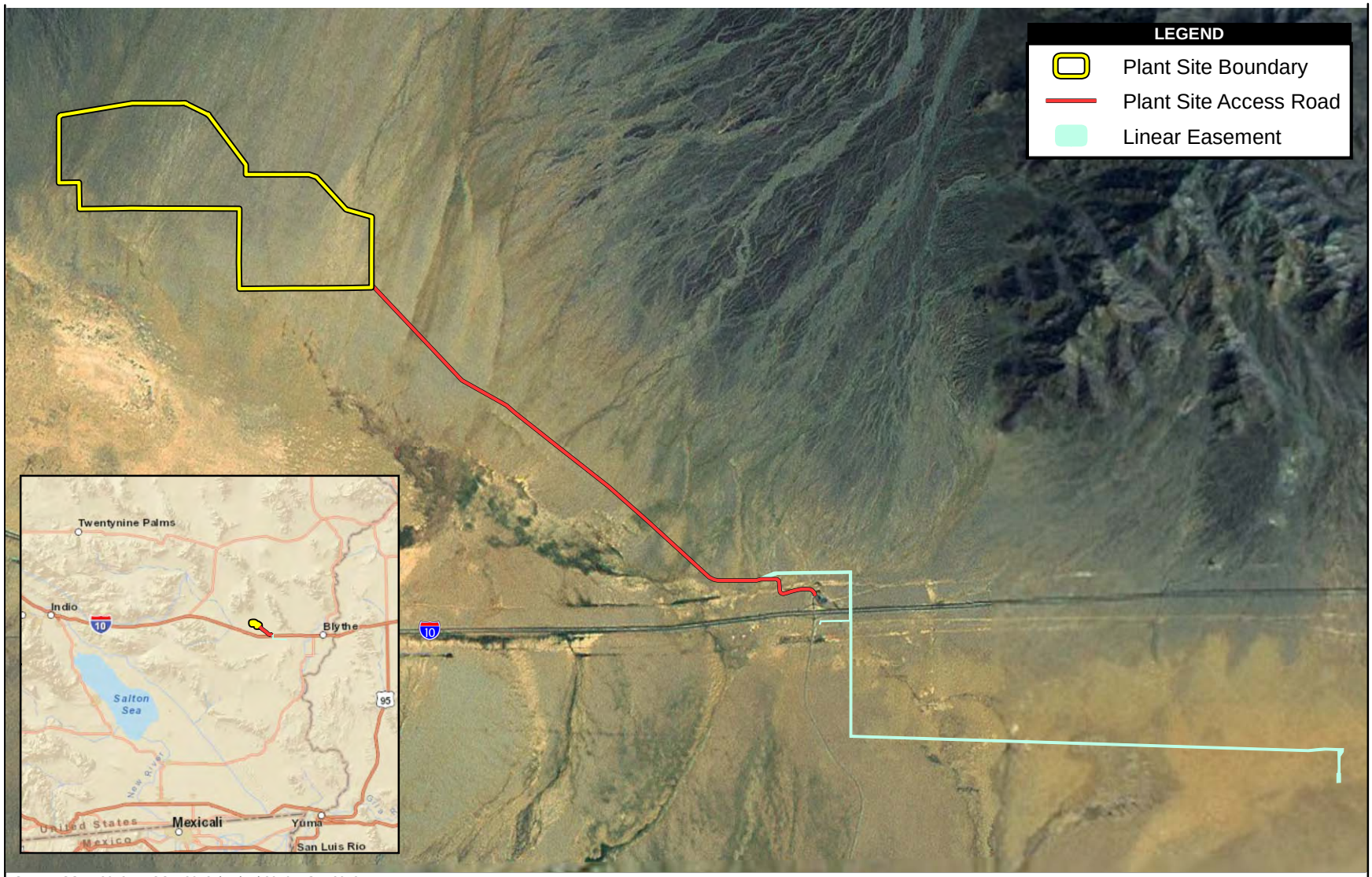
Daily notes detailing compliance monitoring activities are provided in the forms attached (Attachments 3 and 4).

REFERENCES

Not applicable during this reporting period.

ATTACHMENT 1

FIGURES



Source: GSEP 2012; AECOM 2012; i-cubed 2010; ESRI 2012

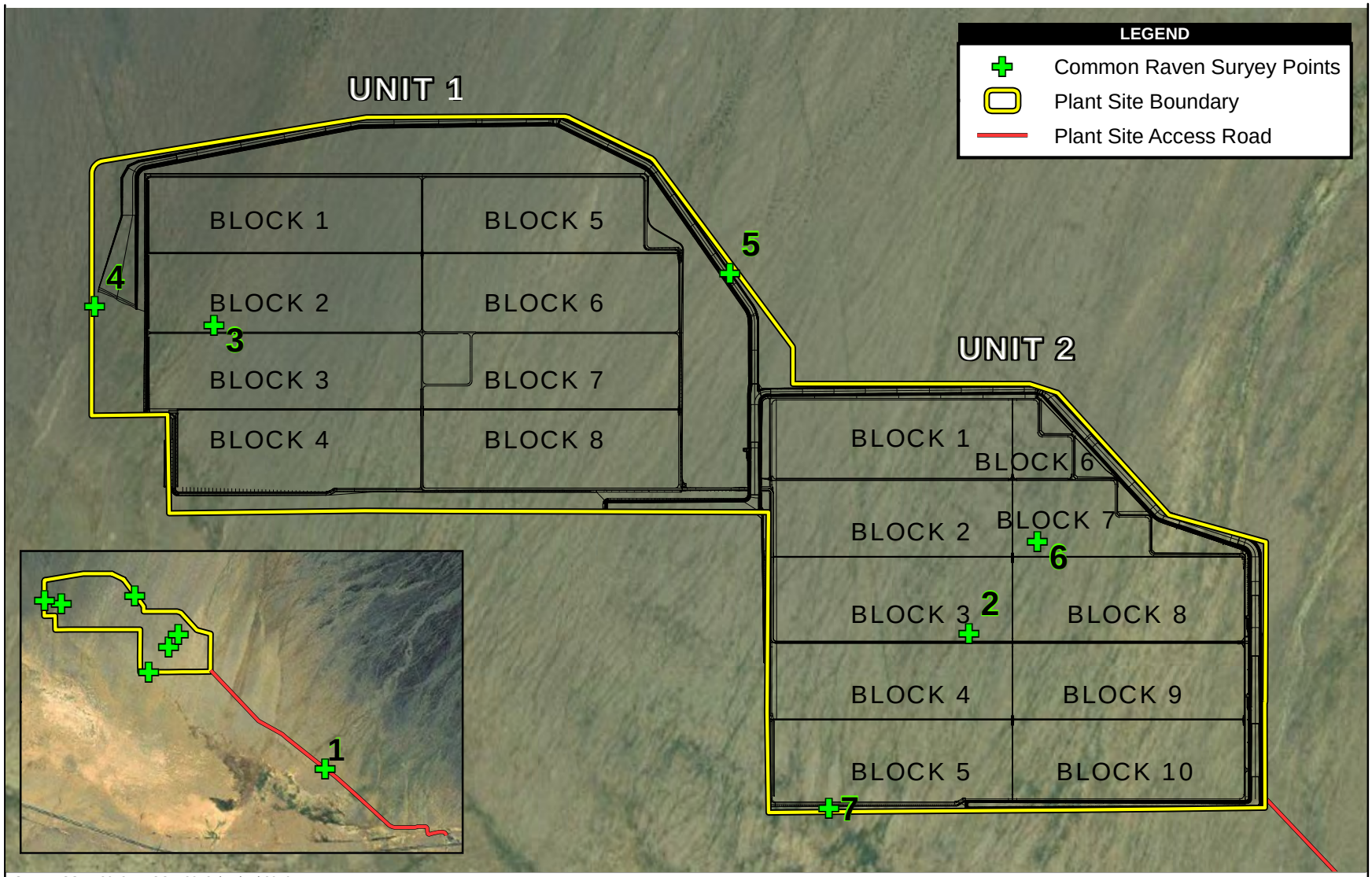
7,500 0 7,500 Feet

Scale: 1:90,000; 1 inch = 7,500 feet

Genesis Solar Energy Project

Genesis Solar Energy Project
Vicinity Map

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\MCR\2013\01 - January\Project Site 20130131.mxd, 2/1/2013, irelandm



Source: GSEP 2012; AECOM 2012; i-cubed 2010

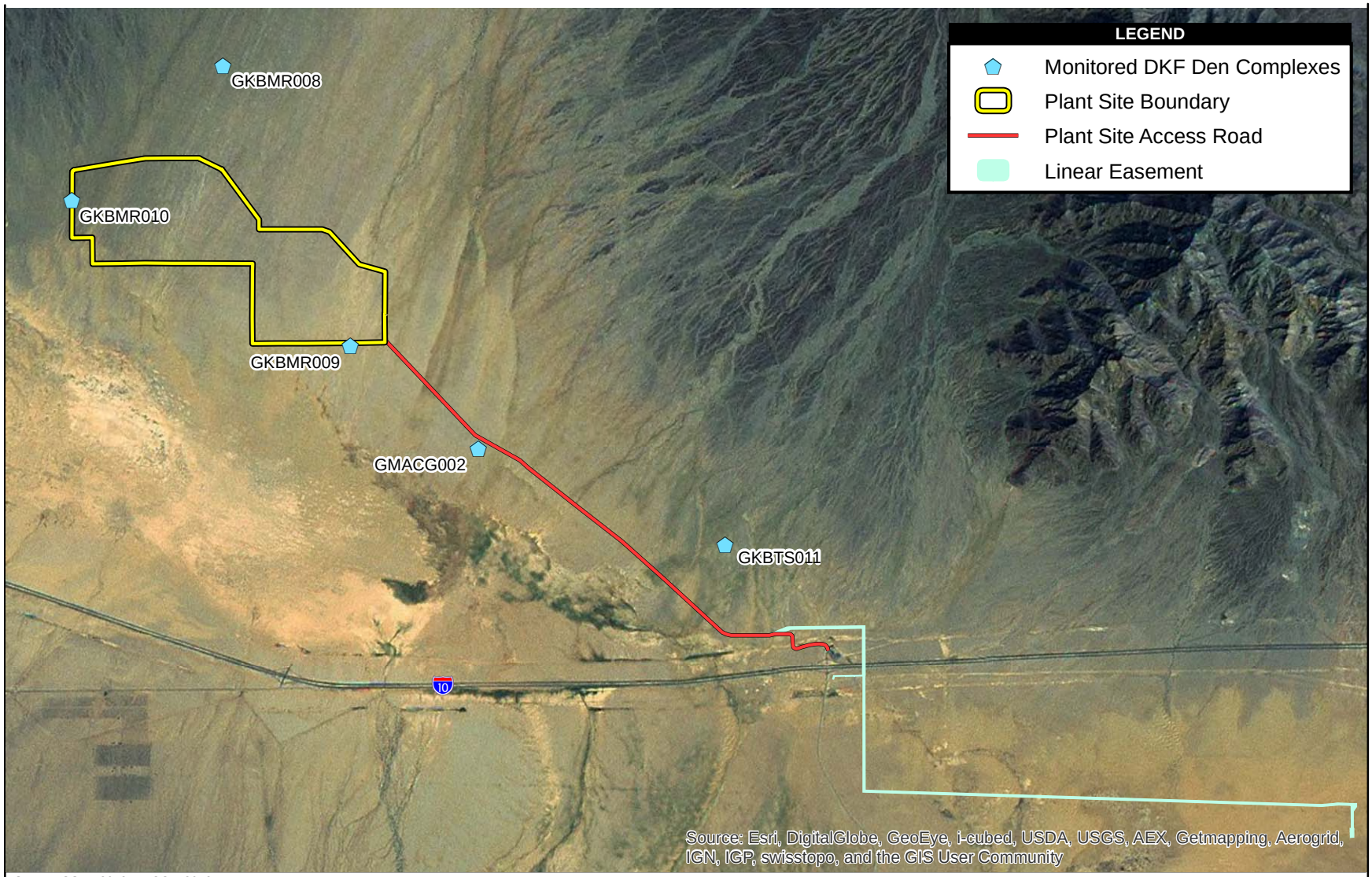
2,000 0 2,000 Feet

Scale: 1:24,000; 1 inch = 2,000 feet

Common Raven Survey Points

Genesis Solar Energy Project

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\MCR\2012\3 - March\CORA Survey Points 20120412.mxd, 4/12/2012, irelandm



Source: GSEP 2013; AECOM 2013

7,500 0 7,500 Feet

Scale: 1:90,000; 1 inch = 7,500 feet

Genesis Solar Energy Project

June 2013 DKF Den Complexes Monitored by Camera Stations and/or Periodic Biological Monitor Visits

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\MCR\2013\06 - June\DKF Camera Complexes 20130701.mxd, 7/2/2013, irelandm

ATTACHMENT 2

SPECIES OBSERVED DURING FEBRUARY SURVEYS AND MONITORING

SPECIES OBSERVED DURING JUNE SURVEYS AND MONITORING

Animals:

Bat ssp.
Black-tailed jackrabbit
Coyote
Desert kit fox
Kangaroo rat
Round-tailed ground squirrel

Birds:

Barn owl
Brown Pelican
Black-necked Stilt
Cattle egret
Common raven
Cowbird
Great blue heron
Greater roadrunner
Loggerhead shrike
Mourning dove
Pied-billed grebe
Prairie falcon

Red-winged blackbird
Say's phoebe
Turkey vulture
White-winged dove
Yellow-headed blackbird

Reptiles:

Coachwhip
Desert horned lizard
Desert iguana
Sidewinder
Western whiptail lizard
Zebra-tailed lizard

ATTACHMENT 3

DAILY BIOLOGICAL MONITORING LOGS

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/3/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 85

Start Time: 7:30:00 AM Stop Time: 5:15:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0730 inspect guard shack area. 0745 and throughout day inspect access road 0815 monitor rock removal and placement within temporary fence outside of permanent fence. 0915 office. 1130 monitor access road. No findings. 1300 inspect unit 2. Noted placement of light stands. Inspected area of discharge water. 1400 meeting. 1500 office. 1645 noted water in pb 2 htf being pumped out.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			Observed vehicles appeared to be following speed limits.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			Closure of permanent gates re-emphasized to prevent dkf entry. Temp fence is effective at preventing dt ingress.
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			5 flying and ground perching.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/3/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 72

Start Time: 5:00:00 AM Stop Time: 3:27:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0500-0600 checked on grouting areas in unit 2
0600-0700 checked for birds in evap ponds, no birds
0700-1415 cleared and monitored removal of tip rap rock along access road between land bridges, found two K rats, they hit out of harms way
1415-1505 drove perimeter of unit 1
Left site st 1527

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			Cleared area where rock removal was taking place
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			N/A four ravens observed in unit 2 eastern drainage channel
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/4/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 84

Start Time: 7:30:00 AM Stop Time: 4:15:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0730 check tline and equipment along crs. Backhoe at 98. Dkf and sidewinder tracks. Two juvenile rtha at structure 97 location. Note porta john at structure c. 0830 and throughout day inspect access road. No findings. 0840 inspect connex corner laydown. No findings. 0900 inspect grout light stands and grouting areas unit 2 blocks 9 and 10 and south block 10. . Some general litter noted. No other findings. 0930 noted insulator panel gaps being closed. 1000 inspect pb2 htf pit. Water being pumped out. 1045 inspect evaporation ponds. No water discharge and no birds seen within enclosure. 1115 office. 1400 meeting. 1530 inspected pipe blow prep unit 2 block 9and 10 w corner 1545 inspect pb2 htf pit. Pot being dewatered. 1600 visually inspect temporary pipe laydown. No wildlife findings wind blown debris along outside of fence

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			Work activities occurred within permanent fence
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Pb2 looking better. Still some trash. Some debris in solar fields.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	Observed vehicles appeared to be following speed limits.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	Work inside fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			4 perched on ground.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Dkf reported on site near common area bridge moving toward unit 2.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/4/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 74

Start Time: 5:00:00 AM Stop Time: 4:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0500-0715 walked DT fence line around unit 2, no breeches or vandalism observed, found deer tracks along fence line in the northeast corner of unit 2.
0720- 0800 drove inside perimeter of unit 2
0800-0900 checked port o john at C pole area
0900-1000 finished perimeter drive on unit 2
1000-1600 Gathered up kit fox survey equipment, conducted kit fox work and filled out forms and read camera cards
1630 left site

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			Two ravens observed flying along southern boundary of unit 2
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Date & Time: Tue Jun 4 12:14:12 PDT 2013
Position: 11 N 683195 3727632
Altitude: 377ft
Azimuth/Bearing: 322° N38W 5734mils (True)
Elevation Angle: -14.6°
Horizon Angle: +00.5°
Zoom: 1X
stripe den area

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/5/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 111 Low Temp (°F): 72

Start Time: 5:30:00 AM Stop Time: 6:15:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0530 ingress along access road. Saw vehicle that appeared to be exceeding speed limit. To be reported to compliance. 0555 Monthly evap pond monitoring. 0830 tailboard with fiber crew re: marking fiber, steel plate removal and handhold location. Only activity to occur handhold location. 1000 meeting. 1030 office. 1145 evap pond monitoring. 1300 investigate report
of owl in pb 2 and owl mortality 2ec/d14. Live owl found perched in pb2. Owl to be monitored. Owl mortality removed from block 9 2ec/d14. 1400 meeting. 1730 investigated entangled gbhe at s evap pond. Bird was flushed and able free itself. Then flew to n evap pond.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?		X		Observed fast moving vehicle leaving site 0535. Will report to compliance.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	Earth disturbing activities inside fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			7: 2 flying along access road, 5 in east channel foraging.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Black necked stilt, coyote, tuvu, cora, krat, Great Blue Heron.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/5/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 105 Low Temp (°F): 76

Start Time: 6:00:00 AM Stop Time: 8:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0600-1320 conducted kit fox work at flash and yentl, could not locate either fox
1320-1700 watched barn owl in power block area of unit 2
1700-1948 conducted evap pond monitoring
1948-2010 looked for barn owl in unit 2 power block area

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			4 ravens in evap towers of unit 2
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Date & Time: Wed Jun 5 08:19:59 PDT 2013
Position: 11 N 690736 3723157
Altitude: 391ft
Azimuth/Bearing: 050° N50E 0889mils (True)
Elevation Angle: -00.9°
Horizon Angle: +01.9°
Zoom: 2X
coyote along access road.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/6/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 111 Low Temp (°F): 84

Start Time: 8:15:00 AM Stop Time: 4:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0815 inspect access road. Remove krat. 0840 inspect isolation panel closures. Gaps closed. 0850 inspect grout area. South of block 10 and north u2 block 9. No findings. 0930 inspect htf bit. Water in pit pump not on. 0945 investigated report of horn toad. Lizard not found. 1300 report of blackbird in unit 2. Not located. 1330 observed water being pumped from htf into water truck. 1400 meeting.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			All work inside permanent fence.
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		General construction and personnel trash throughout pb2.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			Observed vehicles appeared to follow speed limit.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	All work inside permanent fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			2 flying
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Report of dkf on site previous day near main entrance to plant site.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report — Date 6/6/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 111 Low Temp (°F): 78

Start Time: 5:15:00 AM Stop Time: 3:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0515-0525 checked on barn owl unit 2 power block area, no owl present
0525-0545 checked on great blue heron at evap ponds, bird not present
0600-0815 walked unit 1, fence intact
0830-1130 conducted kit fox telemetry at gmacg002
1130-1245 put in stakes in front of power poles to deter turnouts
1300-1430 drove perimeter fence of unit 2 looking for KF ingress area, none located other than entrance gates
1500 left site

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			Two ravens flying over unit 1 block 1
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes:
Observed adult male prairie falcon flying along western fence of unit 1
Observed road runner unit 1 western side
Observed stripes and one young at kit fox den
Observed one small horned lizard on northern fence line of unit 1

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/7/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 113 Low Temp (°F): 84

Start Time: 8:15:00 AM Stop Time: 4:15:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0830 inspect south of i10 tp structure c. Outhouse at c. Backhoe at 98 removed. 0900 inspect 104 area for dkf burrow activity. Some prints. No scat. Opening with plant debris and spider webs also looked at wire pull and fiber pull paths. Paths appear to be recovering. 1100 noticed a barn owl in pb 2. Owl is perched. No nest observed. Owl would be difficult to flush during day time light and heat. Owl being left alone. 1110 inspect htf pit. It has been dewatered. 1130 inspect temporary fenced pipe laydown. No dkf findings. 1345 inspect unit 1. Noted some uncapped pipe. Will report to compliance. No wildlife findings 1500 inspect t south and west side of unit 1. Noted some ice bags and uncapped pipe. 1515 ne corner block 8. Hydro testing. Spoke with foreman water to remain in pipe until discharge Monday. Foreman asked if any other items. Discussed pipe capping. Pipes to be capped. 1345 owl still at pb 2. Appears fine.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Ice bags and other debris noted throughout site.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	All work within permanent fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/7/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 105 Low Temp (°F): 77

Start Time: 5:15:00 AM Stop Time: 1:18:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0516-0545 drove access road for road kills, found 2 KR mortalities removed and buried
0545-0615 checked on evap ponds for wildlife, none found
0625-0840 drove unit 1 perimeter fence looking for breeches, none found
0900-1130 put in stakes around power polls so pad area are not used as turnouts
1213-1300 buried barn owl Eric reported on 6/5/13
1315 left site

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Date & Time: Fri Jun 7 09:08:45 PDT 2013
Position: 11 N 597873 3718762
Altitude: 434ft
Azimuth/Bearing: 258° S78W 4587mils (True)
Elevation Angle: -32.5°
Horizon Angle: +03.3°
Zoom: 1X
potenyial dkf burrow

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/10/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 105 Low Temp (°F): 74

Start Time: 5:12:00 AM Stop Time: 6:20:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0515-0610 checked access road for road kills
0610-0730 placed stakes in front of power poles to deter turn around areas
0730-0800 checked evap ponds for birds
0800-0900 drove unit 2 for compliance issues
0900-1202 conducted telemetry and camera on Stripes den area
1400-1450 attended environmental meeting
1510 left site
1630 returned to site to pick up brown pelican in unit 2 and take to rehabilitation center
1820 finished work

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?		X		Northeast fence line of unit 2 needs trash picked up, notified Jennifer Gavaldon of situation
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			5 ravens in lunch area of unit 2 perched on picnic table
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report — Date 6/11/2013

Monitor: Eric German

Weather Conditions: Partly Sunny, Clouds: 20%, Pcp: None

High Temp (°F): 106 Low Temp (°F): 82

Start Time: 8:00:00 AM Stop Time: 5:00:00 PM

Attachments:

Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0800, and throughout day, inspect access road. 0815 inspect connex corner. No sensitive species observed . 0845 unit 2 temp fence walk. Fence and tortoise grate intact and functional. 1045 perimeter ne unit 2. Noted uncovered dumpsters. 1100 inspect unit 1. Noted some uncapped pipe between blocks 4 and 5. 1200 inspect evap ponds. Noted water discharge into both north and south pond. No new bird findings. 1215 inspect nw unit 2. Uncapped pipe. No sensitive species findings. 1230 inspect nighttime grout areas unit 2 blocks 8 and 9 east side. No findings b1400 meeting. 1530 incidental look at evap ponds. 1545 inspect pb 1. No sensitive species observed. 1600 investigated spill crew cleaning. 1615 observed dewater at htf pit. 4 ravens present in pit drinking water. 1630 dumpsters east of block 5 unit are uncovered.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			All construction activities inside permanent fence.
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Reported uncovered dumpsters at 1400 meeting
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			Observed vehicles appeared to follow speed limits.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	All construction activities inside permanent fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	Walked temp fence unit 2. Fence intact and tortoise grate functional.
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			4!drinking from htf pit.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Zebra tail, dkf, desert horned lizard, whiptail.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/11/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 107 Low Temp (°F): 79

Start Time: 5:00:00 AM Stop Time: 3:15:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0508-0800 walked unit one, no breeches in fence
0815-1220 conducted kit fox monitoring, on gmacg002 and gkbmr009.
1220-1500 conducted compliance monitoring on plant site
1510 left site

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			Two ravens flying over unit 1
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/12/2013

Monitor: Eric German

Weather Conditions: Partly Sunny, Clouds: 30%, Pcp: None

High Temp (°F): 108 Low Temp (°F): 84

Start Time: 8:00:00 AM Stop Time: 4:45:00 PM

Attachments:

Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0600 report of scorpion unit 2 block 1. Bio investigated. 0720 report of spill. Informed bio. 0800 and throughout day, inspect access road. Removes and buried 1 krat mortality. 0830 observed road grading inside fence by tortoise grate. No findings. 0835 cleared area for night grouting. Unit 2, Block 8 south side and block 9 north side 0850 inspect temp fenced laydown. No dkf findings. 0900 inspect p 2. Noted water discharge into htf stay pit and spill from previous day. Leaned. 1000 meeting. 1300 evap pond inspection. No bird findings. 1400 meeting. 1530 inspect perimeter unit 1 and 2 No findings. 1630 noted four vehicles on south side of access road near structure 23. One vehicle broken down. No vehicles stuck on south shoulder. Reminded personnel to leave directly to access road to prevent vehicle entrapment.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Uncovered dumpsters discussed at compliance meeting.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			Observed vehicles appeared to follow speed limits.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	Work inside fence
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			2 flying pb2
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/12/2013

Monitor: Ron Walker

Weather Conditions: Partly Sunny, Clouds: 15%, Pcp: None

High Temp (°F): 106 Low Temp (°F): 79

Start Time: 5:00:00 AM Stop Time: 3:22:00 PM

Attachments:

Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0530 access road monitoring, roved two road kill k rat
0545-0615 picked up scorpion from unit 1
Prairie falcon adult male at pole 37 access road
Roadrunner west side of unit 1
0630-1220 conducted KF monitoring for yentl and Flash, no ping on either one
Moved office
1400-1515 env meeting
1524 left site

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?		X		On site dumpsters need covers, Jennifer G. Addressing this issue
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes:
Roadrunner unit 1
Prairie falcon access road

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/13/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 5%, Pcp: None
High Temp (°F): 108 Low Temp (°F): 84

Start Time: 7:00:00 AM Stop Time: 4:45:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0700 inspect access road. Noted some staking needs maintenance. Will reset. Removed and disposed 2 krats. 0720 - 0930 raven point count. 0800 removed scorpion from header area unit 2 blocks 2 and 3. 0900 water discharge meeting cancelled. 0945 inspect htf pit. No discharge occurring. Skim water (1 to 0) in middle of pit. No birds. 0950 inspect acc at pb2 for birds/owl. No findings. 1010 noted red winged blackbird drinking from recently watered area. 1130 inspect east channel. No findings 1200 inspect perimeter unit 1. gap at gate nw corner closure point reported to compliance. No other sensitive species findings. 1245 inspect pb 1. No sensitive species findings. 1300 inspect spoils area south of unit 1. Noted some construction debris. Reported to compliance. 1315 inspect evap ponds. No bird findings 1400 meeting. 1530 inspect uncovered dumpsters. photos sent to compliance. 1630. Noted 3 ravens vocalizing pb 2.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			All work inside permanent fence.
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?		X		To be reported to compliance.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			All work inside permanent fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			5: 3 perched, 2 walking on ground. Both groups vocalizing.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Red winged blackbird. DKF reported inside fence. Unit 1 Block 4.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/13/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 99 Low Temp (°F): 75

Start Time: 5:00:00 AM Stop Time: 1:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0530 removed K rat and snake road kills on access road
0530-0900 conducted raven count
0900-1030 repaired staking around vegetation in laydown areas
1030-1300 conducted compliance monitoring on plant site
Left site at 1300

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			One raven observed flying over unit 2 substation
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: One dead coach whip and two K rat removed from access road

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/14/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 77

Start Time: 7:30:00 AM Stop Time: 3:15:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0730 inspect access road. Removed 2 krat mortalities and 1 zebra tailed lizard mortality. 0800 monitor and inspect dirt access road maintenance. No findings. 1000 remove and dispose zebra tailed lizard from access road. 1130 inspect perimeter unit 2. Noted uncovered dumpster block 7. 1145 inspect mirrors unit 2 blocks 1 and 6. No findings. 1215 inspect evap ponds. No new findings. 1430 coordinate with contractor evap pond gap closures.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Uncovered dumpster unit 2 block 7
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			Observed vehicles appeared to observe speed limit.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			Access road maintenance otf prior to grading.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			1 perched on wooden power pole.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Round tailed ground squirrel. , greater roadrunner.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/17/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 108 Low Temp (°F): 84

Start Time: 7:30:00 AM Stop Time: 4:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0730 inspect access road. Removed and disposed 2 krats. 0815 incidental inspection of evap ponds. No new findings. 0900 inspect temporary fence unit 1. No breaches found. 1110 inspect solar arrays unit 1. 1130 inspect pb1. No sensitive species findings. 1400 meeting. Report of htf spill block 19 row 14 unit 2. 1500 investigate honey bees pb1. In lunch area. Bees Without cover. CM has made attempts to contact bee collector. 1600 investigate htf spill. Dirt removed some odor.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			Construction activities inside permanent fence.
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		General litter, ice bags.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	Construction activities inside permanent fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			Inspected unit 1 temporary tortoise fence. No breaches found DKF Burrow just outside fence west of unit 1
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			6: 4 foraging access road at tortoise grate, 2 vocalizing at entry bridge. 6 - same ravens? Drinking at plant site. Plus 2 more near structure 38.
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Round tailed ground squirrel.

Date & Time: Mon Jun 17 14:54:44 PDT 2013
Position: 11 N 684612 3727187
Altitude: 385ft
Azimuth/Bearing: 212° S32W 3769mils (True)
Elevation Angle: +25.4°
Horizon Angle: -03.3°
Zoom: 1X
bees pb1

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/18/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 108 Low Temp (°F): 79

Start Time: 7:15:00 AM Stop Time: 4:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0715 informed of grouting locations. Unit 2 block 7 and 8 east. 0810 informed of disoriented DKF along access road arrived 0820 dkf not located inspected east side unit 2 no dkf findings. Another observer indicated that animal was coyote. 0930 inspect str 56 area for nitrogen gas line fill. No sensitive species found. 1000 inspect str F. Wire was attached and pulled from structure f to crs from within crs temp fence. Was not notified of activity until after it occurred. Appears as if no biological resources impacted. 1100 gathered utm data for structures a thru f. 1400 meeting. 1500 office. 1600 inspect unit 2 night time grouting areas, block 7 and 8

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			Paved access road monitored throughout day.
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	Previous day otf activity occurred within temp fence of sce row. Work occurred without DB knowledge.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			2 perched
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Black tailed jack rabbit.

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/18/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 74

Start Time: 5:00:00 AM Stop Time: 3:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0520 monitored access road
0520-0720 walked unit 2 fence
0720-0800 retrieved scorpion from unit 2 power block
0840-1040 looked for kit fox on access road
1040-1140 monitored kit fox - honey
1140-1240 went with bee company to get bees in unit 1 power block
1255-1500 monitored kit fox
Left site at 1500

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			Walked unit 2 on 6/28/13, no breeches in fence
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Date & Time: Tue Jun 18 05:57:55 PDT 2013
Position: 11 N 686034 3727208
Altitude: 395ft
Azimuth/Bearing: 276° N84W, 4907mils (True)
Elevation Angle: -45.6°
Horizon Angle: -00.1°
Zoom: 1X
potential KF burrow north side unit 2

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/19/2013

Monitor: Eric German
Weather Conditions: Windy, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 74

Start Time: 6:30:00 AM Stop Time: 4:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0630 inspection of staking and work areas for gas line terminus and gas line. 0930 office. 1400 meeting. 1500 inspect night grout area unit 2 blocks
7 and 8.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	All work inside permanent fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/19/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 74

Start Time: 5:00:00 AM Stop Time: 3:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0530 monitored access road
0530-0920 monitored kit fox, stripe, flash, and yentl
0920-0940 went to clear HVAC units in unit 1
1000-1035 monitored evap ponds
1040-1140 worked on camera cards for wildlife cameras
1150-1400 conducted compliance monitoring at plant site
1410 had flat tire left site to get tire repaired

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.	X			N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			One raven flying down access road
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: 2 dead krats on access road

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/20/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 106 Low Temp (°F): 79

Start Time: 6:30:00 AM Stop Time: 3:45:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0630 spoke with grouting foreman. Grouting to continue at unit 2 blocks 7 and 8. Moving to northern crossovers unit 2 0800 preconstruction gas line surveys north of i10 structures 54 thru 56. 1330 evap pond meeting at ponds to discuss gaps. 1400 meeting. 1515 inspect grout light stands unit 2. No sensitive species findings.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Ice bags seen. Disposal reminder.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			Began preconstruction gas line surveys 54 thru 57.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Desert horned lizard

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/20/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 104 Low Temp (°F): 72

Start Time: 5:00:00 AM Stop Time: 3:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0530 monitored access road
0530-1250 conducted surveys for gas pipe installation north of freeway and south of freeway
1300-1330-met sukit at evap ponds to discuss netting and gaps
1345-1530 conducted compliance monitoring on plant site
Left site at 1530

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			Two ravens observed flying over guard shack
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes:
Species observed on 6/20
Horned lizard
Desert iguana
Zebra tail lizard
Whiptail lizard

Date & Time: Thu Jun 20 08:51:01 PDT 2013
Position: 11 N 695149 3720956
Altitude: 398ft
Azimuth/Bearing: 313° N47W 5564mils (True)
Elevation Angle: -02.0°
Horizon Angle: +41.5°
Zoom: 1X
desert iguana

Date & Time: Thu Jun 28 09:36:40 PDT 2013
Position: 11 N 695052 3720882
Altitude: 407ft
Azimuth/Bearing: 147° S33E 2613mils (True)
Elevation Angle: -44.9°
Horizon Angle: +02.1°
Zoom: 2X
horned lizard

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/21/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 102 Low Temp (°F): 73

Start Time: 5:00:00 AM Stop Time: 2:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0538 monitored access road
0538-0600 monitored evap ponds, no birds
0700-0800 changed out batteries on gkbts011 wildlife camera
0800-0830 replaced flagging on protected shrubs at laydown area
0830-1100 drove perimeters of unit 1 and unit 2, inspected grouting area
1100-1200 downloaded photos for MCR
1200-1230 inspected net repairs on evap ponds
1420 left site

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?		X		Trash build up along fence on northeast border of unit 1, reported to contractor
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: Species observed;
Whiptail lizard
Zebra tail lizard

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/24/2013

Monitor: Eric German
Weather Conditions: Cloudy, Clouds: 50%, Pcp: None
High Temp (°F): 100 Low Temp (°F): 84

Start Time: 8:30:00 AM Stop Time: 4:00:00 AM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: Located geo arch locations. Surveyed locations and ingress/egress routes for sensitive species. Route and trench locations adjusted to allow appropriate buffers.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.			X	N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.			X	N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: LOSH

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/24/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 102 Low Temp (°F): 71

Start Time: 5:00:00 AM Stop Time: 3:41:00 AM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0530 monitored access road
0545-0630 met with geo-archaeology trenching crew
0645-0720 drove unit 1 and evap pond daily monitoring
0740-1541 surveyed all 10 geo-archaeology trench sites with Eric G.
Left site at 1547

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			Surveyed for geo-archaeology trench sites
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: 3 cattle egrets at evap ponds on top of netting, birds flew away unharmed

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/25/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 102 Low Temp (°F): 86

Start Time: 8:30:00 AM Stop Time: 4:45:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0830 report of dead rat in temporary assembly building. 0900 removed dead mouse from temporary assembly building. 0910 inspect evap ponds. No birds observed. 1030 orient bio to southern trenching locations and investigate equipment route to site. 1400 meeting. 1600 clear grout areas. (crossovers unit 2).

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?		X		Observed vehicles exceeding speed limits.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/25/2013

Monitor: Mike Anguiano
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 104 Low Temp (°F): 90

Start Time: 11:08:00 AM Stop Time: 4:29:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
1030 met db
1244 took over for Ron walker at trench 3
1330 hydraulic hose blew
1545 removed hose
Operator will finish repair in morning

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?			X	N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/25/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 103 Low Temp (°F): 79

Start Time: 5:00:00 AM Stop Time: 5:36:00 AM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0500-0525 monitored access road, 2 krat road kills
0545-1140 monitored geo-archaeology trenching on south side of ford dry lake
1240-1730 monitored kit fox at Stripe, Yentl, and Honey
Left site at 1740

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			RW and EG cleared geo trench sites
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			2 ravens on access road at pole 31, flying along road
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: Species observed;
Prairie falcon
Horned lizard
Turkey vulture
Mourning dove

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/26/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 108 Low Temp (°F): 84

Start Time: 8:30:00 AM Stop Time: 5:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0830 meeting with gas line surveyors. 1030 vehicle maintenance. 1300 office. 1400 meeting. 1500 orient bio to northern geo arch trenches.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			Monitored throughout day.
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		Picked up litter along access road.
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			Opened and closed fence for backhoe.
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/26/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 107 Low Temp (°F): 78

Start Time: 5:00:00 AM Stop Time: 2:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0526 monitored access road
0530-0630- monitored kit fox (flash)
0630-0810 conducted raven counts on unit 1
0820-1030 walked fence line of unit 1, no breeches in fence line
1045-1210 worked on submitting tap forms
Escorted backhoe from ford dry lake to plant site, got backhoe on outside of DT fence
Left site at 1617

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.			X	N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes:
Horned lizard
Zebra tailed lizard
Say's phoebe

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/27/2013

Monitor: Eric German
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 109 Low Temp (°F): 82

Start Time: 8:00:00 AM Stop Time: 5:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0800 inspect access road. Removed 1 krat. 0815 CORA observation monitoring. 0900 office. 1000 gas line walk through with contractor and client. 1300 inspect grouting areas (unit 2). 1400 meeting. 1500 orient bio to site. 1530 inspect evap ponds. No findings. 1620 report of owl in pb2. Owl has been seen in acc area in the past. No signs of nesting.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			Monitored throughout day.
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?		X		Vehicle speeding to be reported to compliance.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?			X	All work inside fence.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: White-winged Dove

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/27/2013

Monitor: Mike Anguiano
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 116 Low Temp (°F): 84

Start Time: 6:26:00 AM Stop Time: 2:07:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
545 met crew
800 began digging trench 4
830 hydraulic leak hiked out
Trench 4 incomplete
900 escorted backhoe out
1130 fixed backhoe
1330 finished trench 10

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?			X	N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: Species observed:
Desert iguana
Desert horned lizard
Zebra tail
Whiptail
Jackrabbit

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/27/2013

Monitor: Ron Walker
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 107 Low Temp (°F): 82

Start Time: 5:00:00 AM Stop Time: 1:35:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
0500-0524 monitored access road
0530-0735 walked unit 2 fence line, no breeches
0800-0820 monitored evap ponds no trapped birds
0820-0930 conducted raven surveys in unit 1
0940-1148 investigated new KF burrow area reported to Eric G., turned out to be active coyote den
1150-1330 walked transects south of I-10 for gas pipeline installation, surveyed for AB, KF, and BUOW
Left at 1338

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?	X			N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?	X			N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.	X			Two ravens observed in substation area of unit 2
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/28/2013

Monitor: Eric German
Weather Conditions: Other (note), Clouds: 80%, Pcp: None
High Temp (°F): 117 Low Temp (°F): 81

Start Time: 6:00:00 AM Stop Time: 2:30:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log: 0600 sidewinder removed and released from common area. 0730 discuss uxo with bio. 0800 close gate south of unit 1. 0815 report of barn owl unit 1 block 8. Not located. 0930 report of bird mortality north evap pond. Great Blue Heron next to netting. Not entangled. Removed and disposed. 1030 report of owl in water treatment building. Owl not found. Live Bat found on floor of water treatment building. Removed and released. 1245 inspect north unit 1 potential grout areas. 1300 discuss weekend activities with geo arch crew. 1315 follow-up visit to water treatment building. Informed by workers that owl had left building. 1330 office. 1500 report of owl mortality in water treatment building. Forwarded to bio for removal and disposal by burial.

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?	X			N/A
Only approved access roads utilized for ingress and egress?	X			Monitored throughout day
Access road signs in place?	X			N/A
Trash and debris contained and disposed of in proper manner?		X		N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?	X			N/A
Speed limit observed by all project personnel?		X		To discuss with compliance.
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			Geo archaeology work monitored by bio.
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?	X			N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?	X			N/A

Additional Notes: Weather overcast and humid. Barn owl, great blue heron, yellow headed blackbird. Cowbird. Unknown bat. Sidewinder

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/28/2013

Monitor: Mike Anguiano
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 122 Low Temp (°F): 83

Start Time: 5:45:00 AM Stop Time: 4:01:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
545 met crew
800 trench 9 complete
1030 trench 8 complete
1200 trench 7 complete
1300 checked water treatment plant with Eric for owl
1420 cruised evaporation ponds. Nothing found
1500 drove unit 1
1515 responded to call about a dead owl

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?			X	N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Date & Time: Fri Jun 28 15:19:43 PDT 2013
Position: 11 N 685784 3726895
Altitude: 367ft
Azimuth/Bearing: Not Available
Elevation Angle: -68.3°
Horizon Angle: +26.6°
Zoom: 1X
dead barn owl 3

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/29/2013

Monitor: Mike Anguiano
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 122 Low Temp (°F): 93

Start Time: 5:00:00 AM Stop Time: 1:00:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
500 met crew
800 finished trench 6
1030 finished trench 5
1130 hydraulic leak
1300 back to vehicle

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?			X	N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

Genesis Solar Energy Project

Biological Monitor (BM) Daily Report Date 6/30/2013

Monitor: Mike Anguiano
Weather Conditions: Sunny, Clouds: 0%, Pcp: None
High Temp (°F): 111 Low Temp (°F): 91

Start Time: 5:00:00 AM Stop Time: 12:26:00 PM
Attachments:
Photographs:

Sites Monitored

Circle One: **Plant Site** **Access Road** **Gas Line** **Transmission Line** **Other (explain)**

Activity Log:
500 met crew
800 finished digging trench 10
1000 filled trench 7
1055 filled trench 8
1130 filled trench 9
1200 filled trench 10

Monitor Checklist

General	Yes	No	N/A	Comments Attach Supplemental Report if needed
Workspace limits verified and properly marked?	X			N/A
All activities within approved workspace limits?			X	N/A
Only approved access roads utilized for ingress and egress?			X	N/A
Access road signs in place?			X	N/A
Trash and debris contained and disposed of in proper manner?			X	N/A
Topsoil segregated properly?			X	N/A
Topsoil segregation barriers maintained?			X	N/A
All crew on site displaying hard-hat decals from WEAP training?			X	N/A
Speed limit observed by all project personnel?			X	N/A
Biological Issues	**Yes**	**No**	**N/A**	**Comments** Attach Supplemental Report if needed
Work area cleared by BM prior to construction activity beginning?	X			N/A
Any desert tortoise or other T&E species encountered? If so, note species in comments and attach wildlife incident data form.		X		N/A
Tortoise exclusionary fence and/or ramps intact?			X	N/A
Any nesting birds observed? Note species (if known) and location.		X		N/A
Common Ravens Present? If yes, note number and activity.		X		N/A
All ESAs and other bio-related exclusion areas marked and avoided?			X	N/A

Additional Notes: N/A

ATTACHMENT 4

SURVEY DATA FORMS

Evaporation Pond Monitoring Form

GENESIS SOLAR ENERGY PROJECT

MONTHLY EVAPORATION POND MONITORING (BIO-21)

Date	05 JUNE 2013	Biomonitor	ERIC GERMAN
Sunrise Time	5 : 30 AM	Sunset Time	7 : 47 PM

Note: All three surveys must be completed on the same day

DAWN SURVEY (two hours after sunrise)

Start Time	End Time
5 : 55 AM	7 : 57 AM

1. Netted ponds effective in excluding birds? ☒ Yes ☐ No

Comments for #1: LIVE SINGLE BLACK NECKED STILT STANDING ON TOP OF NETTING, N. POND 0615 FLEW OFF @ 6:20 - ABLE TO WALK ON NETTING

2. Do nets pose an entrapment hazard to birds and/or wildlife? ☒ Yes ☐ No

Comments for #2: 3 inch x 12 foot gap at top of EACH GATE ENTRANCE

3. Structural Integrity - are nets intact and functioning? ☐ Yes ☐ No FUNCTIONING YES - MOSTLY INTACT

Comments for #3: ONE HOLE AND GAP @ BOTH NORTH & SOUTH GATE ENTRANCE AND GAP AT BOTTOM TENSION WIRE

4. Were any dead or entangled wildlife observed? ☒ Yes ☐ No PREVIOUSLY REPORTED

(If yes, report to DB IMMEDIATELY and fill out Avian Reporting Tapform)

Comments for #4: SAME PIED BILLED GREBE AS REPORTED IN MAY MONITORING

MIDDAY SURVEY (i.e. 1100 to 1300)

Start Time	End Time
11 : 58 AM/PM	1 : 00 AM/PM

1. Netted ponds effective in excluding birds? ☒ Yes ☐ No

Comments for #1: LIVE SINGLE GREAT BLUE HERON, STANDING ON TOP OF NETTING S. POND 11:58 - STILL ON NETTING AT SURVEY COMPLETION - 100°F

2. Were any dead or entangled wildlife observed? ☐ Yes ☒ No

(If yes, report to DB IMMEDIATELY and fill out Avian Reporting Tapform)

Comments for #2: SEE COMMENT #1 RE: GBH
ABLE TO WALK ON NETTING

DUSK SURVEY (two hours preceding sunset)

Start Time	End Time
5 : 45 PM	7 : 47 PM

1. Netted ponds effective in excluding birds? ☒ Yes ☐ No

Comments for #1: Great blue heron sitting on netting on north pond flew around and landed in general area, GBH present @ 7:47

2. Were any dead or entangled wildlife observed? ☐ Yes ☒ No

(If yes, report to DB IMMEDIATELY and fill out Avian Reporting Tapform)

Comments for #2: NO BIRDS ENTANGLED
Heron appeared to be stuck in ~~a~~ netting, however when approached heron flew off, only to return to netting and land on top once again.

Common Raven Fixed Point Survey Data Table

Genesis Solar - CORA Fixed Point Observation Summary Report (Part 1 of 2)

Monitor	Date	CORA Observation Point	Start Time	End Time	Minimum Visibility (m)	Maximum Visibility (m)	Wind Direction	Wind Speed (mph)	Precipitation	Temp. (°F)	Cloud Cover
Eric German	6/13/2013	R1. 691217 W, 3722767 N	7:27:00 AM	8:27:00 AM	99999	99999	NE	1	None	86	0%
Eric German	6/13/2013	R6. 687910 W, 3726586 N	8:18:00 AM	8:28:00 AM	99999	99999	NE	1	None	86	0%
Eric German	6/13/2013	R7. 686177 W, 3725504 N	8:34:00 AM	8:44:00 AM	99999	99999	NE	1	None	86	0%
Eric German	6/13/2013	R2. 686736 W, 3726215 N	9:14:00 AM	9:24:00 AM	99999	99999	NE	1	None	88	0%
Ron Walker	6/13/2013	R4. 683203 W, 3727508 N	6:03:00 AM	6:15:00 AM	99999	99999	Variable	2	None	75	0%
Ron Walker	6/13/2013	R3. 683684 W, 3727437 N	6:40:00 AM	6:53:00 AM	99999	99999	Variable	2	None	76	0%
Ron Walker	6/13/2013	R5. 685761 W, 3727662 N	7:30:00 AM	7:43:00 AM	99999	99999	Variable	2	None	84	0%
Ron Walker	6/26/2013	R5. 685761 W, 3727662 N	6:50:00 AM	7:02:00 AM	99999	99999	SE	4	None	80	0%
Ron Walker	6/26/2013	R4. 683203 W, 3727508 N	7:24:00 AM	7:34:00 AM	99999	99999	SE	4	None	82	0%
Ron Walker	6/26/2013	R3. 683684 W, 3727437 N	7:49:00 AM	8:00:00 AM	99999	99999	SE	4	None	82	0%
Eric German	6/27/2013	R1. 691217 W, 3722767 N	8:17:00 AM	8:27:00 AM	99999	99999	SE	6	None	93	0%
Ron Walker	6/27/2013	R7. 686177 W, 3725504 N	7:40:00 AM	7:50:00 AM	99999	99999	SE	4	None	82	0%
Ron Walker	6/27/2013	R2. 686736 W, 3726215 N	7:57:00 AM	8:08:00 AM	99999	99999	SE	4	None	89	0%
Ron Walker	6/27/2013	R6. 687910 W, 3726586 N	8:21:00 AM	8:31:00 AM	99999	99999	SE	4	None	90	0%

Genesis Solar - CORA Fixed Point Observation Summary Report (Part 2 of 2)

Monitor	Date	CORA Observation Point	Observation Time	Sex	Age	No. of CORA	Activity	Flight Direction (to)	1st Distance Obs. (m)	Closest Distance Obs. (m)	Habitat & Perching Habitat	Audio Observation?	Visual Observation?	Observation Notes
Eric German	6/13/2013	R2. 686736 W, 3726215 N	-	-	-	0	-	-	-	-	-	-	-	No CORA observed
Eric German	6/13/2013	R7. 686177 W, 3725504 N	-	-	-	0	-	-	-	-	-	-	-	No CORA observed
Eric German	6/13/2013	R6. 687910 W, 3726586 N	8:20:00 AM	Unknown	Adult	2	Walking on ground, Other	Variable	150	150	Creosote Bush Scrub	YES	YES	Vocalizing outside fence.
Eric German	6/13/2013	R1. 691217 W, 3722767 N	-	-	-	0	-	-	-	-	-	-	-	No CORA observed
Ron Walker	6/13/2013	R5. 685761 W, 3727662 N	-	-	-	0	-	-	-	-	-	-	-	No CORA observed
Ron Walker	6/13/2013	R4. 683203 W, 3727508 N	-	-	-	0	-	-	-	-	-	-	-	No CORA observed
Ron Walker	6/13/2013	R3. 683684 W, 3727437 N	-	-	-	0	-	-	-	-	-	-	-	No CORA observed
Ron Walker	6/26/2013	R5. 685761 W, 3727662 N	6:50:00 AM	-	-	0	-	-	-	-	-	NO	NO	No ravens observed.
Ron Walker	6/26/2013	R4. 683203 W, 3727508 N	7:24:00 AM	-	-	0	-	-	-	-	-	NO	NO	No ravens observed.
Ron Walker	6/26/2013	R3. 683684 W, 3727437 N	7:49:00 AM	-	-	0	-	-	-	-	-	NO	NO	No ravens observed.
Eric German	6/27/2013	R1. 691217 W, 3722767 N	8:17:00 AM	-	-	0	-	-	-	-	-	NO	NO	No ravens observed.
Ron Walker	6/27/2013	R6. 687910 W, 3726586 N	8:21:00 PM	-	-	0	-	-	-	-	-	NO	NO	No ravens observed.
Ron Walker	6/27/2013	R2. 686736 W, 3726215 N	7:57:00 AM	-	-	0	-	-	-	-	-	No	NO	No ravens observed.
Ron Walker	6/27/2013	R7. 686177 W, 3725504 N	7:40:00 AM	-	-	0	-	-	-	-	-	No	NO	No ravens observed.

Avian Reporting Data Table and Reporting Data Forms

Avian Reporting Table

BM	Date	Phase	Observation Situation	Incident Type	Carcas Condition	Age of Remains	Carcass condition details behavior or injured animal or nest details	UTM Datum	Northing	Easting	Observation Location
Ron Walker	04-Jun-13	Construction	Plant Site (incidental)	Fatality	Intact Carcass	1-5 (fluid in eyes)	Carcass intact	UTM Z11 NAD83 (m)	3727397	683967	Solar Trough
Eric German	05-Jun-13	Construction	Plant Site (incidental)	Fatality	Intact Carcass	1-5 (fluid in eyes)	Blood from beak area indicating impact. Appeared to be gripping onto perch as rigor set in.	UTM Z11 NAD83 (m)	3726094	687120	Solar Trough
Ron Walker	10-Jun-13	Operations	Plant Site (incidental)	Injury	N/A	N/A	Injured brown pelican found in unit 2 in power block area under HTF overhead pipes, above power block access road. Pelican appeared to be suffering from heat stress. Pelican transported to wildlife rehabilitation center in Blythe, CA. It was reported late	UTM Z11 NAD83 (m)	3726434	686893	Other (explain below)
Eric German	28-Jun-13	Operations	Plant Site (incidental)	Fatality	Intact Carcass	1-5 (fluid in eyes)	Carcass was against evap pond netting. The bird was not entangled nor signs of blunt trauma. Last incidental evap pond monitoring afternoon, 6/27/13.	UTM Z11 NAD83 (m)	3727428	685612	Evaporation Pond
Mike Anguiano	28-Jun-13	Operations	Plant Site (incidental)	Fatality	Intact Carcass	1-5 (fluid in eyes)	Condition good. Likely overheated and died. Temps up to 122.	UTM Z11 NAD83 (m)	3726802	685760	Other (explain below)

Avian Reporting Table

Observation Location Details	Avian Variety	Species	Markings	Sex	Age	Tagged	Identification Remarks	Weather	Temperature	Wind Conditions	Habitat
Unit 1 block 3	Bird	Mourning dove	Brown/ grey	Unknown	Unknown	NO	N/A	Sunny	102	Calm	Bare Ground
Pillar in solar field.	Bird	Barn Owl	White face/ buff and white.	Unknown	Adult	NO	N/A	Sunny	106	Calm	Bare Ground
Unit 2, west side of power block, under HTF pipe overhead crossing	Bird	Brown Pelican	Brown, light underbelly	Unknown	Unknown	NO	N/A	Sunny	109	Gusty	Other (note)
West side of north evap pond. Water in pond. Packed dirt around enclosure. Carcass against netting. Pond contains water.	Bird	Great Blue Heron	Grey color large bird.	Unknown	Adult	NO	N/A	Other (note)	84	Calm	Graded
Barn owl found dead in water treatment building. Reported earlier in the day about 1300 but bird flew out of building before Eric German and I got there. Owl came back at some point and died.	Bird	Barn owl	Adult barn owl	Unknown	Adult	NO	N/A	Sunny	119	Calm	Other (note)

Avian Reporting Table

Who was notified?	Date of Notification	Time of Notification	Actions Taken	Comments
Ron Walker	6/4/2013	12:45:00 PM	Bird removed and buried	N/A
DB notified / Notified compliance.	6/5/2013	1:00:00 PM	Animal collected put on ice and then disposed of by burial.	N/A
Designated biologist	6/10/2013	4:30:00 PM	Brown pelican picked up and transported to wildlife rehabilitation center in Blythe CA	Injured brown pelican found in unit 2 in power block area under HTF overhead pipes, above power block access road. Pelican appeared to be suffering from heat stress. Pelican transported to wildlife rehabilitation center in Blythe, CA. It was reported late
DB notified of find by reporting party. CM notified at 1000.	6/28/2013	9:30:00 AM	Bird removed and disposed via burial.	Weather: overcast Feels humid. Ponds checked 6/27 afternoon without findings. Burial at 0688055 / 3726307
Eric German	6/28/2013	3:12:00 PM	Bird removed from building and buried off main access road. Buried at easting 0688214 northing 3725072	N/A

Avian and Wildlife Reporting Form

***** All Fields Must Be Filled Out. Do Not Leave Any Field Blank. *****

INCIDENT DETAILS

Observation Made During (circle one):

Evaporation Pond Monitoring / Scheduled Mortality Survey / [Incidental]

Date: 6/4/2013 Observer: Ron Walker

Type of Incident (circle one): Injury / [Fatality] / Nest

Condition (circle one): [Intact Carcass] / Dismembered Carcass / Feathers Only

Age of Remains (circle one): [1-5 (fluid filled eyes)] / 6-30 (maggots) / 30+ (bones)

Photo No. _____

Carcass Condition Details, Behavior of Injured Animal or Nest Details: Carcass intact

LOCATION

DATUM: UTM Z11 NAD83 (m) UTM N: 3727397 UTM E: 683967

Found Near (circle one):

[Solar Trough] / Evaporation Pond / Road / Power Line / Other (explain below)

Location Details: Unit 1 block 3

IDENTIFICATION

[Bird] / Bat / Unknown / Other (circle one)

Species (if unknown, write 'unknown'): Mourning dove

Color/Markings: Brown/ grey

Sex (circle one): Male / Female / [Unknown] Age (circle one): Adult / Juvenile / [Unknown]

Is Animal Tagged? (circle one): Yes / [No]

Identification Remarks: N/A

ENVIRONMENTAL CONDITION

Weather (circle one): [Clear] / Fog / Cloudy / Rain

Approx. Temperature (circle one): [°F] / °C: 102

Wind (circle one): [Calm] / Gusty / Storm / Violent Storm

Habitat (circle all that apply):

[Bare Ground] / Creosote Bush Scrub / Sand Dunes

Sand Drifts over Playa / Ephemeral Wash / Desert Pavement

NOTIFICATION

Who was notified, and When? Ron walker on 6/4/2013 12:45:00 PM

Actions Taken (e.g., left in place, taken to rehab): Bird removed and buried

COMMENTS:

N/A

* Turn in completed form and incident photos to the on-site Environmental Manager.

* Report any incidental observations of dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass.

* Report any nests immediately to the on-site Environmental Manager.

Date & Time: Tue Jun 4 13:34:21 PDT 2013
Position: 11 N 683967 3727397
Altitude: 278ft
Azimuth Bearing: 205° S25W 3644mils (True)
Elevation Angle: -15.6°
Horizon Angle: -00.2°
Zoom: 1X
dead mourning dove unit 1 block 3

Avian and Wildlife Reporting Form

***** All Fields Must Be Filled Out. Do Not Leave Any Field Blank. *****

INCIDENT DETAILS

Observation Made During (circle one):

Evaporation Pond Monitoring / Scheduled Mortality Survey / [Incidental]

Date: 6/5/2013 Observer: Eric German

Type of Incident (circle one): Injury / [Fatality] / Nest

Condition (circle one): [Intact Carcass] / Dismembered Carcass / Feathers Only

Age of Remains (circle one): [1-5 (fluid filled eyes)] / 6-30 (maggots) / 30+ (bones)

Photo No. _____

Carcass Condition Details, Behavior of Injured Animal or Nest Details: Blood from beak area indicating impact. Appeared to be gripping onto perch as rigor set in.

LOCATION

DATUM: UTM Z11 NAD83 (m) UTM N: 3726094 UTM E: 687120

Found Near (circle one):

[Solar Trough] / Evaporation Pond / Road / Power Line / Other (explain below)

Location Details: Pillar in solar field.

IDENTIFICATION

[Bird] / Bat / Unknown / Other (circle one)

Species (if unknown, write 'unknown'): Barn Owl

Color/Markings: White face/ buff and white.

Sex (circle one): Male / Female / [Unknown] Age (circle one): [Adult] / Juvenile / Unknown

Is Animal Tagged? (circle one): Yes / [No]

Identification Remarks: N/A

ENVIRONMENTAL CONDITION

Weather (circle one): [Clear] / Fog / Cloudy / Rain

Approx. Temperature (circle one): [°F] / °C: 106

Wind (circle one): [Calm] / Gusty / Storm / Violent Storm

Habitat (circle all that apply):

[Bare Ground] / Creosote Bush Scrub / Sand Dunes

Sand Drifts over Playa / Ephemeral Wash / Desert Pavement

NOTIFICATION

Who was notified, and When? DB notified / Notified compliance. on 6/5/2013 1:00:00 PM

Actions Taken (e.g., left in place, taken to rehab): Animal collected put on ice and then disposed of by burial.

COMMENTS:

N/A

* Turn in completed form and incident photos to the on-site Environmental Manager.

* Report any incidental observations of dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass.

* Report any nests immediately to the on-site Environmental Manager.

Date & Time: Wed Jun 5 13:15:39 PDT 2013
Position: 11 N 687120 3726094
Altitude: 393ft
Azimuth/Bearing: 014° N14E 0249mils (True)
Elevation Angle: -20.6°
Horizon Angle: +06.9°
Zoom: 1X
barn owl mortality

Avian and Wildlife Reporting Form

***** All Fields Must Be Filled Out. Do Not Leave Any Field Blank. *****

INCIDENT DETAILS

Observation Made During (circle one):

Evaporation Pond Monitoring / Scheduled Mortality Survey / [Incidental]

Date: 6/28/2013 Observer: Eric German

Type of Incident (circle one): Injury / [Fatality] / Nest

Condition (circle one): [Intact Carcass] / Dismembered Carcass / Feathers Only

Age of Remains (circle one): [1-5 (fluid filled eyes)] / 6-30 (maggots) / 30+ (bones)

Photo No. _____

Carcass Condition Details, Behavior of Injured Animal or Nest Details: Carcass was against evap pond netting. The bird was not entangled nor signs of blunt trauma. Last incidental evap pond monitoring afternoon, 6/27/13.

LOCATION

DATUM: UTM Z11 NAD83 (m) UTM N: 3727428 UTM E: 685612

Found Near (circle one):

Solar Trough / [Evaporation Pond] / Road / Power Line / Other (explain below)

Location Details: West side of north evap pond. Water in pond. Packed dirt around enclosure. Carcass against netting. Pond contains water.

IDENTIFICATION

[Bird] / Bat / Unknown / Other (circle one)

Species (if unknown, write 'unknown'): Great Blue Heron

Color/Markings: Grey color large bird.

Sex (circle one): -Male / Female / Unknown Age (circle one): [Adult] / Juvenile / Unknown

Is Animal Tagged? (circle one): Yes / [No]

Identification Remarks: N/A

ENVIRONMENTAL CONDITION

Weather (circle one): Clear / Fog / Cloudy / Rain

Approx. Temperature (circle one): [°F] / °C: 84

Wind (circle one): [Calm] / Gusty / Storm / Violent Storm

Habitat (circle all that apply):

Bare Ground / Creosote Bush Scrub / Sand Dunes

Sand Drifts over Playa / Ephemeral Wash / Desert Pavement

NOTIFICATION

Who was notified, and When? DB notified of find by reporting party. CM notified at 1000. on 6/28/2013 9:30:00 AM

Actions Taken (e.g., left in place, taken to rehab): Bird removed and disposed via burial.

COMMENTS:

Weather: overcast Feels humid. Ponds checked 6/27 afternoon without findings. Burial at 0688055 / 3726307

* Turn in completed form and incident photos to the on-site Environmental Manager.

* Report any incidental observations of dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass.

* Report any nests immediately to the on-site Environmental Manager.

Date & Time: Fri Jun 28 09:42:12 PDT 2013
Position: 11 N 685609 3727431
Altitude: 419ft
Azimuth/Bearing: 156° S24E 2773mils (True)
Elevation Angle: -13.3°
Horizon Angle: +07.8°
Zoom: 1X
g h mortality

Date & Time: Fri Jun 28 09:41:12 PDT 2013
Position: 11 N 685605 3727429
Altitude: 403ft
Azimuth/Bearing: 110° S70E 1956mils (True)
Elevation Angle: -15.9°
Horizon Angle: +00.3°
Zoom: 1X
g h mortality

Date & Time: Fri Jun 28 09:40:39 PDT 2013
Position: 11 N 685609 3727430
Altitude: 399ft
Azimuth/Bearing: 006° N06E 0107mils (True)
Elevation Angle: -69.7°
Horizon Angle: +29.1°
Zoom: 1X
g h mortality

Avian and Wildlife Reporting Form

***** All Fields Must Be Filled Out. Do Not Leave Any Field Blank. *****

INCIDENT DETAILS

Observation Made During (circle one):

Evaporation Pond Monitoring / Scheduled Mortality Survey / [Incidental]

Date: 6/28/2013 Observer: Mike Anguiano

Type of Incident (circle one): Injury / [Fatality] / Nest

Condition (circle one): [Intact Carcass] / Dismembered Carcass / Feathers Only

Age of Remains (circle one): [1-5 (fluid filled eyes)] / 6-30 (maggots) / 30+ (bones)

Photo No. _____

Carcass Condition Details, Behavior of Injured Animal or Nest Details: Condition good. Likely overheated and died. Temps up to 122.

LOCATION

DATUM: UTM Z11 NAD83 (m) UTM N: 3726802 UTM E: 685760

Found Near (circle one):

Solar Trough / Evaporation Pond / Road / Power Line / [Other (explain below)]

Location Details: Barn owl found dead in water treatment building. Reported earlier in the day about 1300 but bird flew out of building before Eric German and I got there. Owl came back at some point and died.

IDENTIFICATION

[Bird] / Bat / Unknown / Other (circle one)

Species (if unknown, write 'unknown'): Barn owl

Color/Markings: Adult barn owl

Sex (circle one): Male / Female / [Unknown] Age (circle one): [Adult] / Juvenile / Unknown

Is Animal Tagged? (circle one): Yes / [No]

Identification Remarks: N/A

ENVIRONMENTAL CONDITION

Weather (circle one): [Clear] / Fog / Cloudy / Rain

Approx. Temperature (circle one): [°F] / °C: 119

Wind (circle one): [Calm] / Gusty / Storm / Violent Storm

Habitat (circle all that apply):

Bare Ground / Creosote Bush Scrub / Sand Dunes

Sand Drifts over Playa / Ephemeral Wash / Desert Pavement

NOTIFICATION

Who was notified, and When? Eric German on 6/28/2013 3:12:00 PM

Actions Taken (e.g., left in place, taken to rehab): Bird removed from building and buried off main access road. Buried at easting 0688214 northing 3725072

COMMENTS:

N/A

* Turn in completed form and incident photos to the on-site Environmental Manager.

* Report any incidental observations of dead birds or other wildlife at the evaporation ponds to the Designated Biologist within one day of the detection of the carcass.

* Report any nests immediately to the on-site Environmental Manager.

Genesis Solar Energy Project – Preconstruction Survey Report Transmission Line, Natural Gas Pipeline and Fiber Optic Line November 2012 to May 2013

Genesis Solar Energy Project – Preconstruction Survey Report Transmission Line, Natural Gas Pipeline and Fiber Optic Line November 2012 to May 2013

Introduction

Genesis Solar Energy Project (GSEP) constructed linear facilities within the utility corridor outside the temporary desert tortoise fence including: the generation tie-in transmission line (gen-tie line), the natural gas pipeline, and the fiber optic line. California Energy Commission (CEC) Conditions of Certification (COC) require that biological clearance surveys for wildlife species be conducted prior to construction including: nesting birds (results and mitigation measures reported under a different cover), desert tortoise (*Gopherus agassizii*; DT), desert kit fox (*Vulpes macrotis*; DKF), American badger (*Taxidea taxus*; AB), and western burrowing owl (*Athene cunicularia*; WBO). This report includes the methodology and results of pre-construction surveys conducted for these species between November 2012 and May 2013.

Project Description

Turnarounds and Receiving/Laydown Areas

Turnarounds used as staging areas were located on the southwestern side of the existing asphalt main access road and a receiving/laydown area was located within the previously established Connex area near the guard shack, just north of the Arizona crossing, approximately 5 miles to the southeast of the plant site.

Generation Tie Transmission Line

The gen-tie line is approximately 12 miles long. The line runs southeast from the plant site adjacent to and south of the main access road to Wiley's Well Rest Area (poles 22 to 54 in Figure 1a), continues south from Wiley's Well Rest Area (poles 54 to 63, Figures 1a and 1b) across Interstate 10 (I-10) and ties into the east/west Blythe Energy Project transmission line (BEPTL), where the gen-tie line uses the existing pole structures of the BEPTL to interconnect with SCE's Colorado River Substation (CRS) to the east (poles 113/63 to 86, Figure 1b, hereafter referred to as the BEPTL line). Near the CRS, four monopole transmission line structures and two tri-pole transmission line structures were constructed from the BEPTL line south to the CRS (near the Substation in Figure 1b, Poles are A through F). The gen-tie line is supported by both concrete and steel monopole structures. An access road was created between poles 48 to 56 on the north side of I-10 and between poles 57 to 63 on the south side of I-10. Existing BEPTL spur roads were used to access structures whenever possible. Pull sites were present near structure 28, 31, 45, 54, 63, 94/95, 98, C, and F. At the time of these surveys, the conduit had not yet been connected into the CRS.

Natural Gas Pipeline

Outside the plant site, the natural gas pipeline was installed from pole 48 to 54, turned south and terminated on the north side of I-10 near pole 56. Disturbance included grading, trenching and laying of

pipe associated with the pipeline and turnarounds for equipment and receiving/laydown areas. The area of disturbance for the natural gas pipeline north of I-10 was contained within the gen-tie line access road. Additional surveys may be needed to clear remaining areas to be installed south of I-10 at a later date.

Fiber Optic Line

Outside of the plant site, the fiber optic line was strung on existing 12 KV wooden poles from gen-tie line poles 22 to 48. The fiber optic line was then installed underground from poles 48 to 56. At I-10, the fiber line was pulled through a bore and then continued underground to between pole 57 and 58. At this location, a fiber optic spur line was installed in the future natural gas pipeline ROW west for approximately 1,000 feet and tied into an existing fiber hand-hole. The main fiber optic line continued underground south to pole 63. At pole 63, the fiber optic line turned east and continued underground from pole 113/63 to pole 86 (BEPTL line). At pole 86, the fiber optic line continued underground to the south of the BEPTL line towards the CRS (in the vicinity of Poles A through F). A hand hole was installed slightly to the east of the BEPTL line and tied the fiber optic line into an SCE fiber box that continues to the CRS.

