Topock Project Executive Abstract

Document Title: Biological Resources Completion Report for the Geophysical Survey, Topock Compressor Station Needles, California Submitting Agency/Authored by: BLM, USFWS Final Document? ☒ Yes ☐ No	Date of Document: September 2013 Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other) PG&E
Priority Status: ☐ **HIGH** ☐ **MED** ☒ **LOW** Is this time critical? ☐ Yes ☒ No Type of Document: ☐ Draft ☒ Report ☐ Letter ☐ Memo ☐ Other / Explain:	Action Required: ☒ Information Only ☐ Review & Comment Return to:_____ By Date: _____ ☐ Other / Explain:
What does this information pertain to? ☐ Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA)/Preliminary Assessment (PA) ☐ RCRA Facility Investigation (RFI)/Remedial Investigation (RI) (including Risk Assessment) ☐ Corrective Measures Study (CMS)/Feasibility Study (FS) ☐ Corrective Measures Implementation (CMI)/Remedial Action ☐ California Environmental Quality Act (CEQA)/Environmental Impact Report (EIR) ☐ Interim Measures ☒ Other / Explain: Programmatic Biological Assessment (PBA) General Project Management Measure 23	Is this a Regulatory Requirement? ☒ Yes ☐ No If no, why is the document needed?
What is the consequence of NOT doing this item? What is the consequence of DOING this item? This report is required by the approved PBA. Not performing the survey and preparing this report constitute non-compliance with the PBA.	Other Justification/s: ☐ Permit ☐ Other / Explain:

Brief Summary of attached document:

The Biological Resources Completion Report for the Geophysical Survey, was prepared to determine if there were any adverse effects on species protected under the federal Endangered Species Act resulting from investigative activities during the Geophysical Survey at the Topock Compressor Station. The General Project Management Measures described in the PBA, and followed throughout the Geophysical Survey, were effective in minimizing impacts to the work area and surrounding lands. The project was conducted under a "may affect, but not likely to adversely affect" determination for the southwestern willow flycatcher, Mojave desert tortoise, Yuma clapper rail, razorback sucker, and bonytail chub and under a "no effect" determination for the Colorado pikeminnow. In compliance with these determinations, there was no take of these species.

Written by: PG&E

Recommendations:

This report is for information only.

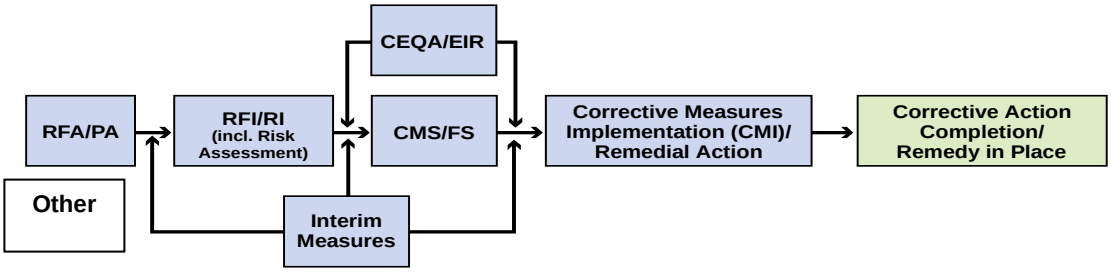
How is this information related to the Final Remedy or Regulatory Requirements:

This report is a requirement of the PBA upon the completion of construction activities.

Other requirements of this information?
None

Related Reports and Documents:

Click any boxes in the Regulatory Road Map (below) to be linked to the Documents Library on the DTSC Topock Web Site (www.dtsc-topock.com). **The link to the Documents Library is currently UNDER CONSTRUCTION.**



Legend
RFA/PA – RCRA Facility Assessment/Preliminary Assessment
RFI/RI – RCRA Facility Investigation/CERCLA Remedial Investigation (including Risk Assessment)
CMS/FS – RCRA Corrective Measure Study/CERCLA Feasibility Study
CEQA/EIR – California Environmental Quality Act/Environmental Impact Report

Version 9

Report

Biological Resources Completion Report for the Geophysical Survey – Topock Compressor Station Groundwater Investigation, Topock Compressor Station Needles, California

Prepared for

United States Bureau of Land Management
United States Fish and Wildlife Service

On behalf of

Pacific Gas and Electric Company

September 2013

CH2MHILL
2485 Natomas Park Drive, Suite 600
Sacramento, California 95833

Contents

Acronyms and Abbreviations

CERCLA	Comprehensive Environmental Response Compensation and Liability Act
Cr(VI)	hexavalent chromium
DOI	United States Department of the Interior
ESA	Endangered Species Act
GPMM	General Project Management Measures
PBA	*Programmatic Biological Assessment for the Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions*
PG&E	Pacific Gas and Electric Company
RCRA	Resource Conservation and Recovery Act
RFI/RI	RCRA facility investigation/CERCLA remedial investigation
USFWS	United States Fish and Wildlife Service

SECTION 1

Introduction

Pacific Gas and Electric Company (PG&E) is addressing chromium in groundwater at the Topock Compressor Station located in eastern San Bernardino County, California, approximately 15 miles southeast of Needles, California. Figure 1-1 provides a site location map for the Topock Compressor Station.

