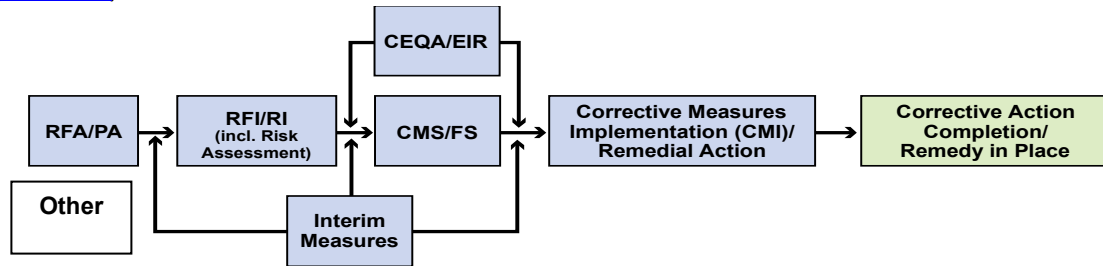


Topock Project Executive Abstract

Document Title: <i>Biological Resources Completion Report for the Topock Remediation Project: Evaluation of Alternative Freshwater Sources</i> Submitting Agency: BLM, USFWS Final Document? ☒ Yes ☐ No	Date of Document: September 11, 2014 Who Created this Document?: (i.e. PG&E, DTSC, DOI, Other) – PG&E
Priority Status: ☐ HIGH ☐ MED ☒ LOW Is this time critical? ☐ Yes ☒ No	Action Required: ☒ Information Only ☐ Review & Comment Return to: _____ By Date: _____ ☐ Other / Explain:
Type of Document: ☐ Draft ☒ Report ☐ Letter ☐ Memo ☐ 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
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 the report constitutes non-compliance with the PBA.	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 the report constitutes non-compliance with the PBA.	Other Justification/s: ☐ Permit ☐ Other / Explain:
Brief Summary of attached document: The Biological Resources Completion Report for the Evaluation of Alternative Freshwater Sources was prepared to determine if there were any adverse effects on species protected under the federal Endangered Species Act resulting from drilling, well installation, and hydraulic testing activities to evaluate potential freshwater sources for the final groundwater remedy at the Topock Compressor Station. The General Project Management Measures described in the PBA, and followed throughout the freshwater evaluation activities 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 in the 2007 PBA 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 a requirement of the PBA upon completion of construction activities.	
How is this information related to the Final Remedy or Regulatory Requirements: This report details activities undertaken to support the final groundwater remedy design. .	
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).



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



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September 11, 2014

Ms. Kimber Liebhauser
U.S. Department of the Interior
Bureau of Land Management
2610 Sweetwater Avenue
Lake Havasu City, Arizona 86406

Ms. Carrie Marr
U.S. Fish and Wildlife Service Project Manager
2321 W. Royal Palm Road, Suite 103
Phoenix, AZ 85021

Subject: *Biological Resources Completion Report for the Topock Remediation Project:
Evaluation of Alternative Freshwater Sources, PG&E Topock Compressor Station,
Needles, California*

Dear Ms. Liebhauser and Ms. Marr:

This letter transmits the *Biological Resources Completion Report for the Topock Remediation Project: Evaluation of Alternative Freshwater Sources* at the Topock Compressor Station. This document is submitted in conformance with the January 2007 *Programmatic Biological Assessment for the Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions* (PBA). This report has been prepared in compliance with the General Project Measure 23 of the PBA. This condition requires that a brief report discussing the mitigation measures implemented during the construction activities shall be prepared and submitted to the Bureau of Land Management and the U.S. Fish and Wildlife Service.

PG&E appreciates your consideration of the attached report. Please contact Virginia Strohl (PG&E Senior Terrestrial Biologist) at (559) 263-7417 or me at (805) 234-2257 with any questions or concerns.

