



CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

Subsequent Environmental Impact Report Addendum for the **TW-01 Pump Test Project**

for the

Pacific Gas and Electric Company Topock Compressor Station
Final Groundwater Remediation Project

SCH# 2008051003

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1.0 Introduction and Purpose

This Addendum was prepared in accordance with the California Environmental Quality Act (CEQA) and the *CEQA Guidelines*. This document has been prepared to serve as an Addendum to the previously certified Subsequent Environmental Impact Report (SEIR) in April, 2018 for the Pacific Gas and Electric Company, Topock Compressor Station (Station) Final Groundwater Remediation Project (Approved Project). The certified SEIR addressed the potential environmental impacts associated with the construction, operation, and decommissioning of facilities that would be necessary to implement the approved groundwater remedy.

This SEIR Addendum considers the potential environmental effects associated with the Test Well 01 (TW-01) Pump Test project (Pump Test) as specifically defined in the TW-01 Aquifer Test Plan prepared by Arcadis for PG&E dated February 26, 2021. The purpose for the Pump Test is to gather additional hydrogeologic information within the Station where the highest concentration of hexavalent chromium contaminant may reside. PG&E is proposing a tracer study and a constant rate pump test at an existing well – TW-01. Information gathered from the Pump Test will be used to refine the groundwater model that was used for the groundwater remedy. The groundwater model will continue to be used to predict the fate and transport of the hexavalent chromium contaminant during the remedy as well as to inform PG&E and the agencies of any necessary adjustments to be made during remedy operations. Although the pump test construction methodologies, water management, and sampling plan are in substantial conformance with the approved Topock Compressor Station Final Groundwater Remediation Project as it was evaluated in the April 24, 2018 certified SEIR, this Addendum addresses aspects of the TW-01 Pump Test which are not specifically described in the Final Groundwater Remediation Project as defined by the *Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California, November (Final Remedy Design; CH2M Hill 2015a)* or the SEIR.

This Addendum has been prepared pursuant to *CEQA Guidelines* Section 15164 and addresses the proposed project modifications relative to the Approved Project. The Approved Project and its associated documentations, including the Final CMS/FS, the 2011 Final EIR and the Adopted SEIR are available for review at: <https://dtsc-topock.com/documents>

1.1 CEQA Environmental Review Background

On January 31, 2011, DTSC approved the In-Situ Treatment with Freshwater Flushing alternative as described in the Final CMS/FS for Solid Waste Management Unit 1 (SWMU 1)/Area of Concern 1 (AOC 1) and AOC 10 (Final CMS/FS) after certifying the Groundwater Final Environmental Impact Report (FEIR). DTSC also adopted an Addendum to the Groundwater FEIR in 2013, which expanded the Project Area and considered the potential environmental effects of alternate well locations for a freshwater source in Arizona. DTSC also prepared and certified an SEIR on April 23, 2018 based on additional details of the groundwater remedy design, construction, operation and maintenance plans provided by PG&E.

1.2 Basis for Decision to Prepare an Addendum

The California Environmental Quality Act (CEQA) requires that the proposed project be reviewed to

determine the environmental effects that would result if the project were approved and implemented. California Public Resources Code Section 21166 and *CEQA Guidelines* Sections 15162 and 15164 set forth the criteria for determining whether a subsequent Environmental Impact Report (EIR), subsequent negative declaration, addendum, or no further documentation be prepared in support of further agency action on the project. Pursuant to *CEQA Guidelines* Section 15162, a subsequent EIR or negative declaration shall be prepared if any of the following criteria are met:

(a) When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in the light of the whole record, one or more of the following:

(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

(2) Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

(3) New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:

(A) The project will have one or more significant effects not discussed in the previous EIR or negative declaration;

(B) Significant effects previously examined will be substantially more severe than shown in the previous EIR;

(C) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

(D) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

(b) If changes to a project or its circumstances occur or new information becomes available after adoption of a negative declaration, the lead agency shall prepare a subsequent EIR if required under subdivision (a). Otherwise the lead agency shall determine whether to prepare a subsequent negative declaration, and addendum, or no further documentation.

In determining whether an Addendum is the appropriate document to analyze the proposed modifications to the project and its approval, *CEQA Guidelines* Section 15164 (Addendum to an EIR or Negative Declaration) states:

- a) The lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*
- b) An addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in Section 15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.*
- c) An addendum need not be circulated for public review but can be included in or attached to the final EIR or adopted negative declaration.*
- d) The decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.*
- e) A brief explanation of the decision not to prepare a subsequent EIR pursuant to Section 15162 should be included in an addendum to an EIR, the lead agency's required findings on the project, or elsewhere in the record. The explanation must be supported by substantial evidence.*

As demonstrated in the environmental analysis provided in Section 3.0 (Environmental Analysis), the Revised Project does not meet the criteria for preparing a subsequent EIR or negative declaration as established under *CEQA Guidelines* Section 15162.