Investigative and remedial activities at the Topock Compressor Station are being performed under the Resource Conservation and Recovery Act (RCRA) corrective action process under an agreement between PG&E and the California Environmental Protection Agency, Department of Toxic Substances Control, as well as under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) under an agreement between PG&E and the United States Department of the Interior (DOI). Under the terms of these agreements, PG&E is conducting the RCRA facility investigation/CERCLA remedial investigation (RFI/RI) to identify and evaluate the nature and extent of hazardous waste and constituent releases at the compressor station.

A geophysical survey (surface resistivity logging) was conducted across the wash channels near Sites A and C as a means to locate the most favorable portion of the subsurface channel before drilling exploratory borings. Surface resistivity logging was not conducted around Site B because there is not sufficient latitude in where this exploratory borehole can be drilled to warrant using a geophysical survey. Geophysical activities occurred the week of October 22, 2012.

Primary field tasks conducted during this investigation included:

- Site access, preparation, and compliance monitoring.
- Placement of small electrodes in the ground. The electrodes were pushed or hammered into the ground using hand tools approximately every 50 feet along the resistivity line.

All installation and testing activities were completed as outlined in the *Revised Implementation Plan for Evaluation of Alternative Freshwater Sources in the Topock Remediation Project Area* (CH2M HILL, 2013). The surface resistivity survey locations are depicted in Figure 1-2.

These activities are addressed in the *Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions* (PBA) (CH2M HILL, 2007), and considered a seismic study under the planned activity for seismic studies. Geophysical surveys followed all applicable General Project Management Measures (GPMM) in the PBA (Appendix A), the 2007 United States Fish and Wildlife Service (USFWS) letter- of concurrence (USFWS, 2007), and applicable minimization measures in the adopted Mitigation Monitoring and Reporting Plan for the Topock Compressor Station Groundwater Remediation Project, dated January 2011 (DTSC, 2011).

1.1 Regional Environmental Setting

The Topock Compressor Station is located in a sparsely populated, rural area. Much of the nearby surrounding land is publicly owned by the federal government and has important spiritual meaning to local Indian tribes. Public lands in the area are owned and/or managed by a number of federal and regional agencies, including the Bureau of Land Management, USFWS, US Bureau of Reclamation, and San Bernardino County.

Dominant features of the area include the Colorado River to the east; the Chemehuevi Mountains to the south; the Burlington Northern Santa Fe railroad tracks and bridge; and Interstate 40, which links Barstow, California and Topock, Arizona. Topography in the area is abrupt, rising from around 450 feet above mean sea level at the Colorado River to over 1,200 feet above mean sea level within 1 mile to the south and southwest.

The area is characterized by arid conditions and high temperatures. The surrounding land consists of a series of terraces divided by desert washes. The landscape within the project area is considerably eroded and can most suitably be described as badlands. The lands are made of small to moderately-sized terraces with very steep

slopes. Terraces occurring in the project area are homogeneous, composed of rocky soils with very sparse vegetation. Structurally diverse vegetation in the project area is primarily limited to the Colorado River floodplain and the ephemeral washes.

1.2 Report Objectives and Organization

This biological completion report documents field activities associated with performing geophysical surveys at two of three sites selected for potential freshwater well installation.

The PBA (CH2M HILL, 2007) was prepared to determine any potential effect on species protected under the federal Endangered Species Act (ESA) resulting from remedial and investigative activities at the Topock Compressor Station. The USFWS concurred with the determinations provided in the PBA, as documented in a letter dated February 8, 2007 (USFWS, 2007). The field activities addressed in this report are included in the PBA and considered a seismic study under the planned activity for seismic studies. This report, as required by the PBA (GPMM 23), serves as supporting documentation under the ESA for the evaluation of project effects to federally-listed species and resulting determinations.

This report has been prepared in compliance with the GPMM 23 of the PBA (CH2M HILL, 2007). This condition requires that, within 60 days of completion of construction activities, a brief report shall be prepared for the Bureau of Land Management and the USFWS. This report shall document the effectiveness of the mitigation measures, make recommendations for modifying the measures to enhance species protection, and provide information on survey and monitoring activities, observed listed species, and the actual acreage disturbed by the project.

