Topock Project Executive Abstract	
Document Title: Addendum to Pacific Gas and Electric Company's Topock Groundwater Remediation Project Pre-Construction Floristic Survey Report – Late Season Survey 2017 Submitting Agency: DTSC, CDFW Final Document? Xes No	Date of Document: March 5, 2018 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:	Is this a Regulatory Requirement? Yes No If no, why is the document needed? The Draft Subsequent Environmental Impact Report proposes a mitigation measure that requires a botanical survey prior to construction during the appropriate blooming period. PG&E completed this survey in the Spring of 2017. PG&E decided to voluntarily complete this additional botanical survey during the fall blooming period following above average summer rainfall.
What is the consequence of NOT doing this item? What is the consequence of DOING this item? There are no consequences. The memo is informational only.	Other Justification/s:
Brief Summary of attached document: The Draft Subsequent Environmental Impact Report (Draft SEIR) for the Topock Compressor Station Groundwater Remediation Project (January 2017) requires that a pre-construction botanical survey be completed for the project work areas associated with the final groundwater remedy. Preconstruction botanical surveys were conducted in the spring of 2017 and the results were provided in the <i>Topock Groundwater Remediation Project Pre-Construction Floristic Survey Report-</i> <i>Spring 2017</i> (CH2M, 2017). Although not a requirement of the Draft SEIR, this memorandum provides supplemental information for additional late season pre-construction surveys that PG&E voluntarily undertook in September 2017 following above average summer rainfall.	
Written by: PG&E Recommendations:	
This memorandum is for your information only. How is this information related to the Final Remedy or Regulatory Requirements: This memorandum is an addendum to <i>Topock Groundwater Remediation Project Pre-Construction Floristic Survey Report-Spring 2017</i>	
Other requirements of this information? None.	





Addendum to Pacific Gas and Electric Company's Topock Groundwater Remediation Project Pre-Construction Floristic Survey Report – Late Season Survey 2017

PREPARED FOR:	Virginia Strohl PG&E
PREPARED BY:	Russell Huddleston and Steve Long
DATE:	March 5, 2018

This memorandum is intended to provide supplemental information, from late season floristic surveys, to the Pacific Gas and Electric Company's Topock Groundwater Remediation Project Pre-construction Floristic Survey Report – Spring 2017 (CH2M, 2017).

# 1.0 Introduction

Pacific Gas and Electric Company (PG&E) is implementing the final groundwater remedy to address chromium in groundwater near the PG&E Topock Compressor Station in eastern San Bernardino County. As the groundwater remedy project advanced from a concept to its final state, changes to the project were evaluated by the California Department of Toxic Substances Control (DTSC) in a Draft Subsequent Environmental Impact Report (Draft SEIR) (DTSC, 2017). The Draft SEIR requires that a pre-construction botanical survey be completed for the project work areas associated with the final groundwater remedy. Preconstruction botanical surveys were conducted in the spring of 2017 (CH2M, 2017). Although not a requirement of the 2011 EIR or Draft SEIR, this memorandum provides supplemental information for additional late season pre-construction surveys that PG&E voluntarily undertook in September 2017 following above average summer rainfall.

### 2.0 Environmental Setting

Most of the project is located within the Piute Valley-Sacramento Mountains ecological subsection of the Mojave Desert Ecological Section (Miles and Goudey, 1998). Approximately half of the subsection is characterized by steep mountains, moderately sloping piedmonts, and alluvial fans, while the other half of the subsection is characterized by alluvial plains and a nearly level basin floor (Miles and Goudey, 1998). Locally, the landscape is characterized by rocky slopes, moderately to deeply-dissected alluvial terraces, gently sloped sand dunes composed of dredge river sands, and the nearly level basin and terraces east of the Topock Marsh. Topography ranges from approximately 455 feet along the Colorado River to over 800 feet to the south and southwest.

Average temperatures range from a low of 42 degrees Fahrenheit (°F) in December and January to a high of 109°F in July. Average annual precipitation is 4.5 inches with rainfall occurring during summer thunderstorms between July and September and winter rains between January and March. Very little rainfall occurs in May and June (Western Regional Climate Center 2008).