Redundant Fiber Line

An additional above ground redundant fiber line was installed outside the plant site on the gen-tie line from pole 22 to the CRS.

Methodology

Project biologists Eric German (Designated Biologist; DB) and approved Biological Monitors (BM) Shelly Dayman, Andrew Fisher, Vic Germany, Gregg Lukasek, James McMorran, Brennan Mulrooney, Michael Rathbun, Tim Skousen, Ron Walker and Brian Weller conducted preconstruction clearance surveys within the disturbance areas and associated buffers between November 26, 2012 and May 3, 2013. A summary of survey types, areas, surveyors and weather conditions is included in Table 1.

Pre-construction wildlife surveys were conducted prior to the initiation of construction activities in accordance with the relevant Conditions of Certification (COCs) and applicable plans. Sign and observations of desert tortoise (DT), American badger (AB), western burrowing owl (WBO), desert kit fox (DKF) and nesting birds were recorded. Incidental wildlife observations were noted and are included in Appendix A. Specific survey requirements and methodologies are summarized below.

Nesting Bird Surveys (BIO-8)

While dates, surveyors and conditions for nesting bird surveys are included within this report in Table 1 for completeness, due to necessary approvals and timing requirements for reporting, the proposed methodology for conducting nesting bird surveys was submitted to the Compliance Program Manager (CPM) and the California Department of Fish and Wildlife (CDFW) under separate cover for approval prior to initiation of field surveys (Appendix B; methodology section).

Desert Tortoise (DT) Clearance Surveys (BIO-9 and U.S Fish and Wildlife Service Biological Opinion)

Construction activities for the above described linear facilities occurred outside the plant site temporary DT fence. DT clearance surveys were conducted consistent with COC BIO-9. Because no DT fence was installed for linear facilities construction, DT clearance surveys were conducted within 24 hours prior to construction and BMs were present during construction activities. Clearance surveys for DT along linear facilities can be conducted during any season.

DT clearance surveys included 100-percent coverage of all disturbance areas with an additional transect 5 meters out on both sides of the disturbance area. Transects were no greater than 5 meters (15 feet) apart. All DT burrows and burrows that may be used by DT within the disturbance area were examined to assess occupancy. All burrows with the potential to support DT were recorded during this survey effort with Global Positioning System (GPS) units and data was collected regarding the burrow suitability.

In addition to DT clearance surveys within 24 hours prior to construction, any potential DT burrows were assessed during pre-construction surveys for other species described in this report and the location of these burrows were recorded during those surveys. No potential DT burrows outside of the disturbance area were scoped, collapsed or probed.

American Badger and Desert Kit Fox Mitigation and Monitoring Plan (BIO-17)

Pre-construction surveys for DKF and AB were conducted within the utility corridor and in a 100 foot buffer on both sides of the disturbance area per conditions of the *American Badger and Desert Kit Fox Monitoring and Management Plan* (Attachment 2). DB/BMs surveyed within the disturbance area and buffer by walking transects spaced no further than 20 meters apart. All burrows with the potential to support AB or DFK were recorded during this survey effort with GPS units and data was collected regarding the burrow suitability. Where possible during this effort, dens suitable for AB and DKF were classified as inactive, potentially active, definitely active non-natal, or definitely active natal dens. If further investigation was required, dens were monitored using tracking medium or wildlife cameras to determine the status of the dens. DKF and AB burrow suitability and use was also assessed during the WBO surveys out to 500 feet (see below). DKF findings are routinely reported to the agencies as part of assisting the CDFW with their DKF study.

Burrowing Owl (WBO) Pre-construction Surveys (BIO-18)

A 100-percent visual coverage transect survey (spaced no greater than 20 meters apart) for WBO was conducted within the disturbance area and 500-foot buffer. All burrows with the potential to support WBO were recorded during this survey effort with GPS units and data was collected regarding the burrow suitability. All burrows with the potential to support WBO were surveyed at dawn/dusk no more than 30 days prior to the initiation of construction by the DB or BMs. Surveys were focused exclusively on detecting WBO and were conducted from two hours before sunset until civil twilight and from one hour before sunrise to two hours after.

Results and Discussion

All occurrences of DT, AB, DKF, and WBO recorded during preconstruction surveys are summarized in Table 2 and depicted in Figures 1a and 1b. Any observations of target species, nests, or suitable burrows were also reported within the Genesis Monthly Compliance Report as well as via direct communication to the agencies as appropriate to obtain concurrence on necessary non-disturbance buffers and monitoring requirements.

Nesting Bird Surveys (BIO-8)

The results and proposed mitigation measures regarding nesting bird surveys have been submitted to the CPM and the CDFW under a separate cover (Attachment 1; results section). No further discussion of nesting bird surveys, results or mitigation measures are included within this report.

Desert Tortoise (DT) Clearance Surveys (BIO-9 and U.S Fish and Wildlife Service Biological Opinion)

No DT or definitive DT sign were observed during the transect surveys, the 24 hour DT clearance surveys or during biological monitoring of construction activities outside the DT exclusion fence. One potential DT burrow was observed near the edge of the 500-foot buffer, south of tower 99. This burrow was classified as a Class 4 DT burrow which is possibly tortoise, deteriorated condition. No further action was taken for this burrow.

American Badger and Desert Kit Fox (BIO-17)

Potential AB or DKF dens (or mammal burrows of unknown origin) were recorded within the disturbance area and 500-foot buffer (Figures 1a and 1b). No dens for either DKF or AB (active, potentially active, or inactive) were observed within the construction area. No AB or DKF dens were collapsed as a part of the construction activities. Potential DKF and AB dens (non-natal) within 100-feet of construction activities were monitored for three days using either tracking medium or wildlife cameras and all were determined to be inactive dens. No follow up surveys were performed for non-natal potentially active or active DKF or AB dens that were observed outside the 100 foot buffer during WBO surveys. However, these dens are included in the dataset in Table 2 and are mapped in Figures 1a and 1b. With the exception of one den along the BEPTL line (GKBMR001, approximately 60-feet to the north of the construction area), no potentially active or definitely active DKF or AB dens were present within the construction area or the 100 foot buffer. Work near the potentially active den included only equipment passing through the area during stringing and no staging of equipment.

Three active natal DKF dens were observed during surveys. Two of these dens were part of the ongoing DKF monitoring effort with weekly reports and ongoing communication to the wildlife agencies. The collared DKF, called Bug and Honey, were present at these two dens. Bug, his uncollared mate, and one pup were present at one den (GKBTM001, approximately 115-feet from the construction area) and Honey, her uncollared mate, and five pups were present at the other den (GMACG002, approximately 430-feet from the construction area). Ongoing tracking of these foxes has shown frequent den shifting throughout the natal season. Both of these natal dens were established by the DKF after the initiation of construction. For both dens, a “Limited Activity Area” was instituted for construction activity. A third potential natal den was observed south of the paved access road associated with the CRS. This den is over 600 feet from the construction area and was therefore not actively monitored for DKF activity. No natal dens for AB were observed.

Burrowing Owl (WBO) Pre-construction Surveys (BIO-18)

The results of WBO dawn/dusk surveys are presented in Table 3. No occupied WBO burrows were present within the construction area and one occupied WBO burrow was observed within the 500 foot buffer (observed during the burrow survey; details in Table 1). This burrow was approximately 380 feet from the construction area and was reported to the wildlife agencies and a "Limited Activity Buffer" was established within 500 feet of the WBO burrow.

Tables

Table 1
Wildlife Preconstruction Surveys
Dates, Survey Types, Survey Area, Time, Weather Conditions, and Personnel

Date	Survey Type	Survey Area	Survey Personnel	Start				End			
				Time	Temp (°F)	Wind (mph)	Cloud Cover	Time	Temp (°F)	Wind (mph)	Cloud Cover
11/26/2012	WBO, DKF, AB, DT	Poles 48 to 56 (North of I-10)	Gregg Lukasek, Shelly Dayman	6:30:00 AM	50	2	0%	4:15:00 PM	81	2	0%
11/27/2012	WBO, DKF, AB, DT	Poles 48 to 56 (North of I-10)	Shelly Dayman, Gregg Lukasek, Tim Skousen, Vic Germany	6:30:00 AM	55	2	0%	4:20:00 PM	76	1	30%
11/28/2012	WBO, DKF, AB, DT	Poles 48 to 56 (North of I-10)	Shelly Dayman	6:30:00 AM	56	1	10%	3:48:00 PM	78	1	5%
11/29/2012	WBO, DKF, AB, DT	Access Road	Eric German, Tim Skousen	11:30:00 AM	80	0	0%	4:00:00 PM	78	5	10%
11/29/2012	WBO, DKF, AB, DT	Access Road	Gregg Lukasek, Tim Skousen	7:30:00 AM	52	2	5%	11:00:00 AM	72	2	0%
11/30/2012	WBO, DKF, AB, DT	Access Road	Tim Skousen, Eric German	7:00:00 AM	54	0	10%	4:25:00 PM	76	3	0%
12/1/2012	WBO, DKF, AB, DT	Access Road	Eric German	7:00:00 AM	56		5%	4:01:00 PM	78		75%
12/2/2012	WBO, DKF, AB, DT	Access Road	Eric German, Tim Skousen	7:20:00 AM	58	0	0%	1:00:00 PM	75	6	15%
12/10/2012	WBO, DKF, AB, DT	Colorado River Substation East/West Line	Shelly Dayman, Gregg Lukasek, Vic Germany, Andrew Fisher, Tim Skousen	7:42:00 AM	62	1	0%	12:35:00 PM	68	5	0%
12/11/2012	WBO Precon Burrow Survey	Access Road	Ron Walker, Tim Skousen	3:30:00 PM	67	0	0%	5:10:00 PM	68	3	0%
12/11/2012	WBO, DKF, AB, DT	Colorado River Substation East/West Line	Shelly Dayman, Andrew Fisher, Vic Germany, Gregg Lukasek, Tim Skousen, Ron Walker	6:44:00 AM	58	1	0%	11:20:00 AM	68	1	0%
1/10/2013	WBO Precon Burrow Survey	Transmission Line (Access Road)	Brian Weller, Vic Germany	6:25:00 AM	55	3	0%	8:30:00 AM	57	7	0%
2/5/2013	Nesting Bird	Colorado River Substation East/West Line	Andrew Fisher, Brennan Mulrooney, James McMorran	7:17:00 AM	54	0	0%	2:49:00 PM	69	4	0%

Date	Survey Type	Survey Area	Survey Personnel	Start				End			
				Time	Temp (°F)	Wind (mph)	Cloud Cover	Time	Temp (°F)	Wind (mph)	Cloud Cover
2/6/2013	Nesting Bird	Colorado River Substation East/West Line	Andrew Fisher, Brennan Mulrooney, James McMorran	8:31:00 AM	62	2	0%	3:46:00 PM	62	2	0%
2/7/2013	Nesting Bird	Colorado River Substation East/West Line	Andrew Fisher, Brennan Mulrooney, James McMorran	7:25:00 AM	51	0	0%	9:50:00 AM	73	2	0%
2/8/2013	WBO Precon Burrow Survey	Fiber Line (Colorado River Substation East/West Line)	Rob Conohan	6:30:00 AM	57	1	0%	8:30:00 AM	63	7	0%
2/14/2013	Nesting Bird	Colorado River Substation East/West Line	Michael Rathbun, Vic Germany	10:28:00 AM	66	1	0%	3:45:00 PM	76	13	0%
2/15/2013	Nesting Bird	Colorado River Substation East/West Line	Michael Rathbun, Vic Germany	8:19:00 AM	64	4	20%	1:40:00 PM	78	8	25%
2/18/2013	Nesting Bird	Colorado River Substation East/West Line	Michael Rathbun, Eric German	11:28:00 AM	70	6	0%	3:07:00 PM	79	5	20%
2/18/2013	Nesting Bird	Colorado River Substation East/West Line	Shelly Dayman	11:32:00 AM	63	2	5%	2:01:00 PM	73	2	10%
2/21/2013	WBO, DKF, AB, DT	East/West Gas Line	Michael Rathbun, Eric German, Tim Skousen	11:30:00 AM	65	1	20%	2:31:00 PM	62	1	0%
2/21/2013	Nesting bird	East/West Gas Line	Michael Rathbun, Tim Skousen	2:54:00 PM	62	1	100%	4:34:00 PM	60	4	85%
2/26/2013	WBO, DKF, AB, DT, nesting bird	Linear Change (50 m long and 50 m east of original line)	Eric German	10:15:00 AM	62	7	0%	11:30:00 AM	65	7	0%
3/4/2013	WBO, DKF, AB, DT, nesting bird	Access Road (hanging hardware at poles)	Shelly Dayman, Eric German	3:17:00 PM	78	5	10%	4:12:00 PM	78	5	0%
3/5/2013	WBO, DKF, AB, DT, nesting bird	Access Road (hanging hardware at poles)	Eric German, Shelly Dayman	10:40:00 AM	74	1	75%	12:35:00 PM	77	1	0%
3/6/2013	WBO, DKF, AB, DT, nesting bird	Access Road (hanging hardware at poles)	Eric German, Tim Skousen	8:00:00 AM	59	3	0%	9:30:00 AM	64	2	0%
3/7/2013	WBO, DKF, AB, DT, nesting bird	Access Road (hanging hardware at poles)	Michael Rathbun, Tim Skousen	6:32:00 AM	47	2	0%	4:10:00 PM	70	4	100%

Date	Survey Type	Survey Area	Survey Personnel	Start				End			
				Time	Temp (°F)	Wind (mph)	Cloud Cover	Time	Temp (°F)	Wind (mph)	Cloud Cover
3/8/2013	WBO, DKF, AB, DT, nesting bird	Access Road (hanging hardware at poles)	Michael Rathbun, Tim Skousen	7:00:00 AM	53	1	75%	4:10:00 PM	61	10	65%
3/9/2013	WBO, DKF, AB, DT, nesting bird	Access Road (hanging hardware at poles)	Michael Rathbun, Tim Skousen	7:23:00 AM	47	1	20%	5:06:00 PM	70	5	65%
3/11/2013	WBO, DKF, AB, DT, nesting bird	Access Road (stringing)	Michael Rathbun, Vic Germany, Ron Walker	7:46:00 AM	52	1	0%	2:25:00 PM	80	2	0%
3/17/2013	Nesting Bird	Poles #95 and 102	Tim Skousen	1:20:00 PM	96	3	25%	2:40:00 PM	94	5	0%
3/18/2013	Nesting Bird	Poles #110	Tim Skousen	7:55:00 AM	62	4	0%	9:25:00 AM	74	4	0%
3/22/2013	Nesting Bird	Pole #54	Tim Skousen	9:05:00 AM	76	8	0%	10:35:00 AM	84	20	0%
4/4/2013	Nesting Bird	Colorado River Substation East/West Line	Andrew Fisher, James McMorran	8:00:00 AM	72	2	5%	4:00:00 PM	91	7	0%
4/5/2013	Nesting Bird	Colorado River Substation East/West Line	Andrew Fisher, James McMorran	6:05:00 AM	60	2	0%	9:00:00 AM	74	4	0%
4/15/2013	Nesting Bird	Colorado River Substation East/West Line	Ron Walker	1:37:00 PM	72	14	0%	2:37:00 PM	72	16	0%
4/17/2013	Nesting Bird	Colorado River Substation East/West Line	Ron Walker	2:08:00 PM			0%	3:10:00 PM			0%
5/3/2013	Nesting Bird	Colorado River Substation East/West Line	Andrew Fisher	7:44:00 AM	78	0	0%	8:03:00 AM	79	0	0%

Table 2
Pre-construction Wildlife Survey Data
November 2012 to May 2013

Observation Type	Identifier	Easting	Northing	Species Present	Burrow Complex?	Dimensions	DT Suit	DT Sign	DT Sign Class	WBO Suit	WBO Sign	AB Suit	AB Sign	DKF Suit	DKF Sign	Notes	Original Survey Date (Range)
American Badger Den (Potential)	GABTS001	699420	3718510	None	YES	11 x 10 x unk	Suit	None	N/A	Suit	None	Suit	Claw Marks	Suit	None	Large, could be badger den, over 500 feet from construction area	Nov to Dec
Burrowing Owl Burrow (Active)	GMATS001	691960	3722272	WBO	NO	10x10x unk	Suit	N/A	N/A	Active	Whitewash, Pellet	Suit	N/A	Suit	N/A	Walked up toward burrow to check, WBO observed on approach and WBO went into burrow. White wash and possible pellet present. From structure 39 its 380 feet north. Reported to wildlife agencies.	3/9/2013
Desert Kit Fox Burrow (Active Natal)	GKBGL002	695612	3718580	DKF	YES	Multiple	Suit	None	N/A	Suit	None	Suit	None	Act	Tracks, Scat	Nine dens, based on tracks around den in April appears to be natal, over 600' from construction area	Nov to Dec
Desert Kit Fox Burrow (Active Natal)	GKBTM001	688370	3725147	DKF	YES	Various	Suit	None	N/A	Suit	None	Suit	None	Act	Scat, tracks, claw marks	DKF den occupied by DKF "Bug", mate and pup occassionally, approximately 125 feet from construction area, reported as natal to CPM and CPM when pup observed, "Limited Activity Area" instituted within 500 feet of den	3/7/2013
Desert Kit Fox Burrow (Active Natal)	GMACG002	689356	3273928	DKF	YES	6x4xunk	Suit	None	N/A	Suit	None	Not Suit	N/A	Suit	Scat, tracks	Initially mammal den, later occupied by DKF "Honey," mate and young occassionally, approximately 400 feet from construction area, reported as natal to CPM and CDFW when pups observed	3/5/2013
Desert Kit Fox Burrow (Active)	GKBGL003	688164	3725129	None	NO	8 x 10 x unk	Suit	None	N/A	Suit	None	Suit	None	N/A	Tracks	Fresh kit fox digging and tracks. One opening. Approximately 400 feet from construction area.	Nov to Dec
Desert Kit Fox Burrow (Active)	GKBMR001	697877	3718729	None	NO	7 x 7x unk	Suit	None	N/A	Suit	None	Suit	None	Potent Act	Scat	Approximately 40 feet from construction area. Assumed to be active, but no foxes observed.	Feb 14, 15, 18
Desert Kit Fox Burrow (Active)	GKBTS006	688272	3724969	None	N/A	6 x 8 x unk	Suit	None	N/A	Suit	None	Suit	None	Act	Tracks	Single kit fox burrow. Fresh tracks and digging. Over 450 feet from construction area.	Nov to Dec
Desert Kit Fox Burrow (Active)	GKBTS007	688187	3725046	None	YES	5 x 6 x unk	Suit	None	N/A	Suit	None	Suit	None	Act	Tracks	One kit fox burrown in the middle of a small mammal complex. Fresh digging and kit fox tracks. Approximately 500 feet from construction area.	Nov to Dec
Desert Kit Fox Burrow (Potentially Active)	GKBFW004	690221	3723748	None	YES	Multiple burrows	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Potent Act	Tracks	This is large complex of DKF burrows, multiple entrances of various sizes and activity. Over 500 feet from construction area	3/8/2013
Desert Kit Fox Burrow (Potentially Active)	GKBSD007	697738	3718883	None	NO	8 x 9 x unk	Suit	None	N/A	Suit	None	Suit	None	Poten Act	Tracks	Recent digging, over 500 feet from construction area.	Nov to Dec
Desert Kit Fox Burrow (Potentially Active)	GKBSD008	697660	3718786	None	NO	9 x 9 x unk	Suit	None	N/A	Suit	None	Suit	None	Poten Act	Tracks	Tracking medium for 3+ days in February, checked on 2/5/13 and DKF tracks across apron but not into burrow, approximately 210 feet from construction area	Nov to Dec
Desert Kit Fox Burrow (Potentially Active)	GKBTS002	689814	3723613	None	NO	8 x 10 x unk	Suit	None	N/A	N/A	None	Suit	None	Poten Act	Tracks	Fresh digging. One suitable burrow. Over 500 feet from construction area.	Nov to Dec
Desert Kit Fox Burrow (Potentially Active)	GKBTS005	688391	3724836	None	NO	6 x 8 x unk	Suit	None	N/A	Suit	None	Suit	None	Poten Act	Tracks	Fresh digging. One suitable burrow. Approximately 500 feet from construction area	Nov to Dec
Desert Kit Fox Burrow (Potentially Active)	GKDCG004	690226	3723753	None	YES	12x12x unk	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Potent Act	Scat	Nov/Dec Notes: Den w several openings. No recent scat or tracks. Over 450 feet from the construction area. 3/8/13 Notes: Looks to be potentially active for DKF, suitable for all others. Over 500 feet from construction area.	Nov to Dec & 3/8/2013
Desert Kit Fox Complex (Inactive)	GKBSD003	695273	3719246	None	YES	Various	Suit	None	N/A	Suit	None	Suit	None	Poten Act	Tracks, Scat	Raised large DKF complex, three burrows potentially active	Nov to Dec
Desert Kit Fox Complex (Inactive)	GKBSD004	695284	3719938	None	NO	16 x 16 x unk	Suit	None	N/A	Not Suit	None	Suit	None	Suit	None	Under mesquite, burrow difficult to see, DKF and coyote scat	Nov to Dec

Observation Type	Identifier	Easting	Northing	Species Present	Burrow Complex?	Dimensions	DT Suit	DT Sign	DT Sign Class	WBO Suit	WBO Sign	AB Suit	AB Sign	DKF Suit	DKF Sign	Notes	Original Survey Date (Range)
Desert Kit Fox Complex (Inactive)	GKBSD005	697883	3718755	None	NO	12 x 14 x unk	Suit	None	N/A	Suit	None	Suit	None	Poten Act	None	Active burrow, long entrance before turns, could be badger or DKF, tracking medium for 3+ days, checked on 2/5/13 and no DKF sign	Nov to Dec
Desert Kit Fox Complex (Inactive)	GKBSD006	697682	3718767	None	NO	8 x 8 x unk	Suit	None	N/A	Suit	None	Suit	None	Act	Tracks	Fresh tracks into den (Nov/Dec surveys), tracking medium for 3+ days, checked on 2/5/13 and no DKF sign, approximately 160 feet from construction area	Nov to Dec
Desert Tortoise Burrow - Class 4	GDBTS001	699107	3718522	None	NO	5 x 13 x unk	Suit	None	4	Suit	None	Suit	None	Suit	None	Potential DT burrow, okay condition, no sign	Nov to Dec
Mammal Burrow	GBBSD001	688855	3724865	None	YES	Various	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Suit	N/A	Small complex of multiple sizes of burrows. No species sign observed but could be inhabited with little improvement.	3/7/2013
Mammal Burrow	GKBSD001	694121	3721328	None	NO	8 x 10 x unk	Suit	None	N/A	Suit	None	Not Suit	None	Suit	None	In Nov/Dec notes: One burrow, on 3/11/13 notes: No sign, scat or tracks, does not currently look active but may be used in future. Cannot see end of burrow but is on small side for some species	Nov to Dec, 3/11/13
Mammal Burrow	GKBSD002	694375	3721162	None	N/A	6 x 4 x 14	Not Suit	None	None	Not Suit	None	Not Suit	None	Not Suit	None	Nov/Dec notes: One burrow, 3/11/13 notes: Looks like a mammal dig, not a burrow as there is a small rodent hole at the end. Sensitive species may use as pallet, etc, but can see the end when reflecting light in it.	3/11/2013
Mammal Burrow	GKBTS001	699177	3718513	None	NO	8 x 10 x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	Potential burrow substrate too messed up for tracks, over 500 feet from construction area	Nov to Dec
Mammal Burrow	GKBTS003	698886	3718775	None	NO	9 x 6 x unk	Suit	None	N/A	Suit	None	Not Suit	None	Suit	None	N/A	Nov to Dec
Mammal Burrow	GKBTS004	698829	3718773	None	NO	10 x 10 x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	No signs of recent activity	Nov to Dec
Mammal Burrow	GKBTS008	692138	3721854	None	NO	9x5x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	Looks to be not currently in use. No sign of any sensitive species, old dilapidated burrow	Nov to Dec and 3/9/2013
Mammal Burrow	GKBTS009	692941	3721148	None	NO	8x10x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	N/A	Nov to Dec
Mammal Burrow	GKBTS010	693125	3721045	None	NO	12x6x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	Two burrows within 2 feet of each other. No recent activity, no sign, one has webs in entrance, the other is clear.	Nov to Dec & 3/9/2013
Mammal Burrow	GMACG001	690924	3723156	None	NO	8x6x unk	Suit	N/A	N/A	Not Suit	N/A	Suit	N/A	Suit	N/A	One burrow, multiple digs, no sign present so is probably inactive for all species.	3/8/2013
Mammal Burrow	GMAMR001	688270	3725484	None	NO	7 x 5 x unk	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Suit	None	May be used by WBO, DKF, AB or DT but no sign were observed.	3/7/2013
Mammal Burrow	GMAMR004	693855	3721177	None	NO	7x5x unk	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Suit	N/A	Suit for all sensitive species, but no sign present. Entrance partially obscured by loose grasses. Cannot see the end.	3/11/2013
Mammal Burrow	GMAMR005	693965	3721323	None	NO	7x6x unk	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Suit	N/A	Single burrow, flat bottom, no tracks or scat, suitable for species of concern	3/11/2013
Mammal Burrow	GMASD010	688854	3724822	None	NO	12x10x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	Turns to right, cant see end krat tracks	3/14/2013
Mammal Burrow	GMATS002	689025	3724595	None	NO	8 x 6 x unk	Suit	None	N/A	Suit	None	Suit	None	Suit	None	Potentially active or suitable for all species, can't see the end, 2 openings, 100 ft apart	Nov to Dec & 3/7/2013
Mammal Burrow	GMATS003	693351	3721036	None	NO	8x6x unk	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Suit	N/A	No sign of sensitive species,	3/9/2013
Mammal Burrow	GMAVG001	693655	3721053	None	NO	6x3x30	Suit	N/A	N/A	Suit	N/A	Suit	N/A	Suit	N/A	Cannot see the end, no sign of sensitive species. Looks to be used by small mammal but we cannot quite see the end so marking it as potential.	3/11/2013
Mojave Fringe-toed Lizard	GFTGL001	698406	3718530	MFTL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Mojave fringe-toed lizard, subadult	Nov to Dec
Mojave Fringe-toed Lizard	GFTTS001	697004	3718825	MFTL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Subadult mojave fringe-toed lizard	Nov to Dec
Mojave Fringe-toed Lizard	GMFTS002	688550	3724839	MFTL	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Juvenile MFTL	Nov to Dec

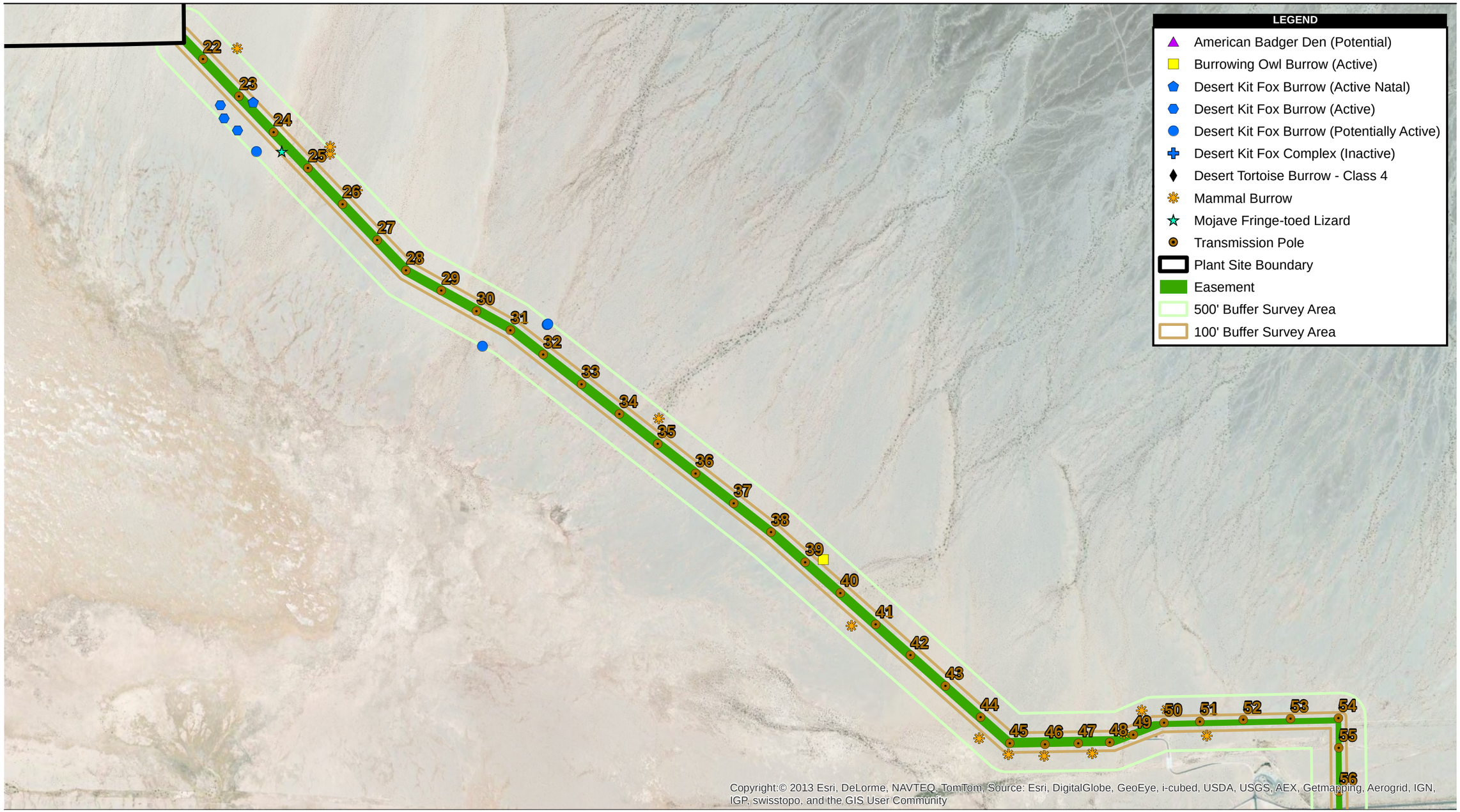
Table 3

Western Burrowing Owl Preconstruction (Dawn/Dusk) Survey Information and Results

Identifier	Northing	Easting	Biomonitor	Date	Location	Temp	Wind	Comments
GKDCG004	3723752	690226	Ron Walker	11-Dec-12	Access road (preconstruction)	67	0 mph	WBO precon survey, start time 15:41, end time 17:10, no WBO or sign at burrow
GKBTS008	3721854	692138	Ron Walker	11-Dec-12	Access road (preconstruction)	67	0 mph	WBO precon survey, start time 15:41, end time 17:10, no WBO or sign at burrow
GKBTS009	3721148	692941	Ron Walker	11-Dec-12	Access road (preconstruction)	67	0 mph	WBO precon survey, start time 15:41, end time 17:10, no WBO or sign at burrow
GKBTS010	3721045	693125	Ron Walker	11-Dec-12	Access road (preconstruction)	67	0 mph	WBO precon survey, start time 15:41, end time 17:10, no WBO or sign at burrow
GMATS002	3724584	689030	Tim Skousen	11-Dec-12	Access road (preconstruction)	68	1-3 mph	WBO precon survey, start time 15:30, end time 16:30, no WBO or sign at burrow
GKBGL003	3725129	688164	Tim Skousen	11-Dec-12	Access road (preconstruction)	68	1-3 mph	WBO precon survey, start time 15:30, end time 16:30, no WBO or sign at burrow
GKBTS007	3725046	688187	Tim Skousen	11-Dec-12	Access road (preconstruction)	68	1-3 mph	WBO precon survey, start time 15:30, end time 16:30, no WBO or sign at burrow
GKBTS005	3724836	688391	Tim Skousen	11-Dec-12	Access road (preconstruction)	68	1-3 mph	WBO precon survey, start time 15:30, end time 16:30, no WBO or sign at burrow
GKBTS006	3724969	688272	Tim Skousen	11-Dec-12	Access road (preconstruction)	68	1-3 mph	WBO precon survey, start time 15:30, end time 16:30, no WBO or sign at burrow
GKBSD003	3719246	695273	Brian Weller	10-Jan-13	Transmission Line (preconstruction)	50	3-5 mph	WBO precon survey, start time 0625, end time 0852, no WBO or sign at burrow
GKBSD001	3721328	694121	Brian Weller	10-Jan-13	Transmission Line (preconstruction)	55	3-5 mph	WBO precon survey, start time 0625, end time 0852, no WBO or sign at burrow
GKBSD002	3721162	694375	Vick Germany	10-Jan-13	Transmission Line (preconstruction)	55	12 mph	WBO precon survey, start time 0645, end time 0750, no WBO observed, cobwebs in front of entrance, plant material in entrance, no sign, GKBSD002
GKBSD005	3718755	697883	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, sand at entrance and no tracks, burrow in good condition
GKBTS004	3718773	698829	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, at base of palo verde tree, spider webs and debris at entrance of burrow
GKBTS003	3718775	698886	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed
GKBSD006	3718767	697682	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, no tracks in cleared area at mouth of burrow, tall creosote surrounding
GKBSD008	3718786	697660	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, Krat tracks at entrance

Identifier	Northing	Easting	Biomonitor	Date	Location	Temp	Wind	Comments
GABTS001	3718510	699420	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, in between two creosote bushes
GKBTS001	3718513	699177	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, good habitat, no sign @ burrow
GDBTS001	3718522	699107	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, burrow entrance covered in debris and under dead tree
GKBSD003	3719246	695273	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed
GKBSD004	3719938	695284	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, debris in burrow
GKBGL002	3718580	695612	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, DKF tracks and fresh dug out burrow, active DKF burrow
GKBSD007	3718883	697738	Rob Conohan	08-Feb-13	Fiber Line (preconstruction)	57	1-7 mph	WBO precon survey, start time 0630AM, end time 0830AM, no WBO or WBO sign observed, debris @ entrance to burrow

Maps



Source: AECOM 2013

2,000 1,000 0 2,000 Feet

Scale: 1:24,000; 1 inch = 2,000 feet

Figure 1a. Wildlife Survey Results for Preconstruction Surveys (November 2012 through May 2013)

Genesis Solar Energy Project

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\PreConSurvey\Report\Occurrences 20130523.mxd, 6/5/2013, irelandm

Source: AECOM 2013

2,000 1,000 0 2,000 Feet

Scale: 1:24,000; 1 inch = 2,000 feet

Figure 1b. Wildlife Survey Results for Preconstruction Surveys (November 2012 through May 2013)

Genesis Solar Energy Project

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\PreConSurvey\Report\Occurrences SE 20130523.mxd, 6/5/2013, irelandm

Appendix A

Reptiles

Common Name	*Scientific Name*
Mojave fringe-toed lizard	*Uma scoparia*
Zebra-tailed lizard	*Callisaurus draconoides*
Desert iguana	*Dipsosaurus dorsalis*

Mammals

Common Name	*Scientific Name*
Round-tailed ground squirrel	*Xerospermophilus tereticaudus*
Desert kit fox	*Vulpes macrotis*
Kangaroo rat	*Dipodomys sp.*

Birds

Common Name	*Scientific Name*	Order	Family
Anna's Hummingbird	*Calypte anna*	Apodiformes - Swifts and Hummingbirds	Trochilidae
Mourning Dove	*Zenaida macroura*	Columbiformes - Pigeons, and Doves	Columbidae
Cooper's Hawk	*Accipiter cooperii*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Northern Harrier	*Circus cyaneus*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Red-tailed Hawk	*Buteo jamaicensis*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Swainson's Hawk	*Buteo swainsoni*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Turkey Vulture	*Cathartes aura*	Falconiformes - Diurnal Birds of Prey	Cathartidae
American Kestrel	*Falco sparverius*	Falconiformes - Diurnal Birds of Prey	Falconidae
Horned Lark	*Eremophila alpestris*	Passeriformes - Passerine Birds	Alaudidae
Common Raven	*Corvus corax*	Passeriformes - Passerine Birds	Corvidae
Brewer's Sparrow	*Spizella breweri*	Passeriformes - Passerine Birds	Emberizidae
Sage Sparrow	*Amphispiza belli*	Passeriformes - Passerine Birds	Emberizidae

Savannah Sparrow	*Passerculus sandwichensis*	Passeriformes - Passerine Birds	Emberizidae
Vesper Sparrow	*Pooecetes gramineus*	Passeriformes - Passerine Birds	Emberizidae
White-crowned Sparrow	*Zonotrichia leucophrys*	Passeriformes - Passerine Birds	Emberizidae
White-throated Sparrow	*Zonotrichia albicollis*	Passeriformes - Passerine Birds	Emberizidae
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Passeriformes - Passerine Birds	Hirundinidae
Violet-green Swallow	*Tachycineta thalassina*	Passeriformes - Passerine Birds	Hirundinidae
Great-tailed Grackle	*Quiscalus mexicanus*	Passeriformes - Passerine Birds	Icteridae
Western Meadowlark	*Sturnella neglecta*	Passeriformes - Passerine Birds	Icteridae
Loggerhead Shrike	*Lanius ludovicianus*	Passeriformes - Passerine Birds	Laniidae
Le Conte's Thrasher	*Toxostoma lecontei*	Passeriformes - Passerine Birds	Mimidae
Lucy's Warbler	*Vermivora luciae*	Passeriformes - Passerine Birds	Parulidae
Yellow-rumped Warbler	*Dendroica coronata*	Passeriformes - Passerine Birds	Parulidae
Blue-grey Gnatcatcher	*Polioptila caerulea*	Passeriformes - Passerine Birds	Sylviidae
Cactus Wren	*Campylorhynchus brunneicapillus*	Passeriformes - Passerine Birds	Troglodytidae
Ash-throated Flycatcher	*Myiarchus cinerascens*	Passeriformes - Passerine Birds	Tyrannidae
Western Kingbird	*Tyrannus verticalis*	Passeriformes - Passerine Birds	Tyrannidae

Appendix B

GENESIS SOLAR POWER PROJECT
PRECONSTRUCTION NESTING SURVEY REPORT

Prepared for:

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Prepared by:

AECOM
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February 2013

February 2013 Genesis Solar Energy Project Preconstruction Nesting Bird Survey Report

Preconstruction nest surveys for bird species other than western burrowing owls (*Athene cunicularia*; WBO) are required prior to Genesis Solar Energy Project (GSEP or Project) related ground disturbance activities during the nesting season (February 1 through July 31) per Conditions of Certification BIO-15 for GSEP. The purpose of nesting bird surveys is to establish sufficient protective buffers around nests sites and potential nest sites. The purpose of this report is to satisfy the requirement to map and submit survey results to the Compliance Program Manager (CPM) and to provide a proposed Buffer Zone and Monitoring Plan (Plan) for observed nests to the California Department of Fish and Wildlife (CDFW) for consultation.

Per BIO-15, nesting surveys: are not to be conducted concurrently with desert tortoise (*Gopherus agassizii*; DT) surveys; are to be conducted in all potential habitat in the Project site and within 500-feet of the boundaries of the site; are to consist of two pre-construction surveys that should be separated by a minimum 10-day interval and one of these surveys shall be conducted within 7 days prior to the initiation of construction activities; and are to include follow up surveys if construction inactivity exceeds three weeks.

In an email dated January 31, 2013 sent to the Bureau of Land Management (BLM), biologists at the California Energy Commission (CEC), CDFW and the U.S. Fish and Wildlife Service (USFWS), hereafter referred to the "Wildlife Agencies", GSEP Designated Biologist (DB) Charles German notified the Wildlife Agencies that preconstruction nest surveys would be conducted in linear facilities planned for construction during the nesting season. Nesting bird surveys were to be conducted where either construction had not yet begun prior to the nesting season or where there was a lapse of over three weeks in construction activity. Preconstruction nest surveys were planned to occur within the 7-day period preceding the initial construction activities (or the re-initiation of dormant construction activities). The survey was to be interpreted as the second pre-construction survey since biological surveys had occurred within the linear facility and 500-foot buffer prior to the start of the nesting season. The intent of the 10 day separation in surveys was interpreted not to cause a delay in construction activities, which is what would occur if two nesting bird surveys were required during the nesting season. Pre-construction nest surveys were not planned in areas where construction activity had occurred prior to the nesting season and where no lapse in activity greater than three weeks has occurred.

Included in this report are the findings from pre-construction nest surveys conducted within linear facilities and associated buffers on February 5, 6 and 7, 2013 and a proposed Buffer Zone and Monitoring Plan for nests observed during the surveys.

PRECONSTRUCTION NEST SURVEYS

METHODOLOGY

Nesting bird surveys were conducted using nesting-locating techniques as those described in Martin and Guepel (1993). Project biologists Andrew Fisher, James McMorran, and Brennan Mulrooney conducted preconstruction nest surveys associated with linear facilities (transmission and fiber optic lines) on February 5, 6 and 7, 2013. Resumes are included in Appendix A.

Construction is to begin between February 6 and February 11/12, 2013. No nests or nesting activity was observed in the area where construction began on February 6, 2013. In the linear facilities north of Interstate 10 (I-10), construction activities began prior to the initiation of the nesting season and have either been completed or are ongoing. Therefore, all preconstruction nesting surveys reported here were conducted south of I-10. The survey area is depicted in Figure 1 in Appendix B. On February 5, 2013, surveys were completed within the north/south corridor directly south of I-10. Within this area, both fiber optic and transmission lines will be constructed. Along the east/west corridor and short north/south terminus, transmission line poles are already installed with the exception of eight poles to be installed near the eastern terminus that connects to the Colorado River Substation. Within the east/west line and north/south terminus, construction activities will consist of the installation of the fiber optic line, the stringing of the transmission lines and the construction of eight poles. The installation of the fiber optic line involves the trenching for the line, installation of the line and using a backhoe to fill the excavation. It is anticipated that the installation of the fiber optic line along the east/west alignment will begin on February 12, 2013. It is unknown on what date the stringing along existing poles will begin and the method that will be involved for stringing. A further memo for nesting birds regarding the Buffer Zone and Monitoring Plan may be required for stringing, depending on the type of construction activities to be associated with stringing. Excavations and setting of the eight poles near the terminus with the connection to the Colorado River Substation are expected to begin on February 11 or 12, 2013. No nests were observed within this area during this survey effort, so it assumed here that work can begin within that area prior to concurrence by CDFW of the Buffer Zone and Monitoring Plan.

Surveys were conducted as described in Appendix C with exact survey times, temperatures and weather conditions in the table. No other wildlife surveys were conducted concurrently with nesting bird surveys. Surveys were conducted by walking pedestrian transects spaced approximately 30 meters apart within the right-of-way (ROW) alignment and a 500-foot buffer adjacent to the alignment. All incidental bird sightings were noted and are included in Appendix D. Birds which were detected were then observed from a distance in order to watch their behavior to see if they exhibited any breeding season behavior (nest defense, carrying nesting material, food transport, etc.) or were simply transients birds foraging or migrating through the area. If breeding season behavior was noted, the nest was either classified as “active” or “potentially active.” The locations of inactive nests were also noted and this information is included in Appendix C.

RESULTS

Habitat within the survey area (which included both the ROW and the 500 foot buffer) included: Sonoran creosote bush scrub; stabilized or partially stabilized sand dunes; active desert dunes; or desert dry wash woodland. The vegetation community within the Sonoran creosote bush scrub consisted primarily of creosote (*Larrea tridentata*), burro-weed (*Ambrosia dumosa*), and plantain (*Plantago* sp.). The desert dry wash woodland was dominated by blue palo verde (*Cercidium floridium*), ironwood (*Olneya tesota*) with an understory of big galleta grass (*Pleuraphis rigida*), desert starvine (*Brandegea bigelovii*) intermixed with creosote scrub. Stabilized and partially stabilized dunes are sand accumulations in the desert which are stabilized or partially stabilized by evergreen and/or deciduous shrubs and scattered, low grasses. Plants observed within this community include Mediterranean grass (*Schismus* sp.) and dye bush (*Psorothamnus emoryi*). Active desert dunes are characterized by mostly unvegetated drifted sand dunes or sand fields of five feet or less in height. Plants observed in this community included sparsely scattered creosote bush, desert twinbugs (*Dicoria canescens*), and birdcage evening primrose (*Oenothera deltoides*).

Within the survey area, four active bird nests and two potentially active bird nests were observed (Table 1). Three of the nests were observed within desert dry wash woodland habitat and these nests included one potentially active cactus wren (*Campylorhynchus brunneicapillus*) nest and two active Le Conte's thrasher (*Toxostoma lecontei*) nests. Three red-tailed hawk (*Buteo jamaicensis*) nests were observed, all within existing transmission line towers on the south side of the existing Southern California Edison (SCE) paved road. Two of these nests were determined to be active and one nest potentially active.

The distance between the nest and the ROW was determined and all nests were determined to be at least 240 feet from the ROW. The description of the active and potentially active nests is included below in Table 1.

Table 1. Active or Potentially Active Nests Observed within the 500-foot Buffer of the Right-of-Way.

Avian Species	Nest Status	Nest Identifier	Easting	Northing	Description	Distance (feet) from Right of Way
Cactus Wren	Potentially Active	GNEVG001	698946	3718597	Fresh nesting material and feathers at a cactus wren nest. No birds observed.	240
Le Conte's Thrasher	Active	GNEBM001	698732	3718846	Adult Le Conte's thrasher flushed off nest. Could not see into the nest. Assumed active.	445
Le Conte's Thrasher	Active	GNEVG003	699814	3718773	Active nest that interior could not be viewed, pair of adults carrying food, Le Conte's thrasher	290
Red-tailed Hawk	Active	GNESD001	697070	3718634	Previously recorded nest in tower. An adult RTHA perched above the nest on the tower. Nest could potentially become active.	275
Red-tailed Hawk	Active	GNEVG002	699754	3718571	Adult RTHA flew off nest. Assumed to be incubating eggs	280
Red-tailed Hawk	Potentially Active	GNEVG004	700822	3718552	Previously recorded RTHA nest in tower. Adult RTHA observed perched above nest.	260

BUFFER ZONE AND MONITORING PLAN

Since active and potentially active nests were observed during the survey, a Buffer Zone and Monitoring Plan (Plan) is required. The approval of this Plan requires consultation and concurrence with CDFW. The size of buffers has been developed based on species specific alert distances and flush initiation distances. Generally for avian species, body size is the best known factor to determine interspecies differences in alert distances and flush initiation distances. Larger birds tend to have larger alert distances and this may be due to the increased amount of time it takes to initiate flight for a larger bird.

Several variables need to be considered to determine appropriate buffer distances including: (i) detection of disturbance (alert distance); (ii) tolerance to the disturbance before flight initiation (flush initiation); (iii) spatial displacement (landing distance); and (iv) temporal displacement (time to resume pre-disturbance activities). Since it is most important to avoid flush initiation during the nesting season

so that the birds maintain normal nesting activity, we will consider that while birds may become aware of construction activity (alert distance) as long as the activity is tolerated, nesting will continue. If flushing occurs due to construction activity, then landing distance and time to resume pre-disturbance activities will greatly influence nesting success.

Planned construction activities include the operation of a bulldozer with a ripper, which will be expected to operate at approximately 95 decibels (dBA) and a backhoe which will be assumed to operate at approximately the same noise level. The bulldozer and the backhoe will work within a close proximity to each other, but are generally assumed to be about 600 feet apart. It is expected that work will occur in a given area for approximately 15 minutes. The bulldozer will rip a trench and will install the conduit in the trench and the backhoe will follow and fill the trench. Work will be continually moving. It is expected that the entire length of trench from south of I-10 along the north/south line and along the east/west line will be completed in approximately 5 working days. Access will occur along the ROW with no use of the existing paved road with the exception of entering the ROW off the paved road near Wiley's Well Road. Hand-holes may then need to be installed using a backhoe and wherever possible these will be installed in areas without nesting birds.

Given the distance between all nests and construction activity, the most likely source of disturbance for nesting birds will be due to increased noise levels. For every doubling of distance between the observer and the noise source, there is a reduction of as much as 6 dBA. Noise from a bulldozer is considered to be about 95 dBA at the operating area and drops to about 82 dBA about 50 feet away from the noise source. Therefore at 100 feet, it would be expected that noise levels would drop to 76 dBA, at 200 feet to 70 dBA, at 400 feet away to 64 dBA and at 800 feet to 58 dBA. Ambient noise level measurements were taken near the Project Site in 2012, away from construction activities, and were found to be in the 45 to 60 dBA range during the day.

BUFFER DISTANCES and MITIGATION MEASURES

Specific buffer distances suggested for each nest are discussed below and summarized in Table 2. Generally all buffers are the distance of the nest from the ROW. Additional mitigation measures to increase nest success are also included in this Plan and discussed below.

The cactus wren nest is approximately 240 feet from the ROW. Noise levels from construction in that area will be slightly higher than ambient levels (64 to 70 dBA, ambient 45 to 60 dBA) but based on previous experience with this small species, it is unlikely that construction activity occurring at over 240 feet from the nest area will negatively impact nest success. The cactus wren nest is also on the other side of a raised paved road, and the road may function as a noise barrier. No other mitigation measures are suggested for this nest.

The two Le Conte's thrasher nests are 290 and 445 feet away from the ROW. Again, noise levels due to construction will be slightly higher than ambient levels (64 to 70 dBA, ambient 45 to 60 dBA), but again based on past experience with nesting thrashers, it is unlikely that construction activities 290 to 445 feet away from the nests will negatively impact nest success. Therefore the proposed buffer radiuses for these nests will be the distance from the ROW.

Three red-tailed hawk nests are present within the existing transmission line towers to the south of the existing paved road. These nests are 260, 275 and 280 feet from the ROW. Buffer distances to construction activity are proposed to be the same distance as the distance from the ROW. The red-tailed hawks established their nests while construction was occurring along the SCE access road (prior to the beginning of the nesting season) and nesting has continued throughout construction. It is therefore unlikely that construction activity further from the nests (on the north side of the paved road), over 260 feet away, will negatively impact nesting success. However, given that red-tailed hawks are raptors and given that they may have smaller alert distances than smaller birds, an additional mitigation measure is proposed associated with raptor nests. This measure is consistent with SCE measures currently being employed for construction activities along the access road. Along the ROW, a 500 foot "Limited Activity Area" will be instituted perpendicular to the nest location. Within this area, no parking of any vehicles will be allowed (except where absolutely necessary for construction activity), no vehicle refueling or maintenance will be allowed, and no storage of materials will be allowed. The purpose of this measure is to have construction activities flow through this area as quickly as possible. These "Limited Activity Areas" will be clearly staked in the field.

Table 2. Proposed Buffer Zone and Mitigation Measures for Nests

Avian Species	Nest Status	Nest Identifier	Proposed Buffer Radius (feet)*	Additional Mitigation Measures
Cactus Wren	Potentially Active	GNEVG001	240	Nest monitoring
Le Conte's Thrasher	Active	GNEBM001	445	Nest monitoring
Le Conte's Thrasher	Active	GNEVG003	290	Nest monitoring
Red-tailed Hawk	Active	GNESD001	275	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed Hawk	Active	GNEVG002	280	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed Hawk	Potentially Active	GNEVG004	260	Nest monitoring; "Limited Activity Area" in ROW

* Buffer distances are the distance from the nest to the ROW

MONITORING ACTIVITIES

Nest monitoring will only be conducted only by qualified biologists. It is recommended that monitoring be as minimally invasive as possible given the large buffer distances between the construction activity and the nesting areas. An intensive monitoring plan could increase disturbance and could actually decrease the probability of successful nesting. A biologist will visit the vicinity of the currently known nests during dawn soon after the installation of the fiber line. The biologist will observe nesting bird

behavior, if birds are observed exhibiting nesting behavior, it will be assumed that the nesting activity is successful. If no nesting behavior is observed, a physical nest check may be required, if so, the biologist will not walk directly to and from the nest, but will meander past the nest to avoid attracting predators to the nest.

Attachments:

Appendix A – Surveyor Resumes
Appendix B – Survey Area and Preconstruction Nest Survey Results Map
Appendix C – Field Data
Appendix D – Avian Species Observed

APPENDIX A

SURVEYOR RESUMES

Andrew Fisher
Wildlife Biologist

Education
BS, Wildlife, Fish, and Conservation Biology, University of California, Davis, 2006

Training
Wildlife Trailing Workshop, San Diego Tracking Team, 2007
California Fairy Shrimp Identification Course and Practical Exam for all Species of Fairy Shrimp in California, University of California, Davis, 2007
Flat-tailed Horned Lizard Worksop, BLM, 2008
Southwestern Willow Flycatcher Workshop, Southern Sierra Research Station, 2008
Bat Ecology and Field Techniques Workshop, The Wildlife Society, Western Section, 2008
Desert Tortoise Council Workshop on Surveying, Monitoring, and Handling Techniques for Desert Tortoise, 2009
Quino Checkerspot Butterfly Identification Test, USFWS, 2011
Remote Wildlife Camera Techniques Workshop, The Wildlife Society, 2011

Certification
10(a)(1)(A) Endangered Species Permit TE 820658 for:
Coastal California gnatcatcher,
Listed vernal pool branchiopods,
Quino checkerspot butterfly,
Southwestern willow flycatcher
CDFG Authorization for Flat-tailed Horned Lizard Surveys
CPR Certification

Professional Affiliations
Member, East African Wildlife Society
Member, The Wildlife Society-Western Section
Member, Wildlife Research Institute

Presentations
Distribution of Least Bell's Vireo in Border Field State Park, ESRI International User Conference, 2009

Volunteer Organizations
Wildlife Research Institute, golden eagle banding in San Diego County 2008-2011 Wildlife Research Institute, raptor migration surveys, golden eagle trapping and banding, Rodgers Pass, Montana, Oct 2010 and 2011
Cabrillo National Monument, Monitoring Avian Productivity and Survival, songbird banding 2008-2010
National Park Service, Santa Rosa and Santa Cruz Islands, spring loggerhead shrike surveys 2009-2010
Institute for Wildlife Studies, San Clemente Island, spring loggerhead shrike surveys, 2009, 2010, 2011

Andrew Fisher has 6 years experience as a professional wildlife biologist in California and his skills include: biological surveys for CEQA and NEPA documentation, avian identification, herp and small mammal surveys, wildlife habitat assessments, global positioning system data gathering and processing, photo documentation, wildlife tracking and trailing, large mammal radiotelemetry, and raptor rehabilitation. He conducts and assists with federally listed wildlife species surveys for the following species: listed vernal pool branchiopods, Quino checkerspot butterfly (*Euphydryas editha quino*), arroyo toad (*Anaxyrus californicus*), Coachella Valley fringe-toed lizard (*Uma inornata*), desert tortoise (*Gopherus agassizii*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), coastal California gnatcatcher (*Polioptila californica californica*), Pacific pocket mouse (*Perognathus longimembris pacificus*), and Stephen's kangaroo rat (*Dipodomys stephensi*). He also conducts surveys for state species of special concern including the flat-tailed horned lizard (*Phrynosoma mcallii*), burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), and coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*). He has also worked overseas implementing human-wildlife conflict resolution measures in Kenya.

He is currently working on avian surveys including mist-netting and banding, small mammal surveys, herp surveys,

environmental compliance, and wildlife movement surveys (roadkill and remote camera surveys). He regularly conducts wildlife surveys to support CEQA and NEPA documents which includes writing biological technical reports, biological assessments, avian risk assessments, and sections of EAs, EIRs and EISs.

He is currently working on his 10(a)(1)(A) permits for the Stephen's kangaroo rat and Pacific pocket mouse.

Project Experience

NAVFAC Wildlife Studies and NEPA Documentation for the Naval Base Coronado Coastal Campus Environmental Impact Statement, Naval Base Coronado, San Diego, CA
Mr. Fisher has been the lead biologist conducting biological surveys in support of environmental documentation for a coastal campus project. He has conducted avian surveys, Pacific pocket mouse surveys, and bat surveys. He is the main author for the biological resources sections for the environmental impact statement and biological assessment. He has met with USFWS and Navy representatives to discuss biological surveys for the project.

NAVFAC Wildlife Surveys for Basewide Utility Infrastructure Improvements Project, MCB Camp Pendleton, CA
From 2008 until the present (Fall 2012), Mr. Fisher has conducted protocol surveys for federally listed wildlife species on MCB Camp Pendleton. Surveys for species include the coastal California gnatcatcher, listed vernal pool Branchiopods, Stephens' kangaroo rat, and Pacific pocket mouse. He is an integral part of drafting NEPA documentation (Environmental Impact Statements and Biological Assessments) for large projects. He is involved in meetings with key project management staff and natural resource specialists on MCB Camp Pendleton to ensure project success.

NAVFAC Wildlife Surveys for Basewide Water Improvements and Stuart Mesa Bridge Replacement Project, MCB Camp Pendleton, CA
For the past two years Mr. Fisher has been conducting habitat assessments and presence/absence surveys for the coastal California gnatcatcher and listed vernal pool branchiopods (San Diego fairy shrimp [*Branchinecta sandiegonensis*], and Riverside fairy shrimp [*Streptocephalus wootton*i]) throughout the base. He is also conducting habitat assessments and surveys for other threatened and endangered species including surveys for the federally endangered Pacific pocket mouse, and Stephens' kangaroo rat. He has written several sections in NEPA compliance documents.

NAVFAC Southwest San Nicolas Island Wind Turbines Study, San Nicolas Island, Ventura County, CA
Mr. Fisher has conducted preconstruction avian point count surveys to determine the risk to avian species by construction of a wind power project on San Nicolas Island. He is involved in the data entry, analysis, and write-up to understand the implications for resident and migratory bird species and how potential impacts can be minimized and mitigated.

NAVFAC Wildlife Surveys for Continuing Environmental Review Studies for Basewide Utility Infrastructure Improvements, MCB Camp Pendleton, CA
Mr. Fisher is currently conducting habitat assessments and presence/absence surveys for the coastal California gnatcatcher and listed vernal pool branchiopods (San Diego fairy shrimp [*Branchinecta sandiegonensis*], and Riverside fairy shrimp [*Streptocephalus wootton*i]) throughout the base as part of continuing environmental review studies. He has drafted habitat assessment documents, biological assessments, and been involved in meetings with NAVFAC and base staff to ensure project success.

NAVFAC Listed Vernal Pool Branchiopod Surveys for the San Onofre Lease Area Vernal Pool Mesa Conservation Plan, MCB Camp Pendleton, CA
Mr. Fisher conducted biological surveys for listed vernal pool branchiopods in support of environmental documentation for a conservation plan. He was the lead biologist for vernal pool surveys and involved in the reporting to help determine mitigation locations for impacts from various other projects on MCB Camp Pendleton.

California Department of Corrections and Rehabilitation, Lethal Electrified Fence Monitoring Project, San Diego,

Imperial, San Bernardino, Kern, and Los Angeles Counties, CA
Mr. Fisher has worked at various state correctional institutions to monitor their lethal electrified fences for take of all vertebrate wildlife species. This included identifying carcasses of avian and mammalian species that contacted the lethal electrified fence and were killed. Mr. Fisher would conduct annual training for custody staff on how to effectively collect, tag, and store carcasses that were found in and adjacent to the lethal electrified fence. Mr. Fisher would identify the carcasses to species as part of a take permit for the state department of corrections and rehabilitation.

Caltrans State Route-76 East Expansion Project Biological Surveys, San Diego County, CA
Mr. Fisher assisted with a preconstruction wildlife movement study for the expansion of State Route- 76 using tracking stations, tracking transects, and roadkill surveys. Roadkill surveys consisted of conducting meandering transects on either side of a section of State Route-76 in search of wildlife that had been hit by vehicles and left in the road, or thrown into adjacent vegetation. Surveys were conducted twice a month for three consecutive days for one year. Surveys were designed to capture spatial clusters of mortality and reduce scavenging bias.

San Diego County Wildcat Canyon Road Enhancement Project, Before-After-Control-Impact Study - Preconstruction, San Diego County, CA
Mr. Fisher assisted with a post-construction wildlife movement study for the Wildcat Canyon Road Enhancement Project Before-After-Control-Impact Study. The project involved defining current movement trends through the use of control vs. construction sample sites. The project was designed to identify movement patterns and focal species and to establish baseline conditions for wildlife use of the project area to compare against post-construction data. Methods included conducting unbaited tracking station, camera station, tracking transect, and roadkill surveys. Roadkill surveys consisted of conducting meandering transects on either side of a section of Wildcat Canyon Road in search of wildlife that had been hit by vehicles and left in the road, or thrown into adjacent vegetation. Surveys were conducted twice a month for three consecutive days for one year. Surveys were designed to capture spatial clusters of mortality and reduce scavenging bias.

Mojave Solar Power Project, Mojave Desert, San Bernardino County, CA
Mr. Fisher conducted winter raptor and common raven (*Corvus corax*) surveys for pre-construction baseline survey data for a large solar power project. Surveys focused on transmission towers around the project site and documented all raptor and raven nests. Mr. Fisher also organized and conducted winter golden eagle (*Aquila chrysaetos*) surveys utilizing carcasses and wildlife cameras to estimate the abundance of wintering golden eagles on the project site and an 10-mile buffer. He also conducted Swainson's hawk (*Buteo swainsoni*) surveys around the project site and a 5-mile buffer. Additionally he coordinated and conducted spring and summer nesting bird surveys around the project site. All documented nests were monitored to determine necessary avoidance buffers. He composed weekly nesting bird reports and assisted in drafting various avian related compliance plans.

Los Angeles County Sanitation Districts Common Raven and Avian Point Count Surveys, Mesquite Regional Landfill Habitat Monitoring Plan, Imperial County, CA
Mr. Fisher conducted pre-construction baseline common raven surveys in the Sonoran Desert for a new regional landfill. Surveys included all day bi-monthly surveys for a year at various pre-determined points where common ravens may congregate (water and garbage locations) and at control points. This data was used to estimate pre-landfill common raven populations and daily trends. Mr. Fisher also assisted in setting up and conducting avian point count surveys around the proposed landfill as part of a baseline wildlife study to compare avian population changes in the desert around the landfill.

Imperial Irrigation District (IID), Path-42 Transmission Line Surveys, Riverside and Imperial County, CA
Mr. Fisher conducted protocol focused surveys for the flat-tailed horned lizard and Coachella Valley fringe-toed lizard along a linear transmission line within habitat also suitable for burrowing owl, desert kit fox, and desert tortoise. He was responsible for field crew coordination, data management, and reporting (NEPA compliance reports).

Imperial Irrigation District (IID), Dixieland to Imperial Valley Substation Transmission Line Project, Imperial County, CA
Mr. Fisher conducted focused protocol level burrowing owl and flat-tailed horned lizard surveys to assess impacts to these species by a new 230kV transmission line and

substation expansion project. He completed the species survey reports and assisted in further environmental documentation required for NEPA.

San Diego Gas & Electric Various Widget Monitoring Projects, San Diego County, CA
Mr. Fisher has been involved in various monitoring tasks with SDG&E in habitats for various listed and sensitive wildlife species. He has provided on-site construction monitoring for pole replacement projects to avoid sensitive wildlife habitats. After the Harris Fire (October 2007), Mr. Fisher monitored Quino checkerspot butterfly and coastal California gnatcatcher habitat on the San Diego National Wildlife Refuge to minimize impacts to these sensitive habitats. He has also monitored crews during pole replacement projects in Stephen's kangaroo rat habitat, and assessed potential impacts to flat-tailed horned lizard habitat.

County of San Diego Department of Parks and Recreation, Oak Country Trails, Ramona, CA
Mr. Fisher is an approved Stephen's kangaroo rat biological monitor and assisted in removing trapped small mammals from pitfall traps during project implementation.

Blythe, Palen, and Ridgecrest Solar Power Projects, Mojave Desert, Riverside/Kern County, CA
Mr. Fisher assisted with focused Mojave desert tortoise and avian point count surveys for various large solar array projects. He has conducted numerous nesting bird, burrowing owl, Mojave fringe-toed lizard, and kit fox surveys. He assisted with setting-up and conducting avian point counts for the BLM, and conducted contractor training, and writing of technical documents.

Imperial Irrigation District (IID) Imperial Valley-wide Burrowing Owl Surveys, Imperial County, CA
Mr. Fisher was responsible for field crew coordination, data management, and surveys across the Imperial Valley within IID's Right-of-Way. He led the field effort for 16 biologists to survey randomly selected 3 x 3 kilometer grids in a double independent observer methodology.

Confidential Wind Project in San Diego County, CA
Mr. Fisher is currently conducting bird use counts and bird area searches to determine the seasonal use, abundance, and distribution of resident and migratory bird species as an indicator of potential impacts from a wind development project in eastern San Diego County. In addition, he is conducting focused protocol level surveys for the federally listed least Bell's vireo, southwestern willow flycatcher, and arroyo toad. He recently completed surveys with other biologists for the federally endangered Quino checkerspot butterfly.

Confidential Wind Project in San Diego County, CA
Mr. Fisher is currently conducting wildlife habitat assessments and arroyo toad surveys for a proposed wind development project in eastern San Diego County. He recently completed surveys with other biologists for the federally endangered Quino checkerspot butterfly.

Santa Ana Nonnative Vegetation Removal Project, Orange County, CA
Mr. Fisher conducted focused protocol level surveys for the least Bell's vireo and southwestern willow flycatcher as part of a five year study to measure the effects of invasive nonnative vegetation removal within a 250-acre section of the Santa Ana River Valley on federally listed and resident bird species.

California Health Care Facilities Project at R.J. Donavan State Correctional Facility, San Diego, CA
Mr. Fisher conducted focused protocol level surveys for the coastal California gnatcatcher, least Bell's vireo, listed vernal pool branchiopods, and burrowing owl on lands proposed for a new hospital and firing range as part of the California Health Care Facilities Project. He wrote the 45-day summary reports for the species surveys.

Olivenhain Municipal Water District, Various Pipeline Projects, San Diego County, CA
Mr. Fisher conducted focused protocol level coastal California gnatcatcher surveys at Olivenhain Municipal Water District pipeline projects. He is currently working on completing focused protocol level surveys for the least bell's vireo and southwestern willow flycatcher.

California Department of Parks and Recreation Border Field State Park Sediment Basin Restoration Project, San Diego County, CA
Mr. Fisher monitored least Bell's vireo populations on site via protocol surveys enhanced with spot-mapping techniques to delineate territories. He used ArcPad GIS software to complete spot-mapping surveys and spatially compare territories over three years. He conducted focused protocol surveys in 2008, and then analyzed results compared with vegetation success criteria. He presented results at a paper

session at the 2009 ESRI International User Conference in San Diego.

Ramona Air Center Project, San Diego County, CA
Mr. Fisher conducted focused protocol surveys for listed vernal pool branchiopods for the proposed Ramona Air Center Project and completed the associated report to the various wildlife agencies.

Los Angeles Department of Water and Power Pine Canyon Wind Development Project, Kern County, CA
Mr. Fisher assisted in biological surveys in support of environmental documentation for a wind energy project in the foothills of the Sierra Nevada south of Kings Canyon National Park and north of the city of Tehachapi. He conducted avian point count surveys and bat acoustic monitoring for a spring session in 2007 and fall session in 2008.

Los Angeles County Sanitation Districts Small Mammal Trapping, Mesquete Regional Landfill Habitat Monitoring Plan, Imperial County, CA
Mr. Fisher has assisted in trapping, handling, processing, sexing, weighing, and toe-clipping various small mammal species in the Colorado Desert. These species include *Dipodomys merriami, Chaetodipus pencillatus, Chaetodipus baileyi, Chaetodipus spinatus,* and *Neotoma lepida intermedia.* Grids totaling 150 traps were trapped for three consecutive nights during October, 2007 and March 2008. Mr. Fisher has handled well over 100 small mammals during each trapping session.

Caltrans Lake Jennings Open Space Preserve/Restoration Area Land Management and Post-fire Recovery Monitoring, San Diego County, CA
Mr. Fisher conducted focused surveys for the coastal cactus wren on burned and then restored habitat as part of post-fire monitoring and long-term management of the preserve. The preserve was mitigation associated with the State Route 125 South Project. He completed the appropriate sensitive species survey reports.

SANDAG and Caltrans State Route 52 Managed Lanes Project, San Diego County, CA
Mr. Fisher conducted focused protocol surveys for the least Bell's vireo as mitigation for a freeway expansion project. He helped coordinate and schedule field surveys. Work was completed in support of a Natural Environmental Study and a Biological Assessment.

Caltrans Johnson Canyon Open Space Preserve Habitat Management Plan for State Route 125 South, San Diego County, CA
Mr. Fisher conducted focused protocol level surveys for the coastal California gnatcatcher, listed vernal pool branchiopods, and Quino checkerspot butterfly. He prepared survey reports and contributed to the annual report.

Caltrans State Route 125 South Quino Checkerspot Butterfly and Vernal Pool Mitigation Area, San Diego County, CA
Mr. Fisher conducted focused protocol surveys for listed vernal pool branchiopods and burrowing owls. Additionally he participated in general wildlife surveys for coastal cactus wren, reptiles, and small mammals. He prepared 45-day survey reports and contributed to the annual restoration monitoring report.