To comply with these requirements, this report contains:

- Documentation of awareness training and compliance monitoring (Section 2.0).
- Project location and existing disturbed areas (Section 3.0).
- Pre- and post-activity surveys, including the observed listed species (Section 4.0).
- Conclusions, including a discussion of the effectiveness of the mitigation measures and recommendations for modifying the measures to enhance species protection (Section 5.0).

SECTION 2

Awareness Training and Compliance Monitoring

In accordance with the GPMM 5 described in the PBA (CH2M HILL, 2007), awareness training was provided to personnel before the start of construction activities. The awareness training focused on the southwestern willow flycatcher (*Empidonax traillii extimus*) and the desert tortoise (*Gopherus agassizii*) for activities in the desert washes and uplands. PG&E and CH2M HILL biologists provided training to onsite personnel prior to initiating work activities. Site personnel were trained at the project initiation meeting on October 22, 2012, and new personnel were identified and trained at safety meetings conducted each morning before work. Training included a description of each species; its habitat, natural history, threats, and legal protection under the ESA; potential penalties; current survey findings; management; and protection measures in the PBA. The attendance of personnel at training sessions are documented in the daily sign-in sheet provided as Appendix B to this report.

During project activities, a designated PG&E field contact representative and CH2M HILL biologist provided compliance monitoring for conditions of the GPMMs (Appendix A). In accordance with GPMM 2, the field contact representative was responsible for overseeing compliance with the mitigation measures.

SECTION 3

Project Location and Existing Disturbance

Various past activities have resulted in land disturbance of the general area of the Topock Compressor Station. The area is traversed by a major highway, a railway, several gas pipelines, gas pipeline access roads, overhead electric power lines, county roads, private property access roads, and parking areas.

3.1 Geophysical Survey Locations

Geophysical surveys were conducted at two areas (Figure 1-2). One area is located in a wash on the California side approximately 1.75 miles north of the Moabi Regional Park entrance. The other area is located in the Sacramento Wash in Arizona.

Because the access routes to the geophysical survey locations have been used for past activities (GM 7 requires existing routes of travel be used), these areas have vegetation cover that ranges from none to sparse (GM 6 requires facilities be sited within an existing right of way or previously disturbed or barren areas to limit new surface disturbance). The California site was accessed from Interstate 40 via Park Moabi Road to the Moabi Regional Park entrance. From here, an unnamed, unpaved access road was used to access the site. The Arizona site was accessed from Interstate 40 via Mohave County Road 10 to several unpaved roads that bisect the site. From these roads, access to the geophysical survey sites was on foot. Most vegetation adjacent to pre-existing disturbed areas was avoided during project activities, with minimal trimming of tamarisk and creosote bush (at Site A only) to obtain access to the geophysical survey locations. No additional areas were disturbed by the activity (GPMM 16 requires activities to be restricted to a pre-determined corridor) and no habitat loss occurred.

SECTION 4

Pre- and Post-Activity Surveys

4.1 Preconstruction Surveys

In compliance with GPMM 3, a qualified biologist surveyed work sites and surrounding areas for sensitive biological resources on October 2, 2012. No listed species or nesting birds were observed during the pre-activity survey.

During the pre-construction survey, sensitive vegetation that was to be avoided was identified and the conditions noted. No listed species were observed during the pre-construction survey.

All geophysical survey activities were confined to a pre-determined corridor (per GPMM 16) consisting of areas with pre-existing disturbance and active channels in the desert wash. No vegetation was cleared as a result of mobilization, surveying, and demobilization.

Flora and fauna observed during the pre- and post-activity survey are listed in Table 4-1

4.2 Post-construction Surveys

On October 25, 2012, at the conclusion of geophysical survey activities, post-activity conditions were noted. No listed species were observed during the post-activity survey and no habitat was disturbed. Flora and fauna observed during the pre- and post-activity survey are listed in Table 4-1.