2.0 Project Description

2.1 Project Location

PG&E Topock Compressor Station is located in the Mojave Desert, San Bernardino County, approximately 12 miles southeast of the City of Needles, California, and approximately 4 miles south of the community of Golden Shores, Arizona and 1 mile southeast of the Moabi Regional Park. The Station is within a 66.8-acre parcel of land owned by PG&E that is located approximately 1,500 feet west of the Colorado River and less than 1 mile south of Interstate 40. The 2018 SEIR Groundwater Remedy Project Area includes lands owned by PG&E and property adjoining the Station owned and/or managed by a number of government agencies and private entities, including the Havasu National Wildlife Refuge, which is managed by the U.S. Fish and Wildlife Service (USFWS); lands managed by the U.S. Department of the Interior (DOI), Bureau of Land Management (BLM); U.S. Bureau of Reclamation (BOR) managed by the BLM; the Burlington Northern Santa Fe Railway (BNSF); California Department of Transportation (Caltrans)-leased land; Arizona Department of Transportation (ADOT); California State Lands Commission (CSLC) lands; lands owned by the Fort Mojave Indian Tribe (FMIT); lands leased by San Bernardino County (leased lands are managed by BLM); and privately owned lands.

The Groundwater FEIR identified a 779.2-acre Project Area within which all activities were anticipated to occur. The Addendum to the Groundwater FEIR in 2013 resulted in an additional 74.5 acres to the Project Area, on the Arizona side of the Colorado River, to account for the additional freshwater supply source. The combined area of the Groundwater FEIR and Addendum totals 853.7 acres. However, after completion of the Final Remedy Design and refinement of the Project Area that would be used for the Final Groundwater Remedy Project, the 2018 SEIR project area was reduced to 762 acres in which the Final Groundwater Remedy Project would occur, including construction, long-term operation and maintenance, and decommissioning phases. The proposed TW-01 Pump Test will occur within a small area within the approved 2018 SEIR Project Area on lands owned by PG&E and the Havasu National Wildlife Refuge, managed by the USFWS (see Figure 2-1).

2.2 Environmental Setting

The Topock Compressor Station is located in a sparsely populated, rural area. The Project Area is culturally significant and has important spiritual meaning to local Native American Indian tribes. The area is also within the Area of Potential Effects that has been defined by the U.S. DOI under Section 106 of the National Historic Preservation Act for purposes of Native American consultation by federal agencies associated with the Station soil and groundwater investigation and remedial activities. Public lands in the area are owned and/or managed by several 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. 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.

Average temperatures range from a low of 42 degrees Fahrenheit (°F) in December and January to a high of over 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).

2.2.1 Ecological Setting

The site is accessed from Park Moabi Road off I-40. The Station, which is located within the Project Area, is situated approximately 600 feet west of the Colorado River and is surrounded by the Havasu National Wildlife Refuge. As described in the 2015 Desert Tortoise Habitat Survey report, the topography

is made up of deep washes, arroyos, and ravines separated by steep slopes, rolling hills, and desert pavement. Desert riparian vegetation occurs within dry washes throughout the Project Area. Land cover around the Station is composed of upland communities dissected by ravines and desert washes. The desert pavement and rolling hills are sparsely vegetated by species common in the creosote vegetation community, predominantly creosote bush (*Larrea tridentata*) and white bursage (*Ambrosia dumosa*). Mojave Desert wash scrub dominates the ephemeral washes and ravines, and ranges in density from sparse cover to areas that are impassable on foot. Prevalent species in the washes and ravines include cat-claw acacia (*Senegalia greggii*), palo verde (*Parkinsonia florida*), and desert lavender (*Hyptis emoryi*). 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.