Los Angeles County Sanitation Districts Small Mammal Trapping, Mesquete Regional Landfill Habitat Monitoring Plan, Imperial County, CA
Mr. Fisher has assisted in trapping, handling, processing, sexing, weighing, and toe-clipping various small mammal species in the Colorado Desert. These species include *Dipodomys merriami, Chaetodipus pencillatus, Chaetodipus baileyi, Chaetodipus spinatus,* and *Neotoma lepida intermedia.* Grids totaling 150 traps were trapped for three consecutive nights during October, 2007 and March 2008. Mr. Fisher has handled well over 100 small mammals during each trapping session.

NAVFAC Wildlife Surveys for Grow-the Force and Basewide Utility Infrastructure Improvements Project, MCB Camp Pendleton, CA
Currently conducting presence/absence surveys for coastal California gnatcatcher throughout the base. Also conducting habitat assessments and surveys for other threatened and endangered species including surveys for the federally endangered Pacific pocket mouse, and Stephens' kangaroo rat.

Basewide Vernal Pool Floral and Faunal Surveys, MCB Camp Pendleton, CA
Conducted field collection of vernal pool branchiopod species in various training areas on base. Assisting in lab identification of Lindahl's fairy shrimp (*Branchinecta lindahli*), San Diego fairy shrimp, and Riverside fairy shrimp. He also

assisted with entering and maintaining data collected during these surveys.

Biological Science Technician, Carlsbad, CA
Conducted point count surveys for the coastal California gnatcatcher throughout San Diego County. Took weather measurements and used a GPS to locate points and track routes. Hiked in very rugged, uneven, and often remote areas to access survey points. Collected and analyzed soil samples for texturing and bulk density. Familiar with plants of San Diego and conducted vegetation surveys throughout the county. Kept detailed field notes, entered scientific data into Access databases, performed quality assurance/quality control on data, and assisted in data presentation. Work was completed prior to joining this firm.

Keeper Aide, Sacramento, CA
Assisted in the preparation of diets and feeding of birds, ungulates, carnivores, and primates. Improved and enhanced animal exhibits and displays. Worked with zoo staff to maintain animal exhibits, provide animal enrichment, and do overall zoo cleanup. Learned how zoos participate in animal research, education, and conservation, and how they work together on species survival plans. Work was completed prior to joining this firm.

Wood Duck Research Assistant, Davis, CA
Assisted in the ongoing monitoring and maintenance of wood duck (*Aix sponsa*) nest boxes. Took yolk samples, blood samples, various measurements, and weights, and web-tagged ducklings on various watersheds in Yolo and Sacramento counties. Learned and implemented methods for conserving a threatened species, working on both public and private lands and recording nest depredation. Work was completed prior to joining this firm.

Raptor Rehabilitator, Davis, CA
Fed, treated, and rehabilitated sick and injured birds of prey. Practiced veterinary techniques and proper handling methods. Assisted in cage cleaning; improved holding facilities; and practiced methods for prevention of imprinting, proper rehabilitation, and release techniques. Conducted health exams and weight checks, and learned the ways to diagnose illness and injury in raptors. Initiated and conducted an independent study and analysis of red-tailed hawk weight fluctuations during rehabilitation. Formulated hypotheses for bird weight fluctuations and how weight correlates with overall fitness and releaseability. Practiced methods for release and physical therapy. Work was completed prior to joining this firm.

Museum Mammal Taxidermist, Davis, CA
Practiced various techniques for the proper preparation of scientific mammal specimens. Took measurements, skinned, and then stuffed various small mammals for entry into the museum collection. This included methods for long-term preservation, small mammal identification, and museum curation. Became familiar with the methods for preservation and upkeep of a museum. Practiced usage of a museum's collection for research and education. Learned methods for identification of small mammal specimens including their sex, reproductive status, and rough age. Work was completed prior to joining this firm.

Spotted Owl Diet Study Intern, Davis, CA
Dissected spotted owl (*Strix occidentalis caurina*) pellets previously collected in various forests in the Sierra Nevada. Analyzed pellets to identify rodent, bird, bat, and insect remains to help determine spotted owl diet preference. Assisted in the study of spotted owl prey species abundance, distribution, and preference. Used prey remains to understand overall prey abundance in conjunction with habitat types. Practiced using museum rodent skeletons to identify bones found in pellets. Work was completed prior to joining this firm.

Tsavo East National Park Research Volunteer, Voi, Kenya
Mr. Fisher monitored a population of African elephants (*Loxodonta africana*) in the Tsavo Conservation Area using radio telemetry from collared elephants. He studied the social structure, habitat preference, behavior, and general ecology of translocated and local elephant populations inside the Tsavo East National Park. He assisted and conducted vegetation surveys, GPS road mapping, animal road counts, rainfall data collection, and statistical analyses. He learned how to age and sex animals based on osteological evidence. He drafted methodologies to conduct vegetation surveys in and around animal exclosure plots. He used monthly road count data in conjunction with rainfall data to interpret animal abundance and distributions. He used poaching data and talked with stakeholders to discuss ways to alleviate poaching pressure in and around the national park. He created fish sampling tools and data sheets and compiled graphs and charts from analyzed data for presentations by park staff.

Jimmy McMorran
Wildlife Biologist

Education
Diploma, Hemet High School, 1995

Training
California Native Plant Society Rapid Assessment,2008
San Diego Natural History Museum Plant Identification, 2008
Flat-tailed Horned Lizard Worksop, Bureau of Land Management, 2009
Desert Tortoise Council Workshop on Surveying, Monitoring, and Handling Techniques for Desert Tortoise, 2009
Southwestern Willow Flycatcher Workshop, Southern Sierra Research Station, 2010
Quino Checkerspot Butterfly Identification Test, US Fish and Wildlife Service, 2010

Certifications
10(a)(1)(A) Endangered Species Permit TE 820658-4 to independently conduct presence/absence surveys for coastal California gnatcatcher and southwestern willow flycatcher; independently survey and nest monitor for western snowy plover and least Bell's vireo.
California Department of Fish and Game Authorization for Flat-tailed Horned Lizard Surveys
Wilderness First Aid Certification
CPR Certification
Motorboat Operator Certification

Jimmy McMorran's qualifications as a biologist include more than 10 years of experience as an ornithologist and research biologist. Mr. McMorran is experienced in sensitive wildlife species surveys and population monitoring, and habitat assessment. His primary focus has been being involved with search efforts and the monitoring of both threatened and endangered avian species. In addition, a passion for understanding seasonal status and distribution of avian species throughout North America has aided in his qualifications. He is experienced with GPS, GIS, modeling of wildfire behavior, and wildlife tracking. Mr. McMorran also regularly supports CEQA and NEPA documents by assisting with the writing of biological technical reports; biological assessments; and sections of EAs, EIRs, and EISs.

Project Experience

Shu' luuk Wind, San Diego County, CA
As a biologist conducted bird use counts, bird area searches, and all day raptor point counts to determine the seasonal use, abundance, and distribution of resident and migratory bird species as an indicator of potential impacts from a wind development project in eastern San Diego County. In addition, he conducted focused protocol level surveys for the federally listed least Bell's vireo (*Vireo bellii pusillus*), assisted with protocol level surveys for the federally listed southwestern willow flycatcher (*Empidonax traillii extimus*), and assisted with nest surveys for raptors and other large avian species. He completed surveys with other biologists for the federally endangered quino checkerspot butterfly (*Euphydryas editha quino*).

NAVFAC Wildlife Studies for the Naval Base Coronado Coastal Campus Environmental Impact Statement, Naval Base Coronado, San Diego, CA

Currently as a biologist is conducting avian surveys in support of environmental documentation for a coastal campus project.

San Diego Gas & Electric- Sunrise Powerlink- Restoration Services, San Diego County, CA
As biologist, participated in habitat assessments for temporary and permanent impacts to sensitive wildlife habitats associated with construction of the Sunrise Powerlink project, a 117-mile, 500 kilovolt transmission corridor.

Mojave Solar Power Project, Mojave Desert, San Bernardino County, CA
As a biologist, assisted with surveys focused on desert tortoise (*Gopherus agassizii*), transmission towers around the project site and documented all raptor and raven nests, and spring and summer nesting bird surveys around the project site. All documented nests were monitored to determine necessary avoidance buffers. Additionally, he assisted with the preparation of the raven management plan for the project.

Los Angeles Department of Water and Power, Confidential Project, Adelanto, San Bernardino County, CA Wildlife Biologist
As a biologist, assisted with focused desert tortoise (*Gopherus agassizii*) clearance surveys and burrowing owl preconstruction surveys.

Blythe, Palen, and Ridgecrest Solar Power Projects, Mojave Desert, Riverside/Kern County, CA
As a biologist, assisted with focused desert tortoise (*Gopherus agassizii*), and avian point count surveys for various large solar array projects. He has conducted numerous nesting bird, and burrowing owl surveys. He assisted with setting-up and conducting avian point counts for the BLM, and conducted contractor training.

Confidential Transmission Line Project, Colorado Desert, CA
As biologist,conducted protocol surveys for burrowing owl (*Athene cunicularia*) and flat-tailed horned lizard (*Phrynosoma mcallii*) for a 3 mile transmission Line and substation expansion project in Imperial County, California. Primary author for associated reports.

California Department of Transportation (Caltrans), Morrison Mitigation Property Species Surveys, Bonsall, CA
As biologist, participated in surveys for arroyo toad (*Bufo californicus*) and conducted surveys for southwestern willow flycatcher (*Empidonax traillii extimus*).

Confidential Solar Energy Project, San Diego County, CA
Assisted permitted biologists with Quino checkerspot butterfly (*Euphydryas editha quino*) surveys for a solar array project.

City of Carlsbad, Agua Hedionda Creek Dredging Project, City of Carlsbad, CA
As a biologist, conducted surveys for coastal California gnatcatcher (*Polioptila californica californica*) and least Bell's vireo (*Vireo bellii pusillus*). Assisted permitted biologists with surveys for southwestern willow flycatcher (*Empidonax traillii extimus*).

San Diego Gas & Electric Various Widget Monitoring Projects, San Diego County, CA
As biologist, has been involved in various monitoring tasks with SDG&E in habitats for various listed and sensitive wildlife species. He has provided on-site construction monitoring for pole replacement projects to avoid sensitive wildlife habitats.

NAVFAC Southwest MCB Camp Pendleton Basewide Water Improvements and Stuart Mesa Bridge Replacement Project, Environmental Studies, San Diego, CA
As biologist, conducted protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*) and was primary author of associated reports.

Imperial Irrigation District (IID) Imperial Valley-wide Burrowing Owl Surveys, Imperial County, CA
As a biologist, participated in the surveying of randomly selected 3 x 3 kilometer grids in a double independent observer methodology.

Santa Ana Nonnative Vegetation Removal Project, Orange County, CA
Currently as a biologist is assisting with bird use counts and is conducting focused protocol level surveys for the federally listed least Bell's vireo (*Vireo bellii pusillus*) as part of a five year study to measure the effects of invasive nonnative

vegetation removal within a 250-acre section of the Santa Ana River Valley on federally listed and resident bird species.

Confidential Wind Energy Project, San Diego County, CA
As biologist, completed surveys with other biologists for the federally endangered quino checkerspot butterfly.

NAVFAC Southwest San Nicolas Island Wind Turbine Project, San Nicolas Island, CA
As biologist, conducted preconstruction avian point count surveys in relation to wind power development focusing on migratory species moving throughout this outermost Channel Island in support of the avian risk assessment, documenting uncommon and rare avian species, and performing general wildlife habitat assessments.

Olivenhain Municipal Water District, Various Pipeline Projects, San Diego County, CA
As biologist, participated in protocol surveys for coastal California gnatcatcher.

Confidential Solar Energy Project, Sonoran Desert, CA
As biologist participated in managing and conducting avian point count surveys in the Sonoran Desert.

Confidential Solar Energy Project, Mojave Desert, CA
As biologist conducted protocol surveys for burrowing owl (*Athene cunicularia*) in the Mojave Desert for a solar array project.

City of Escondido Citracado Parkway – Andreasen Drive to West Valley Parkway, San Diego County, CA
As biologist, conducted protocol surveys for least Bell's vireo (*Vireo bellii pusillus*), kept detailed notes and documented any uncommon or rare avian detections, and assisted with associated reports.

California Health Care Facilities Project at R.J. Donavan State Correctional Facility, San Diego County, CA
As biologist, conducted protocol surveys for least Bell's vireo (*Vireo bellii pusillus*), participated in protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*), and assisted with associated reports.

NAVFAC Southwest MCB Camp Pendleton Grow the Force Environmental Studies, San Diego, CA
As biologist, participated in protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*) and was primary author of associated reports.

San Diego County Department of Public Works Wildcat Canyon Road Enhancement Project, Phase I, San Diego County, CA
As biologist, studied wildlife movement and determined corridor use surrounding Wildcat Canyon Road using baited and unbaited tracking plates.

MCB Camp Pendleton, San Diego, CA
Wildlife technician responsible for organizing and conducting systematic avian surveys basewide; monitor and ensure that fencing surrounding the nesting sites of threatened western snowy plover (*Charadrius alexandrinus nivosus*) and endangered California least tern (*Sterna antillarum brownii*) are maintained for predator control purposes; assist with flagging threatened and/or endangered plants and habitat in conjunction with habitat restoration projects; responsible for updating the checklist to the Birds of MCB Camp Pendleton.

RC Biological Consulting, Inc., La Mesa, CA
As biologist, conducted botanical and wildlife surveys, including focused surveys for least Bell's vireo (*Vireo bellii pusillus*), mapped habitat, and assisted with wetland delineations throughout southern California regions; conducted fuel management surveys and fire modeled for Fire Protection Plans; and assisted with technical report preparation, research, and graphics using Arcview and AutoCAD in support of potential construction development. Work was performed prior to joining this firm.

Point Reyes Bird Observatory Conservation Science (PRBO), Santa Cruz Island, CA
As Lead Biologist, conducted systematic surveys for loggerhead shrikes (*Lanius ludovicianus anthonyi*) utilizing all habitats islandwide; kept detailed notes of behavioral observations and located nests; entered data using Microsoft Excel, ArcMap, and Google Earth; logged sightings and read color bands of the island endemic Island scrub jay (*Aphelocoma insularis*); and recorded, compiled, and submitted all avian species detected to the proper agencies. Coordinated and managed group volunteer survey efforts. Work was performed prior to joining this firm.

Alaska Biological Research (ABR, Inc.), Forest Grove, OR
As Field Technician, participated in preconstruction studies in relation to potential wind power development by monitoring nocturnal bird and bat migration with use of radar and night

vision in New York and Pennsylvania; entered data using Microsoft Excel. Work was performed prior to joining this firm.

U.S. Geological Surveys (USGS), Flagstaff, AZ
As Field Technician, conducted ornithological surveys for western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) along the Colorado River from the U.S./Mexican border up through the Grand Canyon by foot, kayak, and motorboat; performed detailed botanical surveys using vegetation plots in riparian ecosystems; entered avian survey data into the avian database; kept detailed records of all avian species detected; and compiled records of all surveyors and submitted them to the appropriate agencies. Work was performed prior to joining this firm.

Cornell University Laboratory of Ornithology, St. Charles, AR
As Field Technician, conducted systematic surveys for ivory-billed woodpecker (*Campephilus principalis*) in the bottomland and hardwood forests of Cache River and White River National Wildlife Refuges by foot, canoe, and motorboat; inventoried feeding signs and roost/nest cavities of large woodpeckers; conducted point counts, playback surveys, and detailed behavioral observations of pileated woodpeckers (*Dryocopus pileatus*); daily use and operation of Global Positioning Systems (GPS), video camera, and aerial photography for navigation and orientation; and entered data into ArcView data management software. Work was performed prior to joining this firm.

Point Reyes Bird Observatory Conservation Science (PRBO),
San Clemente Island, CA
As Field Biologist, monitored the wild population of the endangered San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*); read color bands, conducted detailed behavioral observations, located nests, and assisted with banding of shrikes; conducted surveys for the threatened western snowy plover (*Charadrius alexandrinus nivosus*); completed 40 hours of supervised training in survey techniques, breeding behavior, identification, and habitat of the western snowy plover under a permitted biologist; permitted to handle endangered and threatened avian species (i.e., San Clemente loggerhead shrike and western snowy plover); entered data using ArcView, Microsoft Access, Excel, and MSWord; kept detailed records of all avian species detected; and compiled records of all surveyors and submitted them to the appropriate agencies. Work was performed prior to joining this firm.

Institute for Wildlife Studies (IWS), San Clemente Island, CA
As Release Biologist, monitored and conducted supplemental feeding of the captive released population of the endangered San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*); participated in transporting, weighing, and releasing of both juvenile and adults; and assisted with trapping and processing of state threatened Island fox (*Urocyon littoralis*) for research purposes. Work was performed prior to joining this firm.

Blucher Audubon Nature Center, Corpus Christi, TX
Naturalist responsible for restoring native habitat and preserving facilities; participated in the identification and removal of invasive plant species; and assisted visitors with questions about the flora and fauna of the center and surroundings. Work was performed prior to joining this firm.

Volunteer Experience

IWS, San Clemente Island, CA
Constructed raptor holding cages for problematic species that were found within areas of endangered San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*) release sites; participated in raptor surveys island-wide, assisted wildlife biologist with trapping and processing state threatened Island fox (*Urocyon littoralis*) for research purposes; assisted biologist with the removal of nonnative feral cats through various means, including trapping; logging sightings and behavioral data such as behavior in specified geographical areas. Work was performed prior to joining this firm.

U.S. Fish and Wildlife Service, Ventura, CA
Participated in the search and recovery efforts for one of the last original wild California condors (*Gymnogyps californianus*) after its release back into the wild. Work was performed prior to joining this firm.

Hazel Bazemore Hawkwatch, TX
Volunteered numerous hours helping identify raptors during fall migration. Work was performed prior to joining this firm.
American Birding Association, USA
Has lead bird watching tours for the American Birding Association (ABA) Conferences in southern California and Louisiana. Work was performed prior to joining this firm.

Arkansas Birding Festival, AR
Served as a leader of bird watching tours during the Arkansas birding festival. Work was performed prior to joining this firm.

San Diego & Buena Vista Audubon Society
Currently a leader for San Diego & Buena Vista Audubon Society pelagic birding trips in southern California.

Brennan Mulrooney
Wildlife Biologist

Education
BS in Wildlife and Fisheries Biology,
University of California at Davis, 1997

Training
Southwestern Willow Flycatcher Workshop, Southern Sierra Research Station, 2002
Flat-tailed Horned Lizard Worksop, BLM, 2011
Quino Checkerspot Butterfly Identification Test, USFWS, 2010
Hermes Copper Butterfly Workshop, SoCal Chapter of the Wildlife Society with Dave Faulkner, 2011

Certifications
10(a)(1)(A) Endangered Species Permit TE 820658-4 to independently conduct presence/absence surveys for southwestern willow flycatcher and independently survey and nest monitor for western snowy plover.
Red Cross First Aid and CPR Certification
Motorboat Operator Certification

Brennan Mulrooney's qualifications as a biologist include more than 12 years of experience as a field ornithologist and field biologist. As a wildlife biologist, Mr. Mulrooney is experienced in sensitive wildlife species surveys and population monitoring, and habitat assessment. His primary focus has been with search efforts and monitoring of threatened and endangered avian species. In addition, a passion for understanding seasonal status and distribution of avian species throughout North America has aided in his qualifications. He is experienced with GPS data gathering and processing.

Project Experience

Imperial Irrigation District (IID), Transmission Line Upgrades, Imperial County, CA
As a biologist, is conducting surveys for western burrowing owl. [05/2011 – Ongoing]

IID, Burrowing Owl Population Estimate Surveys, Imperial County, CA
As a biologist, conducted surveys for western burrowing owl. [05/2011]

California Department of Transportation (Caltrans), Morrison Mitigation Property Species Surveys, Bonsall, CA
As a biologist, conducting surveys for arroyo toad and southwestern willow flycatcher. [04/2011 – Ongoing]

San Diego Gas & Electric (SDG&E), Natural Communities Conservation Plan On-Call Biological Services, San Diego, CA
As a biologist, conducting surveys for least Bell's vireo and western burrowing owl. Assisting permitted biologist with surveys for coastal California gnatcatcher. [04/2011 – Ongoing]

Confidential Solar Energy Project, San Diego County, CA
Assisted permitted biologists with Quino checkerspot butterfly surveys. [04/2011]

City of Carlsbad, Agua Hedionda Creek Dredging Project, City of Carlsbad, CA
As a biologist, conducting surveys for least Bell's vireo and southwestern willow flycatcher. Assisted permitted biologists with surveys for coastal California gnatcatcher. [03/2011 – Ongoing]

Caltrans, South Bay Expressway State Route 125 South Restoration Site, San Diego, CA
As a biologist, conducted surveys for western burrowing owl and assisted permitted biologist with surveys for Quino checkerspot butterfly. [02/2011 – 05/2011]

County of San Diego Department of Parks and Recreation, As-Needed Environmental Services, San Diego County, CA
As a biologist, conducting surveys for nesting birds on an as-needed basis. [05/2010 – Ongoing]

US Army Corps of Engineers, Santa Ana Arundo Removal Project, Norco, CA
As a biologist, conducting bird use counts and surveys for least Bell's vireo and southwestern willow flycatcher. [05/2010 – Ongoing]

Naval Facilities Engineering Command (NAVFAC), Wildlife Surveys for Grow-the-Force and Basewide Utility Infrastructure Improvements Project, Marine Corps Base (MCB) Camp Pendleton, CA
Assisted permitted biologists with presence/absence surveys for coastal California gnatcatcher throughout the base. [08/2010 – 12/2010]

Confidential Wind Energy Project, San Diego County, CA
As a biologist, conducted bird use counts, bird area searches, and raptor nesting surveys to determine the seasonal use, abundance, and distribution of resident and migratory bird species as an indicator of potential impacts from a wind development project in eastern San Diego County. In addition, conducted focused protocol-level surveys for least Bell's vireo and assisted with protocol-level surveys for southwestern willow flycatcher and arroyo toad. [04/2010 – 04/2011]

Confidential Wind Energy Project, San Diego County, CA
As a biologist, completed surveys with other biologists for arroyo toad. [06/2010]

Avian Research Associates, California Least Tern and Western Snowy Plover Monitoring, Coronado, CA
As a biologist, conducted presence/absence surveys for, monitored nests of, and banded chicks of Western snowy plover and California least tern; conducted surveys/counts for all bird species at study sites; recorded data on mortality (all species), predation of California least tern and Western snowy plover nest and chicks, and human disturbance of nesting sites. [Prior to AECOM]

Victor Emanuel Nature Tours, Tour Leader, Austin, TX
Led groups of up to 14 people on birding and nature tours to various locations in the US, Canada, Mexico, Belize, Panama, Jamaica, and Kenya. Wrote detailed itineraries for tours. Responsible for day-to-day logistics. Wrote detailed trip reports and completed financial reports for each tour. [Prior to AECOM]

National Audubon Society, Roseate Spoonbill Monitoring Project, Tavernier, FL
As a biologist, deployed satellite transmitters on adult spoonbills; surveyed and monitored breeding colonies by small boat, kayak, and on foot; banded nestlings and resighted color banded birds throughout the state; and conducted flight-line counts, surveyed colonies, and conducted adult foraging flights via fixed-wing aircraft. Presented project data, birding, and Florida Keys natural history presentations to local community organizations. [Prior to AECOM]

National Audubon Society, Florida Keys Stopover Ecology Study of Neotropical Migrant Birds, Cudjoe Key, FL
As a bander, mist-netted and banded neotropical migrants; recorded age, sex, wing chord, and fitness; conducted foraging observations and analyzed diet via fecal samples; conducted prey availability studies; conducted vegetation surveys; and recorded and entered data. [Prior to AECOM]

US Geological Survey (USGS) Western Ecological Research Center (WERC), San Diego Field Station, Avian Inventories of National Forests of Southern California San Diego, CA
Conducted point counts for all bird species throughout the Cleveland, Angeles, San Bernardino, and Los Padres National Forests. Assisted with mist-netting and banding of neotropical migrants at Monitoring Avian Productivity and Survivorship (MAPS) stations. [Prior to AECOM]

USGS Western Ecological Research Center (WERC), Santa Margarita River Watershed Avian Surveys, San Diego, CA
Conducted point counts for all bird species throughout the Santa Margarita watershed. [Prior to AECOM]

USGS Western Ecological Research Center (WERC), Least Bell's Vireo (LBVI) and Southwestern Willow Flycatcher (SWFL) Surveys, San Diego, CA
Conducted point counts for all bird species in Cleveland National Forest, Marine Corps Base Camp Pendleton, and Santa Margarita Ecological Reserve; surveyed fixed-transects for LBVIs and SWFLs in Cleveland National Forest; surveyed independently for SWFL at the mouth of San Mateo Creek; mist-netted and banded passerines at MAPS stations; conducted vegetation surveys; recorded and entered data. [Prior to AECOM]

Cape May Bird Observatory, Fall Migration Study of Neotropical Migrant Birds, Cape May, NJ
Performed daily constant effort raptor counts at the Hawk Watch, and waterbird counts at the Sea Watch. Assisted with mist-netting and banding of neotropical migrants; recorded age, sex, wing chord, and fitness; conducted vegetation surveys; conducted prey availability studies; conducted workshops on field identification of raptors and waterbirds in flight at Hawk Watch and Sea Watch; conducted surveys for shorebirds and other waterbirds along the beaches of southern New Jersey; recorded and entered data. [Prior to AECOM]

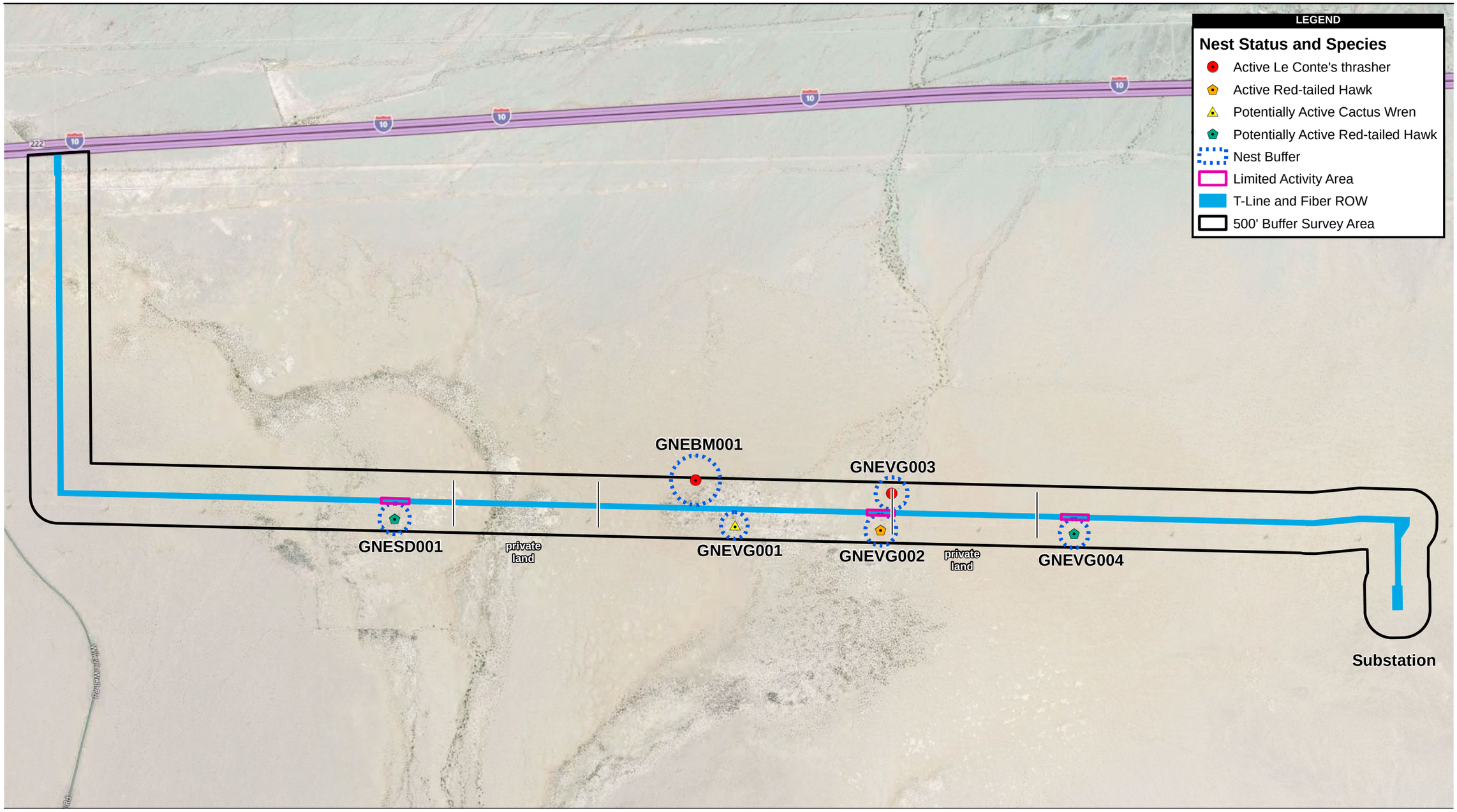
Varanus Biological Services, San Diego, CA
Conducted presence/absence and spot mapping surveys for least Bell's vireo; assisted with California gnatcatcher surveys; trapped small mammals and reptiles using pitfall traps and Sherman live traps; carried out bull frog eradication from sensitive habitats to protect the endangered arroyo toad; implanted Passive Integrated Transponder (PIT) tags in arroyo toads for monitoring of relocation efforts; built and maintained cowbird traps to protect nesting least Bell's vireos. [Prior to AECOM]

Lassen Volcanic National Park/Forest, Point Reyes Bird Observatory, Mineral, CA
Conducted point counts for all bird species to complete an inventory of the birds of Lassen Volcanic National Park; assisted with MAPS banding in Lassen Volcanic National Forest. [Prior to AECOM]

Point Reyes Bird Observatory, Salton Sea, CA
Conducted targeted surveys of breeding snowy plovers; conducted general counts of all shorebirds and waterbirds; conducted surveys for breeding rail species including California black rail and Yuma clapper rail; conducted surveys for mountain plover; assisted with constant effort migration banding; banded the chicks of California gull, gull-billed tern, Caspian tern, and black skimmer; monitored breeding colonies of colonial wading birds. [Prior to AECOM]

APPENDIX B

SURVEY AREA AND PRECONSTRUCTION NEST SURVEY RESULTS MAP



1,750 875 0 1,750 Feet

Scale: 1:21,000; 1 inch = 1,750 feet

Figure 1. Genesis Solar Energy Project Preconstruction Nesting Bird Survey Area, Results and Proposed Buffer Zones, February 5-7, 2013

Genesis Solar Energy Project

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\Nesting Birds\2013\Linear Easement Jan-Feb 2013.mxd, 2/11/2013, irelandm

APPENDIX C

FIELD DATA

PRECONSTRUCTION NESTING SURVEY DATASHEETS

Genesis Solar – Clearance Survey Summary Report (Part 1 of 3)

Data Recording Surveyor	Additional Surveyors	Date	Start Time	End Time	Start Temp. (°F)	End Temp. (°F)	Start Wind Speed (mph)	End Wind Speed (mph)	Start Precipitation	End Precipitation	Start Cloud Cover	End Cloud Cover
Andrew Fisher	Brennan Mulrooney, James McMorran	2/5/2013	7:17:00 AM	2:49:00 PM	54	69	0	4	None	None	0%	0%
Andrew Fisher	Brennan Mulrooney, James McMorran	2/6/2013	8:31:00 AM	3:46:00 PM	62	62	2	2	None	None	0%	0%
Andrew Fisher	Brennan Mulrooney, James McMorran	2/7/2013	7:25:00 AM	9:50:00 AM	51	73	0	2	None	None	0%	0%

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
Andrew Fisher	2/5/2013	10:30:00 AM	GNEAF001	Nest	UTM Z11 NAD83 (m)	3718602	696359	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	Other (note), N/A old nest remains with old material
Andrew Fisher	2/5/2013	10:55:00 AM	GNEAF002	Nest	UTM Z11 NAD83 (m)	3718674	696011	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/5/2013	1:16:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	697070	3718634	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A
Andrew Fisher	2/5/2013	2:38:00 PM	GNEAF003	Nest	UTM Z11 NAD83 (m)	3718909	696971	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	10:43:00 AM	GNEVG003	Nest	UTM Z11 NAD83 (m)	699814	3718773	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A
Andrew Fisher	2/6/2013	10:49:00 AM	GNEAF005	Nest	UTM Z11 NAD83 (m)	699840	3718835	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	11:13:00 AM	GNEAF004	Nest	UTM Z11 NAD83 (m)	698997	3718783	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	11:24:00 AM	GNEBM001	Nest	UTM Z11 NAD83 (m)	698732	3718846	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A
Andrew Fisher	2/6/2013	12:10:00 PM	GNETS002	Nest	UTM Z11 NAD83 (m)	698658	3718706	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:15:00 PM	GNEJM001	Nest	UTM Z11 NAD83 (m)	698725	3718705	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:18:00 PM	GNESD002	Nest	UTM Z11 NAD83 (m)	698776	3718700	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A, None
Andrew Fisher	2/6/2013	12:20:00 PM	GNEVG007	Nest	UTM Z11 NAD83 (m)	698769	3718674	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:23:00 PM	GNEAF006	Nest	UTM Z11 NAD83 (m)	698825	3718764	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:29:00 PM	GNEAF007	Nest	UTM Z11 NAD83 (m)	699034	3718770	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:32:00 PM	GNEBM002	Nest	UTM Z11 NAD83 (m)	699071	3718727	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	2:53:00 PM	GNEVG005	Nest	UTM Z11 NAD83 (m)	701350	3718543	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	3:03:00 PM	GNEVG004	Nest	UTM Z11 NAD83 (m)	700822	3718552	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	N/A
Andrew Fisher	2/7/2013	7:31:00	GNEBM00	Nest	UTM Z11	698934	3718639	None,	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
		AM	2		NAD83 (m)			Nest													
Andrew Fisher	2/7/2013	7:33:00 AM	GNEVG001	Nest	UTM Z11 NAD83 (m)	698946	3718597	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	N/A
Andrew Fisher	2/7/2013	7:36:00 AM	GNEBM003	Nest	UTM Z11 NAD83 (m)	698902	3718666	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	7:46:00 AM	GNEBM004	Nest	UTM Z11 NAD83 (m)	698741	3718647	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	7:58:00 AM	GNEAF007	Nest	UTM Z11 NAD83 (m)	698130	3718633	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:42:00 AM	GNEAF008	Nest	UTM Z11 NAD83 (m)	699234	3718567	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:44:00 AM	GNEAF009	Nest	UTM Z11 NAD83 (m)	699292	3718575	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:52:00 AM	GNEVG006	Nest	UTM Z11 NAD83 (m)	699500	3718553	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:57:00 AM	GNEVG002	Nest	UTM Z11 NAD83 (m)	699754	3718571	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
Andrew Fisher	2/5/2013	10:30:00 AM	GNEAF001	Nest	UTM Z11 NAD83 (m)	3718602	696359	None	Cactus wren and verdin	N/A	N/A	Two old nests in palo verde
Andrew Fisher	2/5/2013	10:55:00 AM	GNEAF002	Nest	UTM Z11 NAD83 (m)	3718674	696011	None, Nest	Either a RTHA or CORA	N/A	N/A	Old nest remains in transmission tower on south side of paved road
Andrew Fisher	2/5/2013	1:16:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	697070	3718634	None	N/A	N/A	N/A	Previously recorded nest in tower. An adult RTHA perched above the nest on the tower. Nest could potentially become active.
Andrew Fisher	2/5/2013	2:38:00 PM	GNEAF003	Nest	UTM Z11 NAD83 (m)	3718909	696971	None, Nest	SAPH, BRSP, WCSP, RTHA, BGGN, WEME, AUWA, VESP, SAGS, HOLA, HOFI, CAWR, American snout, MFTL	N/A	N/A	Looks like an old LOSH nest.
Andrew Fisher	2/6/2013	10:43:00 AM	GNEVG003	Nest	UTM Z11 NAD83 (m)	699814	3718773	None, Nest	N/A	N/A	N/A	Active nest that interior could not be viewed, pair of adults carrying food. Le Conte's thrasher
Andrew Fisher	2/6/2013	10:49:00 AM	GNEAF005	Nest	UTM Z11 NAD83 (m)	699840	3718835	None, Nest	N/A	N/A	N/A	Old nest in Palo Verde with no sign of activity.
Andrew Fisher	2/6/2013	11:13:00 AM	GNEAF004	Nest	UTM Z11 NAD83 (m)	698997	3718783	None, Nest	N/A	N/A	N/A	Old possible LOSH nest in a Palo Verde.
Andrew Fisher	2/6/2013	11:24:00 AM	GNEBM001	Nest	UTM Z11 NAD83 (m)	698732	3718846	None, Nest	N/A	N/A	N/A	Adult Le Conte's thrasher flushed off nest. Could not see into the nest. Assumed active.
Andrew Fisher	2/6/2013	12:10:00 PM	GNETS002	Nest	UTM Z11 NAD83 (m)	698658	3718706	None, Nest	N/A	N/A	N/A	Possibly a verdin nest
Andrew Fisher	2/6/2013	12:15:00 PM	GNEJM001	Nest	UTM Z11 NAD83 (m)	698725	3718705	None, Nest	N/A	N/A	N/A	Old inactive verdin nest
Andrew Fisher	2/6/2013	12:18:00 PM	GNESD002	Nest	UTM Z11 NAD83 (m)	698776	3718700	None, Nest	N/A	N/A	N/A	Previously recorded inactive verdin nest
Andrew Fisher	2/6/2013	12:20:00 PM	GNEVG007	Nest	UTM Z11 NAD83 (m)	698769	3718674	None, Nest	N/A	N/A	N/A	Previously recorded inactive cactus wren nest.
Andrew Fisher	2/6/2013	12:23:00 PM	GNEAF006	Nest	UTM Z11 NAD83 (m)	698825	3718764	None, Nest	N/A	N/A	N/A	Old cactus wren nest that is inactive.
Andrew Fisher	2/6/2013	12:29:00 PM	GNEAF007	Nest	UTM Z11 NAD83 (m)	699034	3718770	None	N/A	N/A	N/A	Possibly inactive verdin nest. No birds around but nest is high up in tree and hard to tell if it is active.
Andrew Fisher	2/6/2013	12:32:00 PM	GNEBM002	Nest	UTM Z11 NAD83 (m)	699071	3718727	None, Nest	N/A	N/A	N/A	Old nest in crotch of ironwood tree. Large enough to be an old raven nest. No recent sign.
Andrew Fisher	2/6/2013	2:53:00 PM	GNEVG005	Nest	UTM Z11 NAD83 (m)	701350	3718543	None, Nest	N/A	N/A	N/A	Potential RTHA nest in transmission tower. Previously recorded and does not appear active.
Andrew Fisher	2/6/2013	3:03:00	GNEVG004	Nest	UTM Z11	700822	3718552	Nest	N/A	N/A	N/A	Previously recorded RTHA nest in tower.

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
		PM			NAD83 (m)							Adult RTHA observed perched above nest. Other incidental birds observed: CORA, RTHA, PRFA, LETH, BGGN, HOLA, MODO, LOSH, VESP, BRSP, WCSP, CAWR, SAGS, SAPH
Andrew Fisher	2/7/2013	7:31:00 AM	GNEBM002	Nest	UTM Z11 NAD83 (m)	698934	3718639	None, Nest	N/A	N/A	N/A	Old nest in Palo Verde. Possibly an old verdin nest.
Andrew Fisher	2/7/2013	7:33:00 AM	GNEVG001	Nest	UTM Z11 NAD83 (m)	698946	3718597	None, Nest	N/A	N/A	N/A	Fresh nesting material and feathers at a cactus wren nest. No birds observed.
Andrew Fisher	2/7/2013	7:36:00 AM	GNEBM003	Nest	UTM Z11 NAD83 (m)	698902	3718666	None, Nest	N/A	N/A	N/A	Old cactus wren nest no longer active.
Andrew Fisher	2/7/2013	7:46:00 AM	GNEBM004	Nest	UTM Z11 NAD83 (m)	698741	3718647	None, Nest	N/A	N/A	N/A	Old LOSH nest from last year. Inactive
Andrew Fisher	2/7/2013	7:58:00 AM	GNEAF007	Nest	UTM Z11 NAD83 (m)	698130	3718633	None, Nest	N/A	N/A	N/A	Old RTHA nest in a transmission tower. Does not appear active.
Andrew Fisher	2/7/2013	8:42:00 AM	GNEAF008	Nest	UTM Z11 NAD83 (m)	699234	3718567	None, Nest	N/A	N/A	N/A	Old inactive verdin nest.
Andrew Fisher	2/7/2013	8:44:00 AM	GNEAF009	Nest	UTM Z11 NAD83 (m)	699292	3718575	None	N/A	N/A	N/A	Old inactive verdin nest.
Andrew Fisher	2/7/2013	8:52:00 AM	GNEVG006	Nest	UTM Z11 NAD83 (m)	699500	3718553	None	N/A	N/A	N/A	Possibly an inactive cactus wren nest that was previously recorded.
Andrew Fisher	2/7/2013	8:57:00 AM	GNEVG002	Nest	UTM Z11 NAD83 (m)	699754	3718571	Nest	N/A	N/A	N/A	Adult RTHA flew off nest. Assumed to be incubating eggs Other incidental birds observed include: WCSP, BRSP, VESP, LOSH, LETH, CAWR, BGGN, RTHA, SAVS, LISP

APPENDIX D

AVIAN SPECIES OBSERVED

Common Name	Scientific Name	Order	Family
Mourning Dove	*Zenaida macroura*	Columbiformes - Pigeons, and Doves	Columbidae
Red-tailed Hawk	*Buteo jamaicensis*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Prairie Falcon	*Falco mexicanus*	Falconiformes - Diurnal Birds of Prey	Falconidae
Horned Lark	*Eremophila alpestris*	Passeriformes - Passerine Birds	Alaudidae
Common Raven	*Corvus corax*	Passeriformes - Passerine Birds	Corvidae
Sage Sparrow	*Amphispiza belli*	Passeriformes - Passerine Birds	Emberizidae
Lincoln's Sparrow	*Melospiza lincolnii*	Passeriformes - Passerine Birds	Emberizidae
Savannah Sparrow	*Passerculus sandwichensis*	Passeriformes - Passerine Birds	Emberizidae
Vesper Sparrow	*Pooecetes gramineus*	Passeriformes - Passerine Birds	Emberizidae
Brewer's Sparrow	*Spizella breweri*	Passeriformes - Passerine Birds	Emberizidae
White-crowned Sparrow	*Zonotrichia leucophrys*	Passeriformes - Passerine Birds	Emberizidae
House Finch	*Carpodacus mexicanus*	Passeriformes - Passerine Birds	Fringillidae
Loggerhead Shrike	*Lanius ludovicianus*	Passeriformes - Passerine Birds	Laniidae
Le Conte's Thrasher	*Toxostoma lecontei*	Passeriformes - Passerine Birds	Mimidae
Audubon's Warbler	*Dendroica coronata auduboni*	Passeriformes - Passerine Birds	Parulidae
Blue-grey Gnatcatcher	*Polioptila caerulea*	Passeriformes - Passerine Birds	Sylviidae
Cactus Wren	*Campylorhynchus brunneicapillus*	Passeriformes - Passerine Birds	Troglodytidae
Say's Phoebe	*Sayornis saya*	Passeriformes - Passerine Birds	Tyrannidae

GENESIS SOLAR POWER PROJECT
PRECONSTRUCTION NESTING SURVEY REPORT
Revised February 14, 2013

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February 2013

February 2013 Genesis Solar Energy Project Preconstruction Nesting Bird Survey Report

Preconstruction nest surveys for bird species other than western burrowing owls (*Athene cunicularia*; WBO) are required prior to Genesis Solar Energy Project (GSEP or Project) related ground disturbance activities during the nesting season (February 1 through July 31) per Conditions of Certification BIO-15 for GSEP. The purpose of nesting bird surveys is to establish sufficient protective buffers around nest sites and potential nest sites. The purpose of this report is to satisfy the requirement to map and submit survey results to the Compliance Program Manager (CPM) and to provide a proposed Buffer Zone and Monitoring Plan (Plan) for observed nests to the California Department of Fish and Wildlife (CDFW) for consultation.

Per BIO-15, nesting surveys are not to be conducted concurrently with desert tortoise (*Gopherus agassizii*; DT) surveys; are to be conducted in all potential habitat in the Project site and within 500-feet of the boundaries of the site; are to consist of two pre-construction surveys that should be separated by a minimum 10-day interval and one of these surveys shall be conducted within 7 days prior to the initiation of construction activities; and are to include follow up surveys if construction inactivity exceeds three weeks.

In an email dated January 31, 2013 sent to the Bureau of Land Management (BLM), biologists at the California Energy Commission (CEC), CDFW, and the U.S. Fish and Wildlife Service (USFWS), hereafter referred to the "Wildlife Agencies", GSEP Designated Biologist (DB) Charles German notified the Wildlife Agencies that preconstruction nest surveys would be conducted for linear facilities planned for construction during the nesting season. Nesting bird surveys were to be conducted where either construction had not begun prior to the nesting season or where there was a lapse of over three weeks in construction activity. Preconstruction nest surveys were planned to occur within the 7-day period preceding the initial construction activities (or the re-initiation of dormant construction activities). The survey was to be interpreted as the second pre-construction survey since biological surveys had occurred within the linear facility and 500-foot buffer prior to the start of the nesting season. The intent of the 10 day separation in surveys was interpreted not to cause a delay in construction activities, which is what would occur if two nesting bird surveys were required during the nesting season. Pre-construction nest surveys were not planned in areas where construction activity had been initiated prior to the nesting season and where no lapse in activity greater than three weeks has occurred.

Included in this report are the findings from pre-construction nest surveys conducted within linear facilities and associated buffers on February 5, 6 and 7, 2013 and a proposed Buffer Zone and Monitoring Plan for nests observed during the surveys.

PRECONSTRUCTION NEST SURVEYS

METHODOLOGY

Project biologists Andrew Fisher, James McMorran, and Brennan Mulrooney conducted preconstruction nest surveys associated with linear facilities (transmission and fiber optic lines) on February 5, 6 and 7, 2013. Nesting bird surveys were conducted using nesting-locating techniques such as those described in Martin and Guepel (1993). Biologists slowly walked 30-meter-wide transects through all appropriate habitat checking large shrubs and bushes for nests. Biologists would scan ahead and listen for perched birds that may be singing or carrying food or nesting material to nests. Generally areas with greater shrub and tree cover were surveyed more slowly by biologists checking each large shrub and tree for potential nests. Old nests from previous years were recorded as an indicator of overall primary nesting areas. The main locations where passerine nests were found were in desert washes and small ribbons of vegetation following a topographic feature across the desert landscape. Areas of sand dunes and scattered creosote bush scrub lacked any evidence of nests. Some desert species such as cactus wrens (*Campylorhynchus brunneicapillus*) and verdin (*Auriparus flaviceps*) create more obvious nests that are generally located in the middle to upper canopy of large palo verde trees. Other species such as Le Conte's thrashers (*Toxostoma lecontei*) and loggerhead shrikes (*Lanius ludovicianus*) tend to nest lower down in trees where dense vegetation provides a structural barrier from predators. Usually Le Conte's thrashers are some of the first desert species to start nesting and may begin as early as January (Baicich and Harrison 2005). Biologists' resumes are included in Appendix A.

Construction is scheduled to begin between February 6 and February 11/12, 2013. No nests or nesting activity was observed in the area where construction began on February 6, 2013. In the linear facilities north of Interstate 10 (I-10), construction activities began prior to the initiation of the nesting season and have either been completed or are ongoing. Therefore, all preconstruction nesting surveys reported here were conducted south of I-10. The survey area is depicted in Figure 1 in Appendix B. On February 5, 2013, surveys were completed within the north/south corridor directly south of I-10. Within this area, both fiber optic and transmission lines will be constructed. Along the east/west corridor and short north/south terminus, transmission line poles are already installed with the exception of eight poles to be installed near the eastern terminus that connects to the Colorado River Substation. Within the east/west line and north/south terminus, construction activities will consist of the installation of the fiber optic line, the stringing of the transmission lines, and the construction of eight poles. The installation of the fiber optic line involves the trenching for the line, installation of the line, and use of a backhoe to fill the excavation. It is anticipated that the installation of the fiber optic line along the east/west alignment will begin on February 12, 2013. It is unknown on what date the stringing along existing poles will begin and the method that will be involved for stringing. Excavations and setting of the eight poles near the terminus with the connection to the Colorado River Substation are expected to begin on February 11 or 12, 2013. No nests were observed within this area during this survey effort, so it assumed here that work can begin within that area prior to concurrence by CDFW of the Buffer Zone and Monitoring Plan.

Surveys were conducted as described in Appendix C with exact survey times, temperatures and weather conditions in the table. No other wildlife surveys were conducted concurrently with nesting bird surveys. Surveys were conducted by walking pedestrian transects spaced approximately 30 meters apart within the right-of-way (ROW) alignment and a 500-foot buffer adjacent to the alignment. All incidental bird sightings were noted and are included in Appendix D. Birds which were detected were then observed from a distance in order to watch their behavior to see if they exhibited any breeding season behavior (nest defense, carrying nesting material, food transport, etc.) or were simply transients birds foraging or migrating through the area. If breeding season behavior was noted, the nest was either classified as "active" or "potentially active." The locations of inactive nests were also noted and this information is included in Appendix C. Generally a nest was observed for 5-10 minutes. If a bird was observed near the nest, perched above the nest, or on the nest, it was considered active. Birds may abandon nests that are early on in the nesting building stage and to avoid distressing birds surveyors would move past a nest and then look back to observe bird activity in the area. For some nests, such as the Le Conte's thrasher nests (located in dense patches of palo verde), a female was observed on the nest and therefore determined to be active and surveyors spent minimal time in the vicinity (usually less than five minutes) to minimize disturbance. Some nests, such as the red-tailed hawk (*Buteo jamaicensis*) nests in transmission towers, could be observed from a long distance away and birds were observed from a greater distance to determine the nest status. Any nest that had recent or fresh material added to the nest was considered potentially active. One cactus wren nest appeared to have fresh material added to the entrance, but no bird was observed initially. Once biologists were several hundred feet away, a cactus wren appeared above the nest, and this nest was then considered potentially active.

RESULTS

Habitat within the survey area (which included both the ROW and the 500 foot buffer) included: Sonoran creosote bush scrub; stabilized or partially stabilized sand dunes; active desert dunes; or desert dry wash woodland. The vegetation community within the Sonoran creosote bush scrub consisted primarily of creosote (*Larrea tridentata*), burro-weed (*Ambrosia dumosa*), and plantain (*Plantago* sp.). The desert dry wash woodland was dominated by blue palo verde (*Cercidium floridium*), ironwood (*Olneya tesota*) with an understory of big galleta grass (*Pleuraphis rigida*), desert starvine (*Brandegea bigelovii*) intermixed with creosote scrub. Stabilized and partially stabilized dunes are sand accumulations in the desert which are stabilized or partially stabilized by evergreen and/or deciduous shrubs and scattered, low grasses. Plants observed within this community include Mediterranean grass (*Schismus* sp.) and dye bush (*Psorothamnus emoryi*). Active desert dunes are characterized by mostly unvegetated drifted sand dunes or sand fields of five feet or less in height. Plants observed in this community included sparsely scattered creosote bush, desert twinbugs (*Dicoria canescens*), and birdcage evening primrose (*Oenothera deltoides*).

Within the survey area, four active bird nests and two potentially active bird nests were observed (Table 1). Three of the nests were observed within desert dry wash woodland habitat and these nests included one potentially active cactus wren nest and two active Le Conte's thrasher nests. Three red-tailed hawk nests were observed, all within existing transmission line towers on the south side of the existing Southern California Edison (SCE) paved road. Two of these nests were determined to be active and one nest potentially active.

The distance between the nest and the ROW was determined and all nests were determined to be at least 240 feet from the ROW. The description of the active and potentially active nests is included below in Table 1.

Table 1. Active or Potentially Active Nests Observed within the 500-foot Buffer of the Right-of-Way.

Avian Species	Nest Status	Nest Identifier	Easting	Northing	Description	Distance (feet) from Right of Way
Cactus Wren	Potentially Active	GNEVG001	698946	3718597	Fresh nesting material and feathers at a cactus wren nest. Adult cactus wren observed perched in tree above nest.	240
Le Conte's Thrasher	Active	GNEBM001	698732	3718846	Adult Le Conte's thrasher flushed off nest. Could not see into the nest. Assumed active.	445
Le Conte's Thrasher	Active	GNEVG003	699814	3718773	Active nest that interior could not be viewed, pair of adults carrying food, Le Conte's thrasher	290
Red-tailed Hawk	Active	GNESD001	697070	3718634	Previously recorded nest in tower. An adult RTHA perched above the nest on the tower. Nest could potentially become active.	275
Red-tailed Hawk	Active	GNEVG002	699754	3718571	Adult RTHA flew off nest. Assumed to be incubating eggs	280
Red-tailed Hawk	Potentially Active	GNEVG004	700822	3718552	Previously recorded RTHA nest in tower. Adult RTHA observed perched above nest.	260

BUFFER ZONE AND MONITORING PLAN

Since active and potentially active nests were observed during the survey, a Buffer Zone and Monitoring Plan (Plan) is required. The approval of this Plan requires consultation and concurrence with CDFW. The size of buffers has been developed based on species specific alert distances and flush initiation distances. Generally for avian species, body size is the best known factor to determine interspecies differences in alert distances and flush initiation distances. Larger birds tend to have larger alert distances and this may be due to the increased amount of time it takes to initiate flight for a larger bird.

Several variables need to be considered to determine appropriate buffer distances including: (i) detection of disturbance (alert distance); (ii) tolerance to the disturbance before flight initiation (flush initiation); (iii) spatial displacement (landing distance); and (iv) temporal displacement (time to resume

pre-disturbance activities). Since it is most important to avoid flush initiation during the nesting season so that the birds maintain normal nesting activity, we will consider that while birds may become aware of construction activity (alert distance) as long as the activity is tolerated, nesting will continue. If flushing occurs due to construction activity, then landing distance and time to resume pre-disturbance activities will greatly influence nesting success.

Planned construction activities include the operation of a bulldozer with a ripper, which will be expected to operate at approximately 95 decibels (dBA) and a backhoe which will be assumed to operate at approximately the same noise level. The bulldozer and the backhoe will work within a close proximity to each other, but are generally assumed to be about 600 feet apart. It is expected that work will occur in a given area for approximately 15 minutes. The bulldozer will rip a trench and will install the conduit in the trench and the backhoe will follow and fill the trench. Work will be continually moving. It is expected that the entire length of trench from south of I-10 along the north/south line and along the east/west line will be completed in approximately 5 working days. Access will occur along the ROW with no use of the existing paved road with the exception of entering the ROW off the paved road near Wiley's Well Road. Hand-holes may then need to be installed using a backhoe and wherever possible these will be installed in areas without nesting birds.

Given the distance between all nests and construction activity, the most likely source of disturbance for nesting birds will be due to increased noise levels. For every doubling of distance between the observer and the noise source, there is a reduction of as much as 6 dBA. Noise from a bulldozer is considered to be about 95 dBA at the operating area and drops to about 82 dBA about 50 feet away from the noise source. Therefore at 100 feet, it would be expected that noise levels would drop to 76 dBA, at 200 feet to 70 dBA, at 400 feet away to 64 dBA and at 800 feet to 58 dBA. Ambient noise level measurements were taken near the Project Site in 2012, away from construction activities, and were found to be in the 45 to 60 dBA range during the day.

BUFFER DISTANCES and MITIGATION MEASURES

Specific buffer distances suggested for each nest are discussed below and summarized in Table 2. Generally all buffers are the distance of the nest from the ROW. Additional mitigation measures to increase nest success are also included in this Plan and discussed below.

The cactus wren nest is approximately 240 feet from the ROW. Noise levels from construction in that area will be slightly higher than ambient levels (64 to 70 dBA, ambient 45 to 60 dBA). The cactus wren nest is on the other side of a raised paved road, and the road may function as a noise barrier. No other mitigation measures are suggested for this nest.

The two Le Conte's thrasher nests are 290 and 445 feet away from the ROW. Again, noise levels due to construction will be slightly higher than ambient levels (64 to 70 dBA, ambient 45 to 60 dBA). Therefore the proposed buffer radiuses for these nests will be the distance from the ROW.

Three red-tailed hawk nests are present within the existing transmission line towers to the south of the existing paved road. These nests are 260, 275, and 280 feet from the ROW. Buffer distances to

construction activity are proposed to be the same distance as the distance from the ROW. The red-tailed hawks established their nests while construction was occurring along the SCE access road (prior to the beginning of the nesting season) and nesting has continued throughout construction. It is therefore unlikely that construction activity further from the nests (on the north side of the paved road), over 260 feet away, will negatively impact nesting success. However, given that red-tailed hawks are raptors and given that they may have smaller alert distances than smaller birds, an additional mitigation measure is proposed associated with raptor nests. This measure is consistent with SCE measures currently being employed for construction activities along the access road. Along the ROW, a 500 foot "Limited Activity Area" will be instituted perpendicular to the nest location. Within this area, no parking of any vehicles will be allowed (except where absolutely necessary for construction activity), no vehicle refueling or maintenance will be allowed, and no storage of materials will be allowed. The purpose of this measure is to have construction activities flow through this area as quickly as possible. These "Limited Activity Areas" will be clearly staked in the field.

Table 2. Proposed Buffer Zone and Mitigation Measures for Nests

Avian Species	Nest Status	Nest Identifier	Proposed Buffer Radius (feet)*	Additional Mitigation Measures
Cactus Wren	Potentially Active	GNEVG001	240	Nest monitoring
Le Conte's Thrasher	Active	GNEBM001	445	Nest monitoring
Le Conte's Thrasher	Active	GNEVG003	290	Nest monitoring
Red-tailed Hawk	Active	GNESD001	275	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed Hawk	Active	GNEVG002	280	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed Hawk	Potentially Active	GNEVG004	260	Nest monitoring; "Limited Activity Area" in ROW

* Buffer distances are the distance from the nest to the ROW

MONITORING ACTIVITIES

Nest monitoring will be conducted only by qualified biologists. It is recommended that monitoring be as minimally invasive as possible given the large buffer distances between the construction activity and the nesting areas. An intensive monitoring plan could increase disturbance and could actually decrease the probability of successful nesting. A biologist will visit the vicinity of the currently known nests during dawn soon after the installation of the fiber line. The biologist will observe nesting bird behavior for at least half an hour or until it is determined that the nest is still active (presence of an adult bird on the nest, adult carrying food, flying into and out of the nest location, etc.). If birds are observed exhibiting

nesting behavior, it will be assumed that the nest is still active and the biologist will leave the area. If no nesting behavior is observed, a physical nest check may be required to determine if the nest is still active. The nest could still be active with a female sitting low down in the nest incubating. From a far distance a biologist might not be able to clearly see the nest or observe another bird bringing food to the nest. If a biologist cannot determine the nest status by simply watching the nest, it may be necessary to approach the nest to determine its status. In this case the biologist will first verify that no avian predators are watching (no nests will be checked when ravens are observed in the area). The biologist will then slowly meander up to the nest stopping periodically to scan the nest location with binoculars to see if any adult birds are on the nest or have flushed of the nest. The biologist will not walk directly to and from the nest, but will meander past the nest to avoid attracting predators to the nest. If a bird is observed to fly out of the tree or shrub where a nest is located, the biologist will consider the nest active and not approach the nest. If no birds are observed, then the biologist will briefly (1-2 minutes) peek inside the shrub or tree where the nest is located and if the female is on the nest, the biologist will leave immediately. The nest will not be touched and no branches will be moved or altered. The biologist will use a mirror or small camera (such as an Iphone) to see into the nest or take a photo of the nest to determine if there are eggs or young present.

If the nest is determined to be abandoned based on the absence of any birds or birds in the immediate vicinity, then the biologist will determine if the nest was successful (and the young have already fledged) or if the nest failed. It can be difficult to determine the cause of nest failure, but generally the condition of the nest is an indicator. For example, if the nest is still in good condition, then perhaps a snake or woodrat may have depredated the nest. If the nest is torn up and branches are skewed to the side or broken, perhaps a raven may have predated the nest. If the nest is determined to be abandoned, birds may renest quickly in the nearby vicinity. Some bird species may renest in the same tree or shrub where previous nests were located. If construction activity will continue in the general area, then additional surveys will be necessary to determine if birds are renesting.

Attachments:

Appendix A – Surveyor Resumes
Appendix B – Survey Area and Preconstruction Nest Survey Results Map
Appendix C – Field Data
Appendix D – Avian Species Observed

APPENDIX A

SURVEYOR RESUMES

Andrew Fisher
Wildlife Biologist

Education
BS, Wildlife, Fish, and Conservation Biology, University of California, Davis, 2006

Training
Wildlife Trailing Workshop, San Diego Tracking Team, 2007
California Fairy Shrimp Identification Course and Practical Exam for all Species of Fairy Shrimp in California, University of California, Davis, 2007
Flat-tailed Horned Lizard Worksop, BLM, 2008
Southwestern Willow Flycatcher Workshop, Southern Sierra Research Station, 2008
Bat Ecology and Field Techniques Workshop, The Wildlife Society, Western Section, 2008
Desert Tortoise Council Workshop on Surveying, Monitoring, and Handling Techniques for Desert Tortoise, 2009
Quino Checkerspot Butterfly Identification Test, USFWS, 2011
Remote Wildlife Camera Techniques Workshop, The Wildlife Society, 2011

Certification
10(a)(1)(A) Endangered Species Permit TE 820658 for:
Coastal California gnatcatcher,
Listed vernal pool branchiopods,
Quino checkerspot butterfly,
Southwestern willow flycatcher
CDFG Authorization for Flat-tailed Horned Lizard Surveys
CPR Certification

Professional Affiliations
Member, East African Wildlife Society
Member, The Wildlife Society-Western Section
Member, Wildlife Research Institute

Presentations
Distribution of Least Bell's Vireo in Border Field State Park, ESRI International User Conference, 2009

Volunteer Organizations
Wildlife Research Institute, golden eagle banding in San Diego County 2008-2011 Wildlife Research Institute, raptor migration surveys, golden eagle trapping and banding, Rodgers Pass, Montana, Oct 2010 and 2011
Cabrillo National Monument, Monitoring Avian Productivity and Survival, songbird banding 2008-2010
National Park Service, Santa Rosa and Santa Cruz Islands, spring loggerhead shrike surveys 2009-2010
Institute for Wildlife Studies, San Clemente Island, spring loggerhead shrike surveys, 2009, 2010, 2011

Andrew Fisher has 6 years experience as a professional wildlife biologist in California and his skills include: biological surveys for CEQA and NEPA documentation, avian identification, herp and small mammal surveys, wildlife habitat assessments, global positioning system data gathering and processing, photo documentation, wildlife tracking and trailing, large mammal radiotelemetry, and raptor rehabilitation. He conducts and assists with federally listed wildlife species surveys for the following species: listed vernal pool branchiopods, Quino checkerspot butterfly (*Euphydryas editha quino*), arroyo toad (*Anaxyrus californicus*), Coachella Valley fringe-toed lizard (*Uma inornata*), desert tortoise (*Gopherus agassizii*), least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), coastal California gnatcatcher (*Polioptila californica californica*), Pacific pocket mouse (*Perognathus longimembris pacificus*), and Stephen's kangaroo rat (*Dipodomys stephensi*). He also conducts surveys for state species of special concern including the flat-tailed horned lizard (*Phrynosoma mcallii*), burrowing owl (*Athene cunicularia*), mountain plover (*Charadrius montanus*), and coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*). He has also worked overseas implementing human-wildlife conflict resolution measures in Kenya.

He is currently working on avian surveys including mist-netting and banding, small mammal surveys, herp surveys,

environmental compliance, and wildlife movement surveys (roadkill and remote camera surveys). He regularly conducts wildlife surveys to support CEQA and NEPA documents which includes writing biological technical reports, biological assessments, avian risk assessments, and sections of EAs, EIRs and EISs.

He is currently working on his 10(a)(1)(A) permits for the Stephen's kangaroo rat and Pacific pocket mouse.

Project Experience

NAVFAC Wildlife Studies and NEPA Documentation for the Naval Base Coronado Coastal Campus Environmental Impact Statement, Naval Base Coronado, San Diego, CA
Mr. Fisher has been the lead biologist conducting biological surveys in support of environmental documentation for a coastal campus project. He has conducted avian surveys, Pacific pocket mouse surveys, and bat surveys. He is the main author for the biological resources sections for the environmental impact statement and biological assessment. He has met with USFWS and Navy representatives to discuss biological surveys for the project.

NAVFAC Wildlife Surveys for Basewide Utility Infrastructure Improvements Project, MCB Camp Pendleton, CA
From 2008 until the present (Fall 2012), Mr. Fisher has conducted protocol surveys for federally listed wildlife species on MCB Camp Pendleton. Surveys for species include the coastal California gnatcatcher, listed vernal pool Branchiopods, Stephens' kangaroo rat, and Pacific pocket mouse. He is an integral part of drafting NEPA documentation (Environmental Impact Statements and Biological Assessments) for large projects. He is involved in meetings with key project management staff and natural resource specialists on MCB Camp Pendleton to ensure project success.

NAVFAC Wildlife Surveys for Basewide Water Improvements and Stuart Mesa Bridge Replacement Project, MCB Camp Pendleton, CA
For the past two years Mr. Fisher has been conducting habitat assessments and presence/absence surveys for the coastal California gnatcatcher and listed vernal pool branchiopods (San Diego fairy shrimp [*Branchinecta sandiegonensis*], and Riverside fairy shrimp [*Streptocephalus wootton*i]) throughout the base. He is also conducting habitat assessments and surveys for other threatened and endangered species including surveys for the federally endangered Pacific pocket mouse, and Stephens' kangaroo rat. He has written several sections in NEPA compliance documents.

NAVFAC Southwest San Nicolas Island Wind Turbines Study, San Nicolas Island, Ventura County, CA
Mr. Fisher has conducted preconstruction avian point count surveys to determine the risk to avian species by construction of a wind power project on San Nicolas Island. He is involved in the data entry, analysis, and write-up to understand the implications for resident and migratory bird species and how potential impacts can be minimized and mitigated.

NAVFAC Wildlife Surveys for Continuing Environmental Review Studies for Basewide Utility Infrastructure Improvements, MCB Camp Pendleton, CA
Mr. Fisher is currently conducting habitat assessments and presence/absence surveys for the coastal California gnatcatcher and listed vernal pool branchiopods (San Diego fairy shrimp [*Branchinecta sandiegonensis*], and Riverside fairy shrimp [*Streptocephalus wootton*i]) throughout the base as part of continuing environmental review studies. He has drafted habitat assessment documents, biological assessments, and been involved in meetings with NAVFAC and base staff to ensure project success.

NAVFAC Listed Vernal Pool Branchiopod Surveys for the San Onofre Lease Area Vernal Pool Mesa Conservation Plan, MCB Camp Pendleton, CA
Mr. Fisher conducted biological surveys for listed vernal pool branchiopods in support of environmental documentation for a conservation plan. He was the lead biologist for vernal pool surveys and involved in the reporting to help determine mitigation locations for impacts from various other projects on MCB Camp Pendleton.

California Department of Corrections and Rehabilitation, Lethal Electrified Fence Monitoring Project, San Diego,

Imperial, San Bernardino, Kern, and Los Angeles Counties, CA
Mr. Fisher has worked at various state correctional institutions to monitor their lethal electrified fences for take of all vertebrate wildlife species. This included identifying carcasses of avian and mammalian species that contacted the lethal electrified fence and were killed. Mr. Fisher would conduct annual training for custody staff on how to effectively collect, tag, and store carcasses that were found in and adjacent to the lethal electrified fence. Mr. Fisher would identify the carcasses to species as part of a take permit for the state department of corrections and rehabilitation.

Caltrans State Route-76 East Expansion Project Biological Surveys, San Diego County, CA
Mr. Fisher assisted with a preconstruction wildlife movement study for the expansion of State Route- 76 using tracking stations, tracking transects, and roadkill surveys. Roadkill surveys consisted of conducting meandering transects on either side of a section of State Route-76 in search of wildlife that had been hit by vehicles and left in the road, or thrown into adjacent vegetation. Surveys were conducted twice a month for three consecutive days for one year. Surveys were designed to capture spatial clusters of mortality and reduce scavenging bias.

San Diego County Wildcat Canyon Road Enhancement Project, Before-After-Control-Impact Study - Preconstruction, San Diego County, CA
Mr. Fisher assisted with a post-construction wildlife movement study for the Wildcat Canyon Road Enhancement Project Before-After-Control-Impact Study. The project involved defining current movement trends through the use of control vs. construction sample sites. The project was designed to identify movement patterns and focal species and to establish baseline conditions for wildlife use of the project area to compare against post-construction data. Methods included conducting unbaited tracking station, camera station, tracking transect, and roadkill surveys. Roadkill surveys consisted of conducting meandering transects on either side of a section of Wildcat Canyon Road in search of wildlife that had been hit by vehicles and left in the road, or thrown into adjacent vegetation. Surveys were conducted twice a month for three consecutive days for one year. Surveys were designed to capture spatial clusters of mortality and reduce scavenging bias.