TABLE 4-1
List of Observed Plants and Wildlife Incidental to Pre- and Post-activity Surveys
Biological Resources Completion Report for the Geophysical Survey Project, Topock Compressor Station, Needles, California

Common Name	Scientific Name
Plants	
Beavertail cactus	*Opuntia basilaris*
Blue Palo Verde	*Parkinsonia florida*
California barrel cactus	*Ferocactus cylindraceus var. cylindraceus*
Creosote bush	*Larrea tridentata*
Brittlebush	*Encelia farinose*
Honey mesquite	*Prosopis glandulosa*
Russian thistle	*Salsola tragus*
Salt Cedar	*Tamarix ramosissima*
Screwbean mesquite	*Prosopis pubescens*
Silver cholla	*Opuntia echinocarpa*
White Bursage	*Ambrosia dumosa*
Reptiles	
Side-blotched lizard	*Uta stansburiana*
Birds	
Gambel's quail	*Callipepla gambelii*

TABLE 4-1
List of Observed Plants and Wildlife Incidental to Pre- and Post-activity Surveys
Biological Resources Completion Report for the Geophysical Survey Project, Topock Compressor Station, Needles, California

Common Name	Scientific Name
Turkey vulture	*Cathartes aura*
Rock pigeon	*Columba livia*
Mourning dove	*Zenaida macroura*
Common raven	*Corvus corax*
Abert's towhee	*Melozone aberti*
Blue-gray gnatcatcher	*Polioptila caerulea*
House finch	*Carpodacus mexicanus*
House sparrow	*Passer domesticus*
Mammals	
Desert cottontail	*Sylvilagus audubonii*

SECTION 5

Conclusion

Site activities for the geophysical survey were reviewed by the federal regulatory agencies. In conformance with the PBA GPMM, personnel were provided with awareness training, and qualified biologists conducted pre- and post-activity surveys in all areas subject to construction use. A field contact representative remained onsite during all construction activities.

The GPMMs described in the PBA were effective in minimizing impacts to the work area and surrounding lands. Appendix A lists the GPMMs and the compliance with each measure during the work activities. The geophysical survey activities were conducted under a "may affect, but not likely to adversely affect" determination for the southwestern willow flycatcher, Mojave desert tortoise, Yuma clapper rail (*Rallus longirostris yumanensis*), razorback sucker (*Xyrauchen texanus*), and bonytail chub (*Gila elegans*) and under a "no effect" determination for the Colorado pikeminnow (*Ptycheilus lucius*). In compliance with these determinations, there was no take of these species during the geophysical survey of the proposed freshwater well sites.

SECTION 6

References

CH2M HILL. 2007. *Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions.* January.

_____. 2013. *Revised Implementation Plan for Evaluation of Alternative Freshwater Sources in the Topock Remediation Project Area.* January.

California Department of Toxic Substances Control. *Final Environmental Impact Report for the Topock Compressor Station Groundwater Remediation Project: Volume II*. January 2011.

_____. *Mitigation Monitoring and Reporting Program, Exhibit 2 to Attachment B, January 31, 2011 Memorandum to Karen Baker from Aaron Yue regarding Certification of the PG&E Topock Compressor Station Groundwater Remediation Final Environmental Impact Report*. January 2011.

United States Fish and Wildlife Service (USFWS). 2007. Letter to Field Manager, Lake Havasu Field Office, Bureau of Land Management. "Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial Investigative Actions, January 2007." February 8.