Sincerely,

Yvonne Meeks
Topock Project Manager

Enclosure

Biological Resources Completion Report for the Topock Remediation Project: Evaluation of Alternative Freshwater Sources

cc: Aaron Yue/DTSC
Amanda Dodson/ BLM
Pam Innis/DOI

Biological Completion Report for the Topock Remediation Project: Evaluation of Alternative Freshwater Sources

Prepared for
Bureau of Land Management
U.S. Fish and Wildlife Services

On Behalf of
Pacific Gas and Electric Company



September 2014

WSA Technical Report No. 2014-35

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ACRONYMS AND ABBREVIATIONS

BLM	Bureau of Land Management
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
DOI	United States Department of the Interior
DTSC	Department of Toxic Substances Control
ESA	Endangered Species Act
FCR	Field Contact Representative
GPMM	General Project Management Measures
HNWR	Havasu National Wildlife Refuge
PBA	Programmatic Biological Assessment
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
WSA	William Self Associates

1.0 Introduction

Pacific Gas and Electric Company (PG&E) is addressing chromium in groundwater at the Topock Compressor Station (Station) located in eastern San Bernardino County, California, approximately 15 miles southeast of Needles, California. Figure 1 indicates the project area. As part of addressing the chromium groundwater contamination, PG&E has been conducting investigative and remedial activities at the Station and in the surrounding area.

Investigative and remedial activities 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 (DTSC), as well as under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) under an agreement between PG&E and the U.S. Department of the Interior (DOI). Under the terms of these agreements, PG&E is conducting the RCRA facility investigation/ remedial investigation (RFI/RI) to identify and evaluate the nature and extent of hazardous waste and constituent releases at the compressor station.

As part of the final groundwater remedy, underground pipelines will be constructed to supply fresh water from Arizona. This includes the installation of two new water wells in Arizona. The first well, HNWR-1A, was installed near an existing well (HNWR-1) that was installed by the Havasu National Wildlife Refuge (HNWR). A second well (referred to as the Site B Well) was installed by PG&E to the north of the Sacramento Wash channel. The work associated with aquifer testing of these two wells and the installation of the HNWR-1A and Site B wells was covered under the 2007 PBA (CH2M HILL, 2007). Groundwater well activities followed all applicable General Project Management Measures (GPMs) in the PBA, 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).

To comply with these requirements, this report contains:

- Documentation of awareness training and compliance monitoring (Section 2).
- Project location and existing disturbed areas (Section 3).
- Pre- and post-activity surveys, including the observed listed species (Section 4).
- Conclusions, including a discussion of the effectiveness of the mitigation measures and recommendations for modifying the measures to enhance species protection (Section 5).

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 (BLM), USFWS, Bureau of Reclamation, and San Bernardino County.