Mojave Solar Power Project, Mojave Desert, San Bernardino County, CA
Mr. Fisher conducted winter raptor and common raven (*Corvus corax*) surveys for pre-construction baseline survey data for a large solar power project. Surveys focused on transmission towers around the project site and documented all raptor and raven nests. Mr. Fisher also organized and conducted winter golden eagle (*Aquila chrysaetos*) surveys utilizing carcasses and wildlife cameras to estimate the abundance of wintering golden eagles on the project site and an 10-mile buffer. He also conducted Swainson's hawk (*Buteo swainsoni*) surveys around the project site and a 5-mile buffer. Additionally he coordinated and conducted spring and summer nesting bird surveys around the project site. All documented nests were monitored to determine necessary avoidance buffers. He composed weekly nesting bird reports and assisted in drafting various avian related compliance plans.

Los Angeles County Sanitation Districts Common Raven and Avian Point Count Surveys, Mesquite Regional Landfill Habitat Monitoring Plan, Imperial County, CA
Mr. Fisher conducted pre-construction baseline common raven surveys in the Sonoran Desert for a new regional landfill. Surveys included all day bi-monthly surveys for a year at various pre-determined points where common ravens may congregate (water and garbage locations) and at control points. This data was used to estimate pre-landfill common raven populations and daily trends. Mr. Fisher also assisted in setting up and conducting avian point count surveys around the proposed landfill as part of a baseline wildlife study to compare avian population changes in the desert around the landfill.

Imperial Irrigation District (IID), Path-42 Transmission Line Surveys, Riverside and Imperial County, CA
Mr. Fisher conducted protocol focused surveys for the flat-tailed horned lizard and Coachella Valley fringe-toed lizard along a linear transmission line within habitat also suitable for burrowing owl, desert kit fox, and desert tortoise. He was responsible for field crew coordination, data management, and reporting (NEPA compliance reports).

Imperial Irrigation District (IID), Dixieland to Imperial Valley Substation Transmission Line Project, Imperial County, CA
Mr. Fisher conducted focused protocol level burrowing owl and flat-tailed horned lizard surveys to assess impacts to these species by a new 230kV transmission line and

substation expansion project. He completed the species survey reports and assisted in further environmental documentation required for NEPA.

San Diego Gas & Electric Various Widget Monitoring Projects, San Diego County, CA
Mr. Fisher has been involved in various monitoring tasks with SDG&E in habitats for various listed and sensitive wildlife species. He has provided on-site construction monitoring for pole replacement projects to avoid sensitive wildlife habitats. After the Harris Fire (October 2007), Mr. Fisher monitored Quino checkerspot butterfly and coastal California gnatcatcher habitat on the San Diego National Wildlife Refuge to minimize impacts to these sensitive habitats. He has also monitored crews during pole replacement projects in Stephen's kangaroo rat habitat, and assessed potential impacts to flat-tailed horned lizard habitat.

County of San Diego Department of Parks and Recreation, Oak Country Trails, Ramona, CA
Mr. Fisher is an approved Stephen's kangaroo rat biological monitor and assisted in removing trapped small mammals from pitfall traps during project implementation.

Blythe, Palen, and Ridgecrest Solar Power Projects, Mojave Desert, Riverside/Kern County, CA
Mr. Fisher assisted with focused Mojave desert tortoise and avian point count surveys for various large solar array projects. He has conducted numerous nesting bird, burrowing owl, Mojave fringe-toed lizard, and kit fox surveys. He assisted with setting-up and conducting avian point counts for the BLM, and conducted contractor training, and writing of technical documents.

Imperial Irrigation District (IID) Imperial Valley-wide Burrowing Owl Surveys, Imperial County, CA
Mr. Fisher was responsible for field crew coordination, data management, and surveys across the Imperial Valley within IID's Right-of-Way. He led the field effort for 16 biologists to survey randomly selected 3 x 3 kilometer grids in a double independent observer methodology.

Confidential Wind Project in San Diego County, CA
Mr. Fisher is currently conducting bird use counts and bird area searches to determine the seasonal use, abundance, and distribution of resident and migratory bird species as an indicator of potential impacts from a wind development project in eastern San Diego County. In addition, he is conducting focused protocol level surveys for the federally listed least Bell's vireo, southwestern willow flycatcher, and arroyo toad. He recently completed surveys with other biologists for the federally endangered Quino checkerspot butterfly.

Confidential Wind Project in San Diego County, CA
Mr. Fisher is currently conducting wildlife habitat assessments and arroyo toad surveys for a proposed wind development project in eastern San Diego County. He recently completed surveys with other biologists for the federally endangered Quino checkerspot butterfly.

Santa Ana Nonnative Vegetation Removal Project, Orange County, CA
Mr. Fisher conducted focused protocol level surveys for the least Bell's vireo and southwestern willow flycatcher as part of a five year study to measure the effects of invasive nonnative vegetation removal within a 250-acre section of the Santa Ana River Valley on federally listed and resident bird species.

California Health Care Facilities Project at R.J. Donavan State Correctional Facility, San Diego, CA
Mr. Fisher conducted focused protocol level surveys for the coastal California gnatcatcher, least Bell's vireo, listed vernal pool branchiopods, and burrowing owl on lands proposed for a new hospital and firing range as part of the California Health Care Facilities Project. He wrote the 45-day summary reports for the species surveys.

Olivenhain Municipal Water District, Various Pipeline Projects, San Diego County, CA
Mr. Fisher conducted focused protocol level coastal California gnatcatcher surveys at Olivenhain Municipal Water District pipeline projects. He is currently working on completing focused protocol level surveys for the least bell's vireo and southwestern willow flycatcher.

California Department of Parks and Recreation Border Field State Park Sediment Basin Restoration Project, San Diego County, CA
Mr. Fisher monitored least Bell's vireo populations on site via protocol surveys enhanced with spot-mapping techniques to delineate territories. He used ArcPad GIS software to complete spot-mapping surveys and spatially compare territories over three years. He conducted focused protocol surveys in 2008, and then analyzed results compared with vegetation success criteria. He presented results at a paper

session at the 2009 ESRI International User Conference in San Diego.

Ramona Air Center Project, San Diego County, CA
Mr. Fisher conducted focused protocol surveys for listed vernal pool branchiopods for the proposed Ramona Air Center Project and completed the associated report to the various wildlife agencies.

Los Angeles Department of Water and Power Pine Canyon Wind Development Project, Kern County, CA
Mr. Fisher assisted in biological surveys in support of environmental documentation for a wind energy project in the foothills of the Sierra Nevada south of Kings Canyon National Park and north of the city of Tehachapi. He conducted avian point count surveys and bat acoustic monitoring for a spring session in 2007 and fall session in 2008.

Los Angeles County Sanitation Districts Small Mammal Trapping, Mesquete Regional Landfill Habitat Monitoring Plan, Imperial County, CA
Mr. Fisher has assisted in trapping, handling, processing, sexing, weighing, and toe-clipping various small mammal species in the Colorado Desert. These species include *Dipodomys merriami, Chaetodipus pencillatus, Chaetodipus baileyi, Chaetodipus spinatus,* and *Neotoma lepida intermedia.* Grids totaling 150 traps were trapped for three consecutive nights during October, 2007 and March 2008. Mr. Fisher has handled well over 100 small mammals during each trapping session.

Caltrans Lake Jennings Open Space Preserve/Restoration Area Land Management and Post-fire Recovery Monitoring, San Diego County, CA
Mr. Fisher conducted focused surveys for the coastal cactus wren on burned and then restored habitat as part of post-fire monitoring and long-term management of the preserve. The preserve was mitigation associated with the State Route 125 South Project. He completed the appropriate sensitive species survey reports.

SANDAG and Caltrans State Route 52 Managed Lanes Project, San Diego County, CA
Mr. Fisher conducted focused protocol surveys for the least Bell's vireo as mitigation for a freeway expansion project. He helped coordinate and schedule field surveys. Work was completed in support of a Natural Environmental Study and a Biological Assessment.

Caltrans Johnson Canyon Open Space Preserve Habitat Management Plan for State Route 125 South, San Diego County, CA
Mr. Fisher conducted focused protocol level surveys for the coastal California gnatcatcher, listed vernal pool branchiopods, and Quino checkerspot butterfly. He prepared survey reports and contributed to the annual report.

Caltrans State Route 125 South Quino Checkerspot Butterfly and Vernal Pool Mitigation Area, San Diego County, CA
Mr. Fisher conducted focused protocol surveys for listed vernal pool branchiopods and burrowing owls. Additionally he participated in general wildlife surveys for coastal cactus wren, reptiles, and small mammals. He prepared 45-day survey reports and contributed to the annual restoration monitoring report.

Los Angeles County Sanitation Districts Small Mammal Trapping, Mesquete Regional Landfill Habitat Monitoring Plan, Imperial County, CA
Mr. Fisher has assisted in trapping, handling, processing, sexing, weighing, and toe-clipping various small mammal species in the Colorado Desert. These species include *Dipodomys merriami, Chaetodipus pencillatus, Chaetodipus baileyi, Chaetodipus spinatus,* and *Neotoma lepida intermedia.* Grids totaling 150 traps were trapped for three consecutive nights during October, 2007 and March 2008. Mr. Fisher has handled well over 100 small mammals during each trapping session.

NAVFAC Wildlife Surveys for Grow-the Force and Basewide Utility Infrastructure Improvements Project, MCB Camp Pendleton, CA
Currently conducting presence/absence surveys for coastal California gnatcatcher throughout the base. Also conducting habitat assessments and surveys for other threatened and endangered species including surveys for the federally endangered Pacific pocket mouse, and Stephens' kangaroo rat.

Basewide Vernal Pool Floral and Faunal Surveys, MCB Camp Pendleton, CA
Conducted field collection of vernal pool branchiopod species in various training areas on base. Assisting in lab identification of Lindahl's fairy shrimp (*Branchinecta lindahli*), San Diego fairy shrimp, and Riverside fairy shrimp. He also

assisted with entering and maintaining data collected during these surveys.

Biological Science Technician, Carlsbad, CA
Conducted point count surveys for the coastal California gnatcatcher throughout San Diego County. Took weather measurements and used a GPS to locate points and track routes. Hiked in very rugged, uneven, and often remote areas to access survey points. Collected and analyzed soil samples for texturing and bulk density. Familiar with plants of San Diego and conducted vegetation surveys throughout the county. Kept detailed field notes, entered scientific data into Access databases, performed quality assurance/quality control on data, and assisted in data presentation. Work was completed prior to joining this firm.

Keeper Aide, Sacramento, CA
Assisted in the preparation of diets and feeding of birds, ungulates, carnivores, and primates. Improved and enhanced animal exhibits and displays. Worked with zoo staff to maintain animal exhibits, provide animal enrichment, and do overall zoo cleanup. Learned how zoos participate in animal research, education, and conservation, and how they work together on species survival plans. Work was completed prior to joining this firm.

Wood Duck Research Assistant, Davis, CA
Assisted in the ongoing monitoring and maintenance of wood duck (*Aix sponsa*) nest boxes. Took yolk samples, blood samples, various measurements, and weights, and web-tagged ducklings on various watersheds in Yolo and Sacramento counties. Learned and implemented methods for conserving a threatened species, working on both public and private lands and recording nest depredation. Work was completed prior to joining this firm.

Raptor Rehabilitator, Davis, CA
Fed, treated, and rehabilitated sick and injured birds of prey. Practiced veterinary techniques and proper handling methods. Assisted in cage cleaning; improved holding facilities; and practiced methods for prevention of imprinting, proper rehabilitation, and release techniques. Conducted health exams and weight checks, and learned the ways to diagnose illness and injury in raptors. Initiated and conducted an independent study and analysis of red-tailed hawk weight fluctuations during rehabilitation. Formulated hypotheses for bird weight fluctuations and how weight correlates with overall fitness and releaseability. Practiced methods for release and physical therapy. Work was completed prior to joining this firm.

Museum Mammal Taxidermist, Davis, CA
Practiced various techniques for the proper preparation of scientific mammal specimens. Took measurements, skinned, and then stuffed various small mammals for entry into the museum collection. This included methods for long-term preservation, small mammal identification, and museum curation. Became familiar with the methods for preservation and upkeep of a museum. Practiced usage of a museum's collection for research and education. Learned methods for identification of small mammal specimens including their sex, reproductive status, and rough age. Work was completed prior to joining this firm.

Spotted Owl Diet Study Intern, Davis, CA
Dissected spotted owl (*Strix occidentalis caurina*) pellets previously collected in various forests in the Sierra Nevada. Analyzed pellets to identify rodent, bird, bat, and insect remains to help determine spotted owl diet preference. Assisted in the study of spotted owl prey species abundance, distribution, and preference. Used prey remains to understand overall prey abundance in conjunction with habitat types. Practiced using museum rodent skeletons to identify bones found in pellets. Work was completed prior to joining this firm.

Tsavo East National Park Research Volunteer, Voi, Kenya
Mr. Fisher monitored a population of African elephants (*Loxodonta africana*) in the Tsavo Conservation Area using radio telemetry from collared elephants. He studied the social structure, habitat preference, behavior, and general ecology of translocated and local elephant populations inside the Tsavo East National Park. He assisted and conducted vegetation surveys, GPS road mapping, animal road counts, rainfall data collection, and statistical analyses. He learned how to age and sex animals based on osteological evidence. He drafted methodologies to conduct vegetation surveys in and around animal exclosure plots. He used monthly road count data in conjunction with rainfall data to interpret animal abundance and distributions. He used poaching data and talked with stakeholders to discuss ways to alleviate poaching pressure in and around the national park. He created fish sampling tools and data sheets and compiled graphs and charts from analyzed data for presentations by park staff.

Jimmy McMorran
Wildlife Biologist

Education
Diploma, Hemet High School, 1995

Training
California Native Plant Society Rapid Assessment,2008
San Diego Natural History Museum Plant Identification, 2008
Flat-tailed Horned Lizard Worksop, Bureau of Land Management, 2009
Desert Tortoise Council Workshop on Surveying, Monitoring, and Handling Techniques for Desert Tortoise, 2009
Southwestern Willow Flycatcher Workshop, Southern Sierra Research Station, 2010
Quino Checkerspot Butterfly Identification Test, US Fish and Wildlife Service, 2010

Certifications
10(a)(1)(A) Endangered Species Permit TE 820658-4 to independently conduct presence/absence surveys for coastal California gnatcatcher and southwestern willow flycatcher; independently survey and nest monitor for western snowy plover and least Bell's vireo.
California Department of Fish and Game Authorization for Flat-tailed Horned Lizard Surveys
Wilderness First Aid Certification
CPR Certification
Motorboat Operator Certification

Jimmy McMorran's qualifications as a biologist include more than 10 years of experience as an ornithologist and research biologist. Mr. McMorran is experienced in sensitive wildlife species surveys and population monitoring, and habitat assessment. His primary focus has been being involved with search efforts and the monitoring of both threatened and endangered avian species. In addition, a passion for understanding seasonal status and distribution of avian species throughout North America has aided in his qualifications. He is experienced with GPS, GIS, modeling of wildfire behavior, and wildlife tracking. Mr. McMorran also regularly supports CEQA and NEPA documents by assisting with the writing of biological technical reports; biological assessments; and sections of EAs, EIRs, and EISs.

Project Experience

Shu' luuk Wind, San Diego County, CA
As a biologist conducted bird use counts, bird area searches, and all day raptor point counts to determine the seasonal use, abundance, and distribution of resident and migratory bird species as an indicator of potential impacts from a wind development project in eastern San Diego County. In addition, he conducted focused protocol level surveys for the federally listed least Bell's vireo (*Vireo bellii pusillus*), assisted with protocol level surveys for the federally listed southwestern willow flycatcher (*Empidonax traillii extimus*), and assisted with nest surveys for raptors and other large avian species. He completed surveys with other biologists for the federally endangered quino checkerspot butterfly (*Euphydryas editha quino*).

NAVFAC Wildlife Studies for the Naval Base Coronado Coastal Campus Environmental Impact Statement, Naval Base Coronado, San Diego, CA

Currently as a biologist is conducting avian surveys in support of environmental documentation for a coastal campus project.

San Diego Gas & Electric- Sunrise Powerlink- Restoration Services, San Diego County, CA
As biologist, participated in habitat assessments for temporary and permanent impacts to sensitive wildlife habitats associated with construction of the Sunrise Powerlink project, a 117-mile, 500 kilovolt transmission corridor.

Mojave Solar Power Project, Mojave Desert, San Bernardino County, CA
As a biologist, assisted with surveys focused on desert tortoise (*Gopherus agassizii*), transmission towers around the project site and documented all raptor and raven nests, and spring and summer nesting bird surveys around the project site. All documented nests were monitored to determine necessary avoidance buffers. Additionally, he assisted with the preparation of the raven management plan for the project.

Los Angeles Department of Water and Power, Confidential Project, Adelanto, San Bernardino County, CA Wildlife Biologist
As a biologist, assisted with focused desert tortoise (*Gopherus agassizii*) clearance surveys and burrowing owl preconstruction surveys.

Blythe, Palen, and Ridgecrest Solar Power Projects, Mojave Desert, Riverside/Kern County, CA
As a biologist, assisted with focused desert tortoise (*Gopherus agassizii*), and avian point count surveys for various large solar array projects. He has conducted numerous nesting bird, and burrowing owl surveys. He assisted with setting-up and conducting avian point counts for the BLM, and conducted contractor training.

Confidential Transmission Line Project, Colorado Desert, CA
As biologist,conducted protocol surveys for burrowing owl (*Athene cunicularia*) and flat-tailed horned lizard (*Phrynosoma mcallii*) for a 3 mile transmission Line and substation expansion project in Imperial County, California. Primary author for associated reports.

California Department of Transportation (Caltrans), Morrison Mitigation Property Species Surveys, Bonsall, CA
As biologist, participated in surveys for arroyo toad (*Bufo californicus*) and conducted surveys for southwestern willow flycatcher (*Empidonax traillii extimus*).

Confidential Solar Energy Project, San Diego County, CA
Assisted permitted biologists with Quino checkerspot butterfly (*Euphydryas editha quino*) surveys for a solar array project.

City of Carlsbad, Agua Hedionda Creek Dredging Project, City of Carlsbad, CA
As a biologist, conducted surveys for coastal California gnatcatcher (*Polioptila californica californica*) and least Bell's vireo (*Vireo bellii pusillus*). Assisted permitted biologists with surveys for southwestern willow flycatcher (*Empidonax traillii extimus*).

San Diego Gas & Electric Various Widget Monitoring Projects, San Diego County, CA
As biologist, has been involved in various monitoring tasks with SDG&E in habitats for various listed and sensitive wildlife species. He has provided on-site construction monitoring for pole replacement projects to avoid sensitive wildlife habitats.

NAVFAC Southwest MCB Camp Pendleton Basewide Water Improvements and Stuart Mesa Bridge Replacement Project, Environmental Studies, San Diego, CA
As biologist, conducted protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*) and was primary author of associated reports.

Imperial Irrigation District (IID) Imperial Valley-wide Burrowing Owl Surveys, Imperial County, CA
As a biologist, participated in the surveying of randomly selected 3 x 3 kilometer grids in a double independent observer methodology.

Santa Ana Nonnative Vegetation Removal Project, Orange County, CA
Currently as a biologist is assisting with bird use counts and is conducting focused protocol level surveys for the federally listed least Bell's vireo (*Vireo bellii pusillus*) as part of a five year study to measure the effects of invasive nonnative

vegetation removal within a 250-acre section of the Santa Ana River Valley on federally listed and resident bird species.

Confidential Wind Energy Project, San Diego County, CA
As biologist, completed surveys with other biologists for the federally endangered quino checkerspot butterfly.

NAVFAC Southwest San Nicolas Island Wind Turbine Project, San Nicolas Island, CA
As biologist, conducted preconstruction avian point count surveys in relation to wind power development focusing on migratory species moving throughout this outermost Channel Island in support of the avian risk assessment, documenting uncommon and rare avian species, and performing general wildlife habitat assessments.

Olivenhain Municipal Water District, Various Pipeline Projects, San Diego County, CA
As biologist, participated in protocol surveys for coastal California gnatcatcher.

Confidential Solar Energy Project, Sonoran Desert, CA
As biologist participated in managing and conducting avian point count surveys in the Sonoran Desert.

Confidential Solar Energy Project, Mojave Desert, CA
As biologist conducted protocol surveys for burrowing owl (*Athene cunicularia*) in the Mojave Desert for a solar array project.

City of Escondido Citracado Parkway – Andreasen Drive to West Valley Parkway, San Diego County, CA
As biologist, conducted protocol surveys for least Bell's vireo (*Vireo bellii pusillus*), kept detailed notes and documented any uncommon or rare avian detections, and assisted with associated reports.

California Health Care Facilities Project at R.J. Donavan State Correctional Facility, San Diego County, CA
As biologist, conducted protocol surveys for least Bell's vireo (*Vireo bellii pusillus*), participated in protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*), and assisted with associated reports.

NAVFAC Southwest MCB Camp Pendleton Grow the Force Environmental Studies, San Diego, CA
As biologist, participated in protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*) and was primary author of associated reports.

San Diego County Department of Public Works Wildcat Canyon Road Enhancement Project, Phase I, San Diego County, CA
As biologist, studied wildlife movement and determined corridor use surrounding Wildcat Canyon Road using baited and unbaited tracking plates.

MCB Camp Pendleton, San Diego, CA
Wildlife technician responsible for organizing and conducting systematic avian surveys basewide; monitor and ensure that fencing surrounding the nesting sites of threatened western snowy plover (*Charadrius alexandrinus nivosus*) and endangered California least tern (*Sterna antillarum brownii*) are maintained for predator control purposes; assist with flagging threatened and/or endangered plants and habitat in conjunction with habitat restoration projects; responsible for updating the checklist to the Birds of MCB Camp Pendleton.

RC Biological Consulting, Inc., La Mesa, CA
As biologist, conducted botanical and wildlife surveys, including focused surveys for least Bell's vireo (*Vireo bellii pusillus*), mapped habitat, and assisted with wetland delineations throughout southern California regions; conducted fuel management surveys and fire modeled for Fire Protection Plans; and assisted with technical report preparation, research, and graphics using Arcview and AutoCAD in support of potential construction development. Work was performed prior to joining this firm.

Point Reyes Bird Observatory Conservation Science (PRBO), Santa Cruz Island, CA
As Lead Biologist, conducted systematic surveys for loggerhead shrikes (*Lanius ludovicianus anthonyi*) utilizing all habitats islandwide; kept detailed notes of behavioral observations and located nests; entered data using Microsoft Excel, ArcMap, and Google Earth; logged sightings and read color bands of the island endemic Island scrub jay (*Aphelocoma insularis*); and recorded, compiled, and submitted all avian species detected to the proper agencies. Coordinated and managed group volunteer survey efforts. Work was performed prior to joining this firm.

Alaska Biological Research (ABR, Inc.), Forest Grove, OR
As Field Technician, participated in preconstruction studies in relation to potential wind power development by monitoring nocturnal bird and bat migration with use of radar and night

vision in New York and Pennsylvania; entered data using Microsoft Excel. Work was performed prior to joining this firm.

U.S. Geological Surveys (USGS), Flagstaff, AZ
As Field Technician, conducted ornithological surveys for western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) along the Colorado River from the U.S./Mexican border up through the Grand Canyon by foot, kayak, and motorboat; performed detailed botanical surveys using vegetation plots in riparian ecosystems; entered avian survey data into the avian database; kept detailed records of all avian species detected; and compiled records of all surveyors and submitted them to the appropriate agencies. Work was performed prior to joining this firm.

Cornell University Laboratory of Ornithology, St. Charles, AR
As Field Technician, conducted systematic surveys for ivory-billed woodpecker (*Campephilus principalis*) in the bottomland and hardwood forests of Cache River and White River National Wildlife Refuges by foot, canoe, and motorboat; inventoried feeding signs and roost/nest cavities of large woodpeckers; conducted point counts, playback surveys, and detailed behavioral observations of pileated woodpeckers (*Dryocopus pileatus*); daily use and operation of Global Positioning Systems (GPS), video camera, and aerial photography for navigation and orientation; and entered data into ArcView data management software. Work was performed prior to joining this firm.

Point Reyes Bird Observatory Conservation Science (PRBO),
San Clemente Island, CA
As Field Biologist, monitored the wild population of the endangered San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*); read color bands, conducted detailed behavioral observations, located nests, and assisted with banding of shrikes; conducted surveys for the threatened western snowy plover (*Charadrius alexandrinus nivosus*); completed 40 hours of supervised training in survey techniques, breeding behavior, identification, and habitat of the western snowy plover under a permitted biologist; permitted to handle endangered and threatened avian species (i.e., San Clemente loggerhead shrike and western snowy plover); entered data using ArcView, Microsoft Access, Excel, and MSWord; kept detailed records of all avian species detected; and compiled records of all surveyors and submitted them to the appropriate agencies. Work was performed prior to joining this firm.

Institute for Wildlife Studies (IWS), San Clemente Island, CA
As Release Biologist, monitored and conducted supplemental feeding of the captive released population of the endangered San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*); participated in transporting, weighing, and releasing of both juvenile and adults; and assisted with trapping and processing of state threatened Island fox (*Urocyon littoralis*) for research purposes. Work was performed prior to joining this firm.

Blucher Audubon Nature Center, Corpus Christi, TX
Naturalist responsible for restoring native habitat and preserving facilities; participated in the identification and removal of invasive plant species; and assisted visitors with questions about the flora and fauna of the center and surroundings. Work was performed prior to joining this firm.

Volunteer Experience

IWS, San Clemente Island, CA
Constructed raptor holding cages for problematic species that were found within areas of endangered San Clemente loggerhead shrike (*Lanius ludovicianus mearnsi*) release sites; participated in raptor surveys island-wide, assisted wildlife biologist with trapping and processing state threatened Island fox (*Urocyon littoralis*) for research purposes; assisted biologist with the removal of nonnative feral cats through various means, including trapping; logging sightings and behavioral data such as behavior in specified geographical areas. Work was performed prior to joining this firm.

U.S. Fish and Wildlife Service, Ventura, CA
Participated in the search and recovery efforts for one of the last original wild California condors (*Gymnogyps californianus*) after its release back into the wild. Work was performed prior to joining this firm.

Hazel Bazemore Hawkwatch, TX
Volunteered numerous hours helping identify raptors during fall migration. Work was performed prior to joining this firm.
American Birding Association, USA
Has lead bird watching tours for the American Birding Association (ABA) Conferences in southern California and Louisiana. Work was performed prior to joining this firm.

Arkansas Birding Festival, AR
Served as a leader of bird watching tours during the Arkansas birding festival. Work was performed prior to joining this firm.

San Diego & Buena Vista Audubon Society
Currently a leader for San Diego & Buena Vista Audubon Society pelagic birding trips in southern California.

Brennan Mulrooney
Wildlife Biologist

Education
BS in Wildlife and Fisheries Biology,
University of California at Davis, 1997

Training
Southwestern Willow Flycatcher Workshop, Southern Sierra Research Station, 2002
Flat-tailed Horned Lizard Worksop, BLM, 2011
Quino Checkerspot Butterfly Identification Test, USFWS, 2010
Hermes Copper Butterfly Workshop, SoCal Chapter of the Wildlife Society with Dave Faulkner, 2011

Certifications
10(a)(1)(A) Endangered Species Permit TE 820658-4 to independently conduct presence/absence surveys for southwestern willow flycatcher and independently survey and nest monitor for western snowy plover.
Red Cross First Aid and CPR Certification
Motorboat Operator Certification

Brennan Mulrooney's qualifications as a biologist include more than 12 years of experience as a field ornithologist and field biologist. As a wildlife biologist, Mr. Mulrooney is experienced in sensitive wildlife species surveys and population monitoring, and habitat assessment. His primary focus has been with search efforts and monitoring of threatened and endangered avian species. In addition, a passion for understanding seasonal status and distribution of avian species throughout North America has aided in his qualifications. He is experienced with GPS data gathering and processing.

Project Experience

Imperial Irrigation District (IID), Transmission Line Upgrades, Imperial County, CA
As a biologist, is conducting surveys for western burrowing owl. [05/2011 – Ongoing]

IID, Burrowing Owl Population Estimate Surveys, Imperial County, CA
As a biologist, conducted surveys for western burrowing owl. [05/2011]

California Department of Transportation (Caltrans), Morrison Mitigation Property Species Surveys, Bonsall, CA
As a biologist, conducting surveys for arroyo toad and southwestern willow flycatcher. [04/2011 – Ongoing]

San Diego Gas & Electric (SDG&E), Natural Communities Conservation Plan On-Call Biological Services, San Diego, CA
As a biologist, conducting surveys for least Bell's vireo and western burrowing owl. Assisting permitted biologist with surveys for coastal California gnatcatcher. [04/2011 – Ongoing]

Confidential Solar Energy Project, San Diego County, CA
Assisted permitted biologists with Quino checkerspot butterfly surveys. [04/2011]

City of Carlsbad, Agua Hedionda Creek Dredging Project, City of Carlsbad, CA
As a biologist, conducting surveys for least Bell's vireo and southwestern willow flycatcher. Assisted permitted biologists with surveys for coastal California gnatcatcher. [03/2011 – Ongoing]

Caltrans, South Bay Expressway State Route 125 South Restoration Site, San Diego, CA
As a biologist, conducted surveys for western burrowing owl and assisted permitted biologist with surveys for Quino checkerspot butterfly. [02/2011 – 05/2011]

County of San Diego Department of Parks and Recreation, As-Needed Environmental Services, San Diego County, CA
As a biologist, conducting surveys for nesting birds on an as-needed basis. [05/2010 – Ongoing]

US Army Corps of Engineers, Santa Ana Arundo Removal Project, Norco, CA
As a biologist, conducting bird use counts and surveys for least Bell's vireo and southwestern willow flycatcher. [05/2010 – Ongoing]

Naval Facilities Engineering Command (NAVFAC), Wildlife Surveys for Grow-the-Force and Basewide Utility Infrastructure Improvements Project, Marine Corps Base (MCB) Camp Pendleton, CA
Assisted permitted biologists with presence/absence surveys for coastal California gnatcatcher throughout the base. [08/2010 – 12/2010]

Confidential Wind Energy Project, San Diego County, CA
As a biologist, conducted bird use counts, bird area searches, and raptor nesting surveys to determine the seasonal use, abundance, and distribution of resident and migratory bird species as an indicator of potential impacts from a wind development project in eastern San Diego County. In addition, conducted focused protocol-level surveys for least Bell's vireo and assisted with protocol-level surveys for southwestern willow flycatcher and arroyo toad. [04/2010 – 04/2011]

Confidential Wind Energy Project, San Diego County, CA
As a biologist, completed surveys with other biologists for arroyo toad. [06/2010]

Avian Research Associates, California Least Tern and Western Snowy Plover Monitoring, Coronado, CA
As a biologist, conducted presence/absence surveys for, monitored nests of, and banded chicks of Western snowy plover and California least tern; conducted surveys/counts for all bird species at study sites; recorded data on mortality (all species), predation of California least tern and Western snowy plover nest and chicks, and human disturbance of nesting sites. [Prior to AECOM]

Victor Emanuel Nature Tours, Tour Leader, Austin, TX
Led groups of up to 14 people on birding and nature tours to various locations in the US, Canada, Mexico, Belize, Panama, Jamaica, and Kenya. Wrote detailed itineraries for tours. Responsible for day-to-day logistics. Wrote detailed trip reports and completed financial reports for each tour. [Prior to AECOM]

National Audubon Society, Roseate Spoonbill Monitoring Project, Tavernier, FL
As a biologist, deployed satellite transmitters on adult spoonbills; surveyed and monitored breeding colonies by small boat, kayak, and on foot; banded nestlings and resighted color banded birds throughout the state; and conducted flight-line counts, surveyed colonies, and conducted adult foraging flights via fixed-wing aircraft. Presented project data, birding, and Florida Keys natural history presentations to local community organizations. [Prior to AECOM]

National Audubon Society, Florida Keys Stopover Ecology Study of Neotropical Migrant Birds, Cudjoe Key, FL
As a bander, mist-netted and banded neotropical migrants; recorded age, sex, wing chord, and fitness; conducted foraging observations and analyzed diet via fecal samples; conducted prey availability studies; conducted vegetation surveys; and recorded and entered data. [Prior to AECOM]

US Geological Survey (USGS) Western Ecological Research Center (WERC), San Diego Field Station, Avian Inventories of National Forests of Southern California San Diego, CA
Conducted point counts for all bird species throughout the Cleveland, Angeles, San Bernardino, and Los Padres National Forests. Assisted with mist-netting and banding of neotropical migrants at Monitoring Avian Productivity and Survivorship (MAPS) stations. [Prior to AECOM]

USGS Western Ecological Research Center (WERC), Santa Margarita River Watershed Avian Surveys, San Diego, CA
Conducted point counts for all bird species throughout the Santa Margarita watershed. [Prior to AECOM]

USGS Western Ecological Research Center (WERC), Least Bell's Vireo (LBVI) and Southwestern Willow Flycatcher (SWFL) Surveys, San Diego, CA
Conducted point counts for all bird species in Cleveland National Forest, Marine Corps Base Camp Pendleton, and Santa Margarita Ecological Reserve; surveyed fixed-transects for LBVIs and SWFLs in Cleveland National Forest; surveyed independently for SWFL at the mouth of San Mateo Creek; mist-netted and banded passerines at MAPS stations; conducted vegetation surveys; recorded and entered data. [Prior to AECOM]

Cape May Bird Observatory, Fall Migration Study of Neotropical Migrant Birds, Cape May, NJ
Performed daily constant effort raptor counts at the Hawk Watch, and waterbird counts at the Sea Watch. Assisted with mist-netting and banding of neotropical migrants; recorded age, sex, wing chord, and fitness; conducted vegetation surveys; conducted prey availability studies; conducted workshops on field identification of raptors and waterbirds in flight at Hawk Watch and Sea Watch; conducted surveys for shorebirds and other waterbirds along the beaches of southern New Jersey; recorded and entered data. [Prior to AECOM]

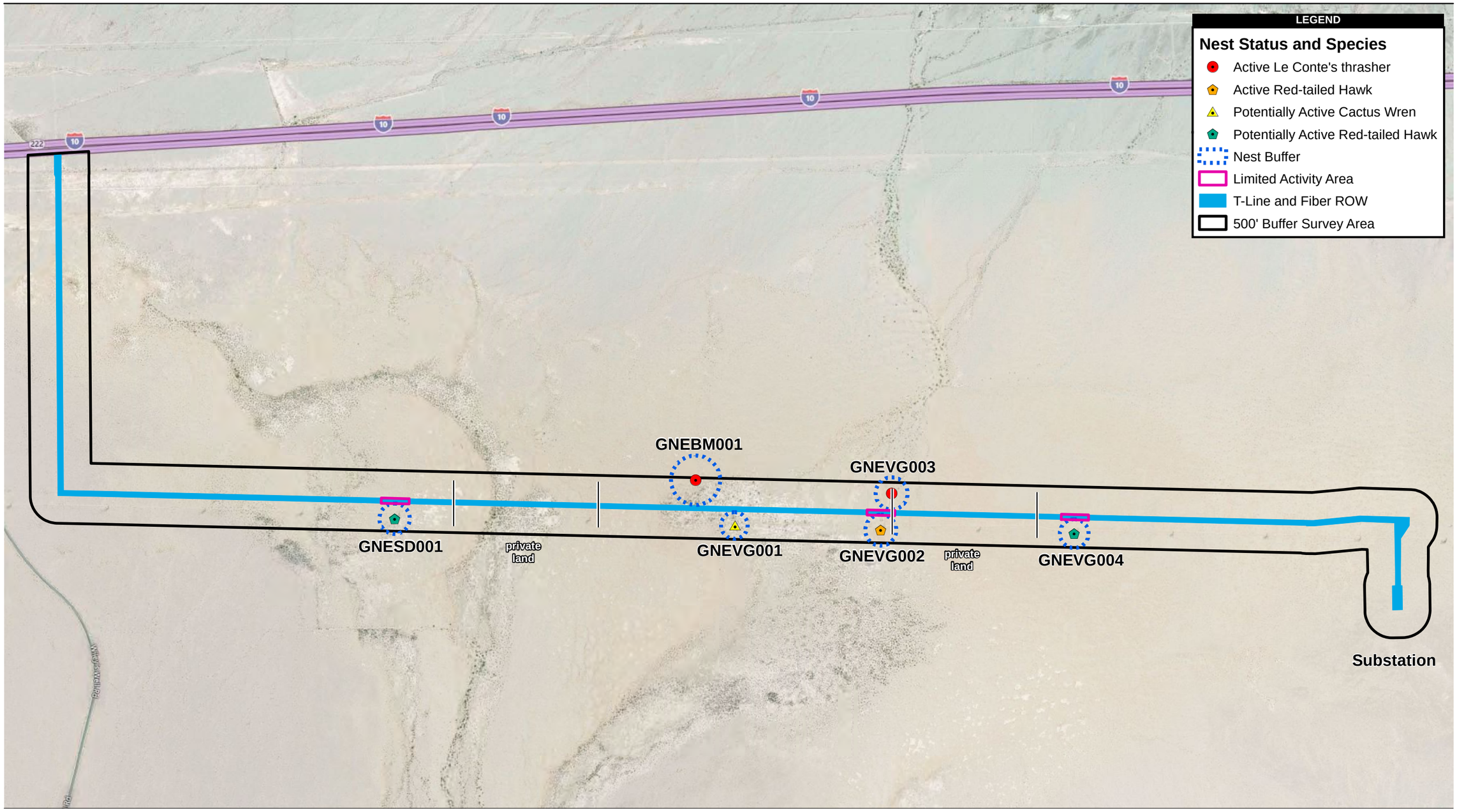
Varanus Biological Services, San Diego, CA
Conducted presence/absence and spot mapping surveys for least Bell's vireo; assisted with California gnatcatcher surveys; trapped small mammals and reptiles using pitfall traps and Sherman live traps; carried out bull frog eradication from sensitive habitats to protect the endangered arroyo toad; implanted Passive Integrated Transponder (PIT) tags in arroyo toads for monitoring of relocation efforts; built and maintained cowbird traps to protect nesting least Bell's vireos. [Prior to AECOM]

Lassen Volcanic National Park/Forest, Point Reyes Bird Observatory, Mineral, CA
Conducted point counts for all bird species to complete an inventory of the birds of Lassen Volcanic National Park; assisted with MAPS banding in Lassen Volcanic National Forest. [Prior to AECOM]

Point Reyes Bird Observatory, Salton Sea, CA
Conducted targeted surveys of breeding snowy plovers; conducted general counts of all shorebirds and waterbirds; conducted surveys for breeding rail species including California black rail and Yuma clapper rail; conducted surveys for mountain plover; assisted with constant effort migration banding; banded the chicks of California gull, gull-billed tern, Caspian tern, and black skimmer; monitored breeding colonies of colonial wading birds. [Prior to AECOM]

APPENDIX B

SURVEY AREA AND PRECONSTRUCTION NEST SURVEY RESULTS MAP



1,750 875 0 1,750 Feet

Scale: 1:21,000; 1 inch = 1,750 feet

Figure 1. Genesis Solar Energy Project Preconstruction Nesting Bird Survey Area, Results and Proposed Buffer Zones, February 5-7, 2013

Genesis Solar Energy Project

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\Nesting Birds\2013\Linear Easement Jan-Feb 2013.mxd, 2/11/2013, irelandm

APPENDIX C

FIELD DATA

PRECONSTRUCTION NESTING SURVEY DATASHEETS

Genesis Solar – Clearance Survey Summary Report (Part 1 of 3)

Data Recording Surveyor	Additional Surveyors	Date	Start Time	End Time	Start Temp. (°F)	End Temp. (°F)	Start Wind Speed (mph)	End Wind Speed (mph)	Start Precipitation	End Precipitation	Start Cloud Cover	End Cloud Cover
Andrew Fisher	Brennan Mulrooney, James McMorran	2/5/2013	7:17:00 AM	2:49:00 PM	54	69	0	4	None	None	0%	0%
Andrew Fisher	Brennan Mulrooney, James McMorran	2/6/2013	8:31:00 AM	3:46:00 PM	62	62	2	2	None	None	0%	0%
Andrew Fisher	Brennan Mulrooney, James McMorran	2/7/2013	7:25:00 AM	9:50:00 AM	51	73	0	2	None	None	0%	0%

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
Andrew Fisher	2/5/2013	10:30:00 AM	GNEAF001	Nest	UTM Z11 NAD83 (m)	3718602	696359	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	Other (note), N/A old nest remains with old material
Andrew Fisher	2/5/2013	10:55:00 AM	GNEAF002	Nest	UTM Z11 NAD83 (m)	3718674	696011	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/5/2013	1:16:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	697070	3718634	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A
Andrew Fisher	2/5/2013	2:38:00 PM	GNEAF003	Nest	UTM Z11 NAD83 (m)	3718909	696971	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	10:43:00 AM	GNEVG003	Nest	UTM Z11 NAD83 (m)	699814	3718773	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A
Andrew Fisher	2/6/2013	10:49:00 AM	GNEAF005	Nest	UTM Z11 NAD83 (m)	699840	3718835	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	11:13:00 AM	GNEAF004	Nest	UTM Z11 NAD83 (m)	698997	3718783	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	11:24:00 AM	GNEBM001	Nest	UTM Z11 NAD83 (m)	698732	3718846	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A
Andrew Fisher	2/6/2013	12:10:00 PM	GNETS002	Nest	UTM Z11 NAD83 (m)	698658	3718706	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:15:00 PM	GNEJM001	Nest	UTM Z11 NAD83 (m)	698725	3718705	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:18:00 PM	GNESD002	Nest	UTM Z11 NAD83 (m)	698776	3718700	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A, None
Andrew Fisher	2/6/2013	12:20:00 PM	GNEVG007	Nest	UTM Z11 NAD83 (m)	698769	3718674	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:23:00 PM	GNEAF006	Nest	UTM Z11 NAD83 (m)	698825	3718764	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:29:00 PM	GNEAF007	Nest	UTM Z11 NAD83 (m)	699034	3718770	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	12:32:00 PM	GNEBM002	Nest	UTM Z11 NAD83 (m)	699071	3718727	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	2:53:00 PM	GNEVG005	Nest	UTM Z11 NAD83 (m)	701350	3718543	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/6/2013	3:03:00 PM	GNEVG004	Nest	UTM Z11 NAD83 (m)	700822	3718552	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	N/A
Andrew Fisher	2/7/2013	7:31:00	GNEBM00	Nest	UTM Z11	698934	3718639	None,	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
		AM	2		NAD83 (m)			Nest													
Andrew Fisher	2/7/2013	7:33:00 AM	GNEVG001	Nest	UTM Z11 NAD83 (m)	698946	3718597	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	N/A
Andrew Fisher	2/7/2013	7:36:00 AM	GNEBM003	Nest	UTM Z11 NAD83 (m)	698902	3718666	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	7:46:00 AM	GNEBM004	Nest	UTM Z11 NAD83 (m)	698741	3718647	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	7:58:00 AM	GNEAF007	Nest	UTM Z11 NAD83 (m)	698130	3718633	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:42:00 AM	GNEAF008	Nest	UTM Z11 NAD83 (m)	699234	3718567	None, Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:44:00 AM	GNEAF009	Nest	UTM Z11 NAD83 (m)	699292	3718575	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:52:00 AM	GNEVG006	Nest	UTM Z11 NAD83 (m)	699500	3718553	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	N/A
Andrew Fisher	2/7/2013	8:57:00 AM	GNEVG002	Nest	UTM Z11 NAD83 (m)	699754	3718571	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	N/A

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
Andrew Fisher	2/5/2013	10:30:00 AM	GNEAF001	Nest	UTM Z11 NAD83 (m)	3718602	696359	None	Cactus wren and verdin	N/A	N/A	Two old nests in palo verde
Andrew Fisher	2/5/2013	10:55:00 AM	GNEAF002	Nest	UTM Z11 NAD83 (m)	3718674	696011	None, Nest	Either a RTHA or CORA	N/A	N/A	Old nest remains in transmission tower on south side of paved road
Andrew Fisher	2/5/2013	1:16:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	697070	3718634	None	N/A	N/A	N/A	Previously recorded nest in tower. An adult RTHA perched above the nest on the tower. Nest could potentially become active.
Andrew Fisher	2/5/2013	2:38:00 PM	GNEAF003	Nest	UTM Z11 NAD83 (m)	3718909	696971	None, Nest	SAPH, BRSP, WCSP, RTHA, BGGN, WEME, AUWA, VESP, SAGS, HOLA, HOFI, CAWR, American snout, MFTL	N/A	N/A	Looks like an old LOSH nest.
Andrew Fisher	2/6/2013	10:43:00 AM	GNEVG003	Nest	UTM Z11 NAD83 (m)	699814	3718773	None, Nest	N/A	N/A	N/A	Active nest that interior could not be viewed, pair of adults carrying food. Le Conte's thrasher
Andrew Fisher	2/6/2013	10:49:00 AM	GNEAF005	Nest	UTM Z11 NAD83 (m)	699840	3718835	None, Nest	N/A	N/A	N/A	Old nest in Palo Verde with no sign of activity.
Andrew Fisher	2/6/2013	11:13:00 AM	GNEAF004	Nest	UTM Z11 NAD83 (m)	698997	3718783	None, Nest	N/A	N/A	N/A	Old possible LOSH nest in a Palo Verde.
Andrew Fisher	2/6/2013	11:24:00 AM	GNEBM001	Nest	UTM Z11 NAD83 (m)	698732	3718846	None, Nest	N/A	N/A	N/A	Adult Le Conte's thrasher flushed off nest. Could not see into the nest. Assumed active.
Andrew Fisher	2/6/2013	12:10:00 PM	GNETS002	Nest	UTM Z11 NAD83 (m)	698658	3718706	None, Nest	N/A	N/A	N/A	Possibly a verdin nest
Andrew Fisher	2/6/2013	12:15:00 PM	GNEJM001	Nest	UTM Z11 NAD83 (m)	698725	3718705	None, Nest	N/A	N/A	N/A	Old inactive verdin nest
Andrew Fisher	2/6/2013	12:18:00 PM	GNESD002	Nest	UTM Z11 NAD83 (m)	698776	3718700	None, Nest	N/A	N/A	N/A	Previously recorded inactive verdin nest
Andrew Fisher	2/6/2013	12:20:00 PM	GNEVG007	Nest	UTM Z11 NAD83 (m)	698769	3718674	None, Nest	N/A	N/A	N/A	Previously recorded inactive cactus wren nest.
Andrew Fisher	2/6/2013	12:23:00 PM	GNEAF006	Nest	UTM Z11 NAD83 (m)	698825	3718764	None, Nest	N/A	N/A	N/A	Old cactus wren nest that is inactive.
Andrew Fisher	2/6/2013	12:29:00 PM	GNEAF007	Nest	UTM Z11 NAD83 (m)	699034	3718770	None	N/A	N/A	N/A	Possibly inactive verdin nest. No birds around but nest is high up in tree and hard to tell if it is active.
Andrew Fisher	2/6/2013	12:32:00 PM	GNEBM002	Nest	UTM Z11 NAD83 (m)	699071	3718727	None, Nest	N/A	N/A	N/A	Old nest in crotch of ironwood tree. Large enough to be an old raven nest. No recent sign.
Andrew Fisher	2/6/2013	2:53:00 PM	GNEVG005	Nest	UTM Z11 NAD83 (m)	701350	3718543	None, Nest	N/A	N/A	N/A	Potential RTHA nest in transmission tower. Previously recorded and does not appear active.
Andrew Fisher	2/6/2013	3:03:00	GNEVG004	Nest	UTM Z11	700822	3718552	Nest	N/A	N/A	N/A	Previously recorded RTHA nest in tower.

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
		PM			NAD83 (m)							Adult RTHA observed perched above nest. Other incidental birds observed: CORA, RTHA, PRFA, LETH, BGGN, HOLA, MODO, LOSH, VESP, BRSP, WCSP, CAWR, SAGS, SAPH
Andrew Fisher	2/7/2013	7:31:00 AM	GNEBM002	Nest	UTM Z11 NAD83 (m)	698934	3718639	None, Nest	N/A	N/A	N/A	Old nest in Palo Verde. Possibly an old verdin nest.
Andrew Fisher	2/7/2013	7:33:00 AM	GNEVG001	Nest	UTM Z11 NAD83 (m)	698946	3718597	None, Nest	N/A	N/A	N/A	Fresh nesting material and feathers at a cactus wren nest. No birds observed.
Andrew Fisher	2/7/2013	7:36:00 AM	GNEBM003	Nest	UTM Z11 NAD83 (m)	698902	3718666	None, Nest	N/A	N/A	N/A	Old cactus wren nest no longer active.
Andrew Fisher	2/7/2013	7:46:00 AM	GNEBM004	Nest	UTM Z11 NAD83 (m)	698741	3718647	None, Nest	N/A	N/A	N/A	Old LOSH nest from last year. Inactive
Andrew Fisher	2/7/2013	7:58:00 AM	GNEAF007	Nest	UTM Z11 NAD83 (m)	698130	3718633	None, Nest	N/A	N/A	N/A	Old RTHA nest in a transmission tower. Does not appear active.
Andrew Fisher	2/7/2013	8:42:00 AM	GNEAF008	Nest	UTM Z11 NAD83 (m)	699234	3718567	None, Nest	N/A	N/A	N/A	Old inactive verdin nest.
Andrew Fisher	2/7/2013	8:44:00 AM	GNEAF009	Nest	UTM Z11 NAD83 (m)	699292	3718575	None	N/A	N/A	N/A	Old inactive verdin nest.
Andrew Fisher	2/7/2013	8:52:00 AM	GNEVG006	Nest	UTM Z11 NAD83 (m)	699500	3718553	None	N/A	N/A	N/A	Possibly an inactive cactus wren nest that was previously recorded.
Andrew Fisher	2/7/2013	8:57:00 AM	GNEVG002	Nest	UTM Z11 NAD83 (m)	699754	3718571	Nest	N/A	N/A	N/A	Adult RTHA flew off nest. Assumed to be incubating eggs Other incidental birds observed include: WCSP, BRSP, VESP, LOSH, LETH, CAWR, BGGN, RTHA, SAVS, LISP

APPENDIX D

AVIAN SPECIES OBSERVED

Common Name	Scientific Name	Order	Family
Mourning Dove	*Zenaida macroura*	Columbiformes - Pigeons, and Doves	Columbidae
Red-tailed Hawk	*Buteo jamaicensis*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Prairie Falcon	*Falco mexicanus*	Falconiformes - Diurnal Birds of Prey	Falconidae
Horned Lark	*Eremophila alpestris*	Passeriformes - Passerine Birds	Alaudidae
Common Raven	*Corvus corax*	Passeriformes - Passerine Birds	Corvidae
Sage Sparrow	*Amphispiza belli*	Passeriformes - Passerine Birds	Emberizidae
Lincoln's Sparrow	*Melospiza lincolnii*	Passeriformes - Passerine Birds	Emberizidae
Savannah Sparrow	*Passerculus sandwichensis*	Passeriformes - Passerine Birds	Emberizidae
Vesper Sparrow	*Pooecetes gramineus*	Passeriformes - Passerine Birds	Emberizidae
Brewer's Sparrow	*Spizella breweri*	Passeriformes - Passerine Birds	Emberizidae
White-crowned Sparrow	*Zonotrichia leucophrys*	Passeriformes - Passerine Birds	Emberizidae
House Finch	*Carpodacus mexicanus*	Passeriformes - Passerine Birds	Fringillidae
Loggerhead Shrike	*Lanius ludovicianus*	Passeriformes - Passerine Birds	Laniidae
Le Conte's Thrasher	*Toxostoma lecontei*	Passeriformes - Passerine Birds	Mimidae
Audubon's Warbler	*Dendroica coronata auduboni*	Passeriformes - Passerine Birds	Parulidae
Blue-grey Gnatcatcher	*Polioptila caerulea*	Passeriformes - Passerine Birds	Sylviidae
Cactus Wren	*Campylorhynchus brunneicapillus*	Passeriformes - Passerine Birds	Troglodytidae
Say's Phoebe	*Sayornis saya*	Passeriformes - Passerine Birds	Tyrannidae

February 2013 Genesis Solar Energy Project Preconstruction Nesting Bird Survey Report

Preconstruction nest surveys for bird species other than western burrowing owls (*Athene cunicularia*; WBO) are required prior to Genesis Solar Energy Project (GSEP or Project) related ground disturbance activities during the nesting season (February 1 through July 31) per Conditions of Certification BIO-15 for GSEP. The purpose of nesting bird surveys is to establish sufficient protective buffers around nest sites and potential nest sites. This February 2013 report update has been prepared to document findings from the third survey round conducted at the GSEP per the methods identified in the memorandum submitted to the agencies on Wednesday, February 13, 2013. This update satisfies the requirement to map and submit survey results to the Compliance Program Manager (CPM) and to provide a proposed Buffer Zone and Monitoring Plan (Plan) for observed nests to the California Department of Fish and Wildlife (CDFW) for consultation.

Included in this report are the findings from third round of pre-construction nest surveys conducted within linear facilities and associated buffers on February 14 and 15, 2013 and an updated table that incorporates new nests identified and the proposed buffer zones. The survey methodology within areas surveyed, the justification for the buffers, and the proposed monitoring remains as identified in the original report. The areas surveyed were identified in the memorandum as noted above. In addition, representative habitat identified as non-survey areas in the memorandum was checked in the field prior to construction activities to verify that nesting activity or evidence of nesting behavior was not occurring.

UPDATED RESULTS

The western meadowlark (*Sturnella neglecta*) was the only new species was observed during the third round of surveys. Within the survey area, two new potentially active bird nests were observed (Identified by italics in Table 1). Both nests were identified as ball nests located in trees (Palo Verde and Ironwood). Each nest appeared to have new material added; however, no birds were heard or seen at either location. The two new nests are located within 38 feet of the right-of-way, so extra precautions are being implemented to minimize potential for disturbance. The description of the active and potentially active nests is included below in Table 1. Nests identified during the recent survey effort are reported in italics.

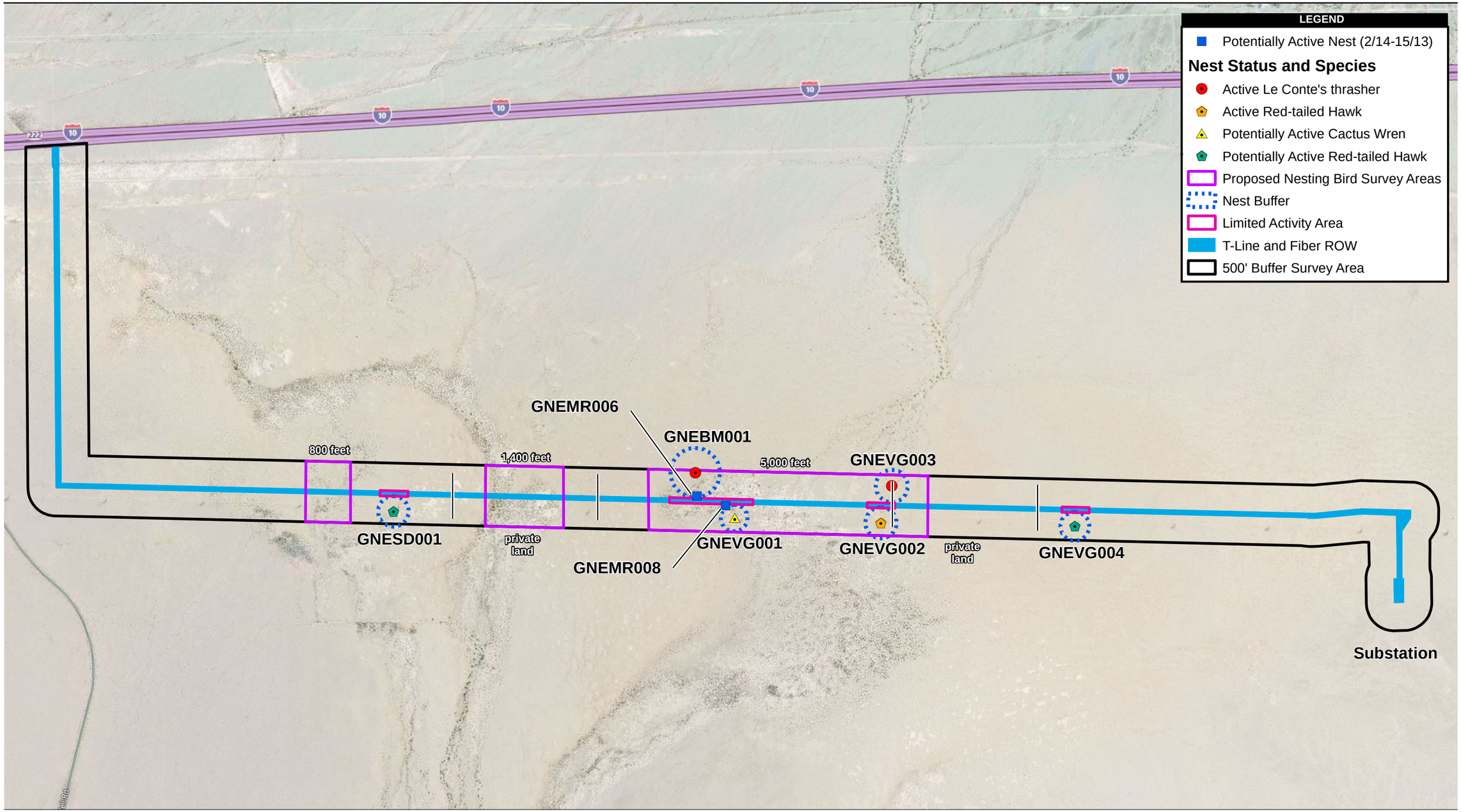
Table 1. Active or Potentially Active Nests Observed within the 500-foot Buffer of the Right-of-Way.

Avian Species	Nest Status	Nest Identifier	Easting	Northing	Description	Distance (feet) from Right of Way
Not Determined	*Potentially Active*	*GNEMR008*	*698899*	*3718665*	*Downy feathers lining a ball nest and in the branches surrounding the nest; approximately 7 feet up a Palo Verde. No birds were heard or seen.*	*28*
Not Determined	*Potentially Active*	*GNEMR006*	*698742*	*3718718*	*Ball nest composed of small grasses found approximately 6 feet up an ironwood tree. No birds were heard or seen.*	*38*
Cactus Wren	Potentially Active	GNEVG001	698946	3718597	Fresh nesting material and feathers at a cactus wren nest. Adult cactus wren observed perched in tree above nest.	240
Le Conte's Thrasher	Active	GNEBM001	698732	3718846	Adult Le Conte's thrasher flushed off nest. Could not see into the nest. Assumed active.	445
Le Conte's Thrasher	Active	GNEVG003	699814	3718773	Active nest that interior could not be viewed, pair of adults carrying food, Le Conte's thrasher	290
Red-tailed Hawk	Active	GNESD001	697070	3718634	Previously recorded nest in tower. An adult RTHA perched above the nest on the tower. Nest could potentially become active.	275
Red-tailed Hawk	Active	GNEVG002	699754	3718571	Adult RTHA flew off nest. Assumed to be incubating eggs	280
Red-tailed Hawk	Potentially Active	GNEVG004	700822	3718552	Previously recorded RTHA nest in tower. Adult RTHA observed perched above nest.	260

Table 2. Proposed Buffer Zone and Mitigation Measures for Nests

Avian Species	Nest Status	Nest Identifier	Proposed Buffer Radius (feet)*	Additional Mitigation Measures
Not Determined	*Potentially Active*	*GNEMR008*	*Minimum 28*	*Additional survey prior to work around nest* *"Limited Activity Area" in ROW* *Nest monitoring*
Not Determined	*Potentially Active*	*GNEMR006*	*Minimum 38*	*Additional survey prior to work around nest* *"Limited Activity Area" in ROW* *Nest monitoring*
Cactus Wren	Potentially Active	GNEVG001	240	Nest monitoring
Le Conte's Thrasher	Active	GNEBM001	445	Nest monitoring
Le Conte's Thrasher	Active	GNEVG003	290	Nest monitoring
Red-tailed Hawk	Active	GNESD001	275	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed Hawk	Active	GNEVG002	280	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed Hawk	Potentially Active	GNEVG004	260	Nest monitoring; "Limited Activity Area" in ROW

* Buffer distances are the distance from the nest to the ROW



1,750 875 0 1,750 Feet

Scale: 1:21,000; 1 inch = 1,750 feet

Figure 1. Genesis Solar Energy Project
Preconstruction Nesting Bird Survey Area Results, February 14-15, 2013
(Results and Buffer Zones for February 5-7, 2013 Surveys Included)

Genesis Solar Energy Project

Path: P:\2011\6022071 3\06GIS\6.3_Layout\Bio\Nesting Birds\2013\Linear Easement Feb 2013 s2.mxd, 2/18/2013, irelandm

GENESIS SOLAR POWER PROJECT
PRECONSTRUCTION NESTING SURVEY REPORT
(February 18 to April 5, 2013 Survey Period)

Prepared for:
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April 2013

April 2013 Genesis Solar Energy Project Preconstruction Nesting Bird Survey Report

Preconstruction nest surveys for bird species other than western burrowing owls (*Athene cunicularia*; WBO) are required prior to Genesis Solar Energy Project (GSEP or Project) related ground disturbance activities during the nesting season (February 1 through July 31) per Conditions of Certification BIO-15 for GSEP. The purpose of nesting bird surveys is to establish sufficient protective buffers around nest sites and potential nest sites. This April 2013 report update has been prepared to document the methods and results from surveys conducted since February 15, 2013 at the GSEP and to propose buffer zones and a monitoring plan for recently found active nests. The purpose of this report is to satisfy the requirement to map and submit survey results to the Compliance Program Manager (CPM) and to provide a proposed Buffer Zone and Monitoring Plan (Plan) for observed nests to the California Department of Fish and Wildlife (CDFW) for consultation.

Included in this report are the findings from pre-construction nest surveys conducted within linear facilities and associated buffers conducted on February 18, 21, March 4 – 9, 11, 13, 17, 18, 22, and April 4 and 5, 2013. No nests that were determined to be active were observed in construction areas except for nests observed on April 4 and 5. Construction within the areas adjacent to these nests is anticipated to begin on April 13, 2013. A proposed Buffer Zone and Monitoring Plan for active nests observed is included within this report.

PRECONSTRUCTION NEST SURVEYS

METHODOLOGY

Nesting bird survey dates, locations and a summary of results are included below in Table 1. Nesting bird surveyor biologists include: Andrew Fisher; Jimmy McMorran; Charles German; Tim Skousen; Shelly Dayman; Vick Germany; Ron Walker and Mike Rathbun. The surveyed area is depicted on the maps in Appendix A and is described below in Table 1. The survey area includes the transmission line corridor adjacent to the existing access road and east towards the rest stop and south toward interstate 10 (I-10). South of I-10 the surveyed area includes; a short east to west gas pipeline area (just south of I-10), the east west corridor for the transmission line just north of the existing to the Southern California Edison (SCE) paved road and existing transmission line (called the Colorado River Substation [CRS] area).

Nesting bird surveys were conducted using nesting-locating techniques such as those described in Martin and Guepel (1993). Biologists slowly walked throughout habitat known to be used by avian species expecting to be currently nesting, such as desert washes through all appropriate habitat within the 500-foot buffer, checking large shrubs and bushes for nests. Biologists would scan ahead and listen for perched birds that may be singing or carrying food or nesting material to nests. Generally areas with greater shrub and tree cover were surveyed more slowly by biologists checking each large shrub and tree for potential nests. Old nests from previous years were recorded as an indicator of overall primary nesting areas. The main locations where passerine nests were found were in desert washes and small ribbons of vegetation following a topographic feature across the desert landscape. Within the CRS area,

habitat that consisted mainly of sand dunes and scattered creosote bush scrub were not searched for nests, as during previous surveys these areas lacked any evidence of nests and avian species expected to be currently nesting would not be found in these areas. The desert washes were searched for nesting activity. Surveys were conducted as described in Appendix B with exact survey times, temperatures and weather conditions in the table. Surveys were conducted either by walking pedestrian transects spaced approximately 20 meters apart within the right-of-way (ROW) alignment and a 500-foot buffer adjacent to the alignment or by walking slowly throughout habitat known to be used by avian species expecting to be currently nesting, such as desert washes.

All incidental bird sightings were noted and are included in Appendix C. Birds which were detected were then observed from a distance in order to watch their behavior to see if they exhibited any breeding season behavior (nest defense, carrying nesting material, food transport, etc.) or were simply transients birds foraging or migrating through the area. If breeding season behavior was noted, the nest was either classified as "active" or "potentially active." The locations of inactive nests were also noted and this information is included in Appendix C. Generally a nest was observed for 5-10 minutes. If a bird was observed near the nest, perched above the nest, or on the nest, it was considered active. Birds may abandon nests that are early on in the nesting building stage and to avoid distressing birds surveyors would move past a nest and then look back to observe bird activity in the area. For some nests, an adult was observed on the nest and therefore determined to be active and surveyors spent minimal time in the vicinity (usually less than five minutes) to minimize disturbance. For other nests, such as the red-tailed hawk (*Buteo jamaicensis*) nests in transmission towers, observations could be done from a long distance away to determine the nest status. Any nest that had recent or fresh material added to the nest was considered potentially active.

RESULTS

Habitat within the survey area (which included both the ROW and the 500 foot buffer) included: Sonoran creosote bush scrub; stabilized or partially stabilized sand dunes; active desert dunes; or desert dry wash woodland. The vegetation community within the Sonoran creosote bush scrub consisted primarily of creosote (*Larrea tridentata*), burro-weed (*Ambrosia dumosa*), and plantain (*Plantago* sp.). The desert dry wash woodland was dominated by blue palo verde (*Cercidium floridium*), ironwood (*Olneya tesota*) with an understory of big galleta grass (*Pleuraphis rigida*), desert starvine (*Brandegea bigelovii*) intermixed with creosote scrub. Stabilized and partially stabilized dunes are sand accumulations in the desert which are stabilized or partially stabilized by evergreen and/or deciduous shrubs and scattered, low grasses. Plants observed within this community include Mediterranean grass (*Schismus* sp.) and dye bush (*Psorothamnus emoryi*). Active desert dunes are characterized by mostly unvegetated drifted sand dunes or sand fields of five feet or less in height. Plants observed in this community included sparsely scattered creosote bush, desert twinbugs (*Dicoria canescens*), and birdcage evening primrose (*Oenothera deltoides*).

Survey areas, timing and general results are included below in Table 1. Within the survey area, six active bird nests were observed (Table 2). All of these nests were found in the CRS survey area. Three red-tailed hawk nests were observed, all within existing transmission line towers on the south side of the

existing Southern California Edison (SCE) paved road. All three of these nests were determined to be active. An active loggerhead shrike nest was observed just over 80-feet to the north of the proposed work area and 300-feet to the west of Pole 101 and an active cactus wren nests was observed about 225-feet to the east of Pole 101, also about 80-feet north of the work area. A third active nest, a mourning dove nest, was observed about 380-feet to the south of the work area. The description of the active nests is included below in Table 2.

Table 1. Preconstruction Nesting Bird Survey Locations and Results.

Date	Location	Nest Observations
2/18/2013	CRS Area, Poles 96 to 114	Potentially active nests GNEMR010, GNEVG006 observed, determined during nest monitoring on 2/20/13 not to be currently active
2/21/2013	East/west fiber gas line to terminus	No new active nests observed
3/4/2013	Preconstruction nest surveys for Pole 33 and 38	No new active nests observed
3/5/2013	Preconstruction nest surveys, poles 45, 48 and 50	No new active nests observed
3/6/2013	Preconstruction nest surveys, poles 45, 48 and 50	No new active nests observed
3/7/2013	Access road, pole 22 east	No new active nests observed
3/8/2013	Access road, pole 22 to 38	Potentially active nests GNEMR012 observed, determined inactive during surveys on 3/9 and 3/11/13
3/9/2013	Access road, poles 22 to 46	Observed western burrowing owl at burrow GMATS001, reported to wildlife agencies, nest area marked
3/11/2013	North side of I10, poles 46 to 56	No new active nests observed
3/13/2013	North side of I10, poles 46 to 56	No new active nests observed
3/17/2018	CRS area, poles 95 and 102	No new active nests observed
3/18/2013	CRS area, poles 102 to 110	No new active nests observed
3/22/2013	North side of I10, pole 54	No new active nests observed
4/4/2013	CRS area, poles 113 to 84	Observed active nests GNEAF011 (mourning dove), GNEJM006 (cactus wren), GNESD001 (red-tailed hawk), GNEVG002 (red-tailed hawk), and GNEVG004 (red-tailed hawk)
4/5/2013	CRS area, poles 113 to 84	Observed active nest GNEJM007 (loggerhead shrike)

Table 2. Active Nests within the 500-foot Buffer of the Right-of-Way.