Figures

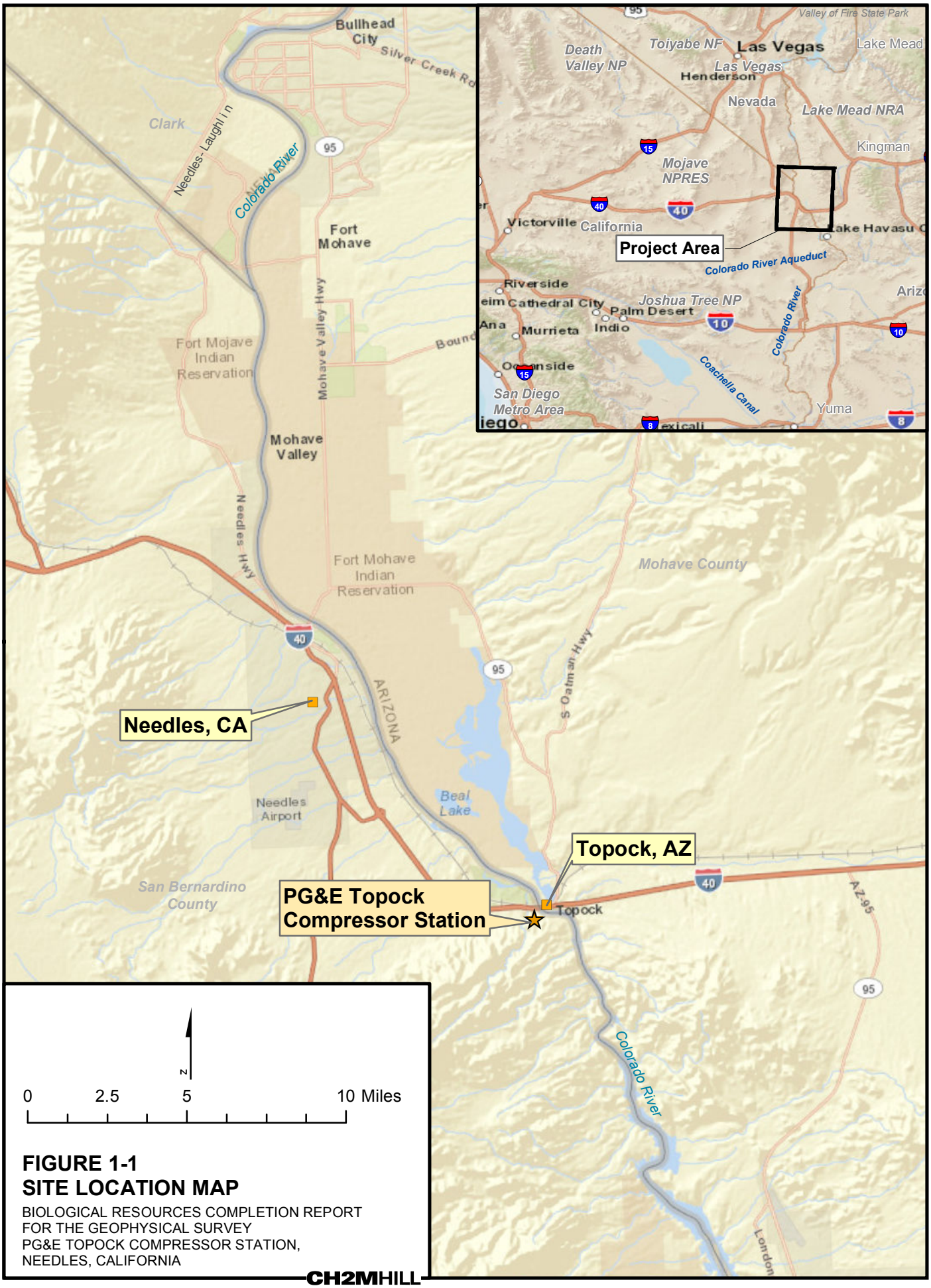


FIGURE 1-1
SITE LOCATION MAP

BIOLOGICAL RESOURCES COMPLETION REPORT
FOR THE GEOPHYSICAL SURVEY
PG&E TOPOCK COMPRESSOR STATION,
NEEDLES, CALIFORNIA

CH2MHILL

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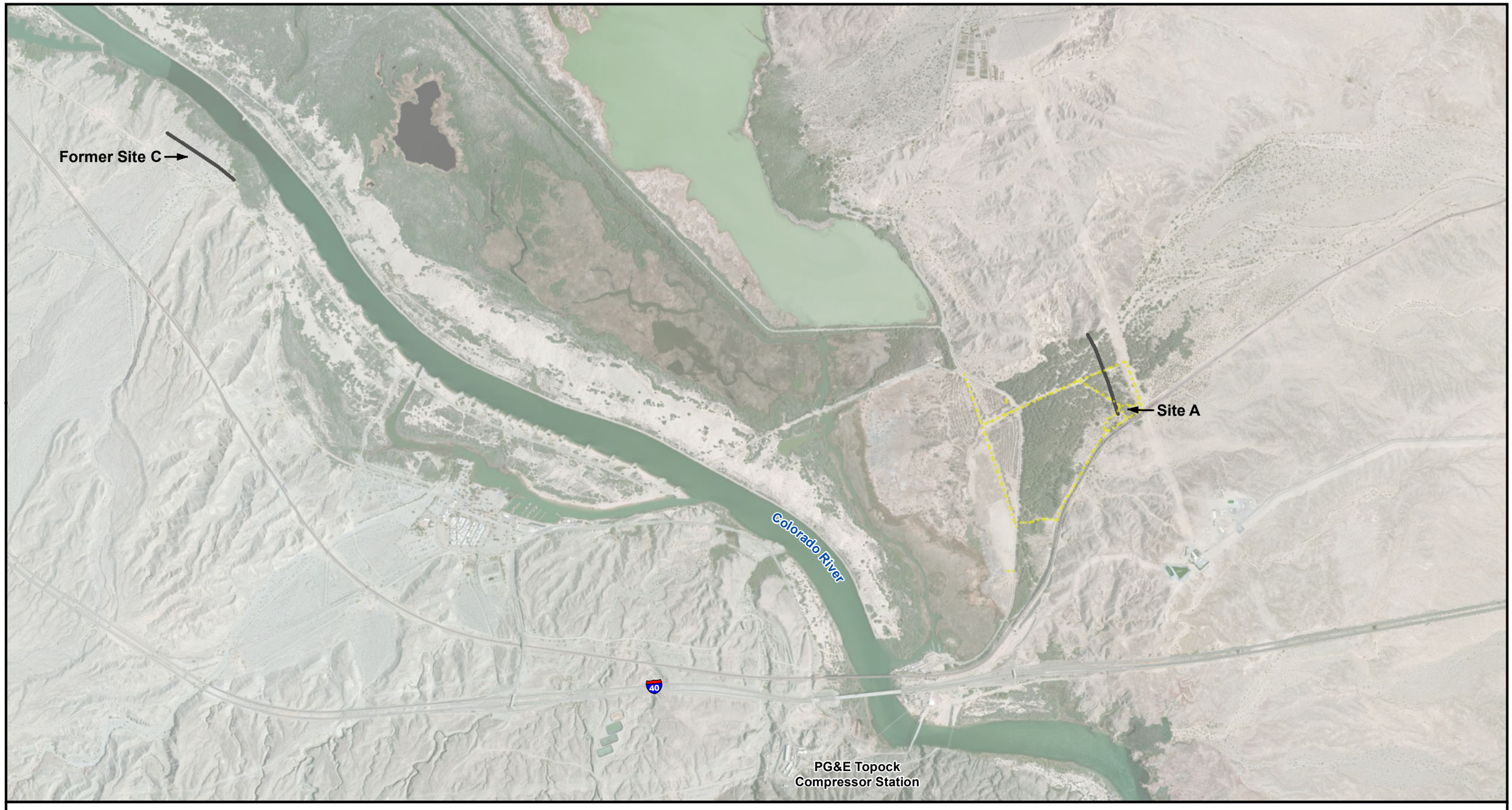