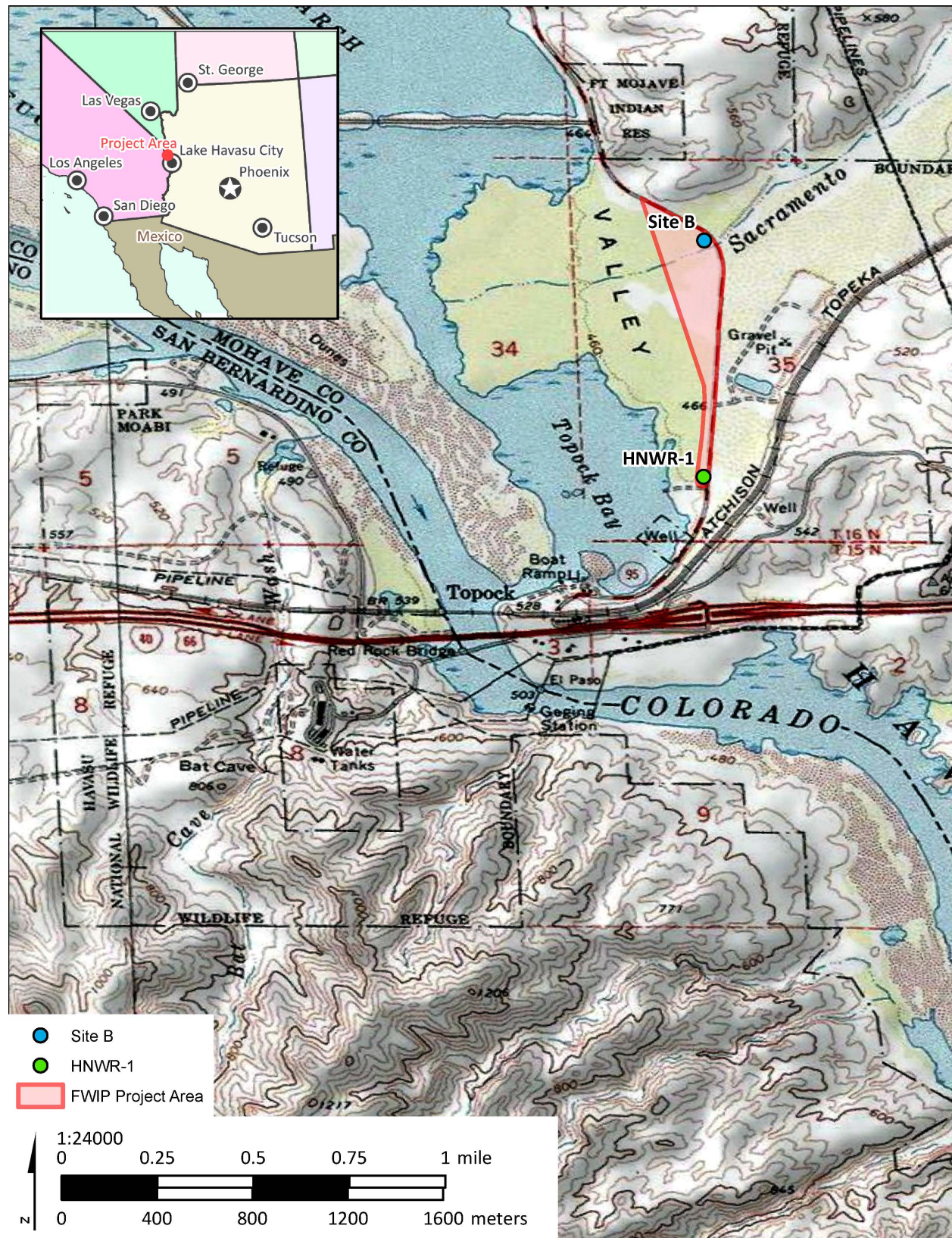


Figure 1. Project Area.

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 highway and bridge. Topography is rugged, ranging from an elevation of approximately 450 feet (137 m) at the Colorado River to over 1,200 feet (365 m) within 1 mile (1.6 km) to the south and southwest.

The area is characterized by arid conditions and seasonally high temperatures. The surrounding land consists of a series of moderately sized terraces with steep slopes dissected by desert washes. The project area is considerably eroded and is best described as badlands. Terraces are composed of homogenous 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.

The project area included in this report is located on the Arizona side of the Colorado River along the western side of the Oatman-Topock Highway, north of Topock Marina to Sacramento Wash. Much of the area has been cleared of vegetation. Tamarisk, the previous vegetation, has been chipped and spread across the surface in the area north and south of the Sacramento Wash crossing. The berm area adjacent to the wash crossing contains some blue palo verde (*Parkinsonia florida*). Further south, the vegetation is dominated by saltbush (*Atriplex canescens*) and Russian thistle (*Salsola tragus*). Appendix A contains photos of the survey areas.

1.2 Report Objectives and Organization

This Biological Completion Report documents field activities associated with performing well construction, development, and aquifer/well testing activities at the HNWR-1 Site (including HNWR-1 and HWNR-1A) and Site B from October 2, 2013 to July 18, 2014.

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; therefore, this report, as part of the PBA, 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 GPM 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 BLM and the Havasu National Wildlife Refuge (HNWR). 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
- Project location and existing disturbed areas
- Pre- and post-activity surveys, including the observed listed species
- Conclusions, including a discussion of the effectiveness of the mitigation measures and recommendations for modifying the measures to enhance species protection

2.0 Awareness Training and Compliance Monitoring

In accordance with GPMM 5 described in the PBA, awareness training was provided to personnel before the start of drilling activities. USFWS-approved biologist, Gabriel (Gabe) Valdes of WSA provided training to onsite personnel during the initial kickoff meeting held at the PG&E Topock Compressor Station on October 2, 2013, and again during the mobilization for a second phase of work on May 30, 2014. Training included a description of each species potentially affected by the project; its habitat, natural history, threats, and legal protection under the ESA; potential penalties; current survey findings; management; and protection measures in the PBA.