Observ Date	Nest Identifier	Easting	Northing	Species	Initial Status	Nest Sign	Initial Notes	Current Status	Distance from ROW (feet)
4/4/2013	GNEAF011	696648	3718623	Mourning dove	Active	1 Egg and adult bird present	Active nest, on south side of SCE road	Active	379
4/4/2013	GNEJM006	698736	3718718	Cactus wren	Active	Adult bird observed inside nest.	On April 4, a bird was seen in the nest. On April 5 a pair and at least 1 fledgling cactus wren were observed in the immediate vicinity. The birds may roost in the nest during the day although it appears like the young have fledged.	Active	84
4/4/2013	GNESD001	697070	3718634	Red-tailed hawk	Active	Adult bird in nest on transmission tower.		Active	275
4/4/2013	GNEVG002	699754	3718571	Red-tailed hawk	Active	Adult bird flew off the nest		Active	280
4/4/2013	GNEVG004	700822	3718552	Red-tailed hawk	Active	Adult bird sitting on nest, other adult perched in adjacent tower		Active	260
4/5/2013	GNEJM007	698587	3718721	LOSH	Active		Adult bird observed flying into nest. Nest too high up to determine if eggs are present.	Active	84

BUFFER ZONE AND MONITORING PLAN

Since active nests were observed within an area where construction is planned to occur, a Buffer Zone and Monitoring Plan (Plan) is required. The approval of this Plan requires consultation and concurrence with CDFW. The size of buffers has been developed based on species specific alert distances and flush initiation distances. Generally for avian species, body size is the best known factor to determine interspecies differences in alert distances and flush initiation distances. Larger birds tend to have larger alert distances and this may be due to the increased amount of time it takes to initiate flight for a larger bird.

Several variables need to be considered to determine appropriate buffer distances including: (i) detection of disturbance (alert distance); (ii) tolerance to the disturbance before flight initiation (flush

initiation); (iii) spatial displacement (landing distance); and (iv) temporal displacement (time to resume pre-disturbance activities). Since it is most important to avoid flush initiation during the nesting season so that the birds maintain normal nesting activity, we will consider that while birds may become aware of construction activity (alert distance) as long as the activity is tolerated, nesting will continue. If flushing occurs due to construction activity, then landing distance and time to resume pre-disturbance activities will greatly influence nesting success.

Planned construction activities include: the delivery of pulleys to pole sites; set up of stringing equipment at pole sites; and stringing between the poles which includes pulling the line with a stringing vehicle, such as a dozer, at a walking pace along the linear between pole sites. The pull site is planned to occur between poles 98 and 99 (poles are approximately 900-feet apart and pole numbers decrease to the east). It is expected that stringing vehicle will move through the vicinity of both the shrike and wren nests in 15 minutes or less and will be continually moving. The delivery of pulleys to pole sites may have to occur along spur roads adjacent to red-tailed hawk nests. Construction along the SCE road has occurred on and off during the entire nesting season for the improvement of the SCE owned road and the nests are still active.

BUFFER DISTANCES and MITIGATION MEASURES

Specific buffer distances suggested for each nest are discussed below and summarized in Table 3. Generally all buffers are the distance of the nest from the proposed work area. Additional mitigation measures to increase nest success are also included in this Plan and discussed below.

The mourning dove nest is approximately 375 feet from the work area. The mourning dove nest is on the other side of a raised paved road, and the road may function as a noise barrier. No other mitigation measures are suggested for this nest other than nest monitoring.

The cactus wren nest is approximately 84-feet north of the work area and 220-feet from the nearest pole (Pole 101). Delivery of materials and equipment staging will occur at the pole site and 220-feet is considered to be a sufficient buffer distance for this work. Only required work will be allowed at Pole 101. The stringing vehicle will need to pass within the 84-foot range of the active nest and this work is expected to take less than fifteen minutes. No stopping will be allowed and a biologist will monitor the activity of the nest.

The loggerhead shrike nest is approximately 84-feet north of the work area and 300-feet from the nearest pole (Pole 101). Delivery of materials and equipment staging will occur at the pole site and 300-feet is a sufficient buffer distance for this work. Only required work will be allowed at Pole 101. The stringing vehicle will need to pass within the 84-foot range of the active nest and this work is expected to take less than fifteen minutes. No stopping will be allowed and a biologist will monitor the activity of the nest.

Three red-tailed hawk nests are present within the existing transmission line towers to the south of the existing paved road. These nests are 260, 275, and 280-feet from the ROW. Buffer distances to construction activity are proposed to be the same distance as the distance from the work area. Work

will be allowed within these buffer areas, but will include only necessary activities. Buffers for these nests associated with the Colorado River Substation project have been reduced to 100-feet. The red-tailed hawks established their nests while construction was occurring along the SCE access road (prior to the beginning of the nesting season) and nesting has continued throughout construction. It is therefore unlikely that construction activity further from the nests (on the north side of the paved road), over 260 feet away, will negatively impact nesting success. However, given that red-tailed hawks are raptors and given that they may have smaller alert distances than smaller birds, an additional mitigation measure is proposed associated with raptor nests. This measure is consistent with SCE measures currently being employed for construction activities along the access road. Along the ROW, a 500 foot "Limited Activity Area" will be instituted perpendicular to the nest location. Within this area, no parking of any vehicles will be allowed (except where absolutely necessary for construction activity), no vehicle refueling or maintenance will be allowed, and no storage of materials will be allowed. The purpose of this measure is to have construction activities flow through this area as quickly as possible. These "Limited Activity Areas" will be clearly staked in the field. Use of spur roads in the vicinity of the nests to deliver equipment to the pole locations is anticipated. "Limited Activity Areas" will also be instituted at the shrike and wren nests.

Table 3. Proposed Buffer Zone and Mitigation Measures for Nests

Species	Initial Status	Nest Identifier	Proposed Buffer Radius (feet)*	Additional Mitigation Measures
Mourning dove	Active	GNEAF011	375	Nest monitoring
Cactus wren	Active	GNEJM006	80	Nest monitoring; "Limited Activity Area" in ROW
Red-tailed hawk	Active	GNESD001	275	Nest monitoring; "Limited Activity Area" in ROW; use of spur roads near nests allowed
Red-tailed hawk	Active	GNEVG002	280	Nest monitoring; "Limited Activity Area" in ROW; use of spur roads near nests allowed
Red-tailed hawk	Active	GNEVG004	260	Nest monitoring; "Limited Activity Area" in ROW; use of spur roads near nests allowed
Loggerhead Shrike	Active	GNEJM007	80	Nest monitoring; "Limited Activity Area" in ROW

*Buffer distances are the distance from the nest to the work area

MONITORING ACTIVITIES

Monitoring Results of Previously Active Nests

Per the previous nesting bird survey report, during construction activity at active or potentially active nests would be monitored for changes in nesting bird behavior. After construction, a biologist will visit the vicinity of the currently known nests during dawn soon after the installation of the fiber line. Both of these activities were conducted and are detailed in Table 4 below. The red-tailed hawk nests were not observed to be affected by construction activity and were still active during the recent surveys on 4/4 and 4/5/13. No change in activity prior to and after the initiation of construction was observed for the two Le Conte's thrasher nests (GNEBM001 and GNEVG003) and the cactus wren nest (GNEVG001). No indications of nest failure were noted associated with any of these nests. Within the area of active or potentially active nests "Limited Activity Areas" were instituted and only necessary construction activities were allowed within these zone.

Table 4. Nest Monitoring Results of Active or Potentially Active Nests During Construction

Date	Location	Nest Observations
2/19/2013	CRS Area, monitoring active and potentially active nests	Monitored nests GNEMR006 and GNEMR008 (potentially active nests), no bird activity, RTHA nest GNESD001 and bird still on nest, GNEBM001 has Le Conte's thrasher sitting on nest, GNEVG002 has RTHA on nest, GNEVG003 (active Le Conte's thrasher nest) no bird activity, GNEVG001 (active cactus wren nest) no bird activity prior to or during construction
2/20/2013	CRS Area, monitoring active and potentially active nests	No nest activity in last three days, two RTHA nests were occupied, other nests closest to crew were unoccupied, GNEVG002, RTHA, two adults on nest, not on nest later in morning, GNEVG004, RTHA, one adult on nest
2/25/2013	CRS Area, monitoring active and potentially active nests	Survey nests GNETS002, GNESD002, GNEVG007, GNESD001, GNEVG004, GNEVG005, GNEVG006, Le Conte's thrasher near GNEBM001 (NW of pole 100) and northeast 50 m, see cactus wren 100 m NE of this nest, al out of range of today's work
2/26/2013	CRS Area, monitoring active and potentially active nests	No activity at GNETS002 (inactive verdin nest), CAWR 1000 m ENE of work area
3/20/2013	Former LOSH nest outside of west fence of Unit 1	No shrike or nest observed
3/21/2013	Former LOSH nest outside of west fence of Unit 1	Shrike observed, but no new nest observed
4/4/2013 and 4/5/2013	CRS Area, monitoring previously active and potentially active nests	Checked nests GNEBM001 (formerly active Le Conte's thrasher nest), GNEVG001 (formerly potentially active cactus wren nest) GNEVG003 (formerly active Le Conte's thrasher nest) and GNEMR006 and GNEMR008 (potentially active nest) and no nests showed signs of activity. No adults were on nest and no young or eggs within nests

Nest monitoring for the currently active nests will be conducted only by qualified biologists. It is recommended that monitoring be as minimally invasive as possible given the large buffer distances between the construction activity and the nesting areas. An intensive monitoring plan could increase disturbance and could actually decrease the probability of successful nesting. A biologist will visit the

vicinity of the currently known nests during dawn soon after the installation of the fiber line. The biologist will observe nesting bird behavior for at least half an hour or until it is determined that the nest is still active (presence of an adult bird on the nest, adult carrying food, flying into and out of the nest location, etc.). If birds are observed exhibiting nesting behavior, it will be assumed that the nest is still active and the biologist will leave the area. If no nesting behavior is observed, a physical nest check may be required to determine if the nest is still active. The nest could still be active with a female sitting low down in the nest incubating. From a far distance a biologist might not be able to clearly see the nest or observe another bird bringing food to the nest. If a biologist cannot determine the nest status by simply watching the nest, it may be necessary to approach the nest to determine its status. In this case the biologist will first verify that no avian predators are watching (no nests will be checked when ravens are observed in the area). The biologist will then slowly meander up to the nest stopping periodically to scan the nest location with binoculars to see if any adult birds are on the nest or have flushed of the nest. The biologist will not walk directly to and from the nest, but will meander past the nest to avoid attracting predators to the nest. If a bird is observed to fly out of the tree or shrub where a nest is located, the biologist will consider the nest active and not approach the nest. If no birds are observed, then the biologist will briefly (1-2 minutes) peek inside the shrub or tree where the nest is located and if the female is on the nest, the biologist will leave immediately. The nest will not be touched and no branches will be moved or altered. The biologist will use a mirror or small camera (such as an Iphone) to see into the nest or take a photo of the nest to determine if there are eggs or young present.

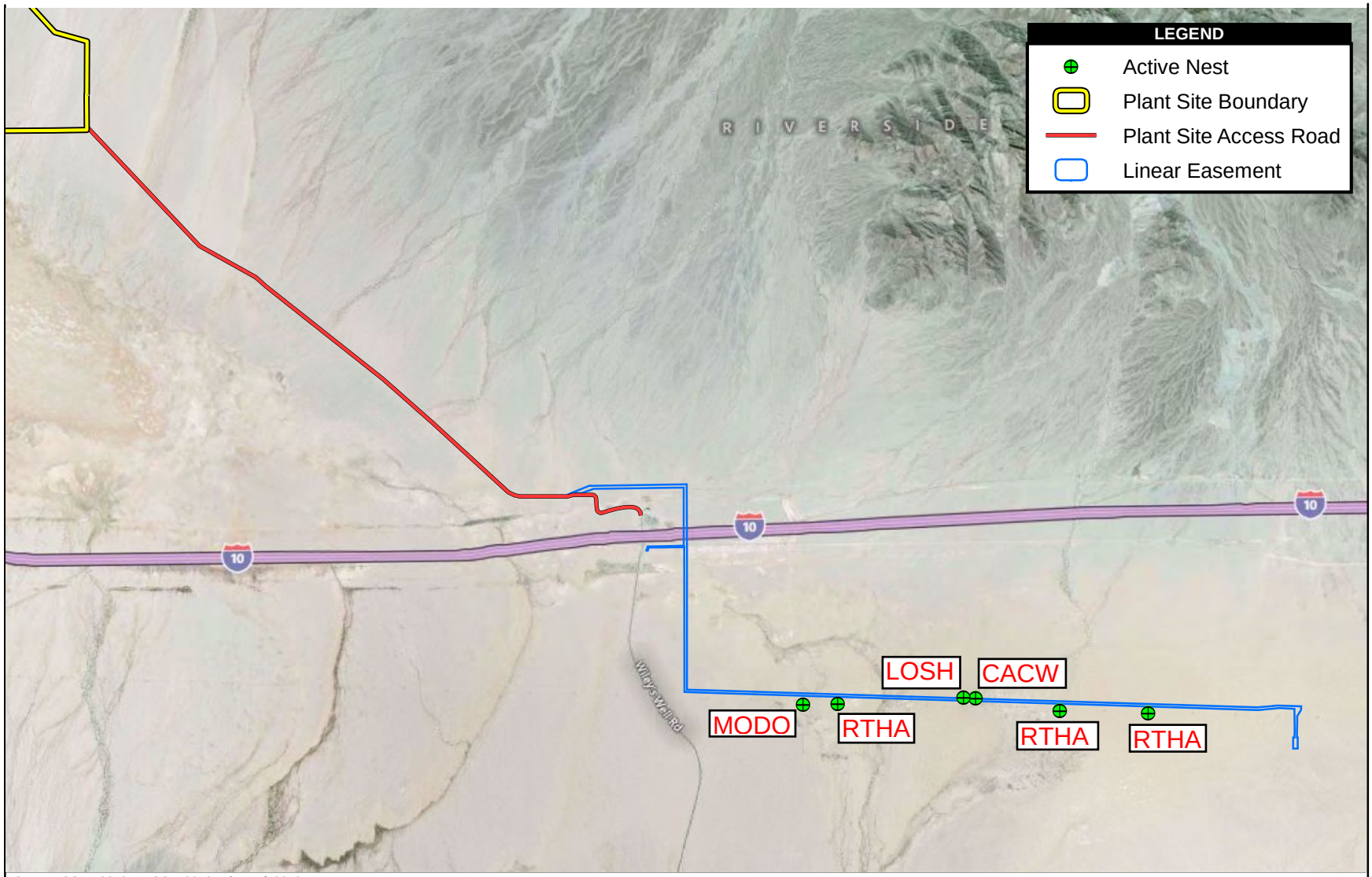
If the nest is determined to be abandoned based on the absence of any birds or birds in the immediate vicinity, then the biologist will determine if the nest was successful (and the young have already fledged) or if the nest failed. It can be difficult to determine the cause of nest failure, but generally the condition of the nest is an indicator. For example, if the nest is still in good condition, then perhaps a snake or woodrat may have depredated the nest. If the nest is torn up and branches are skewed to the side or broken, perhaps a raven may have predated the nest. If the nest is determined to be abandoned, birds may renest quickly in the nearby vicinity. Some bird species may renest in the same tree or shrub where previous nests were located. If construction activity will continue in the general area, then additional surveys will be necessary to determine if birds are renesting.

Attachments:

Appendix A –Preconstruction Nest Survey Results Map
Appendix B – Field Data
Appendix C – Avian Species Observed

APPENDIX A

PRECONSTRUCTION NEST SURVEY RESULTS MAP



Source: GSEP 2013; AECOM 2013; Microsoft 2013

6,000 0 6,000 Feet

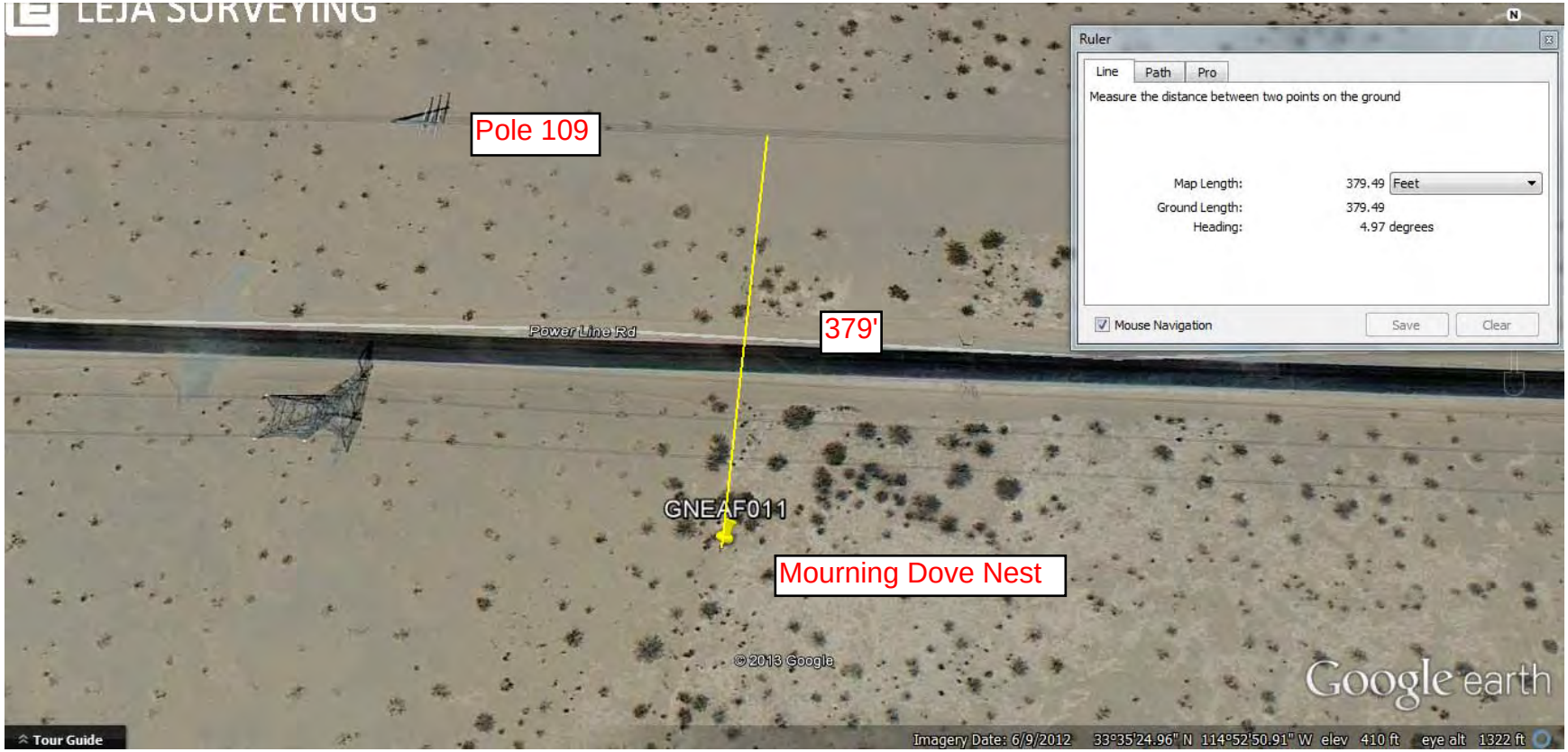
Scale: 1:72,000; 1 inch = 6,000 feet

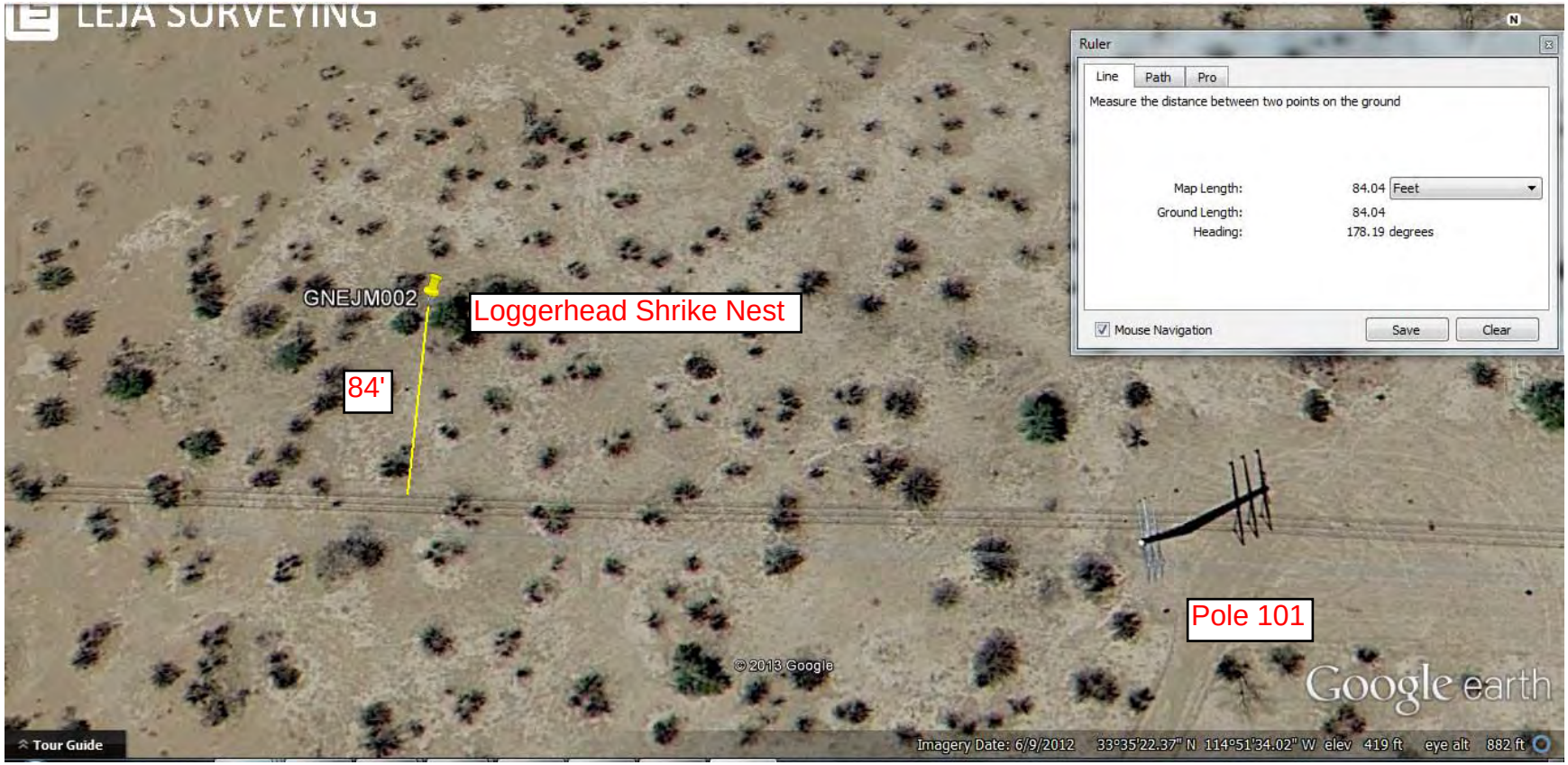
April Preconstruction Nesting Bird Report

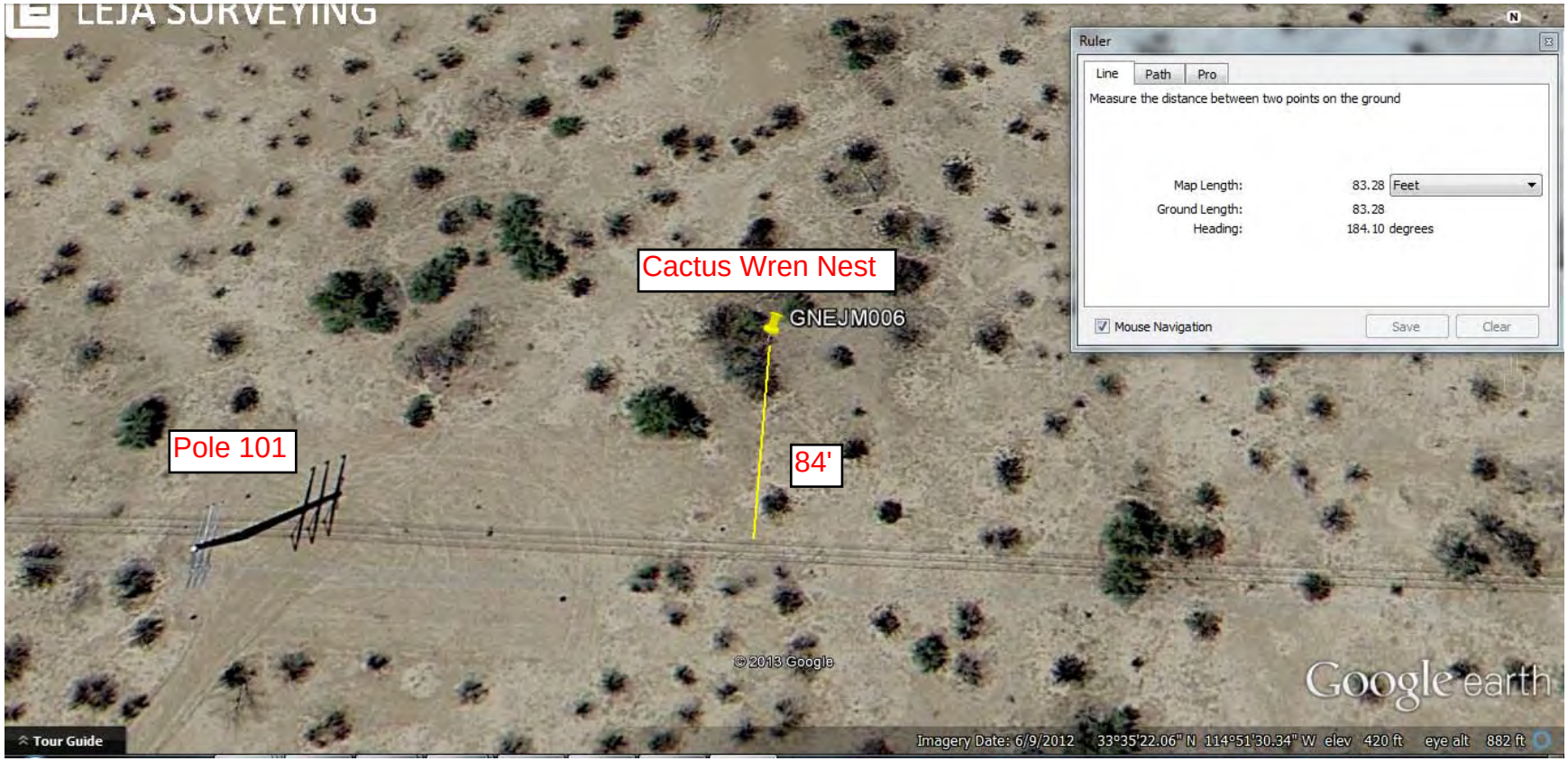
Genesis Solar Energy Project

Path: P:\2011\60220713\06GIS\6.3_Layout\Bio\Nesting Birds\2013\April Preconstruction Nesting Bird Report 20130411.mxd, 4/11/2013, irelandm

LEJA SURVEYING
10
GNEAF011
GNEJM002
GNEJM006
© 2013 Google
Google earth
Tour Guide
Imagery Date: 6/9/2012 33°35'24.88" N 114°49'30.11" W elev 461 ft eye alt 24139 ft


LEJA SURVEYING
Pole 109
Power Line Rd
379'
GNEAF011
Mourning Dove Nest
© 2013 Google
Google earth
Tour Guide
Imagery Date: 6/9/2012 33°35'24.96" N 114°52'50.91" W elev 410 ft eye alt 1322 ft
Ruler
Line
Path
Pro
Measure the distance between two points on the ground
Map Length: 379.49 Feet
Ground Length: 379.49
Heading: 4.97 degrees
Mouse Navigation
Save
Clear


LEJA SURVEYING
GNEJM002
Loggerhead Shrike Nest
84'
Pole 101
Ruler
Line
Path
Pro
Measure the distance between two points on the ground
Map Length:
84.04
Feet
Ground Length:
84.04
Heading:
178.19 degrees
Mouse Navigation
Save
Clear
© 2013 Google
Google earth
Tour Guide
Imagery Date: 6/9/2012 33°35'22.37" N 114°51'34.02" W elev 419 ft eye alt 882 ft


LEJA SURVEYING
Ruler
Line
Path
Pro
Measure the distance between two points on the ground
Map Length: 83.28 Feet
Ground Length: 83.28
Heading: 184.10 degrees
Mouse Navigation
Save
Clear
Cactus Wren Nest
GNEJM006
Pole 101
84'
© 2013 Google
Google earth
Tour Guide
Imagery Date: 6/9/2012 33°35'22.06" N 114°51'30.34" W elev 420 ft eye alt 882 ft

APPENDIX B

FIELD DATA

PRECONSTRUCTION NESTING SURVEY DATASHEETS

Genesis Solar – Clearance Survey Summary Report (Part 1 of 3)

Data Recording Surveyor	Additional Surveyors	Date	Start Time	End Time	Start Temp. (°F)	End Temp. (°F)	Start Wind Speed (mph)	End Wind Speed (mph)	Start Precipitation	End Precipitation	Start Cloud Cover	End Cloud Cover
Michael Rathbun	Eric German	2/18/2013	11:28:00 AM	3:07:00 PM	70	79	6	5	None	None	0%	20%
Shelly Dayman	-	2/18/2013	11:32:00 AM	2:01:00 PM	63	73	2	2	None	None	5%	10%
Michael Rathbun	Eric German, Tim Skousen	2/21/2013	11:30:00 AM	2:31:00 PM	65	62	1	1	None	None	20%	0%
Michael Rathbun	Tim Skousen	2/21/2013	2:54:00 PM	4:34:00 PM	62	60	1	4	None	None	100%	85%
Eric German	-	2/26/2013	10:15:00 AM	11:30:00 AM	62	65	7	7	None	None	0%	0%
Shelly Dayman	Eric German	3/4/2013	3:17:00 PM	4:12:00 PM	78	78	5	5	None	None	10%	0%
Eric German	-	3/5/2013	10:40:00 AM	12:35:00 PM	74	77	1	1	None	None	75%	0%
Eric German	Tim Skousen	3/6/2013	8:00:00 AM	9:30:00 AM	59	64	3	2	None	None	0%	0%
Michael Rathbun	Tim Skousen	3/7/2013	6:32:00 AM	4:10:00 PM	47	70	2	4	None	None	0%	100%
Michael Rathbun	Tim Skousen	3/8/2013	7:00:00 AM	4:10:00 PM	53	61	1	10	None	None	75%	65%
Michael Rathbun	Tim Skousen	3/9/2013	7:23:00 AM	5:06:00 PM	47	70	1	5	None	None	20%	65%
Michael Rathbun	Vic Germany, Ron Walker	3/11/2013	7:46:00 AM	2:25:00 PM	52	80	1	2	None	None	0%	0%
Tim Skousen	-	3/13/2013	2:08:00 PM	-	-	-	-	-	None	None	0%	0%
Shelly Dayman	-	3/14/2013	4:46:00 PM	4:46:00 PM	93	93	2	3	None	None	0%	0%
Tim Skousen	-	3/17/2013	1:20:00 PM	2:40:00 PM	96	94	3	5	None	None	25%	0%
Tim Skousen	-	3/17/2013	3:05:00 PM	4:30:00 PM	94	92	3	3	None	None	25%	25%
Tim Skousen	-	3/18/2013	7:55:00 AM	9:25:00 AM	62	74	4	4	None	None	0%	0%
Tim Skousen	-	3/22/2013	9:05:00 AM	10:35:00 AM	76	84	8	20	None	None	0%	0%
Andrew Fisher	James McMorran	4/4/2013	8:00:00 AM	4:00:00 PM	72	91	2	7	None	None	5%	0%
Andrew Fisher	James McMorran	4/5/2013	6:05:00 AM	9:00:00 AM	60	74	2	4	None	None	0%	0%

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
Michael Rathbun	2/18/2013	11:53:00 AM	GNEMR010	Nest	UTM Z11 NAD83 (m)	699840	3718833	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	N/A
Michael Rathbun	2/18/2013	12:05:00 PM	GNEVG003	Nest	UTM Z11 NAD83 (m)	699814	3718773	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	Other (note)
Michael Rathbun	2/18/2013	12:14:00 PM	GNECG001	Nest	UTM Z11 NAD83 (m)	699824	3718788	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	None
Michael Rathbun	2/18/2013	12:24:00 PM	GNEMR011	Nest	UTM Z11 NAD83 (m)	699966	3718843	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	None
Shelly Dayman	2/18/2013	12:35:00 PM	GKBGL002	Burrow	UTM Z11 NAD83 (m)	695612	3718580	Desert Kit Fox	YES	4 dens	Suitable	None	N/A	Suitable	None	Suitable	None	Active	Tracks, Scat	N/A	N/A
Shelly Dayman	2/18/2013	1:40:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	697070	3718634	Rtha	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	None
Michael Rathbun	2/18/2013	1:53:00 PM	GNECG002	Nest	UTM Z11 NAD83 (m)	699291	3718574	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	None
Michael Rathbun	2/18/2013	2:18:00 PM	GNEVG006	Nest	UTM Z11 NAD83 (m)	699500	3718553	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially Active	None
Eric German	2/26/2013	11:30:00 AM	-	-	UTM Z11 NAD83 (m)	-	-	None	N/A	N/A	N/A	None	N/A	N/A	None	N/A	None	N/A	N/A	N/A	None
Shelly Dayman	3/4/2013	3:37:00 PM	-	-	-	-	-	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Eric German	3/5/2013	12:25:00 PM	GMACG002	Burrow	UTM Z11 NAD83 (m)	689356	3273928	None	YES	6x4xunknown	Suitable	None	N/A	Suitable	None	Not Suitable	N/A	Suitable	Scat	N/A	N/A
Michael Rathbun	3/7/2013	10:59:00 AM	GKBTM001	Burrow	UTM Z11 NAD83 (m)	688370	3725148	None	YES	Multiple shape and sizes	Suitable	None	N/A	Suitable	None	Suitable	None	Potentially Active	Tracks, Claw Marks	N/A	N/A
Michael Rathbun	3/7/2013	12:27:00 PM	GMATS002	Burrow	UTM Z11 NAD83 (m)	689025	3724595	None	NO	8 inches wide, 6 inches tall	Suitable	None	N/A	Suitable	None	Suitable	N/A	Suitable	None	N/A	N/A
Michael Rathbun	3/7/2013	2:24:00 PM	GMACG002	Burrow	UTM Z11 NAD83 (m)	689356	3723928	None	YES	N/A	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	None	N/A	N/A
Michael Rathbun	3/7/2013	2:31:00 PM	GBBSD001	Burrow	UTM Z11 NAD83 (m)	688855	3724865	None	YES	Mixed sizes	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/7/2013	2:40:00 PM	GMAMR001	Burrow	UTM Z11 NAD83 (m)	688270	3725484	None	NO	7 inches wide x 5 inches tall	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	None	N/A	N/A
Michael Rathbun	3/8/2013	8:45:00 AM	GKDCG004	Burrow	UTM Z11 NAD83 (m)	690226	3723753	None	YES	12x12x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Potentially Active	Scat	N/A	N/A
Michael Rathbun	3/8/2013	8:51:00 AM	GKBFW004	Burrow	UTM Z11 NAD83 (m)	690221	3723748	None	YES	Mutiple burrows	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Potentially Active	Tracks	N/A	N/A
Michael Rathbun	3/8/2013	9:16:00	GNEMR01	Nest	UTM Z11	690958	3723206	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Potentially	N/A

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
		AM	2		NAD83 (m)															Active	
Michael Rathbun	3/8/2013	9:40:00 AM	GNEMR013	Nest	UTM Z11 NAD83 (m)	691327	3722934	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Not Suitable	None
Michael Rathbun	3/8/2013	10:27:00 AM	GMACG001	Burrow	UTM Z11 NAD83 (m)	690924	3723156	None	NO	8x6x?	Suitable	N/A	N/A	Not Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/9/2013	9:55:00 AM	GMATS001	Burrow	UTM Z11 NAD83 (m)	691960	3722272	Western Burrowing Owl	NO	Estimated 10x10x?	Suitable	N/A	N/A	Active	Whitewash, Pellet	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/9/2013	11:21:00 AM	GNEMR014	Nest	UTM Z11 NAD83 (m)	692232	3722078	Nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	None
Michael Rathbun	3/9/2013	12:27:00 PM	GNEMR015	Nest	UTM Z11 NAD83 (m)	692267	3722104	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	None
Michael Rathbun	3/9/2013	2:53:00 PM	GKBTS010	Burrow	UTM Z11 NAD83 (m)	693125	3721045	None	NO	12x6x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/9/2013	3:04:00 PM	GMATS003	Burrow	UTM Z11 NAD83 (m)	693351	3721036	None	NO	8x6x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/9/2013	3:20:00 PM	GKBTS009	Other (define)	UTM Z11 NAD83 (m)	692941	3721148	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Michael Rathbun	3/9/2013	3:43:00 PM	GKBTS008	Burrow	UTM Z11 NAD83 (m)	692138	3721854	None	NO	9x5x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/11/2013	9:07:00 AM	GKBSD002	Burrow	UTM Z11 NAD83 (m)	694375	3721162	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Michael Rathbun	3/11/2013	9:26:00 AM	GMAVG001	Burrow	UTM Z11 NAD83 (m)	693655	3721053	None	NO	6x3x30	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/11/2013	11:38:00 AM	GMAMR004	Burrow	UTM Z11 NAD83 (m)	693855	3721177	None	NO	7x5x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/11/2013	12:41:00 PM	GKBSD001	Burrow	UTM Z11 NAD83 (m)	694121	3721328	None	NO	6x3x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Michael Rathbun	3/11/2013	2:02:00 PM	GMAMR005	Burrow	UTM Z11 NAD83 (m)	693965	3721323	None	NO	7x6x?	Suitable	N/A	N/A	Suitable	N/A	Suitable	N/A	Suitable	N/A	N/A	N/A
Shelly Dayman	3/14/2013	4:46:00 PM	GMASD010	Burrow	UTM Z11 NAD83 (m)	688854	3724822	None	NO	12x10xunk	Suitable	None	N/A	Suitable	None	Suitable	None	Suitable	None	N/A	N/A
Tim Skousen	3/17/2013	1:25:00 PM	-	-	-	-	-	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tim Skousen	3/17/2013	3:05:00 PM	-	-	-	-	-	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tim Skousen	3/18/2013	7:55:00 AM	-	-	-	-	-	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Andrew Fisher	4/4/2013	10:53:00 AM	GNEVG004	Nest	UTM Z11 NAD83 (m)	-	-	Red-tailed hawk	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	Adult bird sitting on

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
																					nest with other adult perched in adjacent tower
Andrew Fisher	4/4/2013	11:23:00 AM	GNEVG002	Nest	UTM Z11 NAD83 (m)	-	-	Red-tailed hawk	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	Adult bird flew off the nest
Andrew Fisher	4/4/2013	12:00:00 PM	GNEJM005	Nest	UTM Z11 NAD83 (m)	698903	3718662	Old cactus wren nest	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	Old feathers in entrance
Andrew Fisher	4/4/2013	12:11:00 PM	GNEJM006	Nest	UTM Z11 NAD83 (m)	698736	3718718	Cactus wren	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	Adult bird observed inside nest.
Andrew Fisher	4/4/2013	12:53:00 PM	GNEAF011	Nest	UTM Z11 NAD83 (m)	696648	3718623	Mourning dove	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	1 Egg and adult bird present
Andrew Fisher	4/4/2013	12:55:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	-	-	Red-tailed hawk	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	Adult bird in nest on transmiss ion tower.
Andrew Fisher	4/4/2013	1:33:00 PM	GNEVG001	Nest	UTM Z11 NAD83 (m)	-	-	Cactus wren nest but no bird observed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Inactive	Very fresh material, upon an early morning visit on april 5 no birds were detected.
Andrew Fisher	4/5/2013	7:21:00 AM	GNEJM007	Nest	UTM Z11 NAD83 (m)	698587	3718721	Loggerhea d shrike	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Active	Adult bird observed flying into nest. Nest too high up

Genesis Solar – Clearance Survey Summary Report (Part 2 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Burrow Complex?	Burrow HxWxD (in.)	DT Suitability and Status	DT Sign	DT Sign Class	WBO Suitability and Status	WBO Sign	AB Suitability and Status	AB Sign	DKF Suitability and Status	DKF Sign	Nest Suitability and Status	Nest Sign
																					to determine if eggs are present.

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
Michael Rathbun	2/18/2013	11:53:00 AM	GNEMR010	Nest	UTM Z11 NAD83 (m)	699840	3718833	Nest	N/A	N/A	N/A	Stick cup nest 6 feet up in lone Palo Verde. Cant look inside without doing damage to vegetation. A LCTH is hanging around but did not get confirmation it was active.
Michael Rathbun	2/18/2013	12:05:00 PM	GNEVG003	Nest	UTM Z11 NAD83 (m)	699814	3718773	Nest	N/A	N/A	N/A	Four feet cup nest composed of sticks and a downy feather was seen near lip. LCTH is in area. But not confirmed use.
Michael Rathbun	2/18/2013	12:14:00 PM	GNECG001	Nest	UTM Z11 NAD83 (m)	699824	3718788	Nest	N/A	N/A	N/A	Seven feet up a Palo Verde, composed of sticks. No sign of feathers or poop indicating recent activity. May be breaking down.
Michael Rathbun	2/18/2013	12:24:00 PM	GNEMR011	Nest	UTM Z11 NAD83 (m)	699966	3718843	Nest	N/A	N/A	N/A	Four feet in Palo Verde. Cup nest consisting of sticks that was never completed. No feathers or white wash. Not suitable at this time, no bird in the area.
Shelly Dayman	2/18/2013	12:35:00 PM	GKBGL002	Burrow	UTM Z11 NAD83 (m)	695612	3718580	Desert Kit Fox	N/A	N/A	N/A	Active, fresh tracks and scat
Shelly Dayman	2/18/2013	1:40:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	697070	3718634	Rtha	N/A	N/A	N/A	RTHA seen flying in vicinity of nest, other species CORA, surveyed from pole 114 to 109 and 108 to 105
Michael Rathbun	2/18/2013	1:53:00 PM	GNECG002	Nest	UTM Z11 NAD83 (m)	699291	3718574	Nest	N/A	N/A	N/A	Ten feet up in an Ironwood, composed of grasses and small sticks. Probably was a ball nest but is falling in on itself. No sign associated with bird activity.
Michael Rathbun	2/18/2013	2:18:00 PM	GNEVG006	Nest	UTM Z11 NAD83 (m)	699500	3718553	Nest	N/A	N/A	N/A	Already observed, no new sign, but could be active as its intact.
Eric German	2/26/2013	11:30:00 AM	-	-	UTM Z11 NAD83 (m)	-	-	None	N/A	N/A	N/A	No sensitve species observed. Area is sparse creosote between along previously disturbed utility corridors.
Shelly Dayman	3/4/2013	3:37:00 PM	-	-	-	-	-	None	N/A	N/A	N/A	Zebra-tailed lizard, black-throated sparrow, nesting bird survey for pole 38
Eric German	3/5/2013	12:25:00 PM	GMACG002	Burrow	UTM Z11 NAD83 (m)	689356	3273928	None	N/A	N/A	N/A	-
Michael Rathbun	3/7/2013	10:59:00 AM	GKBTM001	Burrow	UTM Z11 NAD83 (m)	688370	3725148	None	N/A	N/A	N/A	Recent DKF activity pertaining to tracks, potential for any other species that uses burrows
Michael Rathbun	3/7/2013	12:27:00 PM	GMATS002	Burrow	UTM Z11 NAD83 (m)	689025	3724595	None	N/A	N/A	N/A	Potentially active or suitable for all species, can't see the end
Michael Rathbun	3/7/2013	2:24:00 PM	GMACG002	Burrow	UTM Z11 NAD83 (m)	689356	3723928	None	N/A	N/A	N/A	Fresh apron with unidentified tracks.

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
Michael Rathbun	3/7/2013	2:31:00 PM	GBBSD001	Burrow	UTM Z11 NAD83 (m)	688855	3724865	None	N/A	N/A	N/A	Small complex of multiple sizes of burrows. No species sign observed but could be inhabited with little improvement.
Michael Rathbun	3/7/2013	2:40:00 PM	GMAMR001	Burrow	UTM Z11 NAD83 (m)	688270	3725484	None	N/A	N/A	N/A	May be used by WBO, DKF, AB or DT but no sign were observed.
Michael Rathbun	3/8/2013	8:45:00 AM	GKDCG004	Burrow	UTM Z11 NAD83 (m)	690226	3723753	None	N/A	N/A	N/A	Looks to be potentially active for DKF, suitable for all others.
Michael Rathbun	3/8/2013	8:51:00 AM	GKBFW004	Burrow	UTM Z11 NAD83 (m)	690221	3723748	None	N/A	N/A	N/A	This is large complex of DKF burrows, multiple entrances of various sizes and activity.
Michael Rathbun	3/8/2013	9:16:00 AM	GNEMR012	Nest	UTM Z11 NAD83 (m)	690958	3723206	Nest	N/A	N/A	N/A	Soft ball size nest, probably verdin, made of small sticks, ball shape, four feet off ground in acacia tree. Some feathers around entrance, no sign of bird, cant see inside. Thats why its potential.
Michael Rathbun	3/8/2013	9:40:00 AM	GNEMR013	Nest	UTM Z11 NAD83 (m)	691327	3722934	None	N/A	N/A	N/A	Nest may not have been completed, no wash, no feathers, bark has fallen on top. Outside survey area.
Michael Rathbun	3/8/2013	10:27:00 AM	GMACG001	Burrow	UTM Z11 NAD83 (m)	690924	3723156	None	N/A	N/A	N/A	One burrow, multiple digs, no sign present so is probably inactive for all species.
Michael Rathbun	3/9/2013	9:55:00 AM	GMATS001	Burrow	UTM Z11 NAD83 (m)	691960	3722272	Western Burrowing Owl	N/A	N/A	N/A	Walked up toward burrow to check, Tim saw WBO as he approached and it went down into burrow. He backed off after noticing two whitewash points and a possible pellet, but pellet unconfirmed. From structure 39 its 380 feet north. From southern access road edge its 285 feet. Top soil pile on the north side its 230 feet.
Michael Rathbun	3/9/2013	11:21:00 AM	GNEMR014	Nest	UTM Z11 NAD83 (m)	692232	3722078	Nest	N/A	N/A	N/A	Nest made up of sticks in cup form about 7 inches round. Placed in a Palo Verde tree about 5 feet up. Looks to be old and unused. No feathers, droppings, or fresh materials.
Michael Rathbun	3/9/2013	12:27:00 PM	GNEMR015	Nest	UTM Z11 NAD83 (m)	692267	3722104	None	N/A	N/A	N/A	Nest composed of sticks near the trunk of Palo Verde. Nine inches across, does not appear active. No feathers, droppings, or bird present. 8 feet high. Listed as inactive but could not see from above do to limb and branch structure. LOSH seen nearby may have nest nearby.
Michael Rathbun	3/9/2013	2:53:00 PM	GKBTS010	Burrow	UTM Z11 NAD83 (m)	693125	3721045	None	N/A	N/A	N/A	Two burrows within 2 feet of each other. No recent activity, no sign, one has webs in entrance, the other is clear.

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
Michael Rathbun	3/9/2013	3:04:00 PM	GMATS003	Burrow	UTM Z11 NAD83 (m)	693351	3721036	None	N/A	N/A	N/A	No sign of sensitive species,
Michael Rathbun	3/9/2013	3:20:00 PM	GKBTS009	Other (define)	UTM Z11 NAD83 (m)	692941	3721148	None	N/A	N/A	N/A	Non existent burrow as mapped. No species status can be applied.
Michael Rathbun	3/9/2013	3:43:00 PM	GKBTS008	Burrow	UTM Z11 NAD83 (m)	692138	3721854	None	N/A	N/A	N/A	Looks to be not currently in use. No sign of any sensitive species.
Michael Rathbun	3/11/2013	9:07:00 AM	GKBSD002	Burrow	UTM Z11 NAD83 (m)	694375	3721162	None	N/A	N/A	N/A	6X4x14, looks like a mammal dig, not a burrow as there is a small rodent hole at the end. Sensitive species may use as pallet, etc, but i can see the end when reflecting light in it.
Michael Rathbun	3/11/2013	9:26:00 AM	GMAVG001	Burrow	UTM Z11 NAD83 (m)	693655	3721053	None	N/A	N/A	N/A	Can not see the end so we are marking it down as suitable for sensitive species but there is no sign of sensitive species. Looks to be used by small mammal but we can not quite see the end so were marking it as potential.
Michael Rathbun	3/11/2013	11:38:00 AM	GMAMR004	Burrow	UTM Z11 NAD83 (m)	693855	3721177	None	N/A	N/A	N/A	Suitable for all sensitive species, but no sign present. Entrance partially obscured by loose grasses. Can not see the end.
Michael Rathbun	3/11/2013	12:41:00 PM	GKBSD001	Burrow	UTM Z11 NAD83 (m)	694121	3721328	None	N/A	N/A	N/A	No sign, scat or tracks, does not currently look active but may be used in future. Can not see end of burrow but is on small side for so
Michael Rathbun	3/11/2013	2:02:00 PM	GMAMR005	Burrow	UTM Z11 NAD83 (m)	693965	3721323	None	N/A	N/A	N/A	Single burrow, flat bottom, no tracks or scat, suitable for species of concern
Shelly Dayman	3/14/2013	4:46:00 PM	GMASD010	Burrow	UTM Z11 NAD83 (m)	688854	3724822	None	N/A	N/A	N/A	Turns to right, cant see end krat tracks
Tim Skousen	3/17/2013	1:25:00 PM	-	-	-	-	-	None	N/A	N/A	N/A	Nesting bird survey at Pole #95, 500' buffer at 20 m transects, no nests or incidental birds observed
Tim Skousen	3/17/2013	3:05:00 PM	-	-	-	-	-	None	N/A	N/A	N/A	Nesting bird survey of pole #102, 500' buffer at 20 m transects, no nests other than previously recorded raven nest near pole 103, no nesting behavior, TUVU, CORA, RTHA
Tim Skousen	3/18/2013	7:55:00 AM	-	-	-	-	-	None	N/A	N/A	N/A	Nesting bird survey at pole # 110 plus 500' buffer at 20 m transects, no new nests seen. Incidental bird sps: RTHA, CORA, LOSH, yellow-rumped warbler, sage thrasher
Andrew Fisher	4/4/2013	10:53:00 AM	GNEVG004	Nest	UTM Z11 NAD83 (m)	-	-	Red-tailed hawk	N/A	N/A	N/A	Bird species observed: GTGR, RTHA, LUWA, CACW, BRSP, COHA, CORA, MODO, WEKI, SWHA, TUVU, LOSH, YRWA, ATFL,

Genesis Solar – Clearance Survey Summary Report (Part 3 of 3)

Data Recording Surveyor	Date	Obs. Time	Obs. Point Code	Obs. Type	UTM Easting	UTM Northing	Datum	Species	Other Species (define species here)	Other Species Observation or Suitability and Status	Other Species Observation Sign	Observation Notes
												WTSP, AMKE, HOLA,
Andrew Fisher	4/4/2013	11:23:00 AM	GNEVG002	Nest	UTM Z11 NAD83 (m)	-	-	Red-tailed hawk	N/A	N/A	N/A	-
Andrew Fisher	4/4/2013	12:00:00 PM	GNEJM005	Nest	UTM Z11 NAD83 (m)	698903	3718662	Old cactus wren nest	N/A	N/A	N/A	No longer active. An early morning check confirmed that this nest is not active as no birds were seen, heard, or observed.
Andrew Fisher	4/4/2013	12:11:00 PM	GNEJM006	Nest	UTM Z11 NAD83 (m)	698736	3718718	Cactus wren	N/A	N/A	N/A	On april 4, a bird was seen in the nest. On april 5 a pair and at least 1 fledgling cactus wren were observed in the immediate vicinty. The birds may roost in the nest during the day although it appears like the young have fledged.
Andrew Fisher	4/4/2013	12:53:00 PM	GNEAF011	Nest	UTM Z11 NAD83 (m)	696648	3718623	Mourning dove	N/A	N/A	N/A	-
Andrew Fisher	4/4/2013	12:55:00 PM	GNESD001	Nest	UTM Z11 NAD83 (m)	-	-	Red-tailed hawk	N/A	N/A	N/A	-
Andrew Fisher	4/4/2013	1:33:00 PM	GNEVG001	Nest	UTM Z11 NAD83 (m)	-	-	Cactus wren nest but no bird observed	N/A	N/A	N/A	Fresh-looking nesting material but after two seperate visits one in the afternoon on april 4 and one in the morning of april 5 no birds were observed and the nest is assumed inactive.
Andrew Fisher	4/5/2013	7:21:00 AM	GNEJM007	Nest	UTM Z11 NAD83 (m)	698587	3718721	Loggerhead shrike	N/A	N/A	N/A	-

DATA SUMMARY TABLE

Observ Date	Nest Identifier	Easting	Northing	Species	Initial Status	Nest Sign	Initial Notes	Current Status	Distance from ROW (feet)
4/4/2013	GNEAF011	696648	3718623	Mourning dove	Active	1 Egg and adult bird present	Active nest, on south side of SCE road	Active	379
4/4/2013	GNEJM006	698736	3718718	Cactus wren	Active	Adult bird observed inside nest.	On April 4, a bird was seen in the nest. On April 5 a pair and at least 1 fledgling cactus wren were observed in the immediate vicinity. The birds may roost in the nest during the day although it appears like the young have fledged.	Active	84
4/4/2013	GNESD001	697070	3718634	Red-tailed hawk	Active	Adult bird in nest on transmission tower.		Active	275
4/4/2013	GNEVG002	699754	3718571	Red-tailed hawk	Active	Adult bird flew off the nest		Active	280
4/4/2013	GNEVG004	700822	3718552	Red-tailed hawk	Active	Adult bird sitting on nest, other adult perched in adjacent tower		Active	260
4/5/2013	GNEJM007	698587	3718721	LOSH	Active		Adult bird observed flying into nest. Nest too high up to determine if eggs are present.	Active	84
3/9/2013	GNEMR015	692267	3722104	Unknown	Inactive	None	Nest composed of sticks near the trunk of Palo Verde. Nine inches across, does not appear active. No feathers, droppings, or bird present. 8 feet high. Listed as inactive but could not see from above do to limb and branch structure. LOSH seen nearby may h	Inactive	N/A
4/4/2013	GNEJM005	698903	3718662	Old cactus wren nest	Inactive	Old feathers in entrance	No longer active. An early morning check confirmed that this nest is not active as no birds were seen, heard, or observed.	Inactive	N/A
4/4/2013	GNEVG001	698948	3718601	Cactus wren nest but no bird observed	Inactive	Very fresh material	Fresh-looking nesting material but after two separate visits one in the afternoon on April 4 and one in the morning of April 5 no birds were observed and the nest is assumed inactive.	Inactive	N/A

Observ Date	Nest Identifier	Easting	Northing	Species	Initial Status	Nest Sign	Initial Notes	Current Status	Distance from ROW (feet)
3/9/2013	GNEMR014	692232	3722078	Unknown	Inactive	None	Nest made up of sticks in cup form about 7 inches round. Placed in a Palo Verde tree about 5 feet up. Looks to be old and unused. No feathers, droppings, or fresh materials.	Inactive	N/A
2/18/2013	GNECG001	699824	3718788	Unknown	Inactive	None	Seven feet up a Palo Verde, composed of sticks. No sign of feathers or poop indicating recent activity. May be breaking down.	Inactive	N/A
2/18/2013	GNECG002	699291	3718574	Unknown	Inactive	None	Ten feet up in an Ironwood, composed of grasses and small sticks. Probably was a ball nest but is falling in on itself. No sign associated with bird activity.	Inactive	N/A
2/18/2013	GNEMR011	699966	3718843	Unknown	Inactive	None	Four feet in Palo Verde. Cup nest consisting of sticks that was never completed. No feathers or white wash. Not suitable at this time, no bird in the area.	Inactive	N/A
2/18/2013	GNEMR010	699840	3718833	Le Conte's thrasher?	Potentially Active	N/A	Stick cup nest 6 feet up in lone Palo Verde. Cant look inside without doing damage to vegetation. A LCTH is hanging around but did not get confirmation it was active.	Inactive (determined on 2/20/13)	N/A
2/18/2013	GNEVG003	699814	3718773	Le Conte's thrasher	Active		Four feet cup nest composed of sticks and a downy feather was seen near lip. LCTH is in area. But not confirmed use.	Inactive (determined on 2/20/13)	N/A
2/18/2013	GNEVG006	699500	3718553	Unknown	Potentially Active	None	Already observed, no new sign, but could be active as its intact.	Inactive (determined on 2/20/13)	N/A
3/8/2013	GNEMR012	690958	3723206	Unknown	Potentially Active	N/A	Soft ball size nest, probably verdin, made of small sticks, ball shape, four feet off ground in acacia tree. Some feathers around entrance, no sign of bird, cant see inside. That's why its potential.	Determined inactive during further surveys on 3/9 and 3/11/13	N/A

Observ Date	Nest Identifier	Easting	Northing	Species	Initial Status	Nest Sign	Initial Notes	Current Status	Distance from ROW (feet)
3/8/2013	GNEMR013	691327	3722934	Unknown	Not Suitable	None	Nest may not have been completed, no wash, no feathers, bark has fallen on top. Outside survey area.	Unsuitable	N/A

APPENDIX C

AVIAN SPECIES OBSERVED

Common Name	*Scientific Name*	Order	Family
Anna's Hummingbird	*Calypte anna*	Apodiformes - Swifts and Hummingbirds	Trochilidae
Mourning Dove	*Zenaida macroura*	Columbiformes - Pigeons, and Doves	Columbidae
Cooper's Hawk	*Accipiter cooperii*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Northern Harrier	*Circus cyaneus*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Red-tailed Hawk	*Buteo jamaicensis*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Swainson's Hawk	*Buteo swainsoni*	Falconiformes - Diurnal Birds of Prey	Accipitridae
Turkey Vulture	*Cathartes aura*	Falconiformes - Diurnal Birds of Prey	Cathartidae
American Kestrel	*Falco sparverius*	Falconiformes - Diurnal Birds of Prey	Falconidae
Horned Lark	*Eremophila alpestris*	Passeriformes - Passerine Birds	Alaudidae
Common Raven	*Corvus corax*	Passeriformes - Passerine Birds	Corvidae
Brewer's Sparrow	*Spizella breweri*	Passeriformes - Passerine Birds	Emberizidae
Sage Sparrow	*Amphispiza belli*	Passeriformes - Passerine Birds	Emberizidae
Savannah Sparrow	*Passerculus sandwichensis*	Passeriformes - Passerine Birds	Emberizidae
Vesper Sparrow	*Pooecetes gramineus*	Passeriformes - Passerine Birds	Emberizidae
White-crowned Sparrow	*Zonotrichia leucophrys*	Passeriformes - Passerine Birds	Emberizidae
White-throated Sparrow	*Zonotrichia albicollis*	Passeriformes - Passerine Birds	Emberizidae
Northern Rough-winged Swallow	*Stelgidopteryx serripennis*	Passeriformes - Passerine Birds	Hirundinidae
Violet-green Swallow	*Tachycineta thalassina*	Passeriformes - Passerine Birds	Hirundinidae
Great-tailed Grackle	*Quiscalus mexicanus*	Passeriformes - Passerine Birds	Icteridae

Western Meadowlark	*Sturnella neglecta*	Passeriformes - Passerine Birds	Icteridae
Loggerhead Shrike	*Lanius ludovicianus*	Passeriformes - Passerine Birds	Laniidae
Le Conte's Thrasher	*Toxostoma lecontei*	Passeriformes - Passerine Birds	Mimidae
Lucy's Warbler	*Vermivora luciae*	Passeriformes - Passerine Birds	Parulidae
Yellow-rumped Warbler	*Dendroica coronata*	Passeriformes - Passerine Birds	Parulidae
Blue-grey Gnatcatcher	*Polioptila caerulea*	Passeriformes - Passerine Birds	Sylviidae
Cactus Wren	*Campylorhynchus brunneicapillus*	Passeriformes - Passerine Birds	Troglodytidae
Ash-throated Flycatcher	*Myiarchus cinerascens*	Passeriformes - Passerine Birds	Tyrannidae
Western Kingbird	*Tyrannus verticalis*	Passeriformes - Passerine Birds	Tyrannidae

Appendix C

AMERICAN BADGER AND DESERT KIT FOX MONITORING AND MANAGEMENT PLAN for THE GENESIS SOLAR ENERGY PROJECT

Prepared for:
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Table of Contents

1.0 INTRODUCTION 1

1.1 Purpose of the Plan 1

1.2 Project Location and Description 2

1.3 Early Desert Kit Fox Den Occurrences 2

1.4 Recent Canine Distemper Virus 2

3.0 SURVEY, MONITORING, AND RELOCATION METHODS 3

3.1 Pre-Construction Survey 3

3.2 Den Monitoring 4

3.3 Passive Relocation and Burrow Excavation 6

3.4 Plant Site Exclusion 8

4.0 DISPOSITION OF SICK, INJURED, OR DEAD ANIMALS 9

4.1 Injured Animals 9

4.2 Sick Animals 9

4.3 Fatalities 9

5.0 GENERAL BEST MANAGEMENT PRACTICES 10

6.0 OPERATIONS 11

7.0 REPORTING 11

APPENDIX

A Genesis Solar Energy Project (09-AFC-8C), Riverside County, California Condition of Certification BIO-17, Desert Kit Fox and American Badger, California Energy Commission, Included in the California Energy Commission Staff Analysis of Proposed Modifications, June 29 2012.

B Canine Distemper Virus: Information for Agency Personnel and Renewable Energy Projects, California Department of Fish and Game, November 2011.

C Interim Monitoring and Mitigation Plan to Address Canine Distemper Virus Mortalities in the Desert, California Department of Fish and Game.

D Department of Fish and Game – Wildlife Investigations Laboratory, Desert Kit Fox Mortality Data Sheet

Terminology

Desert Kit Fox Den: Typical dens may include the following: (1) one or more entrances that are approximately 5 to 8 inches in diameter; (2) dirt berms adjacent to the entrances; (3) kit fox tracks, scat, or prey remains in the vicinity of the den; (4) matted vegetation adjacent to the den entrances; and (5) manmade features such as culverts, pipes, and canal banks; however, the specific characteristics of individual dens may vary and occupied dens may lack some or all of these features.

Inactive kit fox den: One in which the end can clearly be seen, lacking side tunnels, and completely or mostly silted in.

Natal kit fox den: Any den used by kit foxes to whelp and/or rear their pups.

Project Disturbance Area: The portion of the Genesis Right-of-Way that has been or will be disturbed by Project activities for development of the solar generating facility or supporting linear features.

Qualified Biologist: Biologists having training in identifying kit fox and badger dens, scat, and other sign.

1.0 INTRODUCTION

1.1 Purpose of the Plan

This American Badger and Desert Kit Fox Monitoring and Management Plan (Plan) describes the actions to be taken to protect resident and/or transient desert kit fox (DKF) (*Vulpes macrotis*) and American badger (AB) (*Taxidea taxus*) known to occur or that may occur within and in the vicinity of the Genesis Solar Energy Project (GSEP or Project). This Plan specifies a monitoring and passive relocation approach that, when implemented, will facilitate avoidance and minimization of impacts to DKF and AB that are relocated from the Project disturbance area.

The primary purpose of this Plan is to provide strategies to avoid direct and indirect impacts to DKF and AB as a result of construction, operation, and decommissioning of the GSEP. The Plan provides strategies to facilitate the protection of DKF,[1], and AB, a California Species of Special Concern. This Plan fulfills the Project avoidance and minimization measures identified in Condition of Certification (COC) BIO-17 as defined in the Staff Analysis of Proposed Modifications (June 29, 2012) and approved by the California Energy Commission (CEC) for the GSEP (Appendix A). As such, the Plan addresses pre-construction surveys; classification of dens; excavation of inactive dens in the construction area to prevent reuse; monitoring of potentially or definitely active dens; use of passive techniques to exclude DKF/AB from those dens; and protocols for handling sick, injured, or dead DKF and AB. This Plan incorporates several adaptive measures recommended by the California Department of Fish and Game (CDFG) to enhance avoidance and minimize of impacts to DKF and AB, and incidentally provide supplemental data to assess the health of these species in the region.

The following specific objectives for DKF/AB protection are addressed in this Plan:

1. Pre-construction den surveys for new construction activities, as follows:

    - Establishing the locations of and classifying DKF/AB dens within 100 feet of all Project facilities, utility corridors, and access roads.

    - Establishing appropriate non-disturbance buffers for DKF/AB.

    - Monitoring DKF/AB at dens occupied or known to be visited by DKF/AB within the Project disturbance area and Buffer (100 feet).

    - Defining passive hazing procedures (techniques and implementation) to relocate DKF or AB occupying or visiting identified DKF/AB burrows in the project disturbance area.

2. Protocols for dealing with injured, sick, or dead DKF and AB, as follows:

    - Notification process (who, when, and how) if an injured, sick, or dead DKF/AB is found in any area associated with the GSEP (plant site, access road, generation tie-line [gen-tie line]).

    - Protocols for trapping and transporting injured or sick DKF/AB if found in any area associated with the Project.

    - Protocols for dealing with a DKF or AB that is killed as a result of Project construction, operation, or decommissioning.

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[11]Title 14 CCR prohibits take of desert kit fox at any time. California Fish and Game Code Sections 86 and 4000 define kit fox as a fur-bearing mammal.

3. BMPs to ensure continued protection of DKF and AB during construction, operation, and decommissioning.

4. Reporting requirements

1.2 Project Location and Description

The Project site is located in Riverside County, California, between the community of Desert Center and the city of Blythe. The Project is located on land owned by the federal government and managed by the Bureau of Land Management (BLM), pursuant to a right-of-way grant issued to Genesis Solar from BLM and the power plant certification issued by CEC. The total Project disturbance area (at build-out) will be approximately 1,819.5 acres.

The Project is a concentrated solar electric-generating facility that will use parabolic trough technology to generate electricity. The Project consists of two independent concentrated solar electric-generating facilities with a nominal net electrical output of 125 megawatts (MW) each (Units 1 and 2), for a total net electrical output of 250 MW. The plant site includes the solar arrays, power blocks, power-generating equipment, support facilities, and evaporation ponds. The linear facilities include a transmission line, distribution line, natural gas pipeline, and a main access road. These areas together make up the Project Area.

1.3 Early Desert Kit Fox Den Occurrences

Prior to development of this Plan, DKF dens were detected during biological resources surveys conducted for the Project's Application for Certification (AFC), pre-construction surveys conducted prior to initial Project disturbance, and during ongoing biological compliance monitoring for the construction phase of the Project. DKF have been and continue to be active throughout the Project Area. To date, 31 DKF dens have been detected within the plant site and along the access road or within the Buffer. DKF dens are tracked and identified in the Monthly Compliance Report (MCR) including a figure showing the locations of any new dens found in the project disturbance area. In addition a final summary of construction phase DKF activity will be presented in a final report following construction, per COC BIO-17.

1.4 Recent Canine Distemper Virus

CDFG confirmed the presence of the canine distemper virus (CDV) mortalities in DKF populations near the Project, and in surrounding portions of the Chuckwalla Valley starting in October 2011 (Appendix B). CDV is transmitted by contact with body fluids containing the virus, and can be transmitted by and affect many carnivore species, including AB, DKF and coyotes (all of which are present in the Project area). The virus is killed by direct sunlight, heat, drying, and cleaning with a 10% bleach solution.

As of June 18, 2012, there were 17 DKF mortalities within or in the vicinity of the Project Area; nine of these were inside the temporary desert tortoise (*Gopherus agassizii*; DT) exclusion fence and eight were outside of the fence. Five of the eight outside of the fence were near the access road. Twelve DKF remains were submitted to CDFG for necropsy. Of these, 3 carcasses were too decomposed for necropsy (only bones or partial remains present). Nine carcasses were necropsied by a veterinary pathologist at the California Animal Health and Food Safety Lab (CAHFS) at UC Davis: 8 animals were confirmed to have died from CDV, while the 9th carcass was too autolyzed to obtain a cause of death (D. Clifford, unpublished data). There is no determination of the source or a direct cause and effect correlation; however, the confirmation of CDV-caused mortalities in DKF identified the need for additional measures to minimize the potential for spread of the disease. Supplemental measures, such as foot sterilization during den monitoring, rapid reporting to DFG of any foxes observed to be behaving abnormally, and survival monitoring of foxes using cameras and telemetry have been incorporated into standard practices at the site associated with DKF monitoring, and BMPs are included in the methodologies summarized in this Plan (Appendix C). The presence of CDV and resulting monitoring efforts are a regional issue and not specific to the Genesis Project. Therefore, the monitoring and

reporting associated with CDFG's CDV assessment are being implemented separately from the management, monitoring, and reporting requirements for DKF and AB associated with the Genesis Project.