LEGEND

Surface Resistivity Survey

Access Routes (excluding paved areas)

N

0 1,000 2,000 4,000 Feet

FIGURE 1-2
GEOPHYSICAL SURVEY SITE LOCATIONS

BIOLOGICAL RESOURCES COMPLETION REPORT
FOR THE GEOPHYSICAL SURVEY
PG&E TOPOCK COMPRESSOR STATION
NEEDLES, CALIFORNIA

CH2MHILL

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Appendix A
Programmatic Biological Assessment General Project Management Measures

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Programmatic Biological Assessment General Project Management Measures

	General Project Management Measure	Compliance During Geophysical Survey
1	All project activities will be conducted in a manner that avoids take of a federally listed species. Take is defined to include any harm or harassment , including significant habitat modification or degradation potentially kill or injure listed wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Should a listed species enter the project site or become harmed or killed by project activities, the project shall be shut down and the USFWS, BLM, and CDFG shall be consulted. Impacts to habitat will also be minimized to the maximum possible extent.	Take of listed species did not occur during this activity.
2	PG&E shall designate a field contact representative (FCR) who will be responsible for overseeing compliance with the mitigation measures. The FCR must be onsite during all construction activities. The FCR shall have authority to halt activities that are in violation of the mitigation measures and/or pose a danger to listed species. The FCR will have a copy of the mitigation measures when work is being conducted on the site. The FCR may be a project manager, PG&E representative, or a biologist.	A FCR was designated during work activities to ensure compliance with mitigation measures.
3	PG&E shall have a qualified biologist responsible for assisting crews in compliance with the mitigation measures, performing surveys in front of the crew as needed to locate and avoid listed species, and monitoring compliance. Preconstruction surveys by a biologist shall be implemented for special-status wildlife species in impact areas immediately prior to initiation of ground-disturbing activities. The inspection shall provide 100 percent coverage of the area within the project limits. Any desert tortoise burrows and pallets outside of, but near, the project footprint shall be flagged at that time so that they may be avoided during work activities. At conclusion of work activities, all flagging shall be removed.	A qualified biologist completed a preconstruction survey prior to geophysical survey activities occurring.
4	Listed species, including the desert tortoise, shall not be handled or harassed. Encounters with a listed species shall be reported to the project biologist and BLM Lake Havasu biologists. These biologists will maintain records of all listed species encountered during project activities. This information will include for each individual: the locations (narrative, vegetation type, and maps) and dates of observations; general conditions and health; any apparent injuries and state of healing; and diagnostic markings.	No listed species were handled or harassed during the geophysical survey activities.
5	All PG&E employees and the contractors involved with the proposed project shall be required to attend PG&E's threatened and endangered species education program prior to initiation of activities. New employees shall receive training prior to working onsite.	All workers attended Worker Environmental Awareness Training prior to work activities.
6	To the maximum extent possible, facilities (treatment facility, pipelines, injection wells, and access routes) shall be sited within an existing right–of-way (ROW) and previously disturbed or barren areas to limit new surface disturbance.	All work was contained within pre-existing disturbed areas.
7	Existing routes of travel to and from the proposed project site shall be used. Cross-country vehicle and equipment use shall be prohibited.	Access to work sites were from existing routes of travel.