The diversity and abundance of wildlife species encountered are influenced by the proximity of the Project Area to the creosote-dominated desert and the Topock Marsh, a large wetland with abundant wildlife (GANDA 2012). Avian species commonly associated with the river include American coot (*Fulica americana*), mallard (*Anas platyrhynchos*), pied-billed grebe (*Podilymbus podiceps*), great egret (*Casmerodius albus*), great blue heron (*Ardea herodias*), northern roughwinged swallow (*Stegidopteryx serripennis*), and belted kingfisher (*Ceryle alcyon*). Other avian species found in the upland areas include red-tailed hawk (*Buteo jamencensis*), Gambel's quail (*Callipepla gambelii*), mourning dove (*Zenaida macroura*), white-winged dove (*Zenaida asiatica*), common raven (*Corvus corax*), song sparrow (*Melospiza melodia*), Canyon wren (*Catherpes mexicanus*), brewer's blackbird (*Euphagus cyanocephalus*), great-tailed grackle (*Quiscalus mexicanus*), turkey vulture (*Cathartes aura*), greater roadrunner (*Geococcyx californianus*), lesser nighthawk (*Chordeiles acutipennis*), rock dove (*Columba livia*), verdin (*Auriparus flaviceps*), and black-tailed gnatcatcher (*Poliophtila melanura*) (AECOM 2011; GANDA 2012). Observations during the 2012 avian surveys also included detections of Yuma clapper rail (*Rallus longirostris yumanensis*), Arizona Bell's vireo (*Vireo bellii arizonae*), brownheaded cowbird (*Molothrus ater*), and a great blue heron nest (GANDA 2012).

Mammals that may occur in or near the Project Area include deer mouse (*Peromyscus maniculatus*), Merriam kangaroo rat (*Dipodomys merriami*), whitetail antelope squirrel (*Ammospermophilus leucurus*), desert woodrat (*Neotoma lepida*), California ground squirrel (*Spermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), Audubon's cottontail (*Sylvilagus audubonii*), black-tailed hare (*Lepus californicus*), coyote (*Canis latrans*), desert kit fox (*Vulpes macrotis*), American badger (*Taxidea taxus*), bobcat (*Lynx rufus*), striped skunk (*Mephitis mephitis*), beaver (*Castor canadensis*), raccoon (*Procyon lotor*), burro (*Equus asinus*), and bighorn sheep (*Ovis canadensis nelsoni*) (AECOM 2011; GANDA 2012). Bat species with a potential to occur on the Project Area include Yuma myotis (*Myotis yumanensis*), California myotis (*Myotis californicus*), cave myotis (*Myotis vellifer*), Arizona myotis (*Myotis occultus*), western canyon bat (*Parastrellus hesperus*), pallid bat (*Antrozous pallidus*), Mexican free-tailed bat (*Tadarida brasiliensis*), big brown bat (*Eptesicus fuscus*), western red bat (*Lasiurus blossevillei*), southern yellow bat (*Lasiurus xanthinus*), hoary bat (*Lasiurus cinereus*), pocketed free-tailed bat (*Nyctinomops femorosaccus*), big free-tailed bat (*Nyctinomops macrotis*), western mastiff bat (*Eumops perotis*), California leaf-nosed bat (*Macrotus californicus*), and Townsend's big-eared bat (*Corynorhinus townsendii*). Based on the results of the spring 2015 focused bat surveys the following species are considered present on the Project Area: Yuma myotis, cave myotis, California myotis, western canyon bat, big brown bat, hoary bat, Townsend's big-eared bat, pallid bat, Mexican free-tailed bat, pocketed free-tailed bat, western mastiff bat. Pregnant or lactating females captured in

mist-nets include pallid bat, California myotis and Yuma myotis, suggesting a nearby maternity roost of these three species within Bat Cave Wash. No pregnant or lactating females were captured in the East Ravine.

Reptiles that may occur in the area include chuckwalla (*Sauromalus obesus*), side-blotched lizard (*Uta stansburiana*), western whiptail lizard (*Cnemidophorus tigris*), zebra-tailed lizard (*Callisaurus draconoides*), desert iguana (*Dipsosaurus dorsalis*), coachwhip (*Masticophis flagellum*), gopher snake (*Pituophis melanoleucus*), and western diamondback rattlesnake (*Crotalus atrox*) (AECOM 2011; GANDA 2012).

“Special-status” species are plants and animals that are legally protected or otherwise considered sensitive by federal, state, or local resource conservation agencies and organizations. Thirty-three special-status fish and wildlife species, one insect, and eight special-status plant species were evaluated for their potential to occur in the Project Area. Four species were either observed in or near the Project Area or determined to have potential to occur in the Project Area, and sixteen fish and wildlife species were determined to have potential to occur in the Project Area during at least part of the year.

2.2.2 Hydrogeologic Setting

The Topock site is situated in a basin-and-range geologic environment in the Mohave Valley. The Colorado River is the main source of water to this groundwater basin, but at the southern end where the site is located, groundwater is fed by a modest amount of local recharge from mountain runoff. The most prominent geologic structural feature in the study area is a Miocene-age, low-angle normal fault (referred to as a detachment fault) that forms the northern boundary of the Chemehuevi Mountains found to the southeast of the study area. The surface expression of the Chemehuevi detachment fault is evident as a pronounced northeast-southwest lineament that can be traced along the northern boundary of the Chemehuevi Mountains, terminating at the abrupt bend in the Colorado River east of the Compressor Station.