During project activities, project field biologist Gabe Valdes provided compliance monitoring and was the designated field contact representative (FCR). Eli Ludwig of Groundwater Partners acted as FCR when Gabe Valdes was not on site. In accordance with GPMM 2, the FCR was responsible for overseeing compliance with the mitigation measures.

3.0 Project Location and Existing Disturbance

Both water supply wells are located in Arizona, north of Interstate 40 and west of the Oatman-Topock Highway as shown on Figure 2.

3.1 Well Locations

The HNWR-1A well is located within a fenced area just to the west of the Oatman-Topock Highway approximately 0.6 mile south of Sacramento Wash. The area is disturbed with scattered Russian thistle throughout, a few saltbush plants and a single tamarisk in the southeast corner. Prior to work activities, the Russian thistle was cleared and pushed along the northern edge of the fenced area.

The Site B well is located immediately north of the north bank berm of Sacramento Wash and west of the Oatman-Topock Highway. The area is disturbed and clear of vegetation with large pieces of downed tamarisk that was spread across the area. Large berms of silt surround the well site to the north, west, and south of the well. Due to the extremely soft soil, a layer of gravel was installed to armor the access to the well location for vehicles coming off the Oatman-Topock Highway.



Figure 2. Well Locations.

4.0 Pre- and Post-Activity Surveys

4.1 Pre-Activity Surveys

Prior to the start of construction activities, USFWS-approved biologist, Gabriel Valdes/WSA, surveyed the well locations and surrounding areas for sensitive biological resources. No listed species or nesting birds were observed during the pre-activity survey. The area did not contain suitable habitat for any listed species. Table 1 contains the list of plants and wildlife (or sign) that were observed in the well location areas.

Table 1. List of observed plants and wildlife incidental to pre-activity surveys.

Common Name	Scientific Name
Four-wing saltbush	<i>Atriplex canescens</i>
Blue palo verde	<i>Parkinsonia florida</i>
Russian thistle	<i>Salsola tragus</i>
Tamarisk	<i>Tamarix ramosissima</i>

4.2 Post-activity Surveys

Following the well development, well testing, and demobilization activities, a post-activity survey was conducted by USFWS-approved project field biologist, Gabriel Valdes, on July 24, 2014 to document field conditions at project completion. No listed species were observed during the post-activity survey. All work activities were confined to the fenced work areas within pre-existing disturbed areas and there was no disturbance to habitat. The perimeter fence around HNWR-1A remains intact. The perimeter fence placed around Site B work areas and the irrigation pipe to HNWR-1A have been removed, leaving the area similar to their pre-activity conditions. Photographs of pre- and post-activity conditions are provided in Appendix A.

5.0 Conclusion

In conformance with the PBA GPMs, personnel were provided with awareness training, and a qualified biologist conducted pre- and post-activity surveys of the well locations. The designated FCR remained onsite during all construction activities.

The GPMs described in the PBA 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 Mojave desert tortoise. In compliance with these determinations (CH2M HILL, 2007; USFWS, 2007), there was no take of a desert tortoise or any other sensitive species during any of the well activities.

6.0 References

CH2M HILL

2007 *Programmatic Biological Assessment for Pacific Gas and Electric Topock Compressor Station Remedial and Investigative Actions*. CH2M HILL. Prepared for Pacific Gas and Electric, January 2007. Electronic document, <http://dtsc-topock.com/documents/other-and-environment-impact-review/sitewide/biological-reports>, accessed July 2014.

U.S. 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." Dated February 8, 2007. On file, Bureau of Land Management, Havasu Field Office, Lake Havasu, Arizona.

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Photo 1. HNWR-1A Site: pre-activity.



Photo 2. HNWR-1A Site: pre-activity.



Photo 3. HNWR-1A Site: Drilling activity.



Photo 4. HNWR-1A Site: Equipment on site



Photo 5. HNWR-1A Site: Post-activity.



Photo 6. HNWR-1A Site: Post-activity. Well installed.



Photo 7. Site B: pre-activity.



Photo 8. Site B: pre-activity.



Photo 9. Site B: Drilling activity.



Photo 10. Site B: Gravel placed over soft soil for access.



Photo 11. Site B: post-activity. Well installed.



Photo 12. Irrigation pipe placed between HNWR-1A and Site B along existing power line right-of-way. Pipe was removed at project completion.