	General Project Management Measure	Compliance During Geophysical Survey
8	Trash and food items shall be contained in closed containers and removed daily to reduce attractiveness to opportunistic predators such as common ravens (Corvus corax), coyotes (Canis latrans), and feral dogs.	Trash and food items were containerized and removed from the site daily.
9	To minimize effects, lights shall be angled toward the ground, reduced in intensity to levels compatible with safety concerns, and limited in duration of usage. The hue of lighting shall be that which is most compatible with and least disturbing to wildlife.	No night work occurred requiring lighting.
10	Employees shall not bring pets to the project site.	No pets were allowed on site.
11	Firearms shall be prohibited from the project site, except as required for security employees.	No firearms were allowed on site.
12	Employees shall be required to check under their equipment or vehicle before it is moved. If a desert tortoise or other wildlife is encountered under vehicles or equipment, the vehicle shall not be moved until the animal has voluntarily moved to another location, or to a safe distance from the parked vehicle.	All workers and biological monitor performed vehicle and equipment checks before use.
13	Upon project completion, all unused material and equipment shall be removed from the site. This condition does not apply to fenced sites.	All material and equipment were removed from the site after project completion.
14	Palo verde, ocotillo, mesquite, cat-claw, smoke tree, and cacti species are considered sensitive by the BLM. To the extent practicable, these species shall be avoided. If avoidance is not possible, these species shall be transplanted when practical. Should any of the aforementioned plants be destroyed, they shall be replaced.	BLM sensitive species were avoided during work activities.
15	The area of disturbance shall be confined to the smallest practical area, considering topography, placement of facilities, location of burrows, nesting sites or dens, public health and safety, and other limiting factors. As needed, work area boundaries shall be delineated with flagging or other marking to minimize surface disturbance associated with vehicle straying.	All work was contained within pre-existing disturbed areas and no additional disturbance to habitat occurred.
16	Activities shall be restricted to a pre-determined corridor. If unforeseen circumstances require project expansion, the potential expanded work areas shall be surveyed for listed species prior to use of the area. All appropriate mitigation measures shall be implemented within the expanded work areas based on the judgment of the agencies and the project biologist. Work outside of the original ROW shall proceed only after receiving written approval from the BLM, Fish and Wildlife Service (Service) and CDFG describing the exact location of the expansion.	All work was contained within identified areas located in pre-existing disturbed areas. No additional disturbance to habitat occurred.
17	PG&E has the option of erecting desert tortoise fencing in lieu of inspection open trenches If the trench is short, personnel may monitor the trench. All open holes and trenches shall be inspected for trapped desert tortoises at the beginning, middle, and end of the work day, at a minimum. During excavation of trenches or holes, earthen ramps shall be provided to facilitate the escape of any wildlife species that may inadvertently become entrapped. If desert tortoises are trapped, the project biologist shall be notified immediately. The desert tortoise shall be allowed to escape before work continues in that location. A final inspection of the open trench segment shall also be made immediately before back filling. All open pipe segments shall be covered when work activity is not occurring at the site.	No tortoise fencing was required for this work. No open holes or trenches were required for this work.