The primary terrestrial plant community types are creosote bush scrub, tamarisk thickets, arrow weed thickets, blue palo verde woodlands, catclaw acacia thorn scrub, foothill palo verde desert scrub, allscale scrub, quailbush scrub, western honey mesquite bosque, screwbean mesquite bosque, and upland mustards. Additional environmental information as well as descriptions of these plant communities are

ADDENDUM TO PACIFIC GAS AND ELECTRIC COMPANY'S TOPOCK GROUNDWATER REMEDIATION PROJECT PRE-CONSTRUCTION FLORISTIC SURVEY REPORT – LATE SEASON SURVEY 2017

provided in the Topock Groundwater Remediation Project Pre-construction Floristic Survey Report – Spring 2017 (CH2M, 2017).

# 2.0 Methods

The purpose of the late season pre-construction botanical survey was to identify any special-status plant species that may have germinated in response to above average summer rainfall. The survey area is the same approximate 265-acre survey area described in the Topock Groundwater Remediation Project Pre-construction Floristic Survey Report – Spring 2017 report (CH2M, 2017).

Late season surveys followed the floristic guidelines of the California Department of Fish and Wildlife (CDFW, 2009), the US Fish and Wildlife Service (1996), and the California Native Plant Society (2001). The late season survey was conducted by botanists Russell Huddleston and Mia Marek on September 13 and 14, 2017. Monitors from the Fort Mojave Indian Tribe, Colorado River Indian Tribe, and Hualapai Indian Tribe were also present during the September survey. The daily tailboard sign-in sheets are provided in Appendix A.

#### 3.0 Results

Summer rainfall prior to the late season surveys was 0.42 inch; slightly above the average of 0.35 inch for the summer months in this area (Western Regional Climate Center 2008). No additional special-status plants were observed in the survey area that were not already observed in previous surveys. Two individual Jimson weed (*Datura wrightii*), an ethnobotanical plant species, were observed on the west side of the Topock-Oatman Highway near Havasu National Wildlife Refuge well. A few plants that were not observed during the March 2017 preconstruction survey were in flower at the time of the late season survey, but they were all species that have previously been documented at the site. The complete plant list is provided in the Topock Groundwater Remediation Project Pre-construction Floristic Survey Report – Spring 2017 (CH2M, 2017).

#### 4.0 References

California Department of Fish and Wildlife (CDFW). 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. Sacramento, CA. Accessed at: <a href="https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=107494&inline">https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=107494&inline</a> <a href="https://www.dfg.ca.gov/bdb/pdfs/guideplt.pdf">https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=107494&inline</a> <a href="https://www.dfg.ca.gov/bdb/pdfs/guideplt.pdf">https://www.dfg.ca.gov/FileHandler.ashx?DocumentID=107494&inline</a>

California Native Plant Society (CNPS). 2001. *Botanical survey guidelines of the California Native Plant Society*. 9 December 1983 (Revised 2 June 2001).

CH2M, Inc. 2017. Topock Groundwater Remediation Project Pre-Construction Floristic Survey Report – Spring 2017. October 31.

Garcia and Associates (GANDA) and CH2M HILL. 2013. Revised Final Topock Groundwater Remediation

Project Floristic Survey Report. December.

Miles S. R. and Charles B. Goudey. 1997. *Ecological Subregions of California*. USDA, Forest Service, Pacific Southwest Region. Publication R5-EM-TP-005. San Francisco, CA.

U.S. Fish and Wildlife Service (USFWS) 1996. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed, and Candidate Plants*. USFWS, September 23. Accessed at: <u>https://www.fws.gov/sacramento/es/survey-protocols-guidelines/es\_survey.htm</u>

Western Regional Climate Center. 2008. Western U.S. Location Climate Data (LCD) for Needles, CA. Accessed at <a href="https://wrcc.dri.edu/Climate/west\_lcd\_2008.php/">https://wrcc.dri.edu/Climate/west\_lcd\_2008.php/</a>.

Appendix A Tailboard Sign-In Sheets

TOPOCK BOTANY SURVEY 14 SEPT ZO17

PUSSELL HUDDLESTON - ATS Mia Marek - CHAM Delbert Holmes FMIT Winston Escobar CTI Ron EscobAR CIT NICK ZEYOUMA CRIT

CARME CALISTY ODUNONAD APRIL

TOPOCIC BOTANICAL SURVEY 13 SEPT, 2017

RUSSELL HUDDLESTON - ATS Mia Marck - CHQM Delbert Holmes FMIT GARRIE CAUSAY CANNON & HOCZ Winston Escobar - CTI CHRIS SMITH - PGYE CURT RUSSELL-PGYE