2.0 ROLES AND RESPONSIBILITIES

GSEP has a Designated Biologist (DB) assigned to the Project. This DB is approved by the CEC CPM in consultation with CDFG, the U.S. Fish and Wildlife Service (USFWS), and BLM. The GSEP DB is responsible for ensuring compliance with the measures that are summarized in the COCs and for implementation of this Plan. For site-specific issues pertaining to DKF and AB, the DB will keep the Genesis Environmental Compliance Manager (ECM) and construction team apprised of the situation to ensure DKF/AB protection. Information regarding DKF or AB surveys and monitoring will be reported in the MCR unless otherwise noted in this Plan. Any issues that are critical will be directly communicated by the DB to the CEC, CDFG, and BLM via email/phone conversation; a copy of the email will be sent to the Genesis ECM and construction management team. All phone conversations will be documented via email to the Genesis ECM and construction management team.

Multiple Biological Monitors (BMs) have also been approved for the Project to assist with implementation of the COCs and biological surveys and monitoring. BMs are required to be familiar with this Plan and will assist the DB with its implementation. BMs have reporting authority to the DB.

The GSEP also has an on-site ECM. The Genesis ECM must be familiar with this Plan and is responsible for supporting the DB and BMs with implementation of this Plan. The Genesis ECM will also assist the DB and BMs in educating the construction management team and contractors about DKF and AB issues.

3.0 SURVEY, MONITORING, AND RELOCATION METHODS

This section discusses the specific procedures and methods to be used to achieve the purposes and objectives of this Plan, including pre-construction detection surveys, den monitoring, passive relocation protocols, and plant site exclusion.

3.1 Pre-Construction Survey

Pre-construction surveys serve two primary purposes:

1. Identify and classify DKF/AB dens and determine where construction exclusion buffers and passive monitoring equipment will be installed. Den monitoring is discussed in Section 3.2.

2. Identify DKF/AB dens that will need to be passively relocated or excluded. Passive relocation of DKF/AB is discussed in Section 3.3.

3.1.1 Survey Protocol

Per BIO-17, pre-construction surveys for DKF/AB can be conducted independently or concurrently with DT surveys within the plant site and 100- foot buffer of all Project facilities, utility corridors, and access roads. Surveys may also be conducted concurrently with WBO surveys. Surveys will be conducted no more than 30 days prior to construction activities. Dens will be classified as inactive, potentially active, or definitely active. These surveys will be directed by the DB and staffed by qualified BMs. Specific requirements of this survey stipulate that walking transects will be spaced to allow 100% visual coverage of the ground surface; that the distance between transect center lines will be no more than 20 meters; and that transect size will be reduced to account for differences in terrain, vegetation density, and ground surface visibility. Pre-construction surveys for DKF/AB will be conducted by walking through

suitable habitat over the Project disturbance area and in areas in the buffer of the Project disturbance area. The 100-foot survey buffer is included to account for adjacent dens and foraging habitat outside of the Project disturbance area that may be affected by factors such as noise and vibration due to heavy equipment which may impact resources outside the Project Disturbance Area, as discussed in BIO-8.

Per COC BIO-17, the results of each pre-construction survey including a den location figure will be included in the MCR submitted to the CPM and CDFG for the duration of construction. This information will also be included in the Annual Compliance Report.

3.1.2 Supplemental Clearance Surveys

Supplemental surveys that may be triggered by a lapse in construction activities will be conducted by walking transects within areas with intact vegetation using the protocol described in Section 3.1.1 above. Surveys may also be necessary within the Buffer to verify that no new DKF/AB are present (which would require establishment of non-disturbance buffers).

3.1.3 Den Classification

When detected in the Project Area, either during surveys or incidentally, per COC BIO-17, a den must be classified as inactive, potentially active, or definitely active. A den can only be classified inactive when the end of the den can clearly be seen, no side tunnels are present, and is completely or mostly silted in. To determine whether a den is potentially active or definitely active, an investigation should start by searching each burrow entrance for sign of AB or DKF presence. Sign of AB and DKF presence includes tracks, scat, prey remains, recent excavation, claw marks, and AB or DKF remains.

In addition to inactive, potentially active, and definitely active classifications, active dens will also be classified as natal or non-natal. A natal den is any den used by kit foxes to whelp and/or rear their pups. Natal dens may be larger with more numerous entrances than dens occupied exclusively by adults. These dens typically have more kit fox tracks, scat, and prey remains in the vicinity of the den, and may have a broader apron of matted dirt and/or vegetation at one or more entrances. Natal dens are discussed further in Section 3.2 below.

3.2 Den Monitoring

All DKF/AB dens in the Project disturbance area identified as potentially active or definitely active will be monitored for three consecutive nights using a tracking medium (e.g., diatomaceous earth or fire clay) and infrared camera stations at the entrance. Using both methods can help to ascertain whether or not DKF or AB in photos are actively using den sites or are just visiting other dens within their range. If, after 3 nights, no AB/DKF sign (tracks, scat, or prey remains) are found at the burrow entrance, or no photos of the target species using the den are observed, the den can be excavated and backfilled by hand, as discussed in Section 3.3. If DKF/AB sign is detected during the 3-day monitoring period, the 3-day monitoring period would begin over again at that point. The use of a wildlife underground viewing scope is recommended to confirm that the burrow is unoccupied during manual excavation. As described in more detail below, the tracking medium will not be used to monitor dens outside of the Project disturbance area. Monitoring dens outside of the Project disturbance area and within the buffer, when required, will be accomplished with wildlife cameras only.

Because of the known outbreak of CDV in and around the Project area, the shoes of all BMs visiting the den monitoring equipment will be disinfected every day and between visits to each den to prevent the spread of CDV. The preferred method for disinfecting work boots is to spray the soles of shoes with bleach solution (or equivalent disinfectant) prior to moving to another burrow site, and preferably waiting 10 minutes before wiping/rinsing off with water (Appendix C).

To maximize the likelihood of species detection and to avoid the spread of CDV between dens that will be directly impacted by construction activities, tracking media will be deployed and maintained using accepted methods. At the start of monitoring at a den, tracking media will be spread with a disinfected

sifter around all burrows associated with the den. The sifter will be disinfected by showering it with a spray bottle of 10% bleach solution prior to and after each use of the sifter. The sifter will be allowed to dry to prevent clumping in the tracking media. During subsequent monitoring visits to a den (after tracking information is collected), the same sifting procedures will be used to prepare all burrows for the next monitoring period to prevent reindetification of tracks or other activity from prior visits. If sifting becomes a problem due to weather conditions (i.e., wind), an alternate method (e.g., wooden lathes) may be employed with agency approval. When setting up a wildlife camera at an active or potentially active DKF/AB den, the following steps are preferred, although other methods may also be employed, based on site conditions:

1. Locate the camera sufficiently away from the burrow or den where the field of view captures all of the burrows. Ensure that the stakes driven into the soil will support the weight of the stakes and camera. If it is not possible to capture the entire field of view with one camera, use additional cameras as available.

2. Drive two stakes into the ground at approximately a 60 degree angle, crossing each other in an "X" pattern. The stakes will provide a support structure with a plane perpendicular to the center of the camera's field of view. To ensure maximum capture of the ground area, it may be necessary to install the "X" tilted slightly down toward the burrow or den.

3. Attach the camera to the "X" support tightly with a bungee cord, looping the cord in and out of the cameral handles for maximum support.

4. Check the camera positioning to ensure that all areas to be monitored are in the approximate field of view. If the area to be photographed is very specific, it may be necessary to take test images by walking through the field of view. Confirm that the field of view is appropriate on a laptop or other viewer.

5. Turn the camera on. Check that there is sufficient power remaining in the batteries and sufficient space remaining on the memory media for the camera to operate until the next visit. After putting down the tracking medium (where necessary), arm the motion capture mechanism and leave the area.

To check the photos, approach the camera from behind, turn the camera off, and remove and replace the memory media. Turn the camera back on prior to departing if further surveys are required. Plug the memory card media into a card reader, attach the reader to a laptop or other viewer, and view the images on the card. Note – see appendix C – the outside housing of camera units must be wiped with a bleach disinfectant cloth prior to moving a camera to a different den. Also, if mounting poles are wooden, they should be replaced before moving the camera. If the mounting pole can be disinfected, it should also be cleaned with a 10% bleach solution before moving the camera/pole to another den.

If DKF/AB sign (tracks, scat or prey remains) or photos are observed during these initial 3 nights, CDFG has requested that such dens be further classified as active non-natal or natal (pups are present and dependent on the den group for forage, cover, etc) to determine appropriate next steps.[2] Potential natal dens are to be monitored using infrared wildlife cameras and/or tracking medium to determine whether or not pups are present, quantify the number of pups, and determine if they are dependent upon parents. If the den is determined to be natal, a 300- to 500-foot non-disturbance buffer zone will be established surrounding natal dens, and monitoring by infrared cameras or weekly visits by the DB or BM will continue until it has been determined that the young have dispersed and are functioning independently of the rest of the den group. The status of natal dens will continue to be monitored weekly, no construction or equipment use will occur within the non-disturbance buffer area around the den, and natal dens will not be excavated. The final buffer distance will be determined in consultation

[2] The denning season is typically March through August for AB and February through June for DKF.

with the CPM, BLM, and CDFG. If the den within the Project disturbance area is determined to be non-natal, passive hazing techniques can be used to discourage DKF/AB from using the den if outside the pupping season, as discussed in Section 3.3, below. If an active non-natal den is detected outside of the Project disturbance area (i.e., in the survey buffer), a minimum 100-foot non-disturbance buffer will be established. The final non-disturbance buffer distance and/or activity limitations will be determined in consultation with the CPM, BLM, and CDFG.

CDFG has indicated that DKF may not be trapped. However, there are circumstances under which CDFG has implemented trapping programs for biological reasons, including a trapping and monitoring program implemented in the vicinity of the GSEP to monitor impacts from the CDV outbreak. In situations where CDFG has radio-collared DKF, the DB and/or BM onsite during construction monitoring may assist CDFG with monitoring efforts, including radio telemetry tracking. In these situations, telemetry data in the vicinity of GSEP will also be recorded and reported to CDFG separately from the required Project related DKF/AB monitoring and reporting. When available, telemetry data may be used to assist in determining den use within the Project disturbance area and associated buffers.

In the wake of the CDV diagnosis in the area, the project owner agreed to support CDFG with monitoring known active DKF dens within and adjacent to the GSEP (within 1 kilometer) (Appendix C). In addition, all mortalities and observations of sick/injured animals will be reported immediately to CDFG, the CPM, and BLM and all known den locations will be mapped and provided to CDFG, the CPM, and BLM. Den monitoring information associated with CDV tracking efforts will be provided weekly to CDFG, the CPM, and BLM separate from Project specific monitoring and reporting. The disinfection protocol outlined in Appendix C will be employed during DKF monitoring activities. If CDFG determines that the CDV outbreak is contained and/or terminates its monitoring program, monitoring of DKF beyond the project disturbance area including the 100-foot survey buffer area required for the Project may cease. The monitoring associated with CDV is considered a separate effort from the Project's DKF monitoring and management actions, and does not alter the survey or monitoring buffers, or requirements associated with Project activities.

3.3 Passive Relocation and Burrow Excavation

DKF and AB must be excluded from all dens within the plant site portion of the Project disturbance area. Inactive dens that are within the Project Area, and will be impacted by construction, will immediately be excavated by hand and backfilled to prevent reuse by DKF/AB. If DKF/AB sign is observed or DKF/AB are captured in camera photos then various passive hazing techniques may be implemented to deter DKF and AB from using the den. Passive hazing is used more effectively if potential dens already occur offsite and if not, artificial dens are installed to simultaneously attract DKF or AB to offsite habitat. Passive hazing can only be used during the non-pupping season; if a den is present in the project disturbance area during the pupping season, the project owner will consult with the wildlife agencies on a den-by-den basis.. If there are offsite dens available for use by kit fox and daytime temperatures are below 95 degrees, a time restraint can be implemented on passive hazing techniques if use of various techniques have not worked. Passive hazing options to deter DKF/AB from an area may include the following (the preferred method for passive relocation is summarized below):

- Application of citronella-based deterrents at the den
- Installation of electronic noise-based deterrents at the den
- Placement of objects, leaves, mulch, or soil in den entrances
- Placement of items with strong human scent at den entrances

- Placement of commercially available non-toxic and biodegradable dog repellents such as “Scoot” or “Get off My Garden” at den entrances[3]
- Placement of battery-operated radios left on all night at den entrances
- Placement of battery-operated motion-sensitive alarms at den entrances
- During monitoring visits:
    - step heavily around the perimeter of the den (never over the center to avoid den or burrow collapse)
    - make as much noise as possible (e.g., voice, whistles, air horns, bells, “shaker” cans, pots, pie pans)
    - bounce small items (e.g., sticks, small rocks, cans, tennis balls, rubber balls) near the den (never directed at AB/DKF or into burrows)
- Coyote urine will not be used to haze AB or DKF.

Passive hazing and relocation techniques will not be implemented if there are known CDV cases in the Genesis project area; therefore, if a den is identified where passive relocation is warranted, the project owner will consult with CDFG’s Wildlife Investigations Lab (WIL) on the status of CDV in the project area prior to implementation.

When a den is determined to be non-natal, the preferred method for passively relocating or excluding DKF or AB from the den is described below. Passive relocation using one-way doors are to be used as a last option when all other hazing techniques have not worked. Additional methods may be employed, as appropriate, for the specific situation.

1. Install one-way doors in all suitably sized burrows in the den. One-way doors will be installed in burrows actively used by DKF/AB after installation occurs on all other suitable burrows to avoid multiple evictions.
2. Install one-way doors during the afternoon and while the DKF/AB are inactive and deep within the den. If any DKF/AB leave the den in response to one-way door installation, door installation will cease until after the DKF/AB have voluntarily left the vicinity of the den.
3. After one-way doors are installed, monitor the den with tracking medium, infrared camera stations, and/or telemetry equipment (where applicable) for 3 days to determine whether DKF/AB have left the den.
4. On the third day following one-way door installation, using a fiber-optic scope camera, all burrows will be inspected to ensure that DKF/AB no longer occupy the den.
5. Upon confirmation that the den is unoccupied, excavate the burrows using hand tools. This excavation will start at the opening of the least used burrow in the den and will continue until excavation reaches the den chamber. Six-inch-diameter flexible, corrugated drainage pipe will be held at the opening of the burrow being excavated to allow DKF/AB to escape. All other burrows in the den, least to most used (as observed by wildlife cameras), will be excavated

[3] http://www.foxolutions.co.uk/index.php?main_page=foxolutions; http://getofffoxdeterrent.wordpress.com/tag/red-fox-deterrent/

using the same procedure. When all burrows in the den are excavated, all burrow sidewalls will be collapsed into the excavated burrows and the entire den will be refilled with the excavated material to prevent reoccupation by DKF/AB. All excavated soils will be sanitized by exposing the material to sunlight.

6. Periodically visit the den after the passive relocation effort is complete until ground disturbance commences in the immediate area to ensure that DKF/AB do not reexcavate burrows and reoccupy the den.

Passive relocation with use of one-way doors will not be implemented during the pupping season.

When a den is determined to be natal, it must be confirmed that dens have become non-natal and that the pups are functioning independently prior to implementing any passive relocation efforts. The status of natal dens will continue to be monitored weekly, no construction or equipment use will occur within the non-disturbance buffer area around the den, and natal dens will not be excavated. Agencies will be consulted prior to passive relocation at a non-natal den formally designated as natal. However, a general recommendation for non-natal dens with grown pups that are behaving independently of the rest of the den group but will not disperse even after implementing the passive relocation techniques discussed in the plan, is systematically excavating vacant dens. Prior to excavating a non-natal den under these circumstances, artificial dens should be placed offsite (at least 14 days ahead of time to acclimate) if potential dens are not already present outside the project disturbance area. The Designated Biologist and qualified biologist(s) will begin visually observing the den around sunset to watch for kit fox leaving the den. Daytime temperatures must be 95 degrees or cooler. Individual den will be manually excavated in the evening when fox are most likely out foraging and use of an underground viewing scope is highly recommended.

If DKF/AB are present and passive relocation techniques fail, CDFG will be contacted to explore other relocation options, in consultation with the CPM and BLM. The qualified biologist should also verify that there are suitable burrows located outside of the Project disturbance area for DKF/AB to utilize. If no suitable burrows are located within an approximate 700 meter radius from the den, creation of artificial burrows may assist in facilitating passive relocation efforts and should be considered as a possible relocation option. If used, artificial burrows should be installed a minimum of two weeks prior to passive relocation to allow time for acclimation.

The results of the passive relocation effort, including the number of dens where relocation was employed, the method utilized, and an estimate of the number of foxes relocated will be included in the MCR submitted to the CPM, BLM, and CDFG for the duration of construction. This information will also be included in the Annual Compliance Report.

3.4 Plant Site Exclusion

The permanent DT exclusion fencing will consist of a 6-foot-high security chain-link fence that includes a DT exclusion mesh installed at least 18-inches-high and buried to a depth of 12 inches. This fence will help deter DKF and AB from entering the Project site. Permanent site security fencing will be installed as early in the site development process as possible. Once installed, if the permanent fencing is not sufficient to exclude DKF or AB (e.g., minimum 6-foot-tall chain-link fencing with DT exclusionary fencing attached), additional measures may be required to exclude DKF/AB from the site.

Even with security and DT exclusionary fencing in place, there is the possibility that DKR or AB could still cross the fence into the Project site. Because both DKF and AB have deep burrows, it is possible that these species could burrow under the fence. The fence lines should be checked for tracks and/or digs during fence monitoring activities to assist in assessing fence crossing activity (i.e., ingress/egress by DKF or AB). Per BIO-9, the DT exclusion fencing (temporary and permanent) must be inspected at least once a month and within 24 hours following major rainfall events. Any potential DKF or AB burrows that may extend below the DT exclusion fencing could be detected during fence inspections. If DKF/AB

are found on-site during construction, construction will stop until the animal leaves active construction areas.

4.0 DISPOSITION OF SICK, INJURED, OR DEAD ANIMALS

The CPM, BLM, and CDFG will be notified if injured, sick, or dead DKF or AB are found. If an injured, sick, or dead animal is detected on any area associated with the GSEP or linear facilities, the DB or BM will immediately notify the Genesis ECM, the CPM, BLM, the CDFG WIL, and the Ontario CDFG office by phone. Written follow-up notification via fax or electronic communication will be submitted to the CPM, BLM, and CDFG within 24 hours of the incident. Additional actions are summarized below based on type of incident.

4.1 Injured Animals

If a DKF or AB is injured because of any Project-related activities, the DB or BM will notify the Genesis ECM, CPM, BLM, and contact CDFG personnel for immediate capture and transport of the animal to a CDFG-approved wildlife rehabilitation and/or veterinarian clinic (Appendix C). CDFG, in consultation with the CPM and BLM, will determine the final disposition of the injured animal, if it recovers. Written notification of the incident will contain, at a minimum, the date, time, location, and circumstances of the incident.

4.2 Sick Animals

If a DKF or AB is found sick and incapacitated on any area associated with the GSEP site or linear facilities, the DB or BM will notify the Genesis ECM, CPM, BLM, and contact CDFG personnel for guidance, which may include immediate capture and transport of the animal to a CDFG-approved wildlife rehabilitation and/or veterinarian clinic. CDFG, in consultation with the CPM and BLM, will determine the final disposition of the sick animal, if it recovers. If the animal dies, a necropsy will be performed by a CDFG-approved facility per section 4.3 below to determine the cause of death. Results will be provided to both the Project owner and CDFG WIL with a copy to CDFG Ontario Office, the CPM, and BLM. Written notification of the incident will contain, at a minimum, the date, time, location, and circumstances of the incident.

4.3 Fatalities

If a DKF or AB is killed because of any Project-related activities during construction, or decommission, or is found dead on the Project site or along associated linear facilities, the DB or BM will collect and immediately refrigerate the carcass (dry ice will not be used) and notify the CPM, BLM, and CDFG personnel including the Ontario office and CDFG WIL. CDFG WIL will be notified within 8 hours of the discovery to receive further instructions on the handling of the animal. During operations, the Genesis ECM, trained by the DB, will collect the carcass and notify the agencies as described above.
A necropsy will be performed by a CDFG-approved facility to determine the cause of death. As part of the ongoing CDV monitoring program, the CDFG WIL will pay for necropsy and the project owner will pay for shipping the animal. Once the full necropsy report is received, CDFG WIL will send a summarized report (including cause of death, significant findings and relevance to project activities) to the DB, CPM, and BLM. If the CDV monitoring program ceases, the project owner will set up an account with CDFG WIL to pay for the necropsy and shipping; CDFG WIL will be identified for receiving an electronic copy of the original report from the pathologist. The original necropsy report will be sent to both the Project and CDFG WIL, and a copy of the necropsy report will be sent to CDFG Ontario, BLM, and the CPM. A *Department of Fish and Game – Wildlife Investigations Laboratory, Desert Kit Fox Mortality Data Sheet* (Appendix D) will be included with all dead DKF or AB sent to CDFG, including photographs before the site is disturbed and a Global Positioning System (GPS) location of the DKF. A

construction Wildlife Incident Form will also be completed and submitted to the CPM, BLM, and CDFG within 24 hours of observation and included in the Monthly Compliance Report.

The purpose of the necropsy effort associated with AB/DKF, or other wild carnivores, is to determine the cause of death or illness of animals found dead. Based on gross appearance of the carcass alone, there is significant potential for the cause of death to be incorrectly identified or attributed to construction activities. Not only does the conduct of a thorough necropsy assist with efforts to monitor the impacts of CDV in DKF and other wild carnivore populations, it will substantially reduce the probability of misinterpreting the cause of death. If the number of CDV cases increases or the geographic area spreads, management options to reduce potentially significant impacts to DKF will be determined by CDFG.

In addition to the general protocols identified above, dead or sick DKF or other wild carnivore remains will be handled as specified in Appendix C.

5.0 GENERAL BEST MANAGEMENT PRACTICES

In addition to the specific DKF and AB measures and protocols defined above, the GSEP will implement general BMPs to avoid and minimize impacts to these species. The BMPs summarized below will supplement the BMPs defined in COC BIO-8 and the Project's Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP), and will be verified by the DB and BMs during site monitoring activities.

1. The Worker Environmental Awareness Program (WEAP) and one-time delivery training programs will include information regarding DKF and AB presence along the access road. Emphasis will be placed on compliance with speed limits and the no-tolerance policy for speeding. All personnel will be informed that any wildlife observed (live, injured, or dead) will be reported to the DB. The DB contact information will be provided during environmental trainings.

2. The designated biologist will be the contact source for any employee or contractor who might inadvertently kill or injure a kit fox or who finds a dead, injured or entrapped kit fox.

3. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of kit foxes, destruction of dens, or spread of diseases.

4. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.

5. The DB or BMs will verify that accessible pipes within the Project disturbance area that could be used by DKF are capped and/or covered every evening or when not in use to prevent DKF or other wildlife from using pipes and structures. If a DKF is found in pipes stored onsite, the DB will utilize approved passive hazing techniques to encourage the fox to leave. The pipes should be covered or capped after the DKF has left the area.

6. Trenches onsite that could trap a DKF/AB will be monitored routinely and modified to prevent entrance (e.g., covered) or allow escape (e.g., escape ramps) per BIO-8 and the project's BRMIMP. If a DKF or AB is found inside a trench or excavation, the DB will verify that a means of escape is available utilize approved passive hazing techniques to encourage the animal to leave. If the animal is determined to be injured, the CEC, BLM, and CDFG will be contacted to determine next steps in accordance with Section 4.1 of this plan.

7. Wildlife crossing signs will be installed along permanent access roads to remind drivers of the potential to encounter DKF or other wildlife.

8. Speed limits will be reduced at night on roadways to reduce traffic impacts to wildlife. Due to the dynamic nature of daylight, daytime and nighttime hours will be determined by the DB and communicated to the Genesis ECM and construction personnel. Hours and speed limits will be documented in the MCR.

9. A DB or BM will be on-site at all times during nighttime construction activities. The DB/BM will participate in nighttime construction personnel tailgate briefings prior to the start of work each shift to reiterate biological resource concerns, including wildlife that are active at night.

10. Use of rodenticides and herbicides in project areas shall be implemented in accordance with the Project Weed Management Plan and BLM approved Pesticide Use Proposal to minimize the potential for chemical application to impact DKF/AB.

6.0 OPERATIONS

Preconstruction clearance surveys and resulting monitoring and relocation activities as defined above do not apply during operations due to differences in site disturbance and activities. If a DKF or AB is found within the Project Area during operations, the DB will be contacted to assess the situation and determine what further action is warranted.

7.0 REPORTING

Individual reporting requirements are required for specific incidents or circumstances, as summarized in the sections above. In addition, as required by COC BIO-8 and BIO-17 for the GSEP, relevant information specified in Section 3 will be included in preconstruction survey summary reports, MCRs, and Annual Compliance Reports, as summarized below:

1. The GSEP will report monthly to the CPM, CDFG, and BLM for the duration of construction on the status of any dens in the Project disturbance area and implementation of DKF and AB impact avoidance and minimization measures. The information will be contained in the MCR.

2. The Project owner will submit a report to the CPM, BLM, and CDFG within 30 days of completion of DKF and AB pre-construction and any supplemental clearance surveys. At a minimum, the report will describe survey methods, results, impact avoidance and minimization measures implemented, and the results of those measures.

3. As part of the Annual Compliance Report, the DB will provide a report to the CPM, BLM, and CDFG that describes the results of implementation of DKF and AB avoidance and minimization measures.

Appendix A

Genesis Solar Energy Project (09-AFC-8C), Riverside County, California, Condition of Certification BIO-17, Desert Kit Fox and American Badger, Included in the California Energy Commission Staff Analysis of Proposed Modifications, June 29 2012

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

California Energy Commission
DOCKETED
09-AFC-8C
TN # 66040
JUN 29 2012

DATE: June 29, 2012

TO: Interested Parties

FROM: Eric W. Veerkamp, Compliance Project Manager

SUBJECT: Genesis Solar Energy Project (09-AFC-8C)
Staff Analysis of Proposed Modifications

On April 7, 2012, the California Energy Commission (Energy Commission) received an amendment petition from Genesis Solar, LLC (NextEra Energy) to modify the Energy Commission's Final Decision for the Genesis Solar Energy Project (GSEP), 09-AFC-8C. Staff prepared an analysis of the proposed changes, and a copy is enclosed for your information and review.

The 250-MW project was certified by the Energy Commission on September 29, 2010; the project is currently under construction and is approximately 15 percent complete. The applicant has petitioned the Commission to amend the final decision for a relocated gen-tie line and natural gas line, due to third-party agency changes outside the owner's control. The GSEP is located at 11995 Wileys Well Road, on the north side of Interstate 10, approximately 22 miles west of Blythe, California in Riverside County.

The modifications proposed in the petition are based on changes brought about by circumstances that were unforeseen at the time the project was licensed. One of the unanticipated revisions is the way in which the power generated by the Genesis Project needs to tie in to the Colorado River Substation (CRSS), due to a relocated CRSS, and a new Large Generator Interconnect Agreement, which also triggered a reconfiguration of the CRSS. Also, the Southern California Gas Company (SoCalGas) is requiring the GSEP to tie into the SoCalGas natural gas line at a different location.

Finally, Authority to Construct (ATC) Permits issued by the Mojave Desert Air Quality Management District on November 4, 2011, while containing no new conditions, do contain more detailed equipment descriptions. NextEra has also applied for new ATC permits to provide equipment for cooling towers not originally included in the project.

The proposed modifications include:

1. Option A and Option B for linear electricity transmission routes. Option A is a modified transmission route predominately the same as the route originally approved by the Commission. Option A contains a slight modification to the proposed right-of-way at the point where the proposed 230 kV GSEP transmission line passes under the existing Eagle Mountain transmission line, and another slight modification to the proposed right-of-way in the section of the

proposed GSEP transmission line that parallels (east to west) the existing gas pipeline right-of-way that is south of I-10. Option B differs from Option A in that the proposed 230kV GSEP transmission line jogs slightly north and to the east as it leaves the project site, running behind the Wiley's Well rest area for approximately one mile instead of turning south before the rest area. East of the rest area, the transmission line in Option B turns south in a straight line to the point at which the transmission line is co-located with the Blythe Energy Transmission Line (BETL). The points at which both Option A and Option B begin co-location with the BETL are very nearly the same, and both proceed easterly to the CRSS in an identical fashion. The applicant has requested review and approval of both Option A and Option B.

2. Option A and Option B for natural gas pipeline routes. SoCalGas is requiring the GSEP to tie in to an existing gas reducer valve located south of I-10 and east of Wiley's Well Road. Under Option A, the gas line will proceed west from the gas reducer valve under Wiley's Well Road and follow the alignment of the gen-tie line, until connecting with the GSEP gas metering station approximately 1,700 feet north of I-10 in the current project linear footprint. Under Option B, the natural gas line proceeds west from the existing gas reducer valve to the point at which it follows the Option B gen-tie alignment, to the north of and behind the Wiley's Well rest area, until connecting with the GSEP gas metering station. The applicant has requested review and approval of both Option A and Option B.
3. Under the terms of the new Large Generation Interconnection Agreement (LGIA), the Colorado River Sub-Station (CRSS) will no longer accommodate the metering and protection equipment required for the GSEP. Therefore, the applicant will be constructing a new substation outside the perimeter of the CRSS to contain the metering and protection equipment as well as a new ring bus.
4. Authority to Construct permits issued by the Mojave Desert Air Quality Management District did not take into account modifications necessary due to the use of Air Cooled Condensers (ACC's). The applicant has filed an application to modify the permits to account for changes that are directly related to three items; 1) updated equipment descriptions and emissions information for equipment actually purchased, 2) slight changes to emissions from some of the engines based on manufacturer specifications and, 3) the change from two large wet, mechanical draft cooling towers, to two large Air Cooled Condensers (ACC's) and two small package type wet cooling systems.

Energy Commission staff reviewed the petition and assessed the impacts of this proposal on environmental quality, public health and safety, and proposes new Conditions of Certification for Air Quality and a modified Condition of Certification for Biological Resources. It is staff's opinion that, with the implementation of new and revised conditions, the project will remain in compliance with applicable laws, ordinances, regulations, and standards and that the proposed modifications will not result in a significant adverse direct or cumulative impact to the environment (Title 20, California Code of Regulations, Section 1769).

The amendment petition and staff's analysis have been posted on the Energy Commission's webpage at http://www.energy.ca.gov/sitingcases/genesis_solar/index.html. The Energy Commission's Order will also be posted on the webpage if the petition to amend is approved. Energy Commission staff intends to recommend approval of the petition at the August 8, 2012**,** Business Meeting of the Energy Commission. If you have comments on the proposed modifications, please submit them to me at the address below prior to Monday, July 30, 2012.

Eric Veerkamp, Compliance Project Manager
California Energy Commission
1516 9th Street, MS-2000
Sacramento, CA 95814

Comments may be submitted by fax to (916) 654-3882, or by e-mail to eric.veerkamp@energy.ca.gov. If you have any questions, please contact me at (916) 654-4611.

For further information on how to participate in this proceeding, please contact the Energy Commission Public Advisor's Office, at (916) 654-4489, or toll free in California at (800) 822-6228, or by e-mail at publicadvisor@energy.ca.gov. News media inquiries should be directed to the Energy Commission Media Office at (916) 654-4989, or by e-mail at Mediaoffice@energy.ca.gov.

Enclosure

Mail list: 7378

GENESIS SOLAR ENERGY PROJECT (09-AFC-8C)

Petition to Amend Commission Decision

EXECUTIVE SUMMARY

Eric W. Veerkamp

INTRODUCTION

On April 7, 2012, Tetra Tech, Inc, on behalf of Genesis Solar, LLC (NextEra Energy), filed a petition with the California Energy Commission requesting to modify the Energy Commission's Final Decision for the Genesis Solar Energy Project (GSEP). The 250-MW project was certified by the Commission on September 29, 2010. The GSEP is located at 11995 Wileys Well Road, on the north side of Interstate 10, approximately 22 miles west of Blythe, California in Riverside County.

The purpose of the Energy Commission's review process is to assess any impacts the proposed modifications would have on environmental quality and public health and safety. The process includes an evaluation of the consistency of the proposed changes with the Energy Commission's Final Decision (Decision), and if the project, as modified, will remain in compliance with applicable laws, ordinances, regulations, and standards (LORS) (Title 20, Calif. Code of Regulations, section 1769).

This Staff Analysis contains the Energy Commission staff's evaluation of the affected technical areas including Air Quality, Cultural, Biological, Transmission System Engineering, and Land Use.

DESCRIPTION OF PROPOSED MODIFICATIONS

The proposed modifications are primarily the result of circumstances that were unforeseen at the time the project was licensed. In addition, the applicant/owner is proposing revisions in response to those factors under the control of other agencies/entities.

The proposed modifications are as follows:

1) Modifications to the Gen-tie linear route (w/ Options A and B) (see Figures 1 and 2)
2) Modifications to the natural gas pipeline linear route due to a new point of interconnect with the Southern California Gas Company (SoCalGas) natural gas supply (w/ Options A and B) (see Figure 1)
3) Implementation of the Large Generator Interconnect Agreement (LGIA) and the resulting redesign/reconfiguration of the connecting substation that will be required to deliver power to the CRSS (see Figure 3)
4) Changes to Air Quality conditions related to changes in the permit issued by the Mojave Desert Air Quality Management District (MDAQMD)

NECESSITY FOR THE PROPOSED MODIFICATIONS

The primary purpose and need for this amendment is due to changes brought about by the way in which the power generated by the Genesis Project needs to tie in to the new Southern California Edison Colorado River Substation (CRSS) which was permitted by the California Public Utilities Commission and the U.S. Bureau of Land Management after the Genesis project and its gen-tie line were permitted by the Energy Commission. The CRSS was relocated post certification slightly to the south and west, necessitating a slight adjustment of the gen-tie route approaching the substation. In addition, as per the new Large Generator Interconnect Agreement, NextEra Energy is no longer allowed to build required metering and protection equipment within the perimeter of the CRSS; therefore, a new substation to contain the equipment including a new ring bus is being built just to the north of the relocated CRSS. Further, recent discussions with SoCalGas have resulted in a change to the point of interconnect where the Genesis Project will need to tie into the SoCalGas natural gas line. Finally, Authority to Construct (ATC) Permits issued by the Mojave Desert Air Quality Management District on November 4, 2011, while containing no new conditions, do contain more detailed equipment descriptions. NextEra Energy has also applied for new ATC permits to provide equipment for cooling towers not originally included in the project.

STAFF'S ASSESSMENT OF THE PROPOSED PROJECT CHANGES

Staff recommends changes to the existing Genesis Solar Energy Project (GSEP) Final Decision and Conditions of Certification. Staff believes that by requiring the proposed changes to the existing conditions, the potential impacts of the proposed changes would be reduced to less than significant levels. A summary of staff's conclusions reached in each technical area are summarized in the following table. The details of the proposed condition changes can be found under the appropriate technical headings in this Staff Analysis.

Energy Commission technical staff reviewed the petition to amend for potential environmental effects and consistency with applicable laws, ordinances, regulations and standards (LORS). Staff has determined that the technical or environmental areas of **Geological Hazards and Resources, Hazardous Materials Management, Facility Design, Public Health, Traffic and Transportation, Transmission Line Safety and Nuisance, Visual Resources, Waste Management, and Worker Safety and Fire Protection** are not affected by the proposed changes.

Staff has determined that the technical and/or environmental areas of **Cultural Resources, Land Use, Noise and Vibration, Paleontological Resources, Socioeconomics**, **Transmission System Engineering**, and **Soil and Water Resources** were reviewed for impacts and a determination was made that no revisions or new conditions of certification are needed to ensure the project remains in compliance with all applicable LORS.

Staff determined that the technical areas of **Air Quality** and **Biological Resources** would be affected by the proposed project changes, and have proposed new Conditions of Certification (and one modified Condition) in order to assure compliance with LORS and/or to reduce potential environmental impacts to a less than significant level.

Executive Summary Table 1
Summary of Impacts to Each Technical Area

TECHNICAL AREAS REVIEWED	STAFF RESPONSE			New Conditions of Certification Recommended
	Technical Area Not Affected	No Significant Environmental Impact*	Process As Amendment	
Air Quality			x	x
Biological Resources			x	X (Modified)
Cultural Resources			x	
Geological Hazards & Resources	x			
Hazardous Materials Management	x			
Facility Design	x			
Land Use		x		
Noise and Vibration		x		
Paleontological Resources		x		
Public Health	x			
Socioeconomics		x		
Soil and Water Resources		x		
Traffic and Transportation	x			
Transmission Line Safety & Nuisance	x			
Transmission System Engineering			x	
Visual Resources	x			
Waste Management	x			
Worker Safety and Fire Protection	x			

*There is no possibility that the modifications may have a significant effect on the environment and the modification will not result in a change or deletion of a condition adopted by the commission in the final decision or make changes that would cause the project not to comply with any applicable laws, ordinances, regulations, or standards (LORS) (20 Cal. Code Regs., § 1769 (a)(2)).

STAFF RECOMMENDATIONS AND CONCLUSIONS

Staff concludes that the following required findings mandated by Title 20, section 1769(a)(3) of the California Code of Regulations can be made and will recommend approval of the petition to the Energy Commission:

A. There will be no new or additional unmitigated significant environmental impacts associated with the proposed changes;

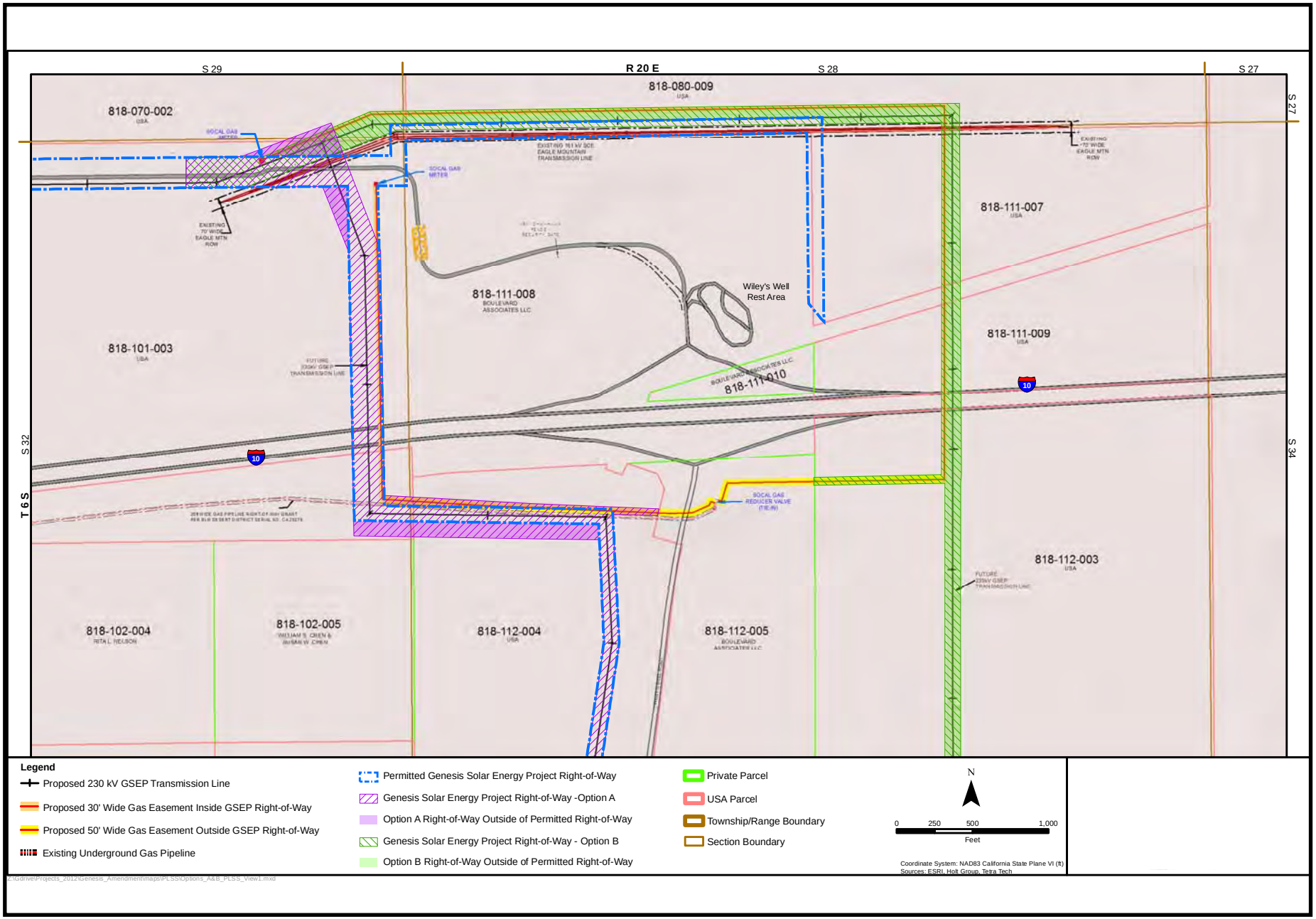
B. The facility will remain in compliance with all applicable laws, ordinances, regulations and standards;

C. The changes will be beneficial to the project owner because it will allow them to construct the project substantially as it was approved, but allow them the flexibility to comply with the changes/revisions that are being implemented by other agencies/entities.

D. There has been a substantial change in circumstances since the Energy Commission certification justifying the changes.

FIGURE 1

Genesis Solar Energy Project - Options A & B View 1



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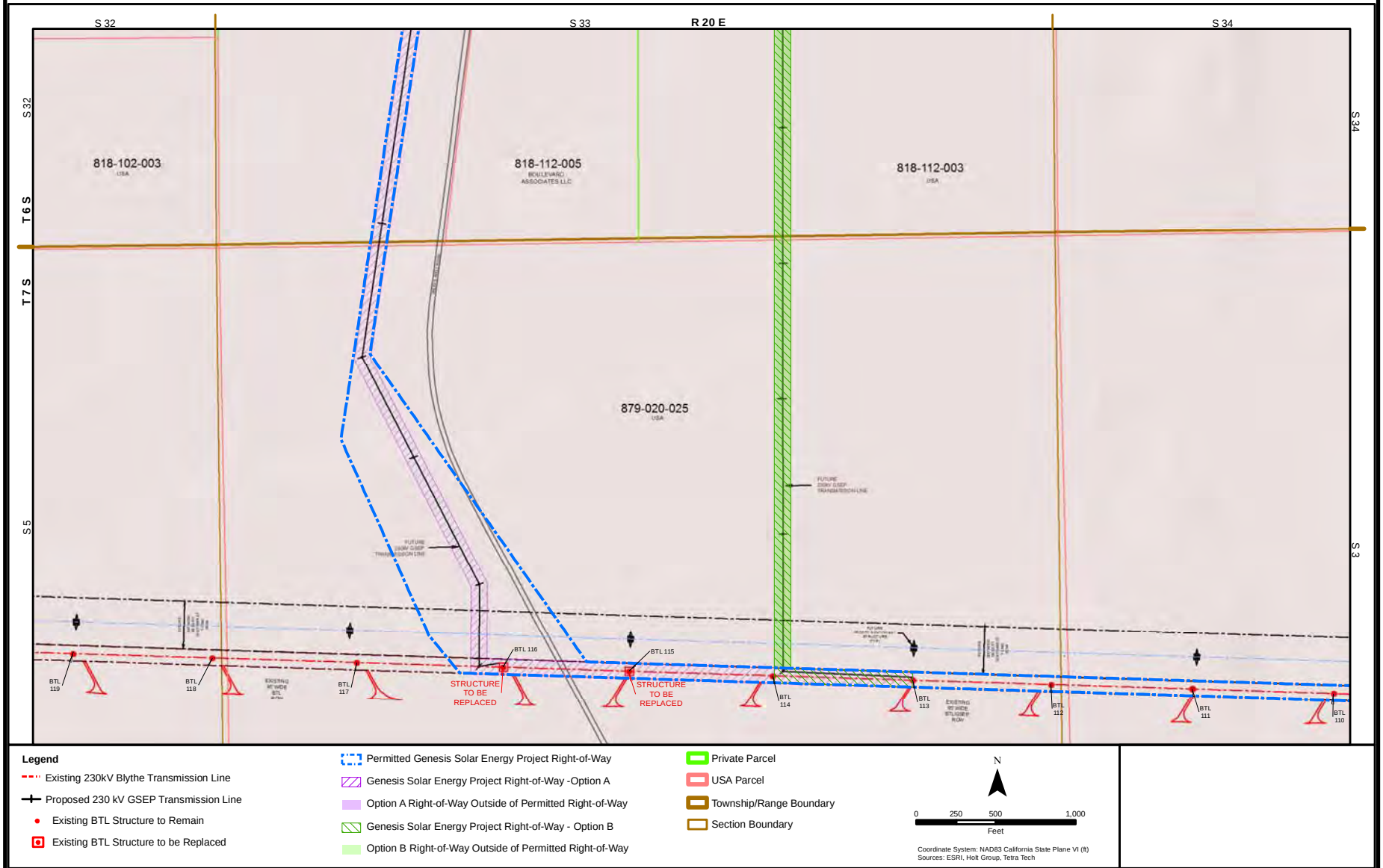
SOURCE: TETRA TECH

FIGURE 2

Genesis Solar Energy Project - Options A & B View 2

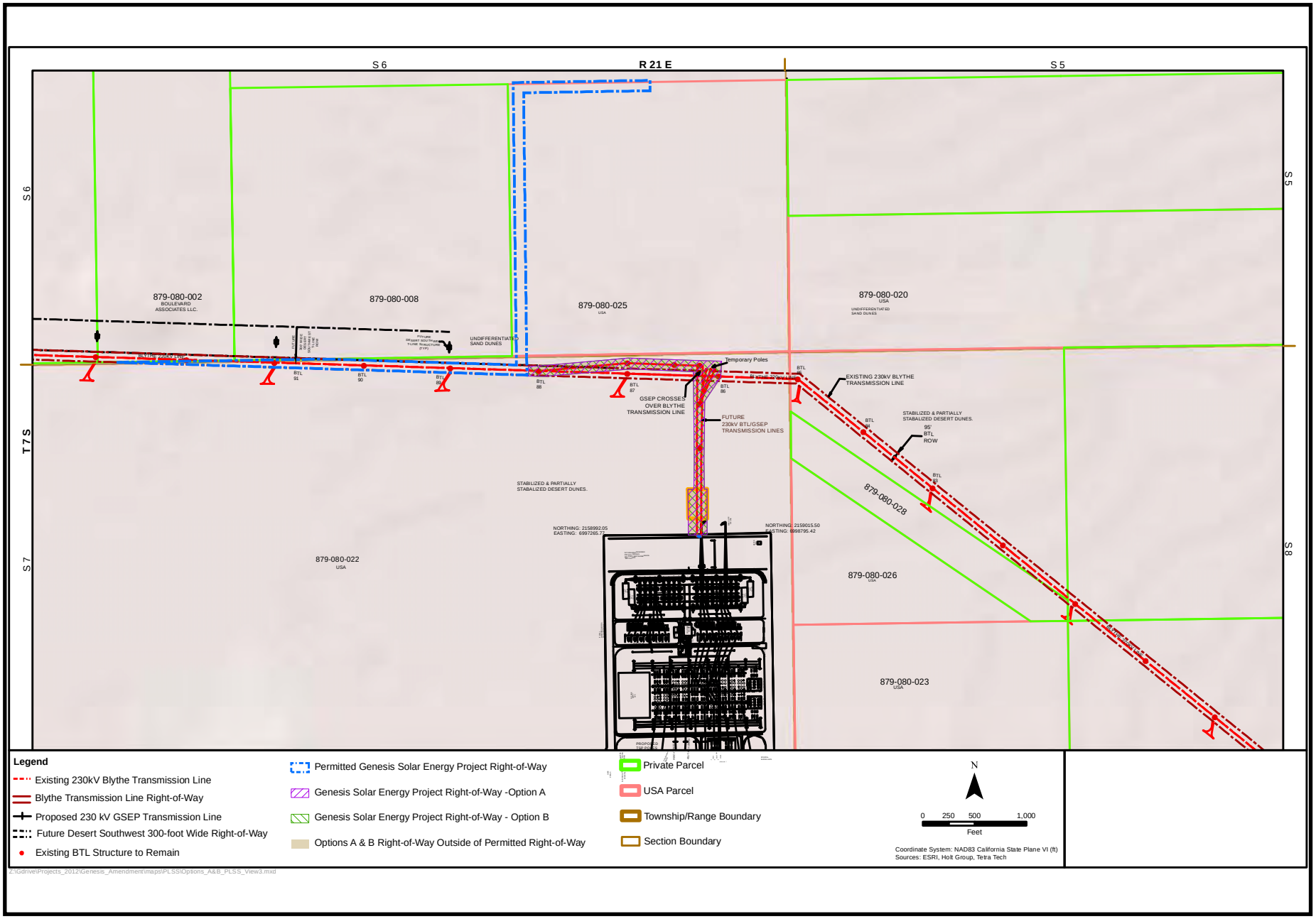


CALIFORNIA ENERGY COMMISSION - SITING, TRANSMISSION AND ENVIRONMENTAL PROTECTION DIVISION

SOURCE: TETRA TECH

FIGURE 3

Genesis Solar Energy Project - Options A & B View 3



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SOURCE: TETRA TECH

GENESIS SOLAR ENERGY PROJECT (09-AFC-8C)

Petition to Amend – Air Quality
Joseph Hughes
June 28, 2012

INTRODUCTION

The Genesis Solar Energy Project (GSEP) was approved by the California Energy Commission (CEC) September 29, 2010 and is currently under construction. The project will consist of two independent concentrated solar electric generating facilities (aka power plants or units) with a nominal net electrical output of 125 megawatts (MW) each, for a total net electrical output of 250 MW. The project will use well-established parabolic trough solar thermal technology to produce electrical power using steam turbine generators (STGs) fed from solar steam generators (SSGs) that transfer energy from the solar-heated heat transfer fluid (HTF) to generate steam. Each plant will use one natural gas-fueled auxiliary boiler to reduce start-up time and provide HTF freeze protection.

On April 7, 2012, Genesis Solar LLC filed a petition to amend the Energy Commission Final Decision (GESP 2012b) to: (1) modify the proposed gen-tie line; (2) modify the location of the proposed gas line; (3) add a ring bus near the Colorado River Substation (CRSS); (4) update and modify equipment descriptions and emission information; and, (5) include the use of portable generators during commissioning activities.

GSEP originally proposed to use two 7-cell wet cooling towers for power plant cooling, but was ultimately approved late in the licensing process to install and operate air cooled condensers (ACCs) and two small 2-cell cooling towers that would significantly reduce water use and emissions of particulate matter less than 10 microns in diameter (PM10). Staff proposes to amend one condition of certification (COC), **AQ-20** to account for the reduction in water use and PM10 emissions associated with the change in cooling tower equipment, and staff proposes to add three COCs, **AQ-SC9** through **AQ-SC11**, to ensure compliance with all LORS during the commissioning period.

LAWS, ORDINANCES, REGULATION, AND STANDARDS (LORS) - COMPLIANCE

GSEP would be subject to all the same laws, ordinances regulations and standards (LORS) as previously analyzed in the Final Commission Decision, including the new 1-hour nitrogen dioxide (NO_2) and sulfur dioxide (SO_2) national ambient air quality standards. The original analysis included the new NO_2 standard but did not include the SO_2 standard, although the project's impact would have been well below this standard had it been assessed.

SETTING

The area designation for all criteria pollutants for the GSEP in Riverside County remains the same as analyzed in the Energy Commission's Final Decision. **Air Quality Table 1** provides the federal and state attainment status for the project site.

Air Quality Table 1
Federal and State Attainment Status
Project Site Area within Riverside County

Pollutant	Attainment Status [1]	
	Federal	State
Ozone	Attainment [2]	Moderate Nonattainment
CO	Attainment	Attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
PM10	Attainment [2]	Nonattainment
PM2.5	Attainment	Attainment

Source: ARB 2012
Notes:
1. Attainment = Attainment or Unclassified, where Unclassified is treated the same as Attainment for regulatory purposes.
2. Attainment status for the site area only, not the entire MDAB.

ANALYSIS

Since the Energy Commission's Final Decision, according to the amendment request, several changes have occurred that require modifications to the project. The proposed modifications are primarily the result of circumstances that were unforeseen at the time the project was licensed. In addition, the applicant/owner is proposing revisions in response to those factors under the control of other agencies/entities.

The proposed modifications are as follows:

1. Modifications to the Gen-tie linear route (w/ Options A and B).
2. Modifications to the natural gas pipeline linear route due to a new point of interconnect with the Southern California Gas Company (SoCalGas) natural gas supply (w/ Options A and B).
3. Implementation of the Large Generator Interconnect Agreement (LGIA) and the resulting redesign/reconfiguration of the connecting substation that will be required to deliver power to the CRSS.
4. Changes to Air Quality conditions related to changes in the permit issued by the Mojave Desert Air Quality Management District (MDAQMD).
5. Use of portable generators during commissioning activities.

Modifications to the Gen-tie Linear Route
The relocation of the gen-tie line would not have a significant impact on air quality any greater than previously analyzed and approved in the Energy Commission's Final Decision. The petition to amend describes two options (options A and B) for relocating the gen-tie line both of which have disturbance areas less than the originally permitted linear disturbance area, and therefore would have less construction related air quality impacts. The originally permitted disturbance area for the gen-tie line totaled 25.59 acres. Options A and B propose 23.48 acres and 24.27 acres respectively.

Modifications to the Natural Gas Pipeline Linear Route
The relocation of the natural gas pipeline would not have a significant impact on air quality any greater than previously analyzed and approved in the Energy Commission's Final Decision. The petition to amend describes two options for relocating the gas line (options A and B) both of which have disturbance areas less than the originally permitted linear disturbance area, and therefore would have less construction related air quality impacts. The originally permitted disturbance area for the gas pipeline totaled 36.36 acres. Options A and B propose 4.84 acres and 9.70 acres respectively.

Implementation of Large Generator Interconnect Agreement
Changes due to implementation of the large generator interconnect agreement (LGIA) created the need for the development of a ring bus/switchyard to be located outside of the CRSS physical area. Construction of the ring/bus switchyard would occur over 1.58 acres. Construction emissions associated with the development of the ring bus/switchyard would be offset by the reduction of construction emissions associated with the relocation of the gen-tie line and gas line and would not have an impact greater than what was originally analyzed and approved. Construction activities would be similar throughout all linear disturbance areas. The originally permitted linear disturbance areas for transmissions lines, gas lines and access roads totaled 87.51 acres. Options A and B which include the addition of the ring/bus switchyard propose a total 64.10 acres and 70.21 acres respectively.

Changes to Equipment Descriptions and Emissions
During the licensing process Genesis Solar LLC provided equipment descriptions and emission estimates based on equipment that was available at the time the Application for Certification was submitted to the Energy Commission. Now that equipment has been purchased, minor updates to equipment descriptions and associated emission factors are necessary to represent the selected equipment. These changes have all been approved in the Mojave Desert Air Quality Management District's Authority to Construct Permit. The administrative changes include edits to equipment descriptions for the HTF ullage system, emergency fire pump engines, emergency generators, auxiliary boilers, and the gasoline dispensing facility.

The GSEP was approved to operate two 315 HP diesel-fueled fire pump engines, each driving a fire suppression water pump. Since the Energy Commission Final Decision, GSEP has decided to only operate one fire pump engine that would serve both power blocks (units). The fire pump engine that was purchased is 327 HP and has negligible

changes in emissions compared to the originally approved 315 HP engine and would be offset by the elimination of one of the two fire pump engines.

The GSEP was also approved to operate two 1,341 HP diesel-fueled emergency generator engines, each driving a generator. However, during the time of purchase, slightly larger (1,474 HP) emergency generators were currently on the market that best met the facility's needs. These engines would meet the same emission rates in grams per brake horsepower hour (g/bhp-hr) as previously analyzed, but due to their slightly larger size, they would emit approximately 0.07 tons/year more NOx combined. The increases in other pollutants are negligible. The slight increase in emissions would be fully offset by the reduction in approved emissions associated with the fire pump engine as noted above.

This petition to amend would also update equipment description and associated emissions for the use of air cooled condensing units and two small two-cell cooling towers in place of the two larger seven-cell wet cooling towers that were originally analyzed for the project. These changes would significantly reduce water use and PM10 emissions.

Use of portable generators during commissioning activities

As noted above, Southern California Edison (SCE) has changed the location of the proposed Colorado River Substation (CRSS). The relocation of the CRSS, and the Large Generator Interconnect Agreement (LGIA), require differences in the line configuration and results in a delay of the online date for the CRSS by approximately eight months. Additionally, due to uncertainty in the ability of Genesis Solar to reach an agreement for back-feed power from the Blythe Energy Transmission Line, Genesis Solar proposes an alternate means to obtain power for plant commissioning through the use of portable generators. Portable diesel-fueled and natural gas–fueled equipment would be used only when grid power is not available during the commissioning period. Genesis Solar has proposed a variety of operating assumptions utilizing a mix of fuel types and generator sizes. These engine generators meet the California Air Resources Board requirements for Portable Equipment Registration Program.

These generators would be used to supply electrical loads for startup and commissioning activities. Power needs during this period are expected to begin in the first quarter of 2013 (0.5 megawatts) and ramp up to approximately 9.5 megawatts by July 2013. These would provide electricity to the water treatment plant, HTF freeze protection pumps, and overflow return pumps. Commissioning activities may also include dewatering, HTF pump commissioning, and steam blows. Power at a lower load will also be needed at night to maintain freeze protection and other limited activities. The generators would be located in the power block area closest to the loads requiring power. The use of portable generators would be discontinued when a back-feed source of grid-based electricity and associated downstream switchgear become available.

Commissioning activities are expected to last approximately 31 weeks, with engine operation occurring over approximately 23 weeks. Peak usage (when power generation

of up to 10 megawatts [MW] may be needed) is expected to occur over a four to eight week period. Attachment B of the *Updated Commissioning Modeling and Emergency Engine Modification for Genesis Solar Energy Project* (GSEP 2012a) provides a hypothetical operating scenario for each engine (fuel type and electrical output) over the duration of the commissioning period. **Air Quality Table 2** provides the worst case modeling scenarios by time of day and season. Generally, during evening hours to early morning hours, the air is more stable and there is less turbulence and less mixing, resulting in less air pollutant dispersion and therefore usually increased air quality impacts near any single air pollution source. Good atmospheric mixing usually occurs during daytime hours. These favorable meteorological conditions are generally extended in the summer and shortened in the winter. **Air Quality Table 2** provides two scenarios; each scenario assumes one unit (power block) is undergoing commissioning while the other unit is being constructed. Scenario A with extended hours from May to August does not exceed Ambient Air Quality Standards (AAQS) only if unit 2 undergoes commissioning first while unit 1 is still being constructed. This worst case modeling scenario was used as the basis for **AQ-SC10**.

Air Quality Table 2
Commissioning Modeling Scenarios

Scenario	Daytime Peak Usage 8 am - 5 pm (7 am – 6 pm, May – August)	Remain Off Peak Usage 5 pm - 8 am (6 pm – 7 am, May – August)
A	Two 500 kW diesel engines, three 1,500 kW diesel engines, and three 1,300 kW natural gas engines (9.4 MW)	Three 1,300 kW natural gas engines (3.9 MW)
B	Three 1,500 kW diesel engines and four 1,300 kW natural gas engines (9.7 MW)	Three 1,300 kW natural gas engines (3.9 MW)

The original Energy Commission Decision analyzed ozone data from the Blythe-445 West Murphy Street monitoring station, PM10, PM2.5, NO_2, and CO data from the Palm Springs-Fire Station monitoring station and SO_2 data from the Victorville-14306 Park Avenue monitoring station. These same stations were used to develop current background concentrations (2009-2011) for the commissioning modeling period. **Air Quality Table 3** provides staff recommended current background concentrations.

Air Quality Table 3
Staff Recommended Background Concentrations 2009 – 2011 (µg/m^3)

Pollutant	Averaging Time	Previous Recommended Background	Current Recommended Background	Limiting AAQS [1]	Current Percent of Standard
NO_2	1 hour	119	90.4	339	27
	1 hour Federal[2]	NA	73.3	188	39
CO	1 hour	2,645	3,450	23,000	15
	8 hour	878	744	10,000	7
PM10	24 hour	83	140	50	280
PM2.5	24 hour Federal[3]	20.5	14.6	35	42
SO_2	1 hour	23.6	136.2	655	20.8
	1 hour Federal[4]	NA	28.7	196	15
	24 hour	13.1	18.4	105	18

Source: ARB 2012, U.S.EPA 2012 and Energy Commission Staff Analysis.
Notes:
1. The limiting AAQS is the most stringent of the CAAQS or NAAQS for that pollutant and averaging period.
2. NO_2 1-hour data shown is 98th percentile value which is the basis of the ambient air quality standard and the basis for determination of the recommended background concentration.
3. PM2.5 24-hour data shown is 98th percentile value which is the basis of the ambient air quality standard and the basis for determination of the recommended background concentration.
4. SO_2 1-hour data shown is 99th percentile value which is the basis of the ambient air quality standard and the basis for determination of the recommended background concentration.

The worst case commissioning scenarios described in **Air Quality Table 2** were used in the air quality modeling impact assessment. In addition to engine operation, the air quality modeling includes 24 hours of operation for the auxiliary boiler and 10 hours of operation for construction combustion equipment (8 am to 6 pm). The engines used would satisfy the U.S. Environmental Protection Agency (EPA) non-road engine Tier 3 and Tier 2 requirements for the 500 kW diesel and 1,500 kW diesel generators, respectively. While actual engine emission rates may be below the emission standards, the criteria pollutant emission factors used as the basis of the modeling were set at the maximum levels allowed for the specific size of engine for the diesel generators to be conservative. The hourly emission rates for the 1,300 kW natural gas generators were provided by the engine manufacturer. **Air Quality Table 4** provides the modeled emission rates by type of equipment.

Air Quality Table 4
Modeled Emission Rates – lb/hr

Equipment	CO	NOx	PM10	PM2.5	SOx	VOC
500 kW Diesel Engine[1]	3.840	4.430	0.220	0.220	0.008	0.443
1,500 kW Diesel Engine[2]	11.530	21.280	0.670	0.670	0.023	2.128
1,300 kW Natural Gas Engine[3]	7.170	4.750	0.280	0.280	0.009	2.980
Auxiliary Boiler[4]	0.563	0.330	0.150	0.150	0.008	0.088
Construction Equipment	0.880	1.784	0.101	0.101	0.002	NA

Notes:
1. Tier 3 Emission Standards for 2006 - 2010 Model Year Engines (between 600 hp and 750 hp)
2. Tier 2 Emission Standards for 2006 - 2010 Model Year Engines (greater than 750 hp)
3. CO, NOx, and VOC based on manufacturer's emissions specification sheet. PM10 and Sox based on AP-42 Table 3.2-2 "Uncontrolled Emissions Factors for Engines"
4. Final Commission Decision

The U.S. EPA recommended AERMOD modeling system was used to calculate worst case project impacts. **Air Quality Table 5** presents the worst case short term modeled impacts. The modeling was conducted to determine which combination of fuels (diesel and natural gas) and equipment sizes (kW) could be used during different periods of the day and approach, but not cause, a short-term violation of a state or federal ambient air quality standard.

Air Quality Table 5
Short-Term AAQS Modeling Results

Pollutant	Averaging Period	Maximum Concentration	Ambient Background	Total Concentration	AAQS	Percent of AAQS
NO_2	1-hour	237.7	90.4	328.1	339	97
	1-hour Federal	107.3[1]	73.3	180.6	188	96
CO	1-hour	639.6	3,450	4,089.6	23,000	18
	8-hour	117.2	744	861.2	10,000	9
SO_2	1-hour	1.2	136.2	137.4	655	21
	1-hour Federal	0.38[2]	28.7	29.1	196	15
	24-hour	0.1	18.4	18.5	105	18
PM10	24-hour	2.4	140	142.4	50	285
PM2.5	24-hour Federal	1.75[3]	14.6	16.35	35	47

Notes:
1. 98th percentile of the 5-year average daily maximum for 1-hour NO_2
2. 99th percentile of the 5-year average daily maximum for 1-hour SO_2
3. high-1st-high averaged over 5 years for PM2.5

All criteria pollutants are expected to remain below their respective AAQS except 24-hour PM10. However, this is because the ambient background where the monitoring station is located already exceeds the standard. The maximum 24-hour PM10 impact caused by all sources during commissioning is only 2.4 µg/m³, or just 5% of the standard. These commissioning impacts are well below the peak construction impacts during the grading phase. As concluded in the Final Staff Assessment, with the implementation of the required mitigation measures during construction, impacts were concluded to not be significant. Since the commissioning phase PM10 impacts are substantially less than the construction grading phase, and are short term, these impacts are also concluded to not be significant.

The total commissioning emissions would be included in the projects annual operating limit and would be restricted to no more than the District's offset threshold as required by District Rule 1303.

CONCLUSIONS AND RECOMMENDATIONS

With implementation of the recommended new and revised Conditions of Certification, staff recommends approval of the requested changes for the GSEP. All requested project modifications would continue to comply with all applicable LORS.

PROPOSED MODIFICATIONS TO EQUIPMENT DESCRIPTIONS AND CONDITIONS OF CERTIFICATION

The following language, equipment descriptions, and Conditions of Certification would be amended in the Final Commission Decision for the Genesis Solar Energy Project to ensure compliance with all LORS. ~~Strikethrough~~ is used to indicate deleted language and bold **underline** for new language.

The purpose of **AQ-SC9** through **AQ-SC11** is to limit emissions from the portable generators during the commission period to the limits proposed and analyzed in the petition to amend. These emission limits and associated time frames were determined by modeling to comply with all Ambient Air Quality Standards (AAQS).

AQ-SC9 The engines used during the commissioning phase shall be registered under the ARB Portable Equipment Registration Program. They shall be fueled with natural gas rather than diesel to the degree that site conditions allow.

Verification: Prior to engine use, the project owner shall provide the District and the CPM documentation of the portable equipment registration from the ARB.

AQ-SC10 The facility is allowed to use portable engines between the hours of 8 am and 5 pm (peak operating hours) as long as the hourly emissions from all portable engines combined do not exceed the following limits:

NOx: 86.95 lb/hr

PM10: 3.29 lb/hr

At all other times (non-peak operating hours) emissions shall be limited to the following:

NOx: 14.25 lb/hr

PM10: 0.84 lb/hr

In addition, from May through August, if power block unit 2 undergoes commissioning first while unit 1 is under construction, then peak operating hours can be extended to begin at 7 am and conclude at 6 pm.

However, if power block unit 1 undergoes commissioning first while unit 2 is under construction, then the following maximum emission limits shall apply from May through August, between the hours of 7 am and 8 am, and 5 pm and 6 pm (between 8 am and 5pm the above mentioned limits for peak operating hours shall apply):

NOx: 82.84 lb/hr
PM10: 3.13 lb/hr

Verification: The project owner shall provide engine operating logs as part of the monthly compliance report as required by AQ-SC5. The engine operating logs shall include a table that shows the hours engine operation occurred, quantity of engines operated during each hour, type of engines (fuel type, engine size and Tier rating) operated during each hour, and total calculated emissions for each hour. Running total emissions shall be provided throughout the commissioning period. In each monthly compliance report, the project owner shall certify that the facility used either grid electricity, or natural gas fueled portable generators rather than diesel fueled portable generators to the maximum degree feasible.

AQ-SC11 The total mass emissions of nitrogen oxides that are emitted by all engines combined during the commissioning period shall not exceed the District's offset threshold of 25 tpy (District Rule 1303).

Verification: In each monthly compliance report, the project owner shall provide a running total of emissions for all engines. Compliance with this limit shall be based on a rolling 12-calendar month averaging period.

EQUIPMENT DESCRIPTION:

Two ~~7~~**2**-cell cooling towers with drift eliminator rate of 0.0005% and water circulation rate of ~~94,623~~**3,450** gpm.

AQ-20 The drift rate shall not exceed 0.0005 percent with a maximum circulation rate of ~~94,623~~**3,450** gallons per minute. The maximum hourly PM10 emission rate shall not exceed ~~2.36~~**0.043** pounds per hour, as calculated per the written District-approved protocol.

Verification: The manufacturer guarantee data for the drift eliminator, showing compliance with this condition, shall be provided to the CPM and the District 30 days prior to cooling tower operation. As part of the Annual Compliance Report the project owner shall include information on operating emission rates to demonstrate compliance with this condition.

~~**AQ-23** This equipment shall not be operated for more than 3,200 hours per rolling twelve month period and more than 15 hours per calendar day.~~

~~**Verification**: The project owner shall submit to the CPM the cooling tower operating data demonstrating compliance with this condition as part of the Annual Operation Report.~~

EQUIPMENT DESCRIPTIONS:

Two, ~~1,341~~**1,474** HP diesel fueled emergency generator engines, each driving a generator.

~~Two~~**One**, ~~315~~**327** HP diesel fueled emergency fire pump engine~~s~~, ~~each~~ driving a fire suppression water pump.

REFERENCES

ARB 2012. California Air Resources Board. California Ambient Air Quality Data Statistics available on ARB website. http://www.arb.ca.gov/adam/ welcome.html. Accessed May 2012.

CEC 2010. California Energy Commission, Final Commission Decision on the Application for Certification for the Genesis Solar Energy Project (09-AFC-08). September 2010.