	General Project Management Measure	Compliance During Geophysical Survey
18	All construction vehicles and equipment shall be periodically checked to ensure proper working condition and to ensure that there is no potential for fugitive emissions of oil, hydraulic fluid, or other hazardous products. The BLM shall be informed of any hazardous spills.	All field vehicles and equipment were inspected daily.
19	Workers shall exercise caution when traveling to and from the APE. To minimize the likelihood for vehicle strikes of listed species, speed limits when commuting to project areas on ROW roads shall not exceed 20 miles per hour.	The 20 mph speed limit was observed during site activities.
20	Intentional killing or collection of either plant or wildlife at construction sites and surrounding areas shall be prohibited. The BLM shall be notified of any such occurrences.	No killing or collection of plant or wildlife species occurred during work activities.
21	For emergency situations involving a pipeline leak or spill or any other immediate safety hazard, PG&E shall notify the BLM within 48 hours. As a part of this emergency response, the BLM may require specific measures to protect listed species. During cleanup and repair, the agencies may also require measures to recover damaged habitats.	No emergency situations occurred.
22	Once the treatment facility is no longer needed, PG&E shall restore disturbed areas in a manner that will assist in the reestablishment of biological values within the disturbed ROW. Methods of such restoration shall include the reduction of erosion, re-spreading of top two inches of soil, planting with appropriate native shrubs, and scattering of bladed vegetation and rocks across the ROW, depending upon the appropriateness or effectiveness in a given area.	Decommissioning was not part of this work activity.
23	Within 60 days of completion of construction activities, the FCR and biologist shall prepare a brief report for the BLM documenting the effectiveness and practicality of the mitigation measure and making recommendations for modifying the measures to enhance species protection. The report will also provide information on survey and monitoring activities, observed listed species, and the actual acreage disturbed by the project.	A Completion Report has been prepared summarizing the work activities and documenting compliance and effectiveness of the GPMMs.
24	Any future construction during August for most birds, will require preconstruction surveys for nesting pairs, nests and eggs. These preconstruction surveys shall occur in areas proposed for any vegetation removal and active nesting areas flagged. If nesting birds are detected, vegetation removal be avoided during the nesting season. All construction activity within 200 feet of active nesting areas will be prohibited until the nesting pair/young have vacated the nests.	Work was conducted outside the nesting period.
25	All areas within the proposed action areas, subject to operations and maintenance activities, and within the potential impact of the action, shall be monitored annually during the active period for tortoise by a biologist knowledgeable of desert tortoise ecology. Surveys shall be completed throughout the duration of the action to verify the presence or absence of desert tortoise and reports shall be provided to the biologists in the BLM Lake Havasu Field Office on an annual basis.	No O&M activities occurred as part of this work.

	General Project Management Measure	Compliance During Geophysical Survey
26	Riparian areas surrounding the proposed action site and subject to influence of operations and maintenance activities shall be surveyed for southwestern willow flycatcher according to the protocol established by the USFWS. These surveys shall be completed each year by a biologist permitted by the USFWS to carry out flycatcher surveys until the action has been completed and all facilities have been removed. Reports shall be provided to the biologists in the BLM Lake Havasu Field Office on an annual basis.	In agreement with USFWS and BLM, surveys for southwestern willow flycatcher (SWFL) are now biennial. SWFL surveys were completed last year and will be repeated next year.
27	Upon locating an individual of a dead or injured listed species, PG&E shall make initial notification to the BLM and US Fish and Wildlife (Service) within three working days of its finding. The notification must be made by telephone and writing to the Lake Havasu BLM Office (2610 Sweetwater Avenue, Lake Havasu City, Arizona 86406, 928-505-1200) and the Phoenix Fish and Wildlife Office (2321 West Royal Palm Road, Suite 103, Phoenix, AZ 85021, 602-242-0210). The report will include the date and time of the finding or incident (if known), location of the carcass, a photograph, cause of death (if known), and other pertinent information. Animals injured through PG&E activities shall be transported to a qualified veterinarian for treatment at the expense of PG&E. If an injured animal recovers, the CDFG and the BLM shall be contacted for final disposition of the animal.	No dead or injured listed species were encountered during this work activity.
28	PG&E will immediately notify the BLM Lake Havasu Field Manager (or his designated representative) of any cultural resources (prehistoric/historic sites or objects) and/or paleontological resources (fossils) encountered during permitted operations and will maintain the integrity of such resources pending subsequent investigation. All operations in the immediate area of the discovery must be suspended until written authorization from BLM to proceed is issued. An evaluation of the discovery shall be made by a qualified archaeologist or paleontologist to determine appropriate actions to prevent the loss of significant cultural or scientifically important paleontological values.	No cultural or paleontological resources were encountered during this work activity.
29	No permanent improvements that affect the integrity of the bridge/culvert over Bat Cave Wash on historic Route 66 shall be implemented.	integrity of the bridge/culvert over Bat Cave Wash.
30	Actions that result in impacts to archaeological or historical resources are subject to the provisions of the Archaeological Resources Protection Act of 1979, as amended, and the Federal Land Policy and Management Act of 1976.	No impacts to archaeological or historical resources occurred with the work activities.

Appendix B
Awareness Training Sign-off Sheets

Biological Resources Awareness Training Attendance Sheet
Pacific Gas and Electric Topock IM-3 Project

Your signature constitutes an agreement to abide by the biological resources avoidance and minimization measures presented in this training.

Date	Name (print)	Company	Telephone	Signature
10/22/12	BILL BLACK	NORCAL	707-338-5274	
10/22/12	David Hagen	NORCAL	707-237-1157	
10/22/12	Anna Brody	NORCAL	559-960-3448	
10/22/12	John Wear	CH2MHill	909-709-8224	
10/22/12	BRUCE GOTHAM	APPLIED EARTHWORKS	951-581-5915	
11-5-12	JOHN MRASEK	E2	925-408-6047	
10/11/12	Nick Heath	Applied Earthworks	951-207-2908	