CEC2010a. California Energy Commission, Final Staff Analysis on the Application for Certification for the Genesis Solar Energy Project (09-AFC-08).March 2010.

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GSEP 2012a. Updated Commissioning Modeling and Emergency Engine Modification for Genesis Solar Energy Project. May 18, 2012.

GSEP 2012b. Genesis Solar Energy Project Petition to Amend, April 2012.

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GENESIS SOLAR ENERGY PROJECT (GSEP), 09-AFC-8C
BIOLOGICAL RESOURCES

Request to Amend Final Commission Decision

Laura Zaninovich

INTRODUCTION

This Petition to Amend the Commission's Decision for the Genesis Solar Energy Project (GSEP), 09-AFC-8C requests modifications and an alternative (Options A and B) to the approved gen-tie line, modifications to the approved natural gas line route (also Options A and B), the addition of a ring bus near the new Colorado River Substation location, and modifications to the air quality permits issued by Mojave Desert Air Quality Management District (MDAQMD). There are no biological concerns regarding the changes to the air quality permits. This analysis addresses the proposed changes to the project's linear facilities and potential impacts to state and federally protected species and other biological resources.

COMPLIANCE WITH LAWS, ORDINANCES, REGULATIONS, AND STANDARDS

No new state, federal, or local laws, ordinances, regulations, and standards (LORS) have been adopted since the Genesis Solar Energy Project Commission Decision that would affect this project. The proposed changes would not cause the GSEP to be out of compliance with applicable LORS.

ANALYSIS

Staff reviewed the GSEP Commission Decision (CEC 2010a), the Staff Assessment/Draft Environment Impact Statement (CEC 2010d), the Revised Staff Assessment (CEC 2010c), the Revised Staff Assessment Supplement (CEC 2010b), and the GSEP Petition to Amend (GSEP 2012) to determine if the proposed new linear facility construction would have any new or different impacts than what were identified for the original project.

MODIFICATIONS TO THE GAS LINE ROUTE DUE TO THE NEW SOCAL GAS REDUCER VALVE TIE-IN LOCATION AND NEW GEN-TIE ROUTE DUE TO THE RELOCATED COLORADO RIVER SUBSTATION

SoCal Gas recently determined that the GSEP must receive its gas supply via a tap at a reducer station located south of Interstate-10 (I-10) and east of Wiley's Well Road instead of at the metering station located north of I-10 and west of Wiley's Well Road. The Petition to Amend identifies two possible routes, Option A and B, to connect the reducer valve station to the GSEP gas meter. While pipeline options were being considered, it was determined that alternative gen-tie routes need to be considered due in part to the required gas pipeline route changes and engineering consideration

regarding crossing existing transmission lines, as well as the Large Generator Interconnect Agreement (LGIA).

Biological resource surveys for the unsurveyed areas along the proposed gas pipeline/gen-tie routes for Option A and B were conducted on March 15 and 16, 2012. No federally or state-listed wildlife species were observed during the surveys. However, along Option B, desert tortoise (state and federally listed Endangered) permineralized shell fragments, Mojave fringe-toed lizards (BLM Sensitive), an inactive burrowing owl burrow (state and federal Species of Concern), and inactive desert kit fox (state Fully Protected Furbearer) natal dens were observed. Impact avoidance and mitigation measures included in the Energy Commission's Final Decision and conditions of certification and the Bureau of Land Management Right-of-Way Grant for the GSEP are still appropriate and must be implemented during construction of the new linear routes. Due to the likely presence of desert kit fox along linear route Option B, staff proposes changes to Condition of Certification **BIO-17** to address the ongoing canine distemper concerns in the GSEP region.

Option A is the permitted gen-tie route currently in the Commission Decision and BLM right-of-way; however, changes are needed to the right-of-way to allow the gen-tie to cross the Southern California Edison (SCE) Eagle Mountain 160 kV line, but still tie into the Blythe Energy Transmission Line (BETL) at Pole 113. SCE requires that non-SCE transmission lines cross their systems lines at a 90-degree angle. The presently approved gen-tie route does not provide sufficient room to facilitate that crossing, so two new turning structures will be required to cross the Eagle Mountain line at a perpendicular angle, but then travel south within the approved right-of-way.

SoCal Gas will need to construct the new gas pipeline from the new reducer valve station located south of Wiley's Well interchange to the west and north and under I-10 and remain within the right-of-way until it reaches the GSEP metering station and within the original gas pipeline footprint north of I-10.

The total linear disturbance acreage originally permitted for the gas pipeline and gen-tie was 87.51 acres; however, the anticipated linear impact acreage for Option A would be 64.10 acres. Habitat (acreage) impacts would be less because no construction crossover structures will be necessary, the gas pipeline construction right-of-way would be shorter and narrower, fewer spur roads will be necessary to the gen-tie poles, and the gen-tie access road would be shorter (6.5 miles vs. 5.3 miles). Since the impact acreage for Option A would be less than the permitted impact acreage for the original gen-tie and gas pipeline route, no additional compensatory mitigation would be required since the project owner has already provided compensatory mitigation for the original project and the impact acreage would be less if Option A is constructed.

Option B would involve a different gas pipeline route and gen-tie route. SoCal Gas would construct the pipeline from the current reducer valve south of Wiley's Well Road to the east and then north and under I-10 and cross under the Eagle Mountain transmission line before turning west to connect to the existing SoCal Gas meter station. The pipeline will parallel the existing Eagle Mountain line until reaching the metering station within the original project right-of-way.

The new gen-tie line would travel southeast from the power plant site, parallel the Eagle Mountain transmission line, and continue north and east of the Wiley's Well rest area. The new gen-tie would then travel south to the Blythe Energy Transmission Line and connect at Pole 113, same as Option A.

The total linear disturbance acreage permitted for the GSEP gas pipeline and gen-tie was originally 87.51 acres; however, 70.21 acres would be impacted if Option B were constructed. Since the impact acreage for Option B would be less than the permitted impact acreage for the original gen-tie and gas pipeline route, no additional compensatory mitigation would be required since the project owner has already provided compensatory mitigation for the original project and the impact acreage would be less if Option B is constructed.

GEN-TIE ROUTE MODIFICATIONS AND NEW RING BUS/SWITCHYARD ADJACENT TO THE NEW COLORADO RIVER SUBSTATION

Following the Energy Commission's Final Decision for the GSEP, Southern California Edison (SCE) changed the location of the Colorado River Substation to one of the environmentally superior alternatives (southernmost alternative) identified in the California Public Utilities Commission staff's Final Supplemental Environmental Impact Report (FSEIR). Implementation of a Large Generator Interconnect Agreement, which occurred after the Final Decision, requires that a new ring bus/switchyard to be constructed immediately north of the Colorado River Substation. This change in the Colorado River Substation location triggers the realignment of the GSEP gen-tie line so that it will travel approximately 1,600 feet south to the Colorado River Substation and will be located on the southern edge of the sand transport corridor, which is Mojave fringe-toed lizard habitat. As with Options A and B, surveys were conducted on March 15 and 16, 2012, and no state or federally listed wildlife species where observed. However, Mojave fringe-toed lizards were seen in the area of the proposed new gen-tie route and ring bus/switchyard, however no additional or new biological resource impacts are anticipated for this proposed new gen-tie route and ring bus/switchyard.

The new ring bus/switchyard will occupy approximately 1.58 acres; however, this acreage is included within the impact acreage for the new, shorter southern gen-tie to the Colorado River Substation. Since the acreage impacts would be less than what was permitted for the original route, even including the new ring bus/switchyard, no additional habitat compensation will be required. The ring bus/switchyard would be fenced with chain link fencing, which would allow the sand to continue to blow through the ring bus/switchyard area thereby lessening the likelihood of any interruption of sand transport and potential indirect effects to nearby sand dunes and associated species such as the Mojave fringe-toed lizard.

CUMULATIVE IMPACTS

The project as amended will not contribute to cumulative biological resources impacts to a greater degree than originally analyzed in the Commission Decision

CONCLUSIONS AND RECOMMENDATIONS

Staff concludes that the project changes described in the Petition to Amend will result in similar or fewer impacts than those addressed in the Commission Decision, regardless of whether Option A or Option B is chosen. All biological resources conditions of certification in the Commission Decision still apply and must continue to be implemented to address the anticipated impacts associated with construction work covered by this amendment and for the entire project. Due to ongoing concerns regarding the recent canine distemper outbreak in the region's desert kit fox population and that desert kit foxes are likely to continue to be encountered during project construction and operation, staff recommends significant changes to Condition of Certification **BIO-17** to address these concerns. The proposed changes would not cause the GSEP to be out of compliance with applicable LORS.

PROPOSED MODIFICATIONS TO CONDITION OF CERTIFICATION

Staff recommends that the following biological resources condition of certification be modified to address the ongoing concern regarding impacts to the desert kit fox, a Fully Protected furbearer under Fish and Game Code Title 14, and the spread of canine distemper in the regional population. The recommended changes to the condition of certification are shown as ~~strikethrough~~ for deletions and **bold and underlined** for additions.

AMERICAN BADGER AND DESERT KIT FOX ~~IMPACT AVOIDANCE AND MINIMIZATION MEASURES~~ **MITIGATION AND MONITORING PLAN**

BIO-17 **The project owner shall develop and implement an American Badger and Desert Kit Fox Mitigation and Monitoring Plan (plan). The objective of the plan shall be to avoid direct impacts to the American badger and desert kit fox as a result of construction of the power plant and linear facilities, as well as during project operation and decommissioning of the Genesis Solar Energy Project. The draft plan submitted by the project owner shall provide the basis for the final plan, subject to review and comment by Bureau of Land Management (BLM) and revision and approval by the Compliance Project Manager (CPM), in consultation with California Department of Fish and Game (CDFG). The final plan shall include, but is not limited to, the following procedures and impact avoidance measures:**

~~To avoid direct impacts to American Badgers and desert kit fox, preconstruction surveys shall be conducted for these species concurrent with the desert tortoise surveys. Surveys shall be conducted as described below:~~

1. **Complete pre-construction den surveys for any new construction activity**. Biological Monitors shall perform pre-construction surveys for badgers and kit fox dens in the Project area, including areas within ~~90~~

100 feet of all Project facilities, utility corridors, and access roads. Surveys may be concurrent with desert tortoise surveys. If dens are detected, each den shall be classified as inactive **non-natal, inactive natal**, potentially active, ~~or~~ definitely active **non-natal, or active natal den**.

a. **Inactive non-natal and inactive natal dens**. Inactive **non-natal and inactive natal** dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers or kit fox.

b. **Potentially active and definitely active non-natal dens**. Potentially and definitely active **non-natal** dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium (such as diatomaceous earth or fire clay) and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, and especially if high or low ambient temperatures could potentially result in harm to kit fox or badger from burrow exclusion, various passive hazing methods may be used to discourage occupants from continued use. **A detailed description of the types and methods of passive hazing to be used must be included in the plan; however, approval must be granted by the CPM, in consultation with CDFG prior to implementation**. After verification that the den is unoccupied, it shall then be excavated by hand and backfilled to ensure that, no badgers or kit fox are trapped in the den.

c. **Active natal dens**. **During denning season (American badger – March to August, and desert kit fox – February to June), any active natal dens that are detected in the pre-construction surveys shall have a buffer zone of 300 feet, pending approval from the CPM, in consultation with CDFG, to 500 feet surrounding the den and monitoring measures shall be implemented. Discovery of an active natal den that could be impacted by the project shall be reported to the CPM and CDFG within 24-hours of the discovery. A detailed description outlining the types and methods of monitoring must be included in the plan. The den location shall be mapped and submitted along with a report stating the survey results to the CPM and CDFG. The Designated Biologist shall monitor the natal den until he or she determines that the pups have dispersed. No disturbance will be allowed for any animal associated with a natal den and any activities that might disturb denning activities shall be prohibited within the buffer zone. Once the pups have**

dispersed, various passive hazing methods may be used to discourage den reuse. A detailed description of the types of passive hazing to be used must be included in the plan; however, approval must be granted by the CPM, in consultation with CDFG prior to implementation. After verification that the den is unoccupied, it shall then be excavated by hand and backfilled to ensure that, no badgers or kit fox are trapped in the den.

d. **Exception for American badger**. In the event that passive relocation techniques fail for badgers, the ~~Applicant~~ **project owner** will contact **the CPM and** CDFG to explore other relocation options

Additional protection measures to be included in the plan and implemented. The Designated Biologist shall make certain that all pipes within the project disturbance area must be capped and/or covered every evening or when not in use to prevent desert kit fox or other animals from accessing any pipes. All water sources shall be covered when not in use to prevent drowning.

2. **Notify the CPM and CDFG if injured, sick, or dead American badger and desert kit fox are found. If an injured, sick, or dead animal is detected on any area associated with the Genesis project site or associated linear facilities, the CPM and the Ontario CDFG Office shall be notified immediately by phone. Written follow-up notification via FAX or electronic communication shall be submitted to the CPM and CDFG within 24 hours of the incident and shall include the following information as appropriate:**

   a. **Injured animals. If an American badger or desert kit fox is injured because of any project-related activities, the Designated Biologist or approved Biological Monitor shall immediately notify the CPM and CDFG personnel regarding the capture and transport of the animal to CDFG-approved wildlife rehabilitation and/or veterinarian clinic. Following the phone notification, the CPM and CDFG shall determine the final disposition of the injured animal, if it recovers. A written notification of the incident shall be sent to the CPM and CDFG containing, at a minimum, the date, time, location, and circumstances of the incident.**

   b. **Sick animals. If an American badger or desert kit fox is found sick and incapacitated on any area associated with the Genesis project site or associated linear facilities, the Designated Biologist or approved Biological Monitor shall immediately notify the CPM and CDFG personnel for immediate capture and transport of the animal to a CDFG-**

approved wildlife rehabilitation and/or veterinarian clinic. Following the phone notification, the CPM and CDFG shall determine the final disposition of the sick animal, if it recovers. If the animal dies, a necropsy shall be performed by a CDFG-approved facility to determine the cause of death. The project owner shall pay to have the animal transported and a necropsy performed. A written notification of the incident shall be sent to the CPM and CDFG and contain, at a minimum, the date, time, location, and circumstances of the incident.

c. **Fatalities. If an American badger or desert kit fox is killed because of any project-related activities during construction, operation, decommission or is found dead on the project site or along associated linear facilities, the Designated Biologist or approved Biological Monitor shall immediately refrigerate the carcass and notify the CPM and CDFG personnel within 24 hours of the discovery to receive further instructions on the handling of the animal. If the animal is suspected of dying of unknown causes, a necropsy shall be performed by a CDFG-approved facility to determine the cause of death. The project owner shall pay to have the animal transported and a necropsy performed.**

The California Department of Fish and Game Veterinarian's guidance regarding impact avoidance measures and what should be done to prevent disease spread should be incorporated into the final plan and implemented.

The plan must also include measures to reduce traffic impacts to wildlife if the project owner anticipates night-time construction. The plan must also include a discussion of what information will be provided to all night-time workers, including truck drivers, to educate them about the threats to kit fox, what they need to do to avoid impacts to kit fox, and what to report if they see a live, injured, or dead kit fox.

Verification: **No fewer than 30 days prior to the start of any construction-related ground disturbance activities associated with the new project related facilities, the project owner shall provide the CPM, BLM, and CDFG with a draft American Badger and Desert Kit Fox Mitigation and Monitoring Plan for review and comment.**

No fewer than 10 days prior to start of any ground disturbance activities associated with the new project related facilities, the project owner shall provide an electronic copy of the CPM -approved final plan to the CPM and CDFG and implement the plan.

The Project owner shall submit a report to the CPM and CDFG within 30 days of completion of any badger and kit fox surveys. The report shall describe survey

methods, results, impact avoidance and minimization measures implemented, and the results of those measures.

No later than 2 days following a phone notification of an injured, sick, or dead American badger or desert kit fox, the project owner shall provide to the CPM and CDFG, via FAX or electronic communication, a written report from the Designated Biologist describing the incident of sickness, injury, or death of an American badger or desert kit fox, when the incident occurred, and who else was notified.

Beginning with the first month after start of construction and continuing every month until construction is completed, the Designated Biologist shall include a summary of events regarding the American badger and desert kit fox in each Monthly Compliance Report.

No later than 45 days after initiation of project operation, the Designated Biologist shall provide the CPM a final American Badger and Desert Kit Fox Mitigation and Monitoring Plan that includes: 1) a discussion of all mitigation measures that were and currently are being implemented; 2) all information about project-related kit fox and badger injuries and/or deaths; 3) all information regarding sick kit fox and badger found within the project site and along related linear facilities; and 4) recommendations on how mitigation measures might be changed to more effectively minimize and mitigate the impacts of future projects on the American badger and desert kit fox.

REFERENCES

CEC 2010a California Energy Commission, Commission Decision for Genesis Solar Energy Project (09-AFC-8), October 2010.

CEC 2010b Revised Staff Assessment Supplement for Genesis Solar Energy Project, July 2010.

CEC 2010c Revised Staff Assessment for Genesis Solar Energy Project, June 2010

CEC 2010d Staff Assessment/Draft Environmental Impact Statement for Genesis Solar Energy Project, March 2010.

GSEP 2012 Genesis Solar Energy Project's Request for Petition to Amend (09-AFC-8), April 2012.

GENESIS SOLAR ENERGY PROJECT (GSEP-09-AFC-80)

Request to amend generator tie line, and addition of a new switchyard

Transmission System Engineering Staff Analysis

Sudath Edirisuriya and Mark Hesters

INTRODUCTION

Genesis Solar, LLC (Genesis Solar) a wholly owned subsidiary of NextEra Energy Resources, LLC is proposing to construct and operate the Genesis Solar Energy Project (GSEP) a 250 MW Solar Thermal Power Generating project near the City of Blythe, California. The Genesis Power Purchase Agreement with Pacific Gas and Electric requires measurement of the energy delivered from the project at the California ISO revenue meter at the Colorado River Substation (CRSS). Southern California Edison (SCE) is currently constructing the CRSS and has not allowed Genesis Solar to install the required metering facilities on the premises of the CRSS. Genesis Solar proposes to install the required metering and protection equipment outside of the boundaries of the CRSS. The proposed modifications include rerouting a segment of the generator tie line and the installation of a new 1.6-acre 230 kV switchyard in a three breaker ring bus arrangement. The detailed descriptions of the design facilities have been discussed in the amendment (section 2.0 to 3.0, amendment, Genesis Solar Energy Project).

The generator tie line that was certified by California Energy Commission (CEC) would travel in a southeasterly direction to a point where it would cross the existing Imperial Irrigation District's Blythe to Eagle-Mountain 161-kV transmission line. From the I-10 crossing, the generator-tie line would continue south, where it would eventually intersect with the Blythe Energy Project Transmission Line (BEPTL) .From that point, the generator tie line would travel east and share a portion of the double circuit transmission poles with the BEPTL, where it would eventually terminate at the interconnection point within the proposed CRSS. The 230-kV single circuit generator tie line would be constructed with 795 kcmil, steel reinforced, aluminum conductor with a continuous ampacity rating of approximately 906 amps per conductor or 1816 Amps per bundle. Each circuit would be supported by mono-pole structures at approximately 800 feet intervals with final heights as determined during detailed design.

INTERCONNECTION MODIFICATION DUE TO RELOCATION OF THE COLORADO RIVER SUBSTATION

The proposed generators tie line modification options are as follows;

Option One:

- SCE has moved the CRSS planned location to the south of the BEPTL, as a result changes are necessary to the ROW to allow the gen-tie to cross the SCE Eagle Mountain 160kV line and tie into the BEPTL. The presently approved Right of Way (ROW) does not provide sufficient room to facilitate that crossing. The proposed gen-tie route reflects a due-east path from the GSEP plant site to a point approximately 300 ft. west of Eagle Mountain line. To cross the Eagle Mountain line at a perpendicular angle, the GSEP line will then need to turn east-northeast, paralleling the Blythe-Eagle Mountain line for approximately 720 ft. to a point within the approved ROW. Two new turning structures will be required to cross the Eagle

Mountain line at a perpendicular angle. The GSEP line will then continue south within the approved ROW. One turning structure will be needed north of the Desert Southwest ROW to span future line and connect into BEPTL. A new pole will need to be added west of BEPTL pole number 116 to facilitate the connection of the GSEP line to BEPTL. Because BEPTL poles 116 and 115 are currently single circuit, both poles will need to be exchanged for double circuit poles. BEPTL poles 114 through 88 are already double circuit and the GSEP tie-line will continue along these structures without any additional pole replacements. The GSEP generator tie line would come off the BEPTL structures at pole 88. A new pole would need to be placed approximately 50 feet north of BEPTL pole 87. A large turning structure of concrete, steel or wood would then be placed to the north of BEPTL between poles 87 and 86.The proposed double circuit pole would be approximately 130 ft. high and would allow for a perpendicular crossing over the existing BEPTL.

Option two:

- From the plant site, as the GSEP gen-tie line approaches the Eagle Mountain line, the generator tie line would parallel the Eagle Mountain 161kV line and continue North and East of the Wiley's Well rest area. A self-supporting steel turning structure (130 feet high) would be needed to turn the GSEP gen-tie due south and cross over the Eagle Mountain line between Eagle Mountain pole numbers 124699 and 124700. The gen-tie would then travel south for 7900 feet before crossing the future Desert Southwest line at perpendicular angle. A new turning structure 130 feet high approximately 30 feet northeast of BEPTL pole number 114 would be needed to facilitate connecting the gen-tie line to BEPTL Pole 113 which is doubled circuited and ready to accept the GSEP circuit.

The proposed 230-kV single circuit generator tie line options would be constructed with 795 kcmil, steel reinforced, aluminum conductor with a continuous ampacity rating of approximately 906 amps per conductor or 1816 amps per bundle. The proposed single-circuit would be adequate to withstand the full load output of the project. Conditions of Certification TSE-1 through TSE-8 require that the transmission facilities be designed and built in accordance with applicable Laws, Rules, Ordinances and Standards. Additionally, SCE would construct a new distribution power line from north of I-10 south to the CRSS to serve distribution power to the CRSS. The GSEP would need to run a short tap to the distribution line from the West to serve the power to the ring bus switchyard. The applicant has proposed up to six wood distribution poles to be installed to accommodate this tap line.

The proposed modification due to addition of the switch yard as follows;

- The proposed 230kV three breaker ring bus switchyard would contain metering and protection equipments required under the LGIA, and it would provide back feed power to facilitate plant commissioning activities that are necessary due to the delay in the CRSS schedule.

- The switchyard consists of 230kV breakers; disconnect switches, Remote Terminal Units (RTU) and telecommunication paths for Special Protection Systems (SPS).

- The ring bus breaker arrangement of the switchyard would facilitate the full interconnection requirements necessitated by the LGIA and would allow GSEP to operate continually without interruption.

- The three breaker ring bus switchyard would facilitate the delivery of the essential temporary 230kV back feed power to the plant from the existing BEPTL. The switchyard would measure 260 ft. long and 180ft wide and cover the area of 46,800 square feet. The switchyard would be designed and built in accordance with the LORS proposed by the final decision.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) COMPLIANCE

- There are no new or changed LORS applicable to the changes proposed in this amendment.

CONCLUSION AND RECOMMENDATIONS

Staff recommends approval of the requested changes;

- The proposed single circuit would be adequate to withstand the full load output of the project and should be designed and built in accordance to the LORS proposed by the CEC final decision.

- The proposed 230kV three breaker ring bus would contain metering and protection equipments required under LGIA and it would improve the reliability and operational standards of the California ISO's electric transmission facilities.

- The ring bus breaker arrangement of the switchyard would accommodate the full interconnection requirements necessitated by the LGIA and it would allow GSEP to operate continually without any interruption and will improve the reliability and operational standards.

- The proposed interconnection would not affect the GSEP ability to comply with all applicable Laws, Ordinances, Regulations and Standards (LORS). Therefore; Staff proposed COC's would remain unchanged in the final decision of the GSEP project.

REFERENCES

Genesis Solar Energy Project Eastern Riverside County, California; amendment submitted to the California Energy Commission

GENESIS SOLAR ENERGY PROJECT (GSEP), 09-AFC-8C
Cultural Resources
Request to Amend Final Commission Decision
Beverly E. Bastian

INTRODUCTION

The Genesis Solar Energy Project (GSEP) is a nominal 250-megawatt solar thermal electrical power generating facility currently under construction in eastern Riverside County, about 20 miles east of Blythe, California. The California Energy Commission (Energy Commission) certified the project on September 29, 2010.

Unforeseen and changed circumstances have affected the GSEP's:

- Energy Commission-permitted connection to the electrical grid via the Colorado River Substation;
- Energy Commission-permitted connection to a natural gas supply;
- Large Generator Interconnect Agreement (LGIA) with the California Independent System Operator (CAISO) and Southern California Edison (SCE); and
- Air quality permits from the Mojave Desert Air Quality Management District (MDAQMD) (Genesis Solar, 2012, p. 1).

As explained in the petition received by the Energy Commission on April 13, 2012, these changes caused the project owner, Genesis Solar, LLC (Genesis Solar), to ask the Energy Commission to approve project description changes necessitated by the circumstances listed above.

These changes include:

- Re-routing the project's generator tie-in transmission line (gen-tie line) to connect into the Colorado River Substation in its new location and to cross SCE's Eagle Mountain 160-kV transmission line at a perpendicular angle, as required by SCE;
- Re-routing the project's secondary transmission telecommunication line;
- Re-routing the project's natural gas connection pipeline to a different valve location, as required by the Southern California Gas Company (SoCal Gas);
- Adding a ring bus/switchyard near the Colorado River Substation, into which the GSEP gen-tie line connects, as required by the LGIA; and
- Obtaining updated permits from the MDAQMD that describe the equipment and emissions of the equipment actually purchased for the project (Genesis Solar, 2012, pp. 1, 3–4).

In its petition, Genesis Solar identified, two reconfigured routes for the gen-tie line (Options A and B), two reconfigured routes for the natural gas pipeline (largely coincident with gen-tie line Options A and B), and a new ring bus/switchyard, to be located north of the Colorado River Substation. Option A differs very little from the Energy Commission-permitted route for the gen-tie line and the secondary transmission telecommunication line, while Option B is entirely different from the permitted route until the gen-tie line and the secondary transmission telecommunication line reach the Blythe Energy Transmission Line (Field 2012). The Option A and Option B natural gas pipeline routes both differ from the permitted route (Genesis Solar, 2012, pp. 8–11, figs. 2, 3, 4). These changes have the potential to physically affect cultural resources, whereas

updating the MDAQMD permits does not. Therefore, in its analysis below, cultural resources staff assesses only the potential impacts of the gen-tie routes, the secondary transmission telecommunication routes, the gas pipeline routes, and the ring bus/switchyard.

In connection with its analysis, staff provides an overview of the environmental setting and history of the area where the project is located and an inventory of the cultural resources identified in the area affected by the amended gen-tie line, secondary transmission telecommunication line, and gas pipeline routes, and the new ring bus/switchyard. Staff's analysis entails two evaluations: 1) determining if any of the identified cultural resources that may be impacted by the proposed project changes are historically significant under the California Environmental Quality Act (CEQA), i.e., eligible for the California Register of Historical Resources (CRHR) (Cal. Code of Regs, Title 14, Chap. 3, Sec. 15064.5 (a); and 2) determining if the proposed GSEP actions would affect any CRHR-eligible cultural resources so adversely that their historical significance would be materially impaired. Such adverse impacts are defined under CEQA as significant impacts to the environment (Cal. Code of Regs, Title 14, Chap. 3, Sec. 15064.5 (b)), requiring either avoidance or mitigation that would reduce the impacts to a less than significant level, or to the extent feasible if impacts cannot be mitigated to a less than significant level.

LAWS, ORDINANCES, REGULATIONS AND STANDARDS (LORS) COMPLIANCE

There are no new or changed LORS applicable to the actions proposed in this amendment.

SETTING, BACKGROUND, AND ANALYSIS

The GSEP is located in the Chuckwalla Valley, in the northwestern part of the Colorado Desert.[1] Over the past 12,000 years, the Chuckwalla Valley's harsh environment and paucity of natural water supplies have been a challenge to the exploitation of natural resources in the region, development of trans-desert routes for the movement of people and goods between more clement places, and establishment of permanent settlements. This challenge confronted both the prehistoric peoples of the region and the later historic-period travelers, miners, and settlers.

The plant site occupies part of the northern edge of Ford Dry Lake, which is a playa (ephemeral lake). But periodically in the past 12,000 years, Ford Dry Lake flooded and held water for sustained periods during which plants and animals flourished in and around it. These resources attracted Native Americans, resulting in prehistoric archaeological sites scattered around the margins of the lake. The Chuckwalla Valley has other playas and several places where the kinds of stone that prehistoric Native Americans used to make tools are concentrated, resulting in associated prehistoric archaeological sites. Other resources used by prehistoric Native Americans for food and materials were seasonally available in the Chuckwalla Valley, so archaeologists find

[1] Background information below is from Bagwell and Bastian, 2010, pp. C.3-13–C.3-35.

sites in the valley representing almost the full span of prehistory in the area, from about 8,000 years ago up through about 300 years ago.

During late prehistoric and historic times, an extensive network of Native American trails criss-crossed the Colorado Desert and environs. Segments of some trails are still visible, connecting various important natural and cultural landscape elements, such as springs, toolstone sources, and villages. These trails were often marked by votive stone piles (cairns) and ceramic sherd scatters (pot drops), which were isolated scatters of sherds from a single pot, possibly associated with sacred activity. After Native Americans showed the predominant east-west-running trails to Euro-Americans, these trails were adopted by the newcomers to cross and explore the desert.

In the late prehistoric and historic periods, it is unclear which Native American group or groups occupied or used the Chuckwalla Valley, but the Chemehuevi, Serrano, Cahuilla, Mojave, Quechan, Maricopa, and Halchidhoma may all have used the area at different times. Given its east-west orientation and location, the Chuckwalla Valley may have been neutral territory that served as an east-west trade and travel corridor, monopolized by no Native American group in particular.

In its 2010 simultaneous review of the licensing applications of GSEP, Blythe Solar Power Project, and Palen Solar Power Project, Energy Commission cultural resources staff identified a regional cultural landscape (historic district) that staff assumed eligible for the CRHR and to which staff assumed most prehistoric archaeological resources found on the three large project sites were contributors. Staff defined the Prehistoric Trails Network Cultural Landscape (PTNCL) as the Halchidhoma Trail and the associated joining and diverging trails (and trail-related features such as pot drops and rock cairns), and the varied loci of importance to prehistoric Native Americans that these trails connected. These loci included springs (and the playas when they were not dry), food and materials resource areas, and ceremonial sites (geoglyphs, rock alignments, petroglyphs). Staff did not definitively establish the boundaries of the PTNCL, but at this time, staff considers the boundaries to roughly coincide with the geographic boundaries of the Chuckwalla Valley and the Palo Verde Mesa.

During the historic period, Euro-American activities in the Chuckwalla Valley have been centered on the establishment of transportation routes, mineral exploitation, and military uses. The Colorado Desert was seldom visited during the periods of Spanish and Mexican control—the seventeenth and eighteenth centuries. The first Euro-American incursion of any scale into the Chuckwalla Valley occurred in the mid-nineteenth century, when the discovery of gold in California lured thousands of gold-seekers to venture across the uncharted Chuckwalla Valley, the lucky ones traveling between Santa Fe and Los Angeles on Native American trails that connected the few reliable water sources. The building of the Southern Pacific Railroad across the desert in 1883 facilitated the arrival and sustained enterprise of the next influx of Americans into the region, who were, again, in search of minerals. The 1880s and 1890s saw the development of the mining regions of eastern Riverside County, with gold, silver, fluorite, manganese, copper, gypsum, and uranium being produced. Intermittent mining activity has occurred in the area since that time.

The entry of the United States into World War II in late 1941 set the stage for the Chuckwalla Valley's most intensive use in any time period, as a training ground, on a

massive scale, for American soldiers. The Desert Training Center/California-Arizona Maneuver Area (DTC/C-AMA), which was in operation from 1942–1944, was chosen by General George S. Patton, Jr. to prepare troops for the harsh environment and extreme combat conditions of the North Africa Campaign. With the winding down of that campaign in early 1943, the purpose of the DTC/C-AMA became generalized large-scale combat training and maneuvering. At 12,000,000 acres, the DTC/C-AMA was the largest-ever military training center, stretching from west of Pomona, California, halfway to Prescott and Phoenix in Arizona, and north into Nevada. After two years in operation and the training of more than one million troops, the DTC/C-AMA was closed in 1944 as a result of the pressing need in the Pacific theatre for the skills of the training staff. Following the closure of the DTC/C-AMA, dismantling and salvage efforts ensued, and the land was ultimately returned to private ownership and Bureau of Land Management stewardship.

Along with the PTNCL, cultural resources staff identified a second regional cultural landscape (historic district), the Desert Training Center Cultural Landscape (DTCCL), that staff also assumed eligible for the CRHR under Criterion 4 as the largest and only such military training facility in American military history. Most of the cultural resources associated with the DTCCL are archaeological resources, such as refuse deposits, tank tracks, foxholes, and emplacements, but the archaeological remains of airfields, camps, hospitals, and maneuver areas are also known. Staff assumed that all such archaeological resources found on the three project sites are contributors to the DTCCL and thus eligible under CRHR Criterion 4 for their ability to yield information important in history.

Several previous cultural resources surveys identified archaeological sites (prehistoric and historic-period), built-environment resources, and ethnographic resources on and around the Energy Commission-permitted GSEP project site and its linear facility routes (Farmer, et al 2009, Keller 2010, Vargas 2010). These surveys covered most of the area where potential impacts from the currently proposed project changes could affect cultural resources. The Option B gen-tie–gas-pipeline route, however, included 77.6 acres that had not been subject to Class III archaeological survey: specifically, “77.6 acres located on portions of Sections 28, 29, and 33 of Township 6 South Range 20 East, and Section 4 of Township 7 South Range 20 East” on the Hopkins Well 7.5” quadrangle (Tennyson, 2012, p. 1). Consequently, pursuant to submitting its amendment petition to the Energy Commission, Genesis Solar directed the GSEP cultural resources consultant, Matthew Tennyson, to survey that previously unsurveyed area for cultural resources.

This additional survey was done between March 3, and March 6, 2012. The survey covered the width of the Option B route corridor, plus 50 feet to either side, for the entire length of the Option B route, except for a short stretch on the northwest end that had been surveyed previously. The survey used a maximum transect interval of 15 meters (Tennyson, 2012, p. 11, fig. 3). As a result of the survey, four archaeological sites and eight isolated finds were recorded (Tennyson, 2012, pp. 13, 16).

The four sites included:

- GEN-JW-P-001, a scatter of some 25 prehistoric ceramic sherds, apparently from the same vessel (Tennyson, 2012, p. 13);

- GEN-JW-M-002, two adjacent circular military emplacements, 12 ration and food cans, and 5 clear glass fragments (not near either emplacement), and 1 flaked crypto-crystalline silicate (CCS) core (Tennyson, 2012, p. 14);
- GEN-JW-P-003, a single lithic reduction locus consisting of 5 flakes and 2 cores, all CCS (Tennyson, 2012, p. 15) and
- GEN-JW-M-004, a circular military emplacement, with 5 ration cans adjacent, and a scatter of 3 large prehistoric ceramic sherds, apparently from the same vessel, located some 20 meters north of the emplacement (Tennyson, 2012, p. 15).

The eight isolated finds included (Tennyson, 2012, p. 16):

- 2 food cans;
- 2 evaporated milk cans;
- 1 ration can;
- 1 food can;
- 1 greyware potsherd;
- 1 tested cobble;
- 1 CCS secondary flake; and
- 1 CCS primary flake.

Archaeological resources along gen-tie line route Option A (and natural gas pipeline route Option A) were identified and project impacts to them analyzed in staff's 2010 Revised Staff Assessment (Bagwell and Bastian 2010). Energy Commission-imposed Conditions of Certification (COCs) already provide mitigation that reduces GSEP impacts to these resources to a less than significant level, so staff will not include these resources in its analysis here.

The four sites and eight isolated finds from the March, 2012 survey comprise the inventory of newly identified cultural resources that the GSEP project changes could impact, so staff must determine whether any of the resources is historically significant, i.e., eligible for the CRHR. For a cultural resource to be eligible for the CRHR, it must qualify under one or more of the CRHR's four eligibility criteria, which are:

- Criterion 1, the resource is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States;
- Criterion 2, the resource is associated with the lives of persons important to local, California, or national history;
- Criterion 3, the resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; and/or
- Criterion 4, the resource has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Archaeological resources would usually only qualify under Criterion 4, but isolated archaeological finds generally do not qualify under Criterion 4 since the information they yield or may yield is too limited. M. Tennyson recommended that the eight isolated finds recorded in the March survey are not eligible for the CRHR (Tennyson, 2012, p. 16), and staff agrees with that assessment.

With respect to the four archaeological sites identified in the March, 2012 survey, M. Tennyson recommended that site GEN-JW-M-002 (two military emplacements, ration and food cans and glass fragments, and CCS core); site GEN-JW-P-003 (5 CCS flakes and 2 CCS cores); and the historic part of site GEN-JW-M-004 (a military emplacement and ration cans) do not qualify for the CRHR under any of the four criteria. His rationale for recommending these three resources not eligible under any criteria was that they were not representative of the broad patterns of history (Criterion 1); they were not associated with the lives of persons important in the past (Criterion 2); they do not represent a distinct style, type, design, or method of construction, all being common in the Colorado Desert (Criterion 3); and they have little potential to yield information important to the past (Criterion 4) because the emplacements generally do not yield such information without associated artifacts, and because the CCS cores and flakes are already well represented in the archaeological record (Tennyson, 2012, pp. 14–16).

Staff disagrees with these recommendations. Staff assumes that the lithic scatter site (GEN-JW-P-003) is CRHR eligible under Criterion 4 because it is a contributor to the PTNCL, the prehistoric-era historic district that staff assumed eligible in 2010. Staff also assumes that the two archaeological sites that have military emplacements (GEN-JW-M-002 and GEN-JW-M-004) are eligible for the CRHR under Criterion 4 because they are contributors to the DTCCL, the historic-period historic district that staff assumed eligible for the CRHR in 2010.

Tennyson also recommended that site GEN-JW-P-001 (a prehistoric ceramic sherd scatter) and the prehistoric part of site GEN-JW-M-004 (also a prehistoric ceramic sherd scatter) are not CRHR-eligible under Criteria 1–3, and are unevaluated under Criterion 4 (Tennyson, 2012, pp. 14, 16). His rationale for recommending the two sites "unevaluated" under Criteria 4 was that the sites may have the potential to yield information important to prehistory because their proximity to the Coco-Maricopa Trail suggests that these ceramic scatters could be associated with a larger resource. In his conclusion, however, Tennyson recommends the two ceramic scatters eligible for the CRHR and advises that a testing program be developed if project impacts to them cannot be avoided (Tennyson, 2012, p. 17).

Staff agrees with Tennyson's recommendation that the two ceramic scatters—pot drops—are eligible for the CRHR due to their probable association with a prehistoric-ethnohistoric trail, which makes them contributors to the larger resource that staff identified and assumed CRHR eligible in 2010—the PTNCL.

The March 2012 survey did not identify any ethnographic resources or built-environment resources aged 50 years or more located within one mile of the two amended GSEP gen-tie line corridors, but one ethnographic resource and two built-environment resources were identified and analyzed in staff's 2010 Revised Staff Assessment (Bagwell and Bastian 2010). The ethnographic resource was McCoy Spring National Register Archaeological District, which, although it is located more than one mile from the original and new GSEP linear facility routes, has a setting that includes a view that the project could adversely impact. The two built-environment resources were Wiley's Well Road and the Blythe-Eagle Mountain 161-kV transmission line, both located within one mile of the original and new GSEP linear facility routes.

McCoy Spring is located in the McCoy Mountains northeast of the GSEP project site. As a reliable natural water source, it was a major focus of prehistoric activity in the region for several millennia. The McCoy Spring National Register Archaeological District has midden deposits near the spring and many petroglyphs on the rocks surrounding it. It is listed in the National Register of Historic Places (NRHP). A resource listed in the NRHP is also automatically listed in the CRHR.

In its 2010 analysis of built-environment resources, staff determined that Wiley's Well Road was associated with important historic trends in regional community and economic development and was, therefore, eligible for the CRHR under Criterion 1. Staff found, however, that only the unpaved, two-track part of the road retained integrity of setting, integrity of feeling, and integrity of association, so only that part of the road was CRHR eligible (Bagwell and Bastian 2010, p. C.3-138).

In 2010, staff concluded that the Blythe-Eagle Mountain 161-kV transmission line was not eligible for inclusion in the CRHR under any criterion because it was not associated with events that have made a significant contribution to broad patterns in our history; was not associated with any historically significant persons; did not embody a distinctive type, period, or method of construction; and was unlikely to yield information important to history (Bagwell and Bastian 2010, p. C.3-139).

In summary, staff has identified two historic districts, four archaeological resources, one ethnographic resource, and one built-environment resource that are eligible, determined eligible, or assumed eligible for the CRHR and located in or near the two GSEP amended gen-tie line and gas pipeline route options, such that they could be subject to impacts from the construction of these linear facilities.

DIRECT AND INDIRECT IMPACTS

Potential direct impacts to CRHR-eligible cultural resources from the GSEP construction of a gen-tie line, a secondary transmission telecommunication line, a natural gas pipeline, and the ring bus/switchyard could result as follows:

- The excavation of holes in the earth for equipment, building, and fence foundations; or overhead conductor support structure anchorage; or buried conductor conduit or natural gas piping installation can significantly impact the integrity of materials and the integrity of association of a surface or buried archaeological resource;
- The intrusion of groupings of overhead conductors as an incompatible element into the setting of a built-environment or an ethnographic resource can significantly impact the integrity of setting and the integrity of feeling of such resources, and additionally can impact the integrity of association of an ethnographic resource.

Potential indirect impacts to CRHR-eligible cultural resources from the GSEP construction of a gen-tie line, a secondary transmission telecommunication line, a natural gas pipeline, and the ring bus/switchyard could result from:

- The erosion caused by terrain changes that can be associated with a project can significantly impact the integrity of materials and the integrity of association of an archaeological resource located at a lower grade than a project;

- The vibration that can be associated with the excavation of trenches for natural gas piping can significantly impact the integrity of materials of a fragile built-environment resource; and
- The easier public access to an archaeological resource, or an ethnographic resource, or a built-environment resource due to the access road associated with a transmission line can significantly impact the integrity of materials and the integrity of association of any of these resources, and additionally significantly impact the integrity of feeling of an ethnographic resource and a built-environment resource, due to vandalism.

CEQA identifies avoidance as the preferred method of mitigation for significant project impacts to CRHR-eligible cultural resources. The GSEP would be able to avoid impacting any such archaeological resources located on the amended linear facility routes by placing the support structures where no known resources are present and by adjusting the trench routes to miss the known resources. If impacts to CRHR-eligible archaeological resources cannot be avoided, existing GSEP COCs **CUL-10**, **CUL-11**, and **CUL-17** would apply and provide mitigation reducing significant impacts to a less than significant level. To ensure prompt identification and appropriate treatment of potentially CRHR-eligible archaeological resources encountered during the excavation of holes or trenches, existing GSEP COC **CUL-8**, requiring the monitoring of all ground disturbance by an archaeologist and a Native American, would apply. If unanticipated archaeological resources are discovered during the excavations, existing GSEP COC **CUL-9**, specifying how archaeological discoveries shall be treated, would apply and provide mitigation reducing significant impacts to CRHR-eligible archaeological resources to a less-than-significant level.

In its 2010 GSEP project review, staff identified direct and indirect impacts from the overall GSEP on the McCoy Spring National Register Archaeological District, including intrusion of an incompatible element in the District's setting and increased susceptibility to vandalism. These impacts were assessed as substantially adversely affecting the District's integrity of setting, integrity of feeling, and integrity of location (Bagwell and Bastian 2010, p. C.3-142). The Energy Commission's certification imposed GSEP COC **CUL-16** as mitigation for these impacts. The activities proposed in the GSEP amendment are essentially the same, and would result in similar impacts on the McCoy Spring National Register Archaeological District, as those already assessed by staff. Thus the existing GSEP COC **CUL-16** would apply. But the project owner's completion of the requirements of **CUL-16**, as approved by the Energy Commission Compliance Project Manager (CPM), has already provided mitigation for the impacts of the original project to this archaeological district, and, by extension, for the analogous impacts posed by the amended alignments of the GSEP linear facilities and the new ring bus/switchyard, thereby reducing impacts from these activities to the extent feasible.

The 2010 staff assessment of GSEP impacts determined that the part of Wiley's Well Road that could be affected by the GSEP's linear facilities (the southern end) was not CRHR eligible because the integrity of setting and integrity of feeling of that part of the road were compromised by paving and by development in the area, including the rest area, the I-10 freeway, and the Chuckwalla State Prison (Bagwell and Bastian 2010, p. C.3-138). Staff determined that the CRHR-eligible part of this resource was too distant from the GSEP to be significantly impacted by the addition of the plant and its linear facilities into the road's setting. As with the McCoy Spring National Register

Archaeological District, the activities proposed in the GSEP amendment are basically the same, and would result in similar impacts on the eligible part of Wiley's Well Road, as those already assessed and found less than significant by staff; therefore, no mitigation is required.

In summary, the potential impacts of GSEP's amended linear facility routes Option A and Option B on archaeological, ethnographic, and built-environment resources would be the same as those of the original routes, mitigation for whose impacts has already been provided in COCs, and the same for both of the amended route options, when compared to each other. To reduce significant impacts to archaeological resources from either of the amended linear facility routes to a less than significant level, the project would have to adjust its placement of excavated holes along the chosen amended route option to avoid known sites. If known CRHR-eligible sites cannot be avoided along the chosen amended route option, existing COCs **CUL-10**, **CUL-11**, and **CUL-17** would apply. Additionally, per existing COC **CUL-8**, the project would have to monitor the ground disturbance associated with the chosen amended route option and with that of the ring bus/switchyard and follow the requirements of COC **CUL-9** if buried archaeological resources are discovered during these excavations. For the CRHR-eligible ethnographic resource (McCoy Spring National Register Archaeological District), the implementation of existing COC **CUL-16** has provided and would continue to provide mitigation, reducing any significant impacts to this resource from the amended routes to a less than significant level.

Staff recommends no new COCs or modifications to existing COCs.

CUMULATIVE IMPACTS

In its 2010 analysis of the GSEP's impacts to CRHR-eligible cultural resources, staff determined that this project, together with the contemporaneous Blythe Solar Power Project and Palen Solar Power Project, would have significant cumulative impacts on the two historic districts—the PTNCL and the DTCCL—that staff identified and assumed eligible for the CRHR (Bagwell and Bastian 2010, p. C.3-142). The activities proposed in the GSEP amendment are essentially the same as those of the original project and would result in equivalent cumulative impacts on the PTNCL and DTCCL, already assessed by staff. The existing GSEP COCs **CUL-1** and **CUL-2** mitigate the cumulative impacts of the proposed GSEP on the two historic districts to the greatest extent feasible, and the project owner has completed the requirements of **CUL-1** and **CUL-2**, as approved by the CPM. Therefore, no additional mitigation is required for the analogous impacts posed by the amended alignments of the GSEP linear facilities and the new ring bus/switchyard.

CONCLUSIONS AND RECOMMENDATIONS

Staff has reviewed the GSEP petition to amend two reconfigured routes for the gen-tie line (Options A and B), two reconfigured routes for the natural gas pipeline (largely coincident with gen-tie line Options A and B), and a new ring bus/switchyard for potential environmental impacts to cultural resources and for consistency with applicable LORS. Based on this review, staff has determined that the GSEP, in

choosing any of the options, would be in conformance with all applicable cultural resources LORS if it continues to comply with COCs **CUL-3** through **CUL-18**.

Staff has determined that CRHR-eligible cultural resources are present at or near the locations of the GSEP's amended linear facility routes, but either the GSEP would have no impact on these resources, or the GSEP can avoid impacts to them by linear route alignment adjustments, or GSEP impacts to them have already been mitigated to a less than significant level by Energy Commission-imposed COCs. Staff recommends that all existing COCs apply to any revised or new linear facility construction to accommodate the possibility that the GSEP cannot avoid known archaeological resources along the amended routes and to ensure that any buried archaeological resources discovered during the construction of the linear facilities are evaluated and significant project impacts to any CRHR-eligible resources are mitigated to a less than significant level.

PROPOSED MODIFICATIONS TO CONDITIONS OF CERTIFICATION

Staff proposes no new COCs and no modification to existing COCs.

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Appendix B

Canine Distemper Virus: Information for Agency Personnel and Renewable Energy Projects, California Department of Fish and Game, November 2011

Canine Distemper Virus: Information for Agency Personnel and Renewable Energy Projects

Prepared by: Deana Clifford – 29 November 2011
Contact information: dclifford@dfg.ca.gov, 916-616-0809

Starting in October 2011, the California Department of Fish and Game has observed confirmed and suspect cases of Canine Distemper Virus (CDV) in at least 5 desert kit foxes near Blythe, CA. Although distemper infections have not been reported previously in this species, most of California's carnivore species are susceptible to the virus.

Canine Distemper Virus infects both domestic dogs and wild carnivores. The virus is transmitted among carnivores by contact with oral, respiratory and ocular (eye) fluids, and other body fluids (urine, feces) containing the virus. Animals with the virus may not show clinical signs, but can still shed virus for up to 90 days. Although acquired infections in domestic dogs have been reduced through preventative vaccinations, infected dogs that have contact with or share food with wild carnivores can transmit the virus to wildlife. The virus also spreads among wild carnivores mostly affecting susceptible young animals. Canine distemper virus is not transmissible to people.

CDV is easily killed by direct sunlight, heat, drying and cleaning with 10% bleach solution.

Distemper can cause respiratory, neurologic and gastrointestinal illness. Disease can progress quickly, and in wildlife, often just deaths are observed. Clinical signs include, but are not limited to: depression, fever, respiratory distress, diarrhea, anorexia, seizures, uncoordination, circling, yellow to clear discharge from the nose and eyes, and crusting on the nose, eyes, mouth or footpads. There is no treatment or cure for sick animals except supportive care.

Signs of neurologic distemper often resemble rabies, a disease of great public health importance. Therefore, even if distemper is suspected, all carnivores with neurologic disease should also be tested for rabies.

Vaccination can prevent disease, but the efficacy of vaccines developed for domestic animals is not known for most wildlife species, and should not be assumed to be 100%. Furthermore, vaccination during an outbreak may not be effective if animals receiving the vaccine are currently infected with the virus, and often repeat vaccinations are needed to ensure protection.

General strategies for CDV prevention include keeping domestic dogs up to date on all vaccinations, discouraging pet owners from feeding their dogs and cats outdoors, keeping dogs on leash when visiting wild areas and cleaning up after pets, and discouraging people from feeding wild carnivores as this increases local carnivore density and may increase interactions between wild and domestic carnivores.

Appendix C

Interim Monitoring and Mitigation Plan to Address Canine Distemper Virus Mortalities in the Desert, California Department of Fish and Game

Interim Monitoring and Mitigation Plan to Address Canine Distemper Virus Mortalities in Desert

Prepared by: Deana Clifford, DVM, MPVM, PhD
Contact information: dclifford@dfg.ca.gov, 916-616-0809

Summary

Since October 5th there have been at least 6 documented desert kit fox mortalities on or adjacent to a 2,000 acre solar energy development approximately 20 miles west of Blythe, CA just north of Interstate 10. Four of these deaths have occurred since November 10th. One of these foxes was observed alive with convulsions and extreme weakness, but died en route to a rehabilitation facility.

Five carcasses in good condition were necropsied by pathologists at the California Animal Health and Food Safety Lab (CAHFS) in Davis and San Bernardino. Canine distemper viral inclusion bodies were present in tissues from all 5 foxes. CDV infection has been confirmed by immunohistochemistry (IHC) assay on the first fox; IHC test results are pending on the 4 additional animals, but pathology signs indicate CDV is the most likely cause of death.

Given the familial nature of kit foxes, their high degree of home range overlap, and the disease transmission dynamics of canine distemper virus there is potential for additional mortalities and geographic spread of the disease. Coyotes are also present in the area and may be affected or involved in disease transmission and spread.

It is too early to know whether or not we will see additional distemper cases. Accordingly, timely case detection, diagnosis and mapping are our best tools for tracking this situation. To detect additional cases and track the spread of disease we need cooperation from numerous agencies, contracted biologists and developers.

If the number of cases increases and/or the geographic area spreads, population impacts for desert kit foxes could be significant. In such a scenario, various management options to help stop disease spread may need to be implemented as additive mortality from disease may exacerbate any population impacts from development activities in the desert.

For now the DFG nongame wildlife program recommendation is to be proactive in monitoring and, if warranted based on the data, consider potential management responses. One issue of current concern involves passive relocation of kit foxes that inhabit burrows on land slated for development. If passive relocation activities are being conducted in an area experiencing or adjacent to distemper cases, these activities may enhance disease transmission and spread through multiple mechanisms. First, animals stressed by disturbance or relocations may be more susceptible to illness and death because CDV infection decreases immune function. Second, passive relocation activities in an area experiencing CDV deaths may result in increased movement of animals shedding virus, thereby increasing disease transmission into new areas. Given this scenario, case by case evaluation of passive relocation activities in light of the most recent data about the occurrence and locations of cases is warranted.

On the next page is a brief outline and suggested interim approach for monitoring and potentially mitigating spread of disease. The approach by nature should be adaptive and re-evaluated continuously as new information becomes available. Recommendations are based on published population

demographic and home range data from kit foxes, disease ecology of CDV, and experience from other CDV outbreaks in free-ranging carnivores.

Interim Recommendations 29 Nov 2011:

A. Actively monitor kit fox dens in and adjacent to the affected area and in areas determined to be at high risk for disease spread based on best available data, and rapidly report known mortalities and submit for disease testing.

1. Begin immediate daily monitoring of all known active burrows in GSEP area and burrows adjacent (within 1 km) of GSEP site. Monitoring can be a combination of remote cameras, visual observations.
2. Report all mortalities or observations of sick/injured animals immediately to DFG veterinarian. DFG veterinarian will facilitate necropsy or animal care. Guidelines for handling sick or dead animals are attached. Note – other carnivores may be affected, so a finding of sick or dead coyotes would also be important and reportable.
    - **i.** Diagnostic lab: CAHFS San Bernardino (M. Massar and D. Clifford have submission forms).
    - **ii.** Nearest licensed wildlife rehabilitator: Living Desert Zoo, Palm Springs
3. Map locations of all known burrows onto current disease map – DFG WIL can do this if given data files.
4. Overlay data regarding kit fox home range, dispersal distances and movements onto project map to help determine areas for prioritizing fox monitoring and case detection activities.
    - **i.** First overlay minimum and maximum home range buffers (approximately 4 – 13 km^2) around dens that have had mortalities. Add additional zones 2 and 3 home range distances away.
    - **ii.** Second overlay buffer of dispersal distance and daily movements to get a complimentary idea of the area where infected foxes may have moved.
    - **iii.** Note: this data assumes that the disease would be primarily spread via contact between infected kit foxes. It does not consider potential disease transmission by coyotes or other carnivores (domestic and wild).
5. Informal reporting on these activities twice weekly, with a minimum of once weekly written update in the absence of mortality.
    - **i.** Note: incubation period for CDV may be up to 2 weeks, thus over the next 30 days its critical to monitor the population for additional sick and dead animals. This period of time would roughly represent 2 incubation cycles. If additional mortalities are detected, the monitoring time period is basically reset as we can assume the virus is continuing to be transmitted in the population.

B. Temporary cessation of passive relocation and disturbance to kit foxes within and immediately adjacent to areas where mortalities have occurred.

1. CDV suppresses the immune function of infected animals. Additional stressors to infected animals may increase their chances of illness and death, and the duration of shedding of the virus. Furthermore, stressed animals are likely to be more susceptible to infection and subsequent illness.
2. If infected animals are disturbed to the point of den abandonment they are more likely to contact foxes in adjacent territories and transmit disease into new areas.

3. Accordingly, all efforts should be made to 1) reduce any disturbance to kit foxes currently inhabiting the area where mortalities have occurred, and 2) temporarily cease passive relocation activities until data is supportive of a cessation of new cases.
    - **i.** Suggestions: temporarily increase protective buffer around active kit fox dens. Minimum recommendation – double buffer from 75 ft to 150 ft?
    - **ii.** Only enter area for monitoring activities
    - **iii.** Temporarily cease passive relocation activities.
    - **iv.** Initial period for this action would be 2 weeks (one incubation cycle), with re-evaluation at that time.

C. Employ precautionary measures to eliminate risk of human-induced disease spread

1. Ensure domestic animals do not enter disease risk area and are not on site.
2. Employ simple disinfection protocol (attached) during fox monitoring activities.
3. For current dig down (Den 17 where 3 mortalities occurred) – do not move soil from Den 17 to other locations during dig down; soil should remain at that location and be exposed to sunlight to kill the virus. Although risk is low, CDV can persist in the environment if out of direct sunlight and in a cool place (like the underground burrow).

Overall Plan: Suggest once weekly conference call update with designated biologist and key agency representatives for coordination and data evaluation.

Appendices:

A. Sick and injured animal recommendation

B. DRAFT disinfection recommendations

Appendix A: Draft guidance for reporting and handling sick or dead foxes

DEAD FOXES:
Please handle any carcass with gloves. After recording an incident form, location of the carcass (UTM) and taking a photo, place the carcass into a plastic bag and tie or seal the bag. Place the carcass into a second plastic bag. Place the bagged carcass on ice or with ice packs into a cooler or styrofoam container and give me a call. The carcass should be submitted to the CAHFS lab in San Bernardino as soon as possible. Carcasses can be shipped via Fed Ex overnight or other overnight carrier from Blythe to the CAHFS lab. Make sure to place the double bagged carcass with ice packs into a hard sided or Styrofoam container, then into a second cardboard box. Check priority overnight AM delivery. The address is on the submission form. Include one copy of the submission form with the airbill, and place a second copy of the form with an incident report inside the box inside a separate plastic bag so the paper does not get wet from the ice packs. Depending on the location of the carcass, Mark Massar or I will give guidance on the account to be charged and provide a submission form for the lab. Please send myself, Mark and Magdalena a copy of the incident form. Be sure to disinfect any items used to handle, process, or transport the carcass. Place the cooler containing the bagged carcass in the trunk or in the back of a truck whenever possible.

SICK FOXES:
If you encounter a live, but sick fox -- please call. If the fox is exhibiting neurologic signs (seizing, circling, stumbling), use extreme caution to not get bit when moving the animal. It is highly advised that only persons vaccinated for rabies handle carnivores exhibiting neurologic signs. You may be able to work with local animal control to assist. If possible - try to have the animal enter a transport kennel without directly touching the animal. Otherwise cover the fox with a towel, use thick gloves and quickly place the animal into the transport kennel. During transport, make sure to cover the kennel with a towel or blanket to reduce stress for the fox. The Living Desert Zoo has a veterinarian and staff experienced in wild animal care, a quarantine facility, and is a licensed wildlife rehabilitation facility by the Department of Fish and Game. I can facilitate arranging for care and assist with transport if needed. Be sure to disinfect all kennels or items used to handle and transport the animal, and ensure that transport kennels are adequately locked during travel.

Contact information: Dr. Deana Clifford 916-616-0809, dclifford@dfg.ca.gov

Canine Distemper Virus (CDV): Prevention of Spread during Fox Monitoring Activities

CDV is easily inactivated using common household bleach. The important point is to let the bleach have adequate contact time with the surface you want to disinfect. Depending on disinfection activity spray bottles with 10% bleach solution or Clorox disinfectant wipes can be used.

Disinfectant Types: 10% solution of Sodium Hypochlorite (Bleach)
Clorox Bleach Disinfectant Wipes

Contact Time: 10 – 30 minutes

Proper Dilution for 10% Bleach solution: Mix 1 part household bleach with 9 parts of water (ie. 1 quart of bleach with 9 quarts of water). Use caution as this solution is corrosive and irritating in contact with eyes or skin. If solution gets into your eyes, immediately flush eyes with copious amounts of water or saline solution for contact lenses. If skin exposure, rinse with copious amounts of water. Please follow manufactures recommendations for skin or other bodily exposure.

Directions for Bleach Use as a Disinfectant: Good hygienic practices should be instituted to reduce the spread of disease between den sites. Any object that comes into contact with the ground or surrounding landscape needs to be disinfected before moving to the next site. These recommendations are simple and can be done quickly, requiring only a spray bottle with bleach solution, a small plastic bag to place used bleach wipes into, and bleach wipes.

- **Shoes:** Spray the soles of all shoes with a 10% bleach solution prior to moving to another burrow site. Ideally wait at least 10 minutes before wiping/rinsing off with water. Avoid stepping on fecal material or in wet soil that could be contaminated with urine.

- **Camera/Camera Stands:** If the camera stands are made of wood, the stands should be discarded and replaced when the camera is moved to a new burrow. If camera stands are metal or plastic then spray the stand with a 10% bleach solution; allow 10 minutes for contact time; then rinse with water. If using bleach wipes, wipe down legs completely, allow 10 minutes to pass before installing at next site.

- **Other Equipment** (digging equipment): Wipe equipment with bleach wipes or spray with 10% bleach, allowing 10 minutes to pass before rinsing with water.

- **Hands:** Use hand sanitizer or if available wash with soap and water in between burrow visits (handling cameras etc).

- Be mindful of clothing. If you have puppies at home, we suggest changing clothes in between work and home to reduce any risk of infecting your pets or vice versa, as puppies are most susceptible to CDV infection. If working in burrows or digging burrows, be mindful of soil contamination on your clothing.

Appendix D
Department of Fish and Game – Wildlife Investigations Laboratory, Desert Kit Fox Mortality Data Sheet

Department Of Fish and Game – Wildlife Investigations Laboratory

Guidelines for Handling a Desert Kit Fox Carcass

- If possible, take pictures of the area and the carcass for documentation prior to removing the carcass.

- Complete the Mortality Data Sheet and document general observations of the surrounding area and carcass noting anything that may seem unusual (ie. fluid coming from nose/mouth of carcass, maggots, abdomen open, a den observed so many meters away, appears scavenged, back legs out-stretched and stiff, fur all over, wounds on carcass, scat nearby). Also note if it looks as if signs of a struggle or fighting occurred, possible predation, carcass is scavenged, etc. Please note if carcass appears old (or in advanced state of decay), mummified (dried out), or appears fresh so we can better gauge our necropsy efforts and time.

- Document location of the carcass (GPS in UTM or lat/long).

- Any person(s) handling the carcass needs to be **wearing gloves**.

- The carcass needs to be double-bagged (to minimize odor) and labeled appropriately with the following:
    - time and date carcass recovered
    - location
    - name of observer(s)

- Call or email Deana or Jaime immediately. We will contact the pathologist and determine the priority of shipping.
    - If the carcass will be shipped in the next 48-hrs, it can remain in the refrigerator.
    - If the carcass cannot be shipped immediately, please place in a 20°C non-self defrosting freezer.
    - If there is a delay, make sure to put the carcass on ice or in a refrigerator as soon as possible.

- Ship the carcass Fed-Ex in a small ice-chest or Styrofoam container with enough ice-packs to keep cool (and prevent further decomposition), please tape the outside closed. Ideally place the cooler inside a second cardboard box. It is best to ship through a Fed-Ex facility and not a Fed-Ex/Kinkos (we have encountered problems when trying to use an adjoining facility).

- Please include the Mortality Data Sheet and a necropsy submission form (which will be provided). Fold the forms and put them into a Ziploc bag, then include them in the box with the carcass.

- Mail to:

    CAHFS, Davis
    Attn: Dr. Leslie Woods
    W. Health Sciences
    Davis, CA 95616

Deana Clifford: dclifford@dfg.ca.gov or 916-616-0809

Jaime Rudd: jrudd@dfg.ca.gov or 916-201-2699

Department Of Fish and Game – Wildlife Investigations Laboratory

Desert Kit Fox Mortality Data Sheet

Date:	Time:	Observers:		General Site Location:	UTM:
Gender: M F	Age: Adult Juvenile Pup Unknown	Fox ID (if known) :	Transmitter: Y N	Frequency:	Photograph Taken: Y N

General Condition/Description of Carcass

General Description of Location and Surrounding Area

Checklist:

1) Photos taken **BEFORE** site is disturbed (carcass, surrounding site, bite wounds, etc). ☐
2) Look for signs of a fight or struggle due to predation, fighting, etc (ie. fur, bones, tracks, blood, traumatic injury to carcass, fluid coming from nose, etc) or signs of scavenging. ☐
3) Collect all remains in a plastic bag and double bag (wear gloves). ☐
4) Label bag with Fox ID (if any), site name, gender, date, time, and initial. ☐
5) Take a way point and document UTM. ☐
6) Describe general location, carcass condition/position and anything unusual. ☐
7) Download any photos and email to Deana or Jaime ☐
8) Call Deana Clifford and/or Jaime Rudd to arrange for shipment and necropsy at CAHFS. ☐
   - Deana Clifford: dclifford@dfg.ca.gov or 916-616-0809
   - Jaime Rudd: jrudd@dfg.ca.gov or 916-201-2699

ALWAYS WEAR CLEAN GLOVES WHEN HANDLING A CARCASS!

ATTACHMENT 5

CORRESPONDENCE

Not Applicable for June Monthly Compliance Report

Appendix C

Haz-6

Worker Environmental Awareness Program Training

6-6-13

Genesis Site Safety Orientation /WEAP

	Signature	Print Name	Company		
1		JOSE VILLA	UMEC		
2		Sung Ho Shin	UMEC		
3		ANTOINE BRATTON	UMEC		
4		VINCENT PRENDIZ	UMECH.		
5		ANTWOINE HOLMES	UMECH		
6		JOSE Hernandez	U MECH		
7		Gustavo Miranda	U Mech		
8		ROMAN RODRIGUEZ	U Mech.		
9		RANDALL ALGIERS	u mech.		
10		DAMON E. JAMES	U mech		
11		Gregory Bell	U mech		
12		Terry Marcum JR.	U mech		
13		JOHN S BOYLE	UMECH.		
14		RAOLE FOLKES	U MECH		
15		David Sinclair	U Mech		
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Genesis Site Safety Orientation / WEAP

	Signature	Print Name	Company		
1		Enrique Benitez	PMI		6/3/13
2		Luis A. Gutierrez	PMI		6-3-13
3		Clayton Detwiler	PMI		6-3-13
4		Steven D. Carr	PMI		6/3/13
5		Daniel Harris	PMI		6/3/13
6		PETER GOLDY	PMI		6/3/13
7		Steve Williams	PMI		6/3/13
8		STUART K SWICKH	PMI		6/3/15
9		Sergio Garcia	PMI		6/13/13
10		Thomas Welch	PMI		6/13/13
11		Gonzalo Arroyo	PMI		6/3/13
12		CHRISENDEASH BOODHAT	PMI		6/3/13
13		BIJO VARGHESE	PMI		6/3/2013
14		Tarike Walker	PMI		6/3/13
15		ALEJANDRO DURAN	PMI		6/3/13
16		Rene Reyes	PMI		6/3/13
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JUNE

Genesis Site Safety Orientation

ARB Inc./WEAR

	Signature	Print Name	Company	Date
1		Elvis A. Fernandez	ARB	6/3/13
2		MARK NICKIAS	ARB	6/4/13
3		Joe Davila	ARB	6/6/13
4		Benjamin L. Chesse	ARB	6/10/13
5		MERIDA P. HOLTON	ARB	06-10-13
6		Ryan Fuzi	ARB	6-10-13
7		Gregorio Perez	ARB	6-10-13
8		Dillon Cobb	ARB	6-10-13
9		Eric Williams	ARB	06/10/13
10		Manuel L Olivas	ARB	06-10-13
11		Jorge Tellez	ARB	6-10-13
12		Salvador Rodriguez	ARB	6-12-13
13		Jesus Flores	ARB	6-12-13
14		Jacob Sibole	ARB	6-17-13
15		ALEX PATERSON	ARB	6/17/13
16		John Sisley	ARB	6/17/13
17		Joshua Larson	ARB	6/17/13
18		Jaime Vargas	ARB	06-20-13
19		Julio Valencia	ARB	06-25-13
20		IRA KENNER	ARB	06-25-13
21		RYAN CHANEL	ARB	6-27-13
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Genesis Site Safety Orientation -June 2013 / WEAP

	Signature	Print Name	Company	Date
1		Tracy Davis	NEWTRON	6-18-13
2		Cody Champoux	NEWTRON	06-18-13
3		Harold Walker	NEWTRON	06-24-13
4		Steve Shacher	Newtron	6/24/13
5		WILLIAM KUIPER	NEWTRON	6/26/2013
6		ERIC DELGADO	NEWTRON	6/26/2013
7		Lawrence A. Barth JR	Newtron	6-26-13
8		DERRICK DAVIS	Newton	6-26-13
9		Robert King	Newtron	6-26-13
10		William Watson	NEWTRON	6-26-13
11		Steven Healy	Newtron	6-26-13
12		Jack Barros	Newtron	6-26-13
13		ALFONSO DE LA PEÑA	NEWTRON	6-26-13
14		OMUN SEVEN	NEWTRON	6-26-13
15		Ozgun Zorlu	NEWTRON	6-26-13
16				
17		Anthony Consale (Tony Consale)		
18				
19		Daniel Kehler	NEWTRON	6-27-13
20		Rafael Jimenez Jr.	NEWTRON	6-27-13
21		TONY MIRELES	NEWTRON	6-27-13
22		Jose Perez Abusto	Newtron	6-27-13
23		Joseph C. High	Newton	6-27-13
24		Bradley Diederick	Newtron	6-27-13
25		Joshua C. Smith	Newton	6-27-13
26		CORNEL LOVELACE	Newton	6-27-13
27		PAUL MARTIN	Newtron	6-27-13
28		Phillip Fontenot	Newtron	6-27-13
29		Alex Peek	newtron	6-27-13
30		Robin Deery	"	"
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Genesis Site Safety Orientation / WEAP

	Signature	Print Name	Company		
1		Patrick Harris	PMI		06-12-13
2		Marcus Joseph	University	Mechanical	
3		RON MADRID	PMI		
4		GRAD HEINEMAN	PMI		
5		MICAH C. RACKLEY	PMI		
6		ROBERT SENTERI	PMI		
7		Raul Guerrero	PMI		
8		JORGE BENITEZ	PMI		
9		James M. Sweeney	PMI		6-17-13
10		Todd Lewison	PMI		6-17-13
11		VENTURA GUERRERO	PMI		6-17-13
12		Senovio M. Garza	PMI		6-17-13
13		STEPHEN GRANT	PMI		6-17-13
14		Mario Gonzalez	PMI		6-17-13
15		Celedonio Oscar Ybarra	UMEC		6-18-13
16		C.E. Joosten	UMEC		6-18-13
17		KEVIN JONES	UMEC		6-18-13
18		WHITFIELD HINDS	UMEC		6-18-13
19		Hugh A. COOPER	UMEC		6-18-13
20		VICTOR CRAWFORD	UMEC		6-18-13
21		Salvador Diaz	PMI		6-24-13
22		Ignacio Sanchez	PMI		6-24-13
23		Hector Martinez	PMI		6-24-13
24		STEVE STEWART	BRAND		6/24/13
25		JAVIER GEVARA	BRAND		6/24/13
26		PEDRO LARIOS	BRAND		6/24/13
27		BRUCE STONE	PMI		6/27/13
28		Alex Madera	PMI		6-27-13
29		DEREK BARRERAS	PMI		7-1-13
30		Daniel Gomez	PMI		
31		Angel J. Cerros	PMI		
32		Ben Querbes	PMI		
33		Arturo Gutierrez	PMI		
34		Michael Hawks	PMI		
35					7-1-13
36		Ricky Boone	PMI		7-2-13

(22)

Genesis Site Safety Orientation / WEAP

	Signature	Print Name	Company	
1	Morris Cook	Morris Cook	Siemens	5/30
2	Oscar Portillo	Oscar Portillo	AGGREKO	5/31/2013
3	DOUGLAS CRUZ	DOUGLAS CRUZ	SCE / Telecom	6/4/13
4	SHANE BURNS	SHANE BURNS	SCE / ECS	06-04-13
5	Dwight Jackson	DWIGHT JACKSON	SCE / ECS	06-04-13
6	Mike Dennison	Mike Dennison	SCE / ECS	6-4-13
7	Maryam Glionna	Maryam Glionna	Siemens	6/7/13
8	Dale C. Dirk	Dale C. Dirk	Next Era	6-10-13
9	Thomas Cravatt	Thomas Cravatt	Next Era	6-10-13
10	Warren Coward	WARREN COWARD	Firetrol	6-10-13
11	Rick Humphrey	Richard Humphrey	[illegible]	6-10-13
12	OLIVIER VAQUERO	OLIVIER VAQUERO	SENER	6-13-13
13	[illegible]	Stephan Ehl	Nextera	6-17-13
14	[illegible]	Brian Davis	Blattner	6-17-13
15	[illegible]	DAVID BANKS	GE	6-17-13
16	[illegible]	MIKE SWANN	SWANN ASSOC	6-18-13
17	[illegible]	Eduardo Juarez	FLOOR	6-19-13
18	[illegible]	CHRIS GALLIGAN	GE	6-24-13
19	[illegible]	ROBERT ARROYA	AMBER INDUSTRIAL SERVICE	6-24-13
20	F. Evans	F. Evans	Next ERA	6-25-13
21	Janet Hinrichs	Janet Hinrichs	Nextera Startup	6-27-13
22	M M	Michael Angulo	AECOM	6-27-13
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Appendix D

Civil-1

Schedule of Facility Design Submittals; Master Drawing and Master Specifications

Genesis BVnet Status Matrix June 2013

Project	Submittal Title	Lead Plan Reviewer	CBO Approved Date
Genesis Solar Energy Project	STRUC-1-706.6 - Aquatech Pipe Supports - Interior - PC1	Talmage, Doug	6/3/2013
Genesis Solar Energy Project	STRUC-1-706.6 - Aquatech Pipe Supports - Interior - PCF	Talmage, Doug	6/3/2013
Genesis Solar Energy Project	STRUC-1-706.2X1 - Aquatech Pipe Supports - Addtl/Revsns - PC1	Ho, Alan	6/4/2013
Genesis Solar Energy Project	STRUC-1-706.2X1 - Aquatech Pipe Supports - Addtl/Revsns - PCF	Ho, Alan	6/4/2013
Genesis Solar Energy Project	CIVIL-1-015.1 - ARB INC DRAWINGS - NATURAL GAS LINE OFFPOLT - PC3	Trimberger, Tom	6/6/2013
Genesis Solar Energy Project	CIVIL-1-015.1 - ARB INC DRAWINGS - NATURAL GAS LINE OFFPOLT - PCF	Trimberger, Tom	6/6/2013
Genesis Solar Energy Project	MECH-1-204.0 - Plant Fire Alarm Signalling System - PC2	Son, Cristian	6/24/2013
Genesis Solar Energy Project	MECH-1-204.0 - Plant Fire Alarm Signalling System - PCF	Trimberger, Tom	6/24/2013

Appendix E

Cultural Monitor Reports

Cul-8 and Cul-13

Construction Monitoring Plan and Flag and Avoid

PAL-5

PRS Monitoring and Stop Work Authority

Due to proprietary and confidential subject matter, location information is secured and held under confidential cover

MCR for Cultural Resources

CUL-7: Worker Environmental Awareness Program (WEAP)

Requirement: Submit past 30 days of training records

Workers Environmental Awareness Program

Every Person employed or present on the ROW, including specialty subcontractor personnel, has been instructed in environmental compliance through the Workers Environmental Awareness Program, which includes a training video and verbal instruction. In each case the new employee has signed a roster providing proof of his/her participation and received a hard-hat sticker to provide job-site training verification.

CUL-8: Construction Monitoring Program

Requirement: Submit report of any noncompliance.

There were no compliance issues this month.

Requirement: Submit a summary report of construction-related monitoring and any new DPR 523A forms.

All ground disturbing activities were observed by CEC - approved Cultural Resources Monitors (CRMs) and Native American Monitors. Table 1 lists the number of CRMs onsite during the month of June.

Table 1. CRMs and NAM onsite during June (by day)

June 2013		
Date	**Number of Cultural Resource Monitors**	**Number of Native American Monitors**
6/3/2013	2	1
6/4/2013	2	1
6/5/2013	2	1
6/6/2013	2	1
6/7/2013	1	1
6/10/2013	2	1
6/11/2013	2	1
6/12/2013	2	1
6/13/2013	2	1
6/14/2013	1	1
6/17/2013	1	1
6/18/2013	1	1
6/19/2013	1	1
6/20/2013	1	1

6/21/2013	1	1
6/24/2013	1	1
6/25/2013	1	1
6/26/2013	1	1
6/27/2013	1	1
6/28/2013	1	1

Number of Isolate Forms submitted- 28
Number of Site Update Forms submitted- 0
Number of Monitoring Logs submitted - 28

Construction activities were monitored along parts of the main access road, the Southern California Edison (SCE) transmission line, in portions of Unit 1, and in Unit 2. Construction activities monitored included grading, backfilling, and various trenching activities on site. A total of twenty-eight artifacts were found in all construction areas during the month of June. All twenty-eight artifacts were recorded as new isolated finds. The location of cultural resources, including sites and isolates, is being submitted under confidential cover.

CUL-13: Flag and Avoid

Requirement: Submit compliance documentation regarding flagging inspections.

All flagged areas are inspected weekly.

Appendix F

Safety Reports and Incidents

Worker Safety-3

Construction Safety Supervisor – Staff Assignment

Safety, Environmental and Compliance Summary Safety

The Project Safety Man-Hours captured are as follows:

236,769	Man hours logged this month
1,308,137	Man hours logged during 2013
2,646,507	Job total man-hours

Project total RIR	0.83
2013 RIR	0.61
Project LTIR	0.0

There were no recordable injuries reported in the Month of June 2013.

First Aid incidents reported during June 2013:

6-03 Petrochem reported 1st from an employee that had experienced weakness from the heat. The employee was cooled in air conditioning and Onsite was called to examine the individual.
After cooling the employee was able to return to duty. Petrochem will re-enforce the use of shade provided encouraging the employees to use the shade and drink water whether thirsty or not.

6-12 Newtron reported a first aid from 6-11 when an employee carrying material stopped and rested the material on a handrail pinching his finger between material and handrail. The employee requested a doctor's opinion and was diagnosed with a bruised finger. The employee was released to unrestricted duty.

6-12 Newtron reported an incident from two employees who were dismounting a JLG when the rear trailer tire of passing PMI truck contacted their JLG tire. The employees were seen by an Onsite Medic and were reported as fit for duty. This incident is being investigated by PMI and Newtron.

6-24 A Petrochem subcontractors, Brand scaffold employee reported pain on the morning of 6-25 from an incident that he reported to have happened at approximately 09:30 the previous day.
The employee stated he heard a pop in wrist while passing a wooden board to his co-worker. The employee worked the remainder of the day without reporting the incident.
The employee was taken to the clinic 6-25 for exam and returned to work without restriction.

6-25 at approximately 12:30 just after lunch, a PMI employee working in the North laydown area power block 1 exhibited symptoms of advanced heat exhaustion. The crew working there acted with swift reporting and cooled the individual with shade and ice/water. PMI followed response protocol closely, 911 was called to assist then escorted the response team in. 13:10 the individual was in route via Blythe ambulance service to the hospital in Blythe. Tests in the hospital revealed low blood sugar, high calcium and other undisclosed physical condition of the individual. These conditions led to the symptom that were thought to be heat related. PMI has reported the incident to be linked to physical health and not work related.

The first HTF tanker truck arrived June 13th. The final HTF delivery was accepted 6-21. The extents of the HTF deliveries were completed without incident.

Blattner held 30 hr. OSHA Training for CMT employees.

The ambient temperatures rose to record breaking highs during last week in June. Crews were diligent in implementing Heat Illness Prevention. Contractor engaged in proactive work planning as well as providing heat relieving PPE such as cooling vests, Camel water hydration packs, evaporative cooling headband and neckerchiefs.

The GSEP Safety Professionals continued weekly cross audit “Job Walks” and debriefing sessions.

Contractor Safety Audits were completed and actions taken to correct deficiencies.

Genesis Safety Committee continued regular weekly meetings.

Contractors held Weekly All Hands Safety Meetings with agenda and documented attendance.

3rd party audits continued from Bureau Vertis weekly.

The total Safety Orientations/WEAP training for the month 133.

Weekly Focus

Heat Stroke Prevention

June 3, 2013

The construction industry typically has a common attribute; most of the work is performed outside or in a facility that does not allow for an air-conditioned environment. With the location of our project being in the middle of a desert, be prepared to take all the necessary steps to keep yourself safe during the summer months. Failing to follow your company's heat illness prevention plan makes employees more susceptible to heat-related illnesses and most notably heat stroke.

Heat Stroke

Heat stroke is the most dangerous heat related disorder there is, often putting employees' lives in danger. Understanding the signs of heat-related illnesses could protect you and others from heat stroke. Remember, a heat stroke is a fast acting, dangerous killer. It can bring about an irreversible coma and even, death, if not properly treated.
Heat Stroke is a medical emergency, and the most severe form of heat related illness. Anyone exhibiting the signs and symptoms of heat stroke should be rushed to the nearest hospital or clinic. A heat stroke does not have to be caused by exercise or exertion. High temperatures, lack of body fluids and overexposure to the elements can all bring about a heat stroke.

Symptoms

The first sign to look for is red, flushed skin. A person that is suffering heat stroke does not sweat, so it is critical that they receive emergency care immediately to relieve their body of heat. Other signs of Heat Stroke include:

- Seizures
- Headache
- Rapid pulse
- Unconsciousness
- A body temperature of 106-degrees or higher

Prevention

The easiest way to avoid heat stroke and other heat disorders is to keep your body well hydrated. This means drinking plenty of water before, during and after exposure to the elements. Sports drinks are a good choice if you are working in hot conditions, but water works fine too.
Staying in a place where there is plenty of airspace that will allow your body to naturally cool itself. Sitting in a shaded, open area will help your body rid itself of heat through sweating.
What you wear can play a big factor in how your body will handle the heat. Light colored, loose fitting clothing will aid your body in breathing and cooling itself down naturally. Tight clothing restricts such a process and dark colors absorb the sun's light and heat.

Heat related illnesses and heat strokes are preventable. Like many sicknesses, it's easier to take steps against heat stroke than it is to treat it. Most doctors recommend consuming eight or more glasses of water a day during normal weather conditions and twice that during high heat periods. Remember, a heat stroke is a fast acting, dangerous killer but it is preventable.

Weekly Focus

Personal Choice

June 10, 2013

How many times have you heard a person exclaim "it's not my problem!" or "it wasn't me!"? Whether or not these statements are true is beside the point, what we are talking about is how we conduct ourselves and what image we project to those around us.

A responsible, conscientious person will say "it's not my fault, but it's my problem". These individuals identify themselves by their actions; they pickup that piece of garbage on the ground, they're quick to lend a coworker a hand or show them a better, safer way. They step up and take the high road any chance they get.

Why? Because to these people, they see an opportunity every time a situation presents itself; an opportunity to eliminate a trip hazard, an opportunity to lighten the load for a co-worker or to help them keep out of harm's way.

When you hear "Ah...somebody's bound to get that", they are that somebody, for them there's always something to do, always an opportunity.

When you get enough of these people working together you get a company of people that do the right things, follow safe work procedures, help and look out for each other and coworkers throughout the site. They project an image of accountability and carry a reputation for getting things done and asking "what else can we help you with".

Remember at the Genesis site all employees are to be dedicated to maintaining a safe worksite. Every employee has the right and the responsibility to correct any unsafe condition before continuing work.

In order to ensure an accident free job site each individual, must have personal commitment and active involvement.

The next time you see a hazard make every attempt to have it corrected; this will lead to a safer more productive project.

Weekly Focus

Fall Hazards

June 17, 2013

In 2011, OSHA recorded 13 workers died on the job per day, with an average of 362 fatalities per year over the past decade as a direct result of falls.

Each year, falls consistently account for a large number of accidents and fatalities in the workplace. Events surrounding these types of accidents often involve a number of factors; including unstable work surfaces, misuse or lack of fall protection equipment and human error. Studies have shown that the many deaths and injuries from falls can be prevented with the use of guardrails, fall arrest systems, safety nets, covers and barrier guards.

Everyone must be alert to the hazards that can cause falls. If hazards are discovered, they must be reported to the supervisor and immediate action must be taken to eliminate them.

The following hazards cause a majority of falls:

- Working at elevated areas without the use of proper fall protection, always wear a personal fall arrest system that is properly fitted. Match the system to the particular work situation and keep the potential free fall distance to a minimum.
- Serious fall hazards can be caused by debris, slippery surfaces and unorganized materials and equipment in the work area. Good housekeeping practices can eliminate these hazards and reduce falls.
- Many falls can occur while hurrying -- walk, don't run.
- Stairways and stairwells can become a serious hazard. Handrails should always be placed on stairs and stairwells but in most cases, failure to use the handrails results in the most serious injuries. Also, never place or store materials or tools on stairways.
- Excavations must always be barricaded or covered. Use adequate barricades or covers that are securely fastened to prevent accidental falls.

Misuse of ladder contributes to a large number accidents and even deaths. Follow proper ladder procedures to reduce your chances:

- Ladder rails and rungs must always be of the proper design, material and size. Ladders should never be used if the rails are cracked or the rungs are broken.
- Ladders that lead to landings or walkways should extend at least 36 inches above the landing and must be securely fastened.
- Improper placement of the ladder can result in a sudden shift. The base of the ladder should be set at a distance of one-fourth the height of the ladder away from the wall or structure.
- Always use two hands when climbing a ladder. Carrying objects in one hand can cause a sudden fall. Place both hands on the side rails, or rungs.
- Ascending or descending a ladder backwards is a sure way to head for trouble. Always face the ladder when climbing, descending or working on it.

Your employer can do everything possible to provide safe working conditions but your help is essential. Report any unsafe condition you discover to your supervisor immediately, including fall hazards.

Weekly Focus

Personal Fall Arrest Systems

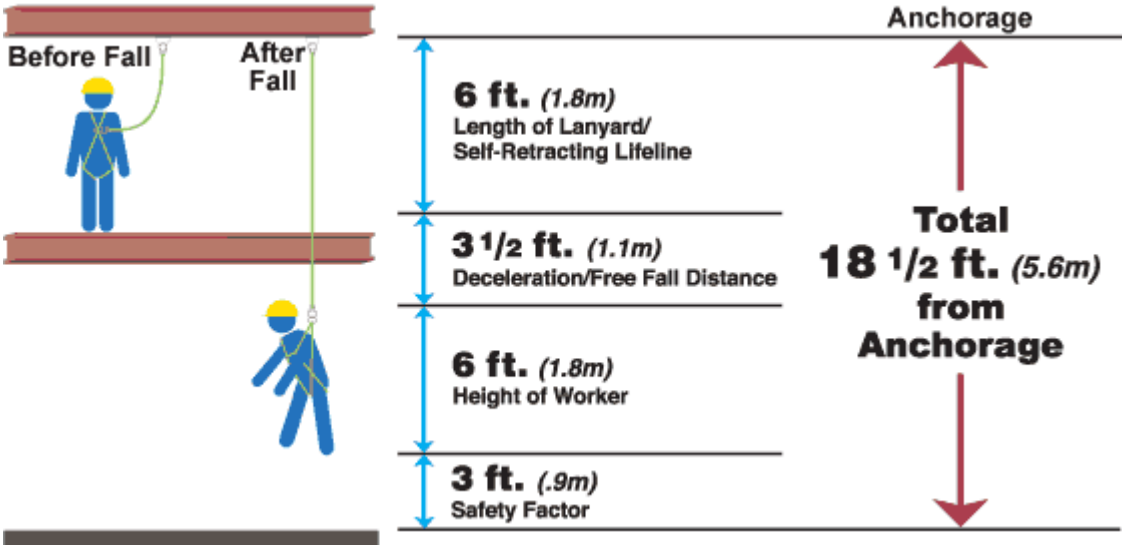
June 24, 2013

Make the RIGHT Choice

Determining an appropriate anchorage point:

- When using a 6 foot shock absorbing lanyard and a full body harness, first add the length of the lanyard (6 feet) to the maximum elongation of the shock absorber during deceleration (3.5 feet) to the average height of a worker (6 feet).
- Then add a safety factor of 3 feet to allow for the possibility of an improperly fitting harness, a taller than average person, and/or a miscalculation of potential fall distance.
- The total equals 18.5 feet. This is the suggested safe fall clearance distance, the height at which you must attach to an anchorage to minimize the risk of contact with a lower level.

This is why it is important to tie off as high overhead as possible. If there is not enough room below the work surface to accommodate a potential fall, use other equipment such as a retractable lifeline.



Rescue Technique / Time

Research has shown that a person hanging unmoving in a safety harness can get into serious trouble within minutes. The current time limit to achieve a rescue is 10 minutes, preferably a lot sooner. Why? Because a safety harness comprises, in part, two straps which go between your legs and carry most of the body's weight when hanging in a harness, the pressure points in your groin, which are arteries close to the skin surface, may become constricted and slow down the flow of blood. In addition, lack of muscle movement reduces blood being pumped back. Pooling of blood in the legs reduces the flow of blood to and from your brain, which could cause a loss of consciousness.

If you should find yourself hanging in a harness, try to get yourself into a sitting position. Shift your backside so you are sitting on the leg straps, and keep moving your legs.
YOU WILL NOT SLIP OUT OF THE HARNESS DOING THIS.

By taking the pressure off your blood supply, and maintaining muscle movement, you will reduce risk of blacking out. You will then see that time is a critical factor in rescuing anyone who has had a fall and is hanging in their safety harness.

Appendix G

Miscellaneous Submittals and Information

Genesis Solar, LLC.
Blythe, California
Daily Report

June 3, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **Petrochem reported 1st from an employee that had experienced weakness from the heat. The employee was cooled in air conditioning and Onsite was called to examine the individual. After cooling the employee was able to return to duty. Petrochem will re-enforce the use of shade provided encouraging the employees to use the shade and drink water whether thirsty or not.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 1- Establishing subgrade.**

Power Block Foundations (K015):
- **Power Block 1- Working punch list items.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Draining Block 10 . Installing Header and interconnecting pipe in Block 8.**
- **Unit 1- Fit and install pipe in Block 2.**
- **Common Area- Working punch list items.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Boiler Steam and Blow down pipe. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Boiler Feed Water and Pipe Rack 25. Installing pipe at the Boiler Feed Water, Pipe Rack 25 and 23. Working down comers on Train 1.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Working punch list items in Substation 2C. Installing instruments at mid-header.**
- **Unit 1- Working all aspects in Ring 3.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Heat Stroke Prevention"

Weather		
Sunny	Temp- High 103	Winds-South at 13 mph

Power Block 1

Solar Field 2 Block 8 Header Pipe

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Fire Protection and Detection Systems (K032):

- **Unit 2- Terminating cable in the Deluge Enclosures and Electrical Building. Installing piping around Ullage and STG.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Power Block- Insulating SGS Vessels, Overflow Vessels and HTF Pipe.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting and wash ladders. Prepping for air test.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 2. Leveling SCA's in Block 3. Aligning and setting pylons in Block 6.**

HCE Tube Installation (K102):

- **Unit 2- Working Punch list.**
- **Unit 1- Welding in Block 5. Installing triple joints in Block 1. Installing supports in Block 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	5
Sukut (K010)	17
Largo (K015)	10
BPC (K021)	81
PMI (K022)	290
Newtron (K029)	36
Newtron (K030)	192
Fe Moran (K032)	12
Petrochem (K036)	149
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	83
BPC (K102)	99
Total Personnel Onsite	**1,148**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 4, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **HTF delivery driver reported being stung several times by a wasp while offloading. He also stated he had a history of allergic reaction to insect bites. Riverside County Fire Department was contacted and the individual was taken to Station 45. After examination the driver showed no signs or symptoms of allergic reaction and he returned to work.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 1- Establishing subgrade.**
- **Power Block 2- Pouring miscellaneous pipe supports.**
- **Common Area- Pouring miscellaneous electrical supports.**

Power Block Foundations (K015):
- **Power Block 1- Working punch list items.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Draining Block 10 . Installing Header and interconnecting pipe in Block 8.**
- **Unit 1- Fit and install pipe in Block 2.**
- **Common Area- Working punch list items.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Boiler Steam and Blow down pipe. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Boiler Feed Water, Steam Drum Platforms, Pipe Rack 23 and Pipe Rack 22 West steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at mid-header.**
- **Unit 1- Working all aspects in Ring 3.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Heat Stroke Prevention"

Weather		
Sunny	Temp- High 103	Winds-South at 13 mph

Solar Field 2 Bridge 3

Solar Field 2 Block 8

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Fire Protection and Detection Systems (K032):

- **Unit 2- Terminating cable in the Deluge Enclosures and Electrical Building. Installing piping around Ullage and in STG.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Power Block- Insulating SGS Vessels, Overflow Vessels and HTF Pipe.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting and wash ladders. Prepping for air test.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 2. Leveling SCA's in Block 3. Aligning pylons in Block 6. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 2- Working Punch list.**
- **Unit 1- Welding in Block 5. Installing triple joints in Block 1. Installing supports in Block 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	5
Sukut (K010)	17
Largo (K015)	10
BPC (K021)	81
PMI (K022)	290
Newtron (K029)	36
Newtron (K030)	192
Fe Moran (K032)	12
Petrochem (K036)	149
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	83
BPC (K102)	99
Total Personnel Onsite	**1,148**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 5, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 2- Excavating miscellaneous pipe supports and establishing subgrade.**
- **Common Area- Excavating miscellaneous electrical supports.**

Power Block Foundations (K015):
- **Power Block 1- Working punch list items.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Installing Header and interconnecting pipe in Block 8. Filling Block 8 Header Pipe for Hydro.**
- **Unit 1- Fit and install pipe in Block 2.**
- **Common Area- Working punch list items and final alignment of pumps.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Boiler Feed Water, Steam Drum Platforms, Pipe Rack 23 and Pipe Rack 22 West steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at mid-header.**
- **Unit 1- Terminating in Ring 5 and North/South cable tray.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Heat Stroke Prevention"

Weather		
Sunny	Temp- High 106	Winds-South at 11 mph

Terminating Cable in Common Area

Power Block 2

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Fire Protection and Detection Systems (K032):

- **Unit 2- Terminating cable in the Deluge Enclosures and Electrical Building. Installing piping around Ullage and in STG.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Power Block- Insulating SGS Vessels, Overflow Vessels, HTF Pipe and installing conduit.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting and wash ladders. Prepping for air test tonight.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 2. Leveling SCA's in Block 3. Aligning pylons in Block 6. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 2- Working Punch list.**
- **Unit 1- Welding in Block 5. Installing triple joints in Block 1. Installing supports in Block 3. Installing crossovers and interconnects in Blocks 1,2 and 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	5
Sukut (K010)	17
Largo (K015)	10
BPC (K021)	68
PMI (K022)	315
Newtron (K029)	36
Newtron (K030)	192
Fe Moran (K032)	12
Petrochem (K036)	149
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	83
BPC (K102)	99
Total Personnel Onsite	**1,160**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 6, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 2- Pouring miscellaneous pipe supports and establishing subgrade.**
- **Common Area- Pouring miscellaneous electrical supports.**
- **Solar Field- Pouring miscellaneous electrical supports.**

Power Block Foundations (K015):
- **Power Block 1- Working punch list items.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Completing final welds in Block 8. Filling Block 8 Header Pipe for Hydro.**
- **Unit 1- Fit and install pipe in Block 2. Staging pipe and supports in Block 4.**
- **Common Area- Demobilization.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover. Hydro testing Boiler Steam Piping.**
- **Unit 1- Working Boiler Feed Water, Ullage and Deluge Steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at mid-header.**
- **Unit 1- Terminating in Ring 5 and North/South cable tray.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Heat Stroke Prevention"

Weather		
Sunny	Temp- High 111	Winds-South at 9 mph

Power Block 2 Train 2

Power Block 2- Expansion Vessel

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Fire Protection and Detection Systems (K032):

- **Unit 2- Terminating cable in the Deluge Enclosures and Electrical Building. Installing piping around Ullage. Testing piping in STG.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Power Block- Insulating SGS Vessels, Overflow Vessels, HTF Pipe and installing conduit.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting, drain lines and wash ladders. Completed air test last night.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 2. Leveling SCA's in Block 3. Aligning pylons in Block 6. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Welding in Block 5. Installing triple joints in Block 1. Installing supports in Block 3. Installing crossovers and interconnects in Blocks 1,2 and 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	5
Sukut (K010)	17
Largo (K015)	10
BPC (K021)	68
PMI (K022)	315
Newtron (K029)	36
Newtron (K030)	192
Fe Moran (K032)	12
Petrochem (K036)	149
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	83
BPC (K102)	99
Total Personnel Onsite	**1,160**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 7, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 2- Stripping miscellaneous pipe supports and establishing subgrade.**
- **Common Area- Stripping miscellaneous electrical supports and establishing grade.**
- **Solar Field- Stripping miscellaneous electrical supports.**

Power Block Foundations (K015):
- **No Activity.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Hydro testing Block 8.**
- **Unit 1- Fit and install pipe in Block 2. Staging pipe and supports in Block 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Boiler Feed Water, Ullage and Deluge Steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **No Activity.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Heat Stroke Prevention"

Weather		
Sunny	Temp- High 113	Winds-South at 11 mph

Power Block 2- Ullage and HTF Loading Area

Power Block 2- Overflow Vessels

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Fire Protection and Detection Systems (K032):

- **Unit 2- Terminating cable in the Deluge Enclosures and Electrical Building.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **No Activity.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Receiving material and leveling SCA's in Block 2.**

HCE Tube Installation (K102):

- **No Activity.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	5
Sukut (K010)	17
Largo (K015)	0
BPC (K021)	68
PMI (K022)	315
Newtron (K029)	0
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	70
SPX (K057)	0
Newtron (K073)	31
BPC (K100)	10
BPC (K102)	0
Total Personnel Onsite	**810**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 10, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 2- Forming miscellaneous pipe supports.**

Power Block Foundations (K015):
- **Demobilization.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Punch list in Block 8.**
- **Unit 1- Welding out pipe in Block 2. Fit and install pipe in Block 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Boiler Feed Water, Ullage and Deluge Steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at the mid-header.**
- **Unit 1- Installing LOC's in Block 2. Terminating in Block 5.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Personal Choice

Weather		
Sunny	Temp- High 108	Winds-South at 16 mph

Power Block 2 Train 2

Solar Field 2 Block 8

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Fire Protection and Detection Systems (K032):

- **Unit 2- Terminating cable in the Deluge Enclosures and Electrical Building. Installing piping around Ullage.**
- **Unit 1- Set Deluge Enclosure 2.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting, doors and drain piping.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Setting SCE's in Block 2. Leveling SCA's in Block 3. Align pylons in Block 4. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Installing HCE tubes in Block 1. Welding in Block 5. Installing supports and guides in Blocks 2 and 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
Largo (K015)	3
BPC (K021)	75
PMI (K022)	254
Newtron (K029)	28
Newtron (K030)	192
Fe Moran (K032)	15
Petrochem (K036)	178
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	79
BPC (K102)	97
Total Personnel Onsite	**1,116**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 11, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Power Block 2- Forming miscellaneous pipe supports.**
- **Power Block 1- Forming miscellaneous pipe supports.**
- **Common Area- Excavating fuel storage loading apron.**

Power Block Foundations (K015):
- **Demobilization.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Punch list in Block 8.**
- **Unit 1- Welding out pipe in Block 2. Fit and install pipe in Block 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover. Hydro testing is on-going.**
- **Unit 1- Working Boiler Feed Water, Pipe Rack 23, Gland Steam and Ullage Steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at the mid-header.**
- **Unit 1- Installing LOC's in Block 2 and flex in Block 3. Terminating in Block 5.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Personal Choice

Weather		
Sunny	Temp- High 103	Winds-Southeast at 3 mph

Power Block 2 ACC

Solar Field 1 Block 4

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Fire Protection and Detection Systems (K032):

- **Unit 1- Installing pipe supports.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 8, 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Power Block- Insulating Train 1 Vessels, Overflow Vessel, Expansion Vessel and HTF piping.**
- **Common Area- Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting, doors and drain piping.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Setting SCE's in Block 2. Leveling SCA's in Block 3. Align pylons in Block 4. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Installing HCE tubes in Block 1. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2 and 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
Largo (K015)	3
BPC (K021)	75
PMI (K022)	254
Newtron (K029)	28
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	178
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	79
BPC (K102)	97
Total Personnel Onsite	**1,110**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 12, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:

- **Newtron reported a first aid from 6-11 when an employee carrying material stopped and rested the material on a handrail pinching his finger between material and handrail. The employee requested a doctor's opinion and was diagnosed with a bruised finger. The employee was released to unrestricted duty.**

- **Newtron reported an incident from two employees who were dismounting a JLG when the rear trailer tire of passing PMI truck contacted their JLG tire. The employees were seen by an Onsite Medic and were reported as fit for duty. This incident is being investigated by PMI and Newtron.**

Compliance:

- **No issues reported.**

Equipment/Material Deliveries:

- **No major deliveries to report.**

General Services (K010):

- **Power Block 2- Pouring miscellaneous pipe supports.**
- **Power Block 1- Pouring miscellaneous pipe supports.**
- **Common Area- Excavating fuel storage loading apron and pouring miscellaneous electrical supports.**

Power Block Foundations (K015):

- **Demobilization.**

Solar Field Header/Common Area Piping (K021):

- **Unit 2- Punch list in Block 8.**
- **Unit 1- Welding out pipe in Block 2. Fit and install pipe in Block 4.**

Power Block Piping and Mechanical(K022):

- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Boiler Feed Water, Pipe Rack 23, Gland Steam and Ullage Steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains. Setting Feed Water Deaerator Tank and Ullage Vessels.**

Site Safety Topic Of The Week:
"Personal Choice

Weather		
Sunny	Temp- High 108	Winds-South at 13 mph

Power Block 2 Train 2

Power Block 2

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Solar Field Above Ground Electrical (K029):

- **Unit 2- Installing instruments at the mid-header and pulling cable on North/South run.**
- **Unit 1- Installing LOC's in Block 2 and flex in Block 3. Terminating in Block 5.**

Power Block Above Ground Electrical(K030):

- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Fire Protection and Detection Systems (K032):

- **Unit 2- Testing Ullage sprinkler lines.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Block 8, 9 and 10 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 4.**
- **Power Block- Insulating Train 1 Vessels, Overflow Vessel, Expansion Vessel and HTF piping. Installing Heat Trace and conduit.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting, air seals, doors and drain piping.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating and pulling cable throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Setting SCE's in Block 2. Leveling SCA's in Block 2. Aligning pylons in Block 4. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Installing HCE tubes in Block 1. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2 and 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
Largo (K015)	3
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	28
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	178
SPX (K057)	50
Newtron (K073)	31
BPC (K100)	79
BPC (K102)	97
Total Personnel Onsite	**1,103**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 13, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **BPC leveling crew employee was struck on the back of his head by a falling bolt. Reported a bolt fell from the top of a pylon and hit the employee between his hardhat and ratchet strap as he was looking down. Onsite administered 1st aid and the employee returned to regular duty.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Solar Field- Excavating Sun Sensor Tracker foundations.**
- **Common Area- Establishing Grade.**

Solar Field Header/Common Area Piping (K021):
- **Unit 2- Punch list in Block 8.**
- **Unit 1- Welding out pipe in Block 2. Fit and install pipe in Block 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover.**
- **Unit 1- Working Pipe Racks 22 West, 23, 26 and Iso Phase steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains.**

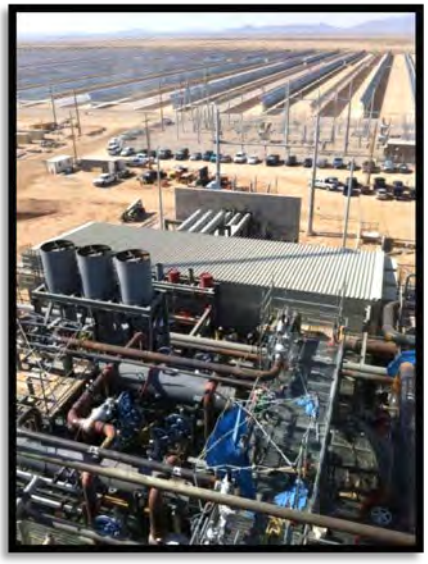
Solar Field Above Ground Electrical (K029):
- **Unit 2- Pulling cable on North/South tray.**
- **Unit 1- Installing LOC's in Block 2 and flex in Block 3. Terminating in Block 5.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Personal Choice

Weather		
Clear	Temp- High 107	Winds-Southeast at 9 mph

Power Block 2 ACC



Power Block 2 Steam Turbine Generator

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Fire Protection and Detection Systems (K032):

- **Unit 1- Installing supports and piping.**

Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Blocks 7 and 8 Header Pipe, Crossovers, swivel joints and interconnecting pipe. Installing HCE covers in Block 3.**
- **Power Block- Insulating Train 1 Vessels, Overflow Vessel, Expansion Vessel and HTF piping. Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall sheeting, doors and drain piping.**
- **Unit 2- Prepping for fan consumption test.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Setting SCE's in Block 2. Leveling SCA's in Block 3. Align pylons in Block 4. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Installing HCE tubes in Block 1. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2 and 3.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	75
PMI (K022)	254
Newtron (K029)	14
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	163
SPX (K057)	40
Newtron (K073)	31
BPC (K100)	79
BPC (K102)	97
Total Personnel Onsite	**1,068**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 14, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

Equipment/Material Deliveries:
- **No major deliveries to report.**

General Services (K010):
- **Solar Field- Pouring Sun Sensor Tracker foundations.**
- **Power Block 1- Establishing subgrade.**

Solar Field Header/Common Area Piping (K021):
- **Clean up and move all material/equipment to Unit 1.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover. Hydro Testing Boiler Steam.**
- **Unit 1- Working Pipe Racks 22 West, 14, 26, Ullage and Boiler Feed Water steel. Installing pipe at the Boiler Feed Water, Pipe Racks 25, 23, 24 and 14. Working down comers on both Trains. Aligning pumps.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Pulling cable on North/South tray.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Personal Choice

Weather		
Clear	Temp- High 107	Winds-South at 14 mph

Power Block 1 Train 1

Power Block 2 Train 2

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Fire Protection and Detection Systems (K032):

- **No Activity.**

Insulation and Heat Tracing (K036):

- **No Activity.**

Air Cooled Condenser (K057):

- **Unit 1- Working punch list items.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Leveling SCA's in Block 3. Erecting pylons in Block 7. Receiving material.**

HCE Tube Installation (K102):

- **No Activity.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	4
PMI (K022)	254
Newtron (K029)	14
Newtron (K030)	192
Fe Moran (K032)	0
Petrochem (K036)	0
SPX (K057)	5
Newtron (K073)	31
BPC (K100)	15
BPC (K102)	0
Total Personnel Onsite	**629**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 17, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Common Area- Installing rebar for diesel loading ramp.**
- **Power Block 1- Establishing subgrade.**

Solar Field Header/Common Area Piping (K021):
- **Installing pipe in Blocks 2 and 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover. Hydro Testing in on going.**
- **Unit 1- Working Pipe Racks 22 West and Boiler Feed Water steel. Installing pipe at the Boiler Feed Water, Pipe Racks 26, 25, 23 and 24. Working down comers on both Trains. Aligning pumps.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Pulling cable on North/South tray and installing instruments at the mid-header.**
- **Unit 1- Installing flex in Rings 1 and 3. Terminating in Ring 5. Installing LOC's in Ring 3.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Site Safety Topic Of The Week:
"Fall Hazards"

Weather		
Clear	Temp- High 107	Winds-South at 16 mph

Power Block 1 Pipe Rack 23

Solar Field 1 Blocks 2 and 3

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Fire Protection and Detection Systems (K032):

- **Unit 2- Performing pneumatic test on air lines around Ullage Tanks.**
- **Unit 1-Installing supports and conduit.**

Insulation and Heat Tracing (K036):

- **Solar Field- Receiving material and installing HCE covers in Block 4.**
- **Power Block 2- Insulating Train 1 Vessels, HTF Piping, Ullage Tanks and Expansion Vessel. Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 2- Setting fan blade pitch.**
- **Unit 1- Installing wash ladders, drain piping, wind wall and air seals.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Setting SCE's in Block 2. Leveling SCA's in Block 3. Aligning pylons in Block 4. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Installing HCE tubes in Block 1. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2 and 3. Testing in Block 5.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	14
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	107
SPX (K057)	45
Newtron (K073)	31
BPC (K100)	84
BPC (K102)	99
Total Personnel Onsite	**1,017**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 18, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Common Area- Installing rebar for diesel loading ramp.**
- **Power Block 1- Establishing subgrade.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing header and interconnecting pipe in Blocks 2 and 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen, Boiler Steam and Heater Bleed and Blow down systems. Continue with punch list items on various systems for turnover. Hydro Testing in on going. Torqueing Vessel heads.**
- **Unit 1- Working Pipe Racks 22 West and Boiler Feed Water steel. Installing pipe at the Boiler Feed Water, Pipe Racks 26, 25, 23 and 24. Working down comers on both Trains. Aligning pumps.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at the mid-header.**
- **Unit 1- Installing flex in Rings 6. Terminating in Ring 2. Installing LOC's in Ring 3.**

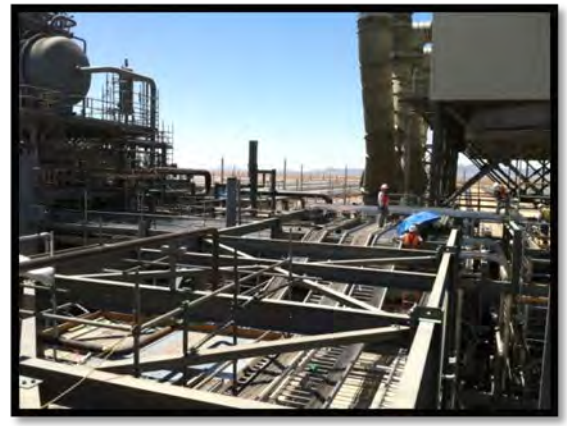
Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Fire Protection and Detection Systems (K032):
- **Unit 2- Installing air lines to valve house 3.**
- **Unit 1-Installing supports and conduit.**

Site Safety Topic Of The Week:
"Fall Hazards"

Weather		
Clear	Temp- High 107	Winds-Southeast at 17 mph

Power Block 2 Train 2 Economizers



Power Block 2 Pipe Rack 23

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Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Blocks 7 and 8. Installing HCE covers in Block 4.**
- **Power Block 2- Insulating Train 1 Vessels, HTF Piping, Ullage Tanks and Expansion Vessel. Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wash ladders, drain piping, wind wall and air seals.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Terminating throughout Water Treatment Area.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 2. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 1. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2 and 3. Testing in Block 5.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	14
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	163
SPX (K057)	45
Newtron (K073)	31
BPC (K100)	84
BPC (K102)	99
Total Personnel Onsite	**1,073**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 19, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Common Area- Installing rebar for diesel loading ramp.**
- **Power Block 1- Establishing subgrade.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing header and interconnecting pipe in Blocks 2 and 4.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam, Nitrogen and Blow down systems. Continue with punch list items on various systems for turnover. Hydro Testing is on going. Torqueing Vessel heads.**
- **Unit 1- Working Pipe Racks 22, 23, 24, 26 and Steam Turbine Generator enclosure steel. Installing pipe on Pipe Racks 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at the mid and south header.**
- **Unit 1- Installing flex in Rings 3 and 6. Terminating in Ring 2. Installing LOC's in Ring 3.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable, setting instruments, working instrument air and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Fire Protection and Detection Systems (K032):
- **Unit 2- Installing air lines to valve house 3.**
- **Unit 1-Installing supports and conduit. Installing sprinkler lines around Main Transformer.**

Site Safety Topic Of The Week:
"Fall Hazards"

Weather		
Clear	Temp- High 102	Winds-Southeast at 9 mph

Solar Field 1 Block 7- Setting SCE's

Power Block 1 Pipe Rack 22 West

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Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Blocks 7 and 8. Installing HCE covers in Block 5.**
- **Power Block 2- Insulating Train 1 Vessels, HTF Piping, Ullage Tanks and Expansion Vessel. Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wash ladders, drain piping, wind wall and air seals.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Installing lighting and terminating.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 7. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2,3 and 4. Testing in Block 5.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	14
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	163
SPX (K057)	45
Newtron (K073)	31
BPC (K100)	84
BPC (K102)	99
Total Personnel Onsite	**1,073**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 20, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **Received noncompliance notice from BLM yesterday for the 6/1/13 ponding issue.**

General Services (K010):
- **Power Block 1- Pouring and excavating pipe supports. Establishing subgrade.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing header and interconnecting pipe in Blocks 2 and 4. Laying out pipe and supports in Block 6.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam and Nitrogen systems. Continue with punch list items on various systems for turnover. Hydro Testing portions of Boiler Steam system. Torqueing Vessel heads.**
- **Unit 1- Working Pipe Racks 22, 23, 24, 26 and Steam Turbine Generator enclosure steel. Installing pipe on Pipe Racks 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at the south header.**
- **Unit 1- Installing flex in Rings 3 and 6. Terminating in Ring 2. Installing LOC's in Ring 3.**

Power Block Above Ground Electrical(K030):
- **Unit 2- Terminating, pulling cable and installing conduit in all areas.**
- **Unit 1-Installing cable tray, junction boxes, equipment, conduit and grounding equipment.**

Fire Protection and Detection Systems (K032):
- **Unit 1-Installing supports and conduit. Installing sprinkler lines around Main Transformer.**

Site Safety Topic Of The Week:
"Fall Hazards"

Weather		
Clear	Temp- High 104	Winds-Southeast at 13mph

Power Block 2 Overflow Vessels

Power Block 1 Pipe Racks 25 and 23

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Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Blocks 7 and 8. Installing HCE covers in Block 5.**
- **Power Block 2- Insulating Train 1 Vessels, HTF Piping, Ullage Tanks and Expansion Vessel. Installing conduit and heat trace.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wash ladders, drain piping, wind wall and air seals.**

Common Area Electrical and Instrumentation (K073):

- **Common Area- Installing lighting and working punch list items.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 6. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 1 and 5. Installing supports, guides, crossovers and interconnects in Blocks 2,3 and 4. Testing in Block 5.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	14
Newtron (K030)	192
Fe Moran (K032)	9
Petrochem (K036)	163
SPX (K057)	45
Newtron (K073)	31
BPC (K100)	84
BPC (K102)	99
Total Personnel Onsite	**1,073**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 21, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Common Area- Pouring diesel loading ramp.**
- **Power Block 1- Establishing subgrade.**

Solar Field Header/Common Area Piping (K021):
- **No Activity.**

Power Block Piping and Mechanical(K022):
- **Unit 2- Working Auxiliary Steam vents and Nitrogen systems. Continue punch list on various systems for turnover. Hydro Testing portions of Boiler Steam and Heater Bleed systems. Torqueing Vessel heads.**
- **Unit 1- Working Pipe Racks 22, 23, 24, 26 and Steam Turbine Generator enclosure steel. Installing pipe on Pipe Racks 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **No Activity.**

Power Block Above Ground Electrical(K030):
- **No Activity.**

Fire Protection and Detection Systems (K032):
- **No Activity.**

Insulation and Heat Tracing (K036):
- **Solar Field- Insulating Blocks 7 and 8. Installing HCE covers in Block 5.**

Site Safety Topic Of The Week:
"Fall Hazards"

Weather		
Clear	Temp- High 105	Winds-Southeast at 13mph

Power Block 2

Solar Field 2 Blocks 2 and 3

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Air Cooled Condenser (K057):

- **No Activity.**

Common Area Electrical and Instrumentation (K073):

- **No Activity.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Leveling SCA's in Block 2. Aligning pylons in Block 7.**

HCE Tube Installation (K102):

- **No Activity.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	0
PMI (K022)	254
Newtron (K029)	0
Newtron (K030)	0
Fe Moran (K032)	0
Petrochem (K036)	50
SPX (K057)	0
Newtron (K073)	0
BPC (K100)	20
BPC (K102)	0
Total Personnel Onsite	**438**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 24, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Common Area- Stripping forms diesel loading ramp.**
- **Power Block 1- Pouring and excavating pipe supports.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing pipe in Blocks 2,4 and 6.**

Power Block Piping and Mechanical (K022):
- **Unit 2- Working Auxiliary Steam vents and Nitrogen systems. Continue punch list on various systems for turnover. Completed hydro testing of Boiler Steam piping.**
- **Unit 1- Working Pipe Racks 22, 23, 24, 26 and Steam Turbine Generator enclosure steel. Installing pipe on Pipe Racks 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 1-Installing flex in Rings 3 and 6.**
- **Unit 2- Installing instruments at the south header.**

Power Block Above Ground Electrical (K030):
- **Unit 1- Installing conduit, tray, grounding and setting equipment.**
- **Unit 2-Installing conduit, instruments and cable.**

Fire Protection and Detection Systems (K032):
- **Unit 1- Installing piping around Main Transformer.**

Insulation and Heat Tracing (K036):
- **Solar Field- Insulating Blocks 7 and 8. Installing HCE covers in Block 10.**
- **Power Block 2- Insulating Train 1, Expansion and Ullage Vessels. Insulating Closed Cooling and HTF piping systems. Installing conduit and heat trace.**
- **Common Area- Insulating all piping systems.**

Site Safety Topic Of The Week:
"Personal Fall Arrest Systems"

Weather		
Clear	Temp- High 103	Winds-Southeast at 16 mph

Power Block 2 Train 2

Power Block 2 Pipe Rack 22 West

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Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall and prepping for final weld to turbine.**

Common Area Electrical and Instrumentation (K073):

- **Installing lighting and working punch list items.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 6. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 5 and 1. Testing in Block 5.**

Pre-commissioning B&W Fluid Dynamics (K205)

- **Unit 2- Aqualazing Steam and Feed Water systems. Setting up chemical cleaning temporary pipe system.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	20
Newtron (K030)	120
Fe Moran (K032)	10
Petrochem (K036)	146
SPX (K057)	38
Newtron (K073)	5
BPC (K100)	83
BPC (K102)	99
B&W Fluid Dynamics (K205)	7
Total Personnel Onsite	**964**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 25, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **A Petrochem subcontractor, Brand scaffold employee reported pain on the morning of 6-25 from an incident that he reported to have happened at approximately 9:30 the previous day. The employee stated he heard a pop in wrist while passing a wooden board to his co-worker. The employee worked the remainder of the day without reporting the incident. The employee was taken to the clinic on 6-25 for examination and released for work without restriction. This has been reported as 1st Aid.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Power Block 1- Pouring pipe supports.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing pipe in Blocks 2,4 and 6.**

Power Block Piping and Mechanical (K022):
- **Unit 2- Working Auxiliary Steam vents and Nitrogen systems. Continue punch list on various systems for turnover.**
- **Unit 1- Working Pipe Racks 22, 23, 24, 26 and HTF Expansion Vessels platforms. Installing pipe on Pipe Racks 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 1-Installing flex in Rings 3 and 6.**
- **Unit 2- Installing instruments at the south header.**

Power Block Above Ground Electrical (K030):
- **Unit 1- Installing conduit, tray, grounding and setting equipment.**
- **Unit 2-Installing conduit, instruments and cable.**

Fire Protection and Detection Systems (K032):
- **Unit 1- Installing piping around Main Transformer.**

Insulation and Heat Tracing (K036):
- **Solar Field- Insulating Blocks 7 and 8. Installing HCE covers in Block 10.**
- **Power Block 2- Insulating Train 1, Expansion and Ullage Vessels. Insulating Boiler Steam, Feed water and HTF piping systems. Installing conduit and heat trace.**
- **Common Area- Insulating all piping systems.**

Site Safety Topic Of The Week:
"Personal Fall Arrest Systems"

Weather		
Clear	Temp- High 102	Winds-Southwest at 7 mph

Power Block 1

Power Block 2 Pipe Rack 23

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Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall and prepping for final weld to turbine.**

Common Area Electrical and Instrumentation (K073):

- **Completed turnover and working punch list items.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 6. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 5 and 1. Testing in Block 5.**

Pre-commissioning B&W Fluid Dynamics (K205)

- **Unit 2- Aqualazing Steam and Feed Water systems. Setting up chemical cleaning temporary pipe system.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	20
Newtron (K030)	120
Fe Moran (K032)	10
Petrochem (K036)	128
SPX (K057)	38
Newtron (K073)	5
BPC (K100)	83
BPC (K102)	99
B&W Fluid Dynamics (K205)	7
Total Personnel Onsite	**946**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 26, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Genesis Solar Energy Project

Safety:
- **At approximately 12:30 just after lunch, a PMI employee working in the North laydown area Power Block 1 collapsed. The crew working there acted with swift reporting and cooled the individual with shade and ice/water. PMI followed response protocol closely, 911 was called to assist then escorting the response team in. 13:10 the individual was in route via Blythe ambulance service to the hospital in Blythe. At that time the employee was cooled and coherent. The root cause of the incident is under investigation.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Power Block 1- Pouring pipe supports.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing pipe in Blocks 2,4 and 6.**
- **Unit 2-Working punch list items**

Power Block Piping and Mechanical (K022):
- **Unit 2- Working Auxiliary Steam vents. Continue punch list on various systems for turnover. Hydro testing Heater Bleed.**
- **Unit 1- Working Pipe Racks 22 West, 23, Condensate platform and HTF Expansion Vessel platforms. Installing pipe on Pipe Racks 14, 17, 22, 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 1-Installing flex and RTD's in Ring 4.**
- **Unit 2- Installing instruments at the south header.**

Power Block Above Ground Electrical (K030):
- **Unit 1- Installing conduit, tray, grounding and setting equipment.**
- **Unit 2-Installing conduit, instruments and cable.**

Fire Protection and Detection Systems (K032):
- **Unit 1- Installing piping around Main Transformer.**

Site Safety Topic Of The Week:
"Personal Fall Arrest Systems"

Weather		
Clear	Temp- High 107	Winds-Southeast at 12 mph

Chemical Clean Equipment

Power Block 2 Train 2

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Insulation and Heat Tracing (K036):

- **Solar Field- Insulating Blocks North/South Header. Installing HCE covers in Block 10.**
- **Power Block 2- Insulating Train 1, Expansion and Ullage Vessels. Insulating Boiler Steam, Feed water and HTF piping systems. Installing conduit and heat trace.**
- **Common Area- Insulating all piping systems.**

Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall and prepping for final weld to turbine.**
- **Unit 2- Prepping for fan consumption test.**

Common Area Electrical and Instrumentation (K073):

- **Working punch list items.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 6. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 5 and 1. Testing in Block 5.**

Pre-commissioning B&W Fluid Dynamics (K205)

- **Unit 2- Aqualazing Steam and Feed Water systems. Setting up chemical cleaning temporary pipe system.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	20
Newtron (K030)	120
Fe Moran (K032)	10
Petrochem (K036)	128
SPX (K057)	38
Newtron (K073)	5
BPC (K100)	83
BPC (K102)	99
B&W Fluid Dynamics (K205)	7
Total Personnel Onsite	**946**

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Genesis Solar, LLC.
Blythe, California
Daily Report

June 27, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **No issues reported.**

General Services (K010):
- **Power Block 1- Pouring pipe supports.**
- **Power Block 2- Working sump in HTF pit.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing pipe in Blocks 2,4 and 6.**
- **Unit 2-Working punch list items.**
- **Common Area- Installing connection to permanent well.**

Power Block Piping and Mechanical (K022):
- **Unit 2- Continue punch list on various systems for turnover. Hydro testing is on-going.**
- **Unit 1- Working Pipe Racks 22 West, 23, Condensate platform and HTF Expansion Vessel platforms. Installing pipe on Pipe Racks 14, 17, 22, 23, 24,25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 1-Installing flex and RTD's in Ring 4.**
- **Unit 2- Installing instruments at the south header.**

Power Block Above Ground Electrical (K030):
- **Unit 1- Installing conduit, tray, grounding and setting equipment.**
- **Unit 2-Installing conduit, instruments, cable and terminating.**

Fire Protection and Detection Systems (K032):
- **Unit 1- Installing piping around Main Transformer and in valve houses. Installing supports and conduit.**

Insulation and Heat Tracing (K036):
- **Solar Field- Insulating Blocks North/South Header. Installing HCE covers in Block 10.**
- **Power Block 2- Insulating Train 1 and Ullage Vessels. Insulating Boiler Steam, Feed water and HTF piping systems. Installing conduit and heat trace.**
- **Common Area- Insulating all piping systems.**

Site Safety Topic Of The Week:
"Personal Fall Arrest Systems"

Weather		
Clear	Temp- High 110	Winds-Southeast at 9 mph

Power Block 2 Overflow Vessels

Power Block 2 Ullage Area

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Air Cooled Condenser (K057):

- **Unit 1- Installing wind wall and wash water system.**
- **Unit 2- Prepping for fan consumption test.**

Common Area Electrical and Instrumentation (K073):

- **Terminating permanent well connection and working punch list items.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 6. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 5 and 1. Completed testing in Block 5.**

Pre-commissioning B&W Fluid Dynamics (K205)

- **Unit 2- Aqualazing Steam and Feed Water systems. Setting up chemical cleaning temporary pipe system.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	20
Newtron (K030)	140
Fe Moran (K032)	10
Petrochem (K036)	128
SPX (K057)	38
Newtron (K073)	5
BPC (K100)	83
BPC (K102)	99
B&W Fluid Dynamics (K205)	7
Total Personnel Onsite	**966**

Daily Report contents shall not be forwarded or distributed without prior written consent of NextEra Energy

Genesis Solar, LLC.
Blythe, California
Daily Report

June 28, 2013

Unit 2 COD: November 1st, 2013
Unit 1 COD: April 1st, 2014

Safety:
- **No accident or injury.**

Compliance:
- **Steel plate install was completed at double metate locations. Matt Tennyson (AECOM), John Kalish (BLM), Art Lopez (Soboba), Wilene Fisher-Holt (CRIT) and Ginger Scott (CRIT) witnessed the steel plate placement.**

General Services (K010):
- **Power Block 1- Excavating pipe supports.**
- **Power Block 2- Working sump in HTF pit.**

Solar Field Header/Common Area Piping (K021):
- **Unit 1- Installing pipe in Blocks 2,4 and 6.**
- **Unit 2-Working punch list items.**
- **Common Area- Installed connection to permanent well.**

Power Block Piping and Mechanical (K022):
- **Unit 2- Continue punch list on various systems for turnover. Hydro testing is on-going. Removing plugs on down comers for Chemical Clean activities.**
- **Unit 1- Working Pipe Racks 22 West, 23 and HTF Expansion Vessel platforms. Installing pipe on Pipe Racks 17, 24, 25 and 26. Working down comers on both Trains.**

Solar Field Above Ground Electrical (K029):
- **Unit 2- Installing instruments at the south header and tray covers on North/South cable tray.**

Power Block Above Ground Electrical (K030):
- **Unit 2-Installing conduit, instruments, pulling cable and terminating.**

Fire Protection and Detection Systems (K032):
- **No Activity.**

Insulation and Heat Tracing (K036):
- **No Activity.**

Site Safety Topic Of The Week:
"Personal Fall Arrest Systems"

Weather		
Clear	Temp- High 117	Winds-Southwast at 10 mph

Power Block 2 Train 2

Solar Field 2 Block 6

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Air Cooled Condenser (K057):

- **Unit 2- Prepping for fan consumption test.**

Common Area Electrical and Instrumentation (K073):

- **Working punch list items.**

Pylon, SCE Assembly and Installation(K100):

- **Unit 1- Setting SCE's in Block 6. Leveling SCA's in Block 2. Aligning pylons in Block 7. Erecting pylons in Block 7.**

HCE Tube Installation (K102):

- **Unit 1- Installing HCE tubes in Block 3. Welding in Blocks 1 and 3.**

Pre-commissioning B&W Fluid Dynamics (K205)

- **Unit 2- Aqualazing Steam and Feed Water systems. Setting up chemical cleaning temporary pipe system.**

Personnel Onsite	Total
Genesis Management	42
Genesis Operations	38
Compliance Monitors	8
Guardsmark (K005)	5
PSI (K007)	4
Sukut (K010)	17
BPC (K021)	68
PMI (K022)	254
Newtron (K029)	20
Newtron (K030)	140
Fe Moran (K032)	2
Petrochem (K036)	0
SPX (K057)	38
Newtron (K073)	5
BPC (K100)	83
BPC (K102)	99
B&W Fluid Dynamics (K205)	7
Total Personnel Onsite	**830**

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United States Department of the Interior
BUREAU OF LAND MANAGEMENT
Palm Springs-South Coast Field Office
1201 Bird Center Drive
Palm Springs, CA 92262-8001
(760) 833-7100 Fax (760) 833-7199

6/19/2013

In Reply Refer to:
CACA-48880
Notice of Noncompliance

Ms. Jennie Gavaldon, Compliance Manager
Genesis Solar Energy Project
NextEra Energy Resources, LLC
700 Universe Blvd,
Juno Beach, FL 33408

Dear Ms. Gavaldon:

The following events were reported to me regarding recent standing water on the Genesis Solar Energy Project. I am also aware that there have been previous compliance issues with standing water and best management practices for water discharge on this site.

On Wednesday, May 29, 2013, Genesis Project Manager Rodney Haverland asked the BLM Compliance Monitor about discharging water from the HTF pipe hydro test into Channel D. The BLM Compliance Monitor stated that all on-site water should be pumped into the evaporation ponds and that the channels are intended only for off-site water diversion around the site. Mr. Haverland stated that it was very important to have the pipes empty for compressed air pipe drying that was scheduled for Saturday and that they were currently pumping water into water trucks; however, the process was very slow. The BLM Compliance Monitor agreed to allow water discharge into the HTF drain pit in Power Block 2 with the condition that a pump be in-place to immediately pump the water to the evaporation ponds.

On Thursday, May 30, 2013, the BLM Compliance Monitor inspected the HTF Drain Pit in Power Block 2 at 7 am and 11 am. Water was being discharged into the pit but there was not a pump in-place to move the water to the evaporation ponds. He contacted Jennie Gavaldon, Compliance Manager, to ask that a pump be installed. At 3 pm, a pump was installed to pump the water into a water truck. The BLM Compliance Monitor was again asked by Genesis Management to allow water discharge into Channel D. He stated his previous position and included additional biological reasons related to the Desert Tortoise Plan, Raven Management Plan, and potential impact to the Couch's Spade Foot Toads which were observed in Channel D on August 1, 2012.

On Friday, May 31, 2013, water discharge continued into the HTF Drain Pit in Power Block 2. The water was then pumped into water trucks.

On Saturday, June 1, 2013, BLM Ranger Cortazar was on site for a periodic site visit. He observed standing water from HTF hydro test discharge on the ground on the west side of Block 5, Unit 2. The area was approximately 150 feet by 120 feet with a depth of 2 inches. He was informed by a worker that the discharge occurred the previous Friday night. He notified the BLM Compliance Monitor who then contacted Jennie Gavaldon, Compliance Manager and Genesis Project Manager, Bill Watson. BLM Ranger Cortazar spoke to Genesis Management and informed them that the HTF pipe drying would need to be canceled until all standing water was mitigated. It appeared that the water was intentionally discharged onto the ground to expedite emptying the pipes for the scheduled pipe drying.

This discharge is a violation of the following Biological Mitigation Measures required in the Right-of-Way Grant:

- BIO-8 - Impact Avoidance and Minimization Measures

  12. Minimize Standing Water. Water applied to dirt roads and construction areas (trenches or spoil piles) for dust abatement shall use the minimal amount needed to meet safety and air quality standards in an effort to prevent the formation of puddles, which could attract desert tortoises and common ravens to construction sites. A Biological Monitor shall patrol these areas to ensure water does not puddle and shall take appropriate action to reduce water application where necessary.

- Raven Monitoring, Management, and Control Plan

  Section 3.0 – Conditions of Concern

  During construction, water will be applied to graded areas, construction rights-of-way, dirt roads, trenches, spoil piles, and other areas of ground disturbance to minimize dust emissions and topsoil erosion. Ponded water, resulting from these dust suppression activities, has the potential to attract ravens, thereby potentially increasing predation on raven prey species. During operations, deionized water will be used to wash mirrors; however, the amount of water used will be minimal and is not anticipated to result in ponded water on site.

  Section 4.2.3 – Ponding Water (Construction)

  The application rates of water for dust suppression activities will be limited to minimize ponding. The application rate will consider soil infiltration and evaporation rates. The DB or Biological Monitor (BM) will patrol areas daily to ensure water does not puddle for long periods (more than one hour) and make recommendations for reduced water application rates where necessary. The fill station(s) will be designed to adequately drain water to prevent ponding.

Section 4.3.3 – Ponding Water (Operations)

> Deionized water will be used to wash mirrors; however, the amount of water used will be minimal, and is not anticipated to result in ponding of water. To minimize the occurrence of ponding water during operations, the application rates of water for mirror washing activities will be limited and will consider soil infiltration and evaporation rates. The on-site Environmental Manager will patrol the Project Area after mirror washing to ensure that water does not puddle for long periods, and make recommendations for reduced water application rates where necessary.

The right-of-way grant for this project provides that noncompliance with the requirements of these mitigation measures will be grounds for immediate temporary suspension of activities and operations within the right-of-way by the Authorized Officer. Any additional non-compliance by Genesis Solar, LLC or its representatives involving these mitigation measures will result in further administrative actions by the BLM as provided for under the right-of-way grant and appropriate regulations.

Within five days of receipt of this notice, Nextera is to provide this office with a written description of measures to be implemented in order to fully adhere to these project requirements involving standing water.

We look forward to resolving this issue. Please contact me at the above address or by e-mail (jkalish@blm.gov) if you have any questions regarding this matter.

Sincerely,

John R. Kalish
Field Manager

June 24, 2013

Mr. John R. Kalish
Field Manager
Bureau of Land Management
1201 Bird Center Drive
Palm Springs, CA 92262

Re: Genesis CACA-48880
Notice of Noncompliance

Dear Mr. Kalish,

Pursuant to your request, we offer the following as an improvement to our best management practices for water discharge at the Genesis Solar Energy Project:

1) At least three (3) days prior to any planned discharge, the responsible contractor shall notify the Genesis Site Compliance Manager (CM) of said discharge and provide a proposed discharge management plan. Our intent is to have discharges planned to be piped or trucked to the evaporation ponds. In the event that is not possible or practical, plans may be prepared for discharges to the HTF pit; however, such plans will include pumping from the HTF pit to the evaporation ponds and will include notification to the BLM's Compliance Monitor.
2) At least 24 hours prior to any planned discharge, the responsible contractor shall meet with the compliance team to finalize a discharge management plan.
3) If a substantive deviation from the approved discharge management plan is required, the contractor shall notify the CM immediately, and the requisite change will be made at least 24 hours in advance of the discharge as long as it remains compliant with the Project's Right of Way Grant or is approved by the BLM's Compliance Manager
4) If an unplanned substantive deviation from the approved discharge management plan occurs, the contractor shall notify the CM immediately. The CM will notify the BLM's Compliance Manager and will take immediate action as required by the permits. Such action will include biological monitoring for ponding more than 1 hour and elimination of the ponding within 24 hours.

If a water discharge occurs without steps 1-3 above being taken, the supervisor of the work that resulted in such water discharge may be subject to disciplinary action, including reprimand, removal from the project or from the position of responsibility.

If you have any questions or comments, please contact me at (951) 634-2395 or via e-mail at Jennifer.Gavaldon@fpl.com.

Sincerely,

Jennifer Gavaldon
Compliance Manager
Genesis Solar Energy Project
NextEra Energy Resources

CC: S. A. Siegelstein, E. Luton, R. Haverland, B. Denne, K. Stein

Genesis Daily Well Readings - Well Pads in acre feet x .001

New meters 10/21	Serial No#: 11-07803	Serial No#: 11-07804	Serial No#: 11-07805	Serial No#: 022037 Currently not in use	**Sundays not worked so no meter readings**
	All McCalls Propeller Meter McCrometer Flow Meters			**Hendley Nitro Performance**	
Date	**Well 0**	**Well 1**	**Well 2**	**Front Well Gauge (in gal)**	**Comments**
Sat. 06/01	138914	219121	289037		
Sun. 06/02	138914 acre feet x .001	219121 acre feet x .001	289037 acre feet x .001	78762 00 (out of service)	Friday reading 05/31
Mon. 6/03	144768	219504	289236		
Tue. 6/04	150915	220014	289489		
Wed. 6/05	152912	220326	289763		
Thu. 6/06	154484	220956	290036		
Fri . 6/07	156711	221568	290872		
Sat. 6/08	156711	221568	290872		
Sun. 6/09	156711 acre feet x .001	221568 acre feet x .001	290872 acre feet x .001	78762 00 (out of service)	Friday reading 06/07
Mon. 6/10	158908	221943	290901		
Tue. 6/11	160342	222365	290985		
Wed. 6/12	164265	222889	291112		
Thu. 6/13	167930	223208	291428		
Fri. 6/14	168521	223710	291690		
Sat. 6/15	168521	223710	291690		
Sun. 6/16	168521 acre feet x .001	223710 acre feet x .001	291690 acre feet x .001	78762 00 (out of service)	Friday reading 06/14
Mon. 6/17	169035	223991	291915		
Tue. 6/18	163634	224493	292102		
Wed. 6/19	172585	225006	292363		
Thu. 6/20	175592	225935	292784		
Fri. 6/21	177023	226375	293105		
Sat. 6/22	177023	226375	293105		
Sun. 6/23	177023 acre feet x .001	226375 acre feet x .001	293105 acre feet x .001	78762 00 (out of service)	Friday reading 06/21
Mon. 6/24	Pump removed	226733	293248		
Tue. 6/25	Out of service	227255	293747		
Wed. 6/26	177023	227698	294113		
Thu. 6/27	177023	228305	294294		
Fri. 6/28	177023	229016	294671		
Sat. 6/29	177023	229016	294671		
Sun. 6/30	177023 acre feet x .001	229016 acre feet x .001	294671 acre feet x .001	78762 00 (out of service)	Friday reading 06/28