The site is located at the southern (downstream) end of the Mohave Valley groundwater basin. On a regional scale, groundwater in the northern and central area of the valley is recharged primarily by the Colorado River, while under natural conditions net groundwater discharges occurs in the southern area, above where the alluvial aquifer thins near the entrance to Topock Gorge. The groundwater directly beneath the Topock site is derived mostly from the relatively small recharge from the nearby mountains. Under natural conditions, groundwater flows from west/southwest to east/northeast across the site.

The Colorado River flows along the eastern and northern boundary of the site and is very dynamic, fluctuating seasonally and daily largely due to upstream flow regulation of water releases primarily at Davis Dam, approximately 41 miles upstream. Parker Dam, which is about 42 miles downstream, plays a smaller role in the river fluctuation pattern, mainly during heavy rain/higher river flow conditions. River level predictions are tied to the Davis Dam release rates and Lake Havasu level behind Parker Dam. Most of the time, the Davis Dam releases are the dominant factor in determining river levels at Topock. River levels at the site fluctuate by 2 to 3 feet per day, and flows vary anywhere from 4,000 to 25,000 cubic feet per second (cfs) according to the dam releases, producing a sinusoidal hydrograph each day. Locally, a

floodplain borders both sides of the Colorado River, though the river no longer experiences regular spring floods due to flow regulation from upstream dams.

2.3 TW-01 Pump Test Project Description

As previously stated, the purpose of the Pump Test is to gather additional hydrogeologic information within the Station where the highest concentration of hexavalent chromium contaminant may reside, PG&E is proposing a tracer study and a constant rate pump test at an existing well – TW-01. Although a general 72 hour constant-rate pump test has been approved as part of the ground water remedy design and evaluated in the 2018 certified SEIR, PG&E is proposing a more vigorous pump test.

The new constant-rate aquifer test will have two components: a 7-day duration test (7-day test) and the extended duration test (extended test). The 7-day test will include a higher frequency data collection for the first 7 days of the start of pumping and the extended test will include lower frequency data collection starting at the end of the 7-day test for the remainder of the pumping duration. The extended test is anticipated to last until steady-state conditions are achieved and the extraction from TW-01 is in equilibrium with aquifer recharge, estimated to occur within 6-8 weeks.

Fluorescent tracer dyes will be injected into monitoring wells MW-38D, MW-67-185, and MW-68-180. The tracer test will be conducted concurrently with the constant-rate aquifer test except for the tracer injection at MW-68-180, which will begin after the pump tests are completed, likely in 2022. Fluorescein dye will be used at MW-38D, Rhodamine WT dye at MW-67-185 and Eosine dye at MW-68-180. Once the tracer solution is injected at MW-38D and MW-67-185, the aquifer test will begin at TW-01. Groundwater monitoring at TW-01 and several nearby wells will be collected periodically to determine tracer arrival and the mobile and immobile porosity of the saturated zone beneath the Station. The duration of the tracer study is anticipated to be approximately 3 to 6 months. The Eosine dye injection into MW-68-180 will continued to be monitored for a longer duration due to the extended anticipated time to arrival at down-gradient wells.

The target volume of dye mixture to be injected will be approximately 35,000 gallons of Fluorescein Dye at MW-38D, 18,000 gallons of Rhodamine WT at MW-67-185, and 25,000 gallons of Eosine dye at MW-68-180. Fluorescein, Eosine and Rhodamine WT are commonly used dye tracers for groundwater studies. Because the pump test is being conducted as part of a Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Section 121(e) action for groundwater cleanup, no permit will be required for the injection of the dye. However, PG&E will conduct the tracer study in accordance with all Applicable or Relevant and Appropriate Requirements (ARARs) specified by the California Regional Water Quality Control Board for the test. Eosine and Rhodamine WT dyes will be diluted to a target concentration of 50 milligram per kilogram, and 70 milligram per kilogram for the Fluorescein dye for the tracer study.

PG&E will use either a 20,000-gallon frac tank or multiple 6,000-gallon polypropylene tanks with secondary containment for mixing and storing the tracer dyes for injection. The raw water is supplied by a commercial water purveyor in Arizona piped to existing permanent water tanks at the Station. The commercial water is produced from two production wells (Topock-2 and Topock-3) located in Arizona.

The temporary mixing and storage tanks for the dye will be filled with water from the Station tanks using a water truck.

For the constant rate pump tests, PG&E will install a temporary six-inch diameter, double-walled high density polyethylene, above ground pipeline to convey the extracted water from TW-01 to the newly installed remedy pipeline system at segment C-10 near the south end of the jack and bore location (located approximately opposite side of the National Trails Highway near the historic Route 66 sign). The Pump Test project area can be seen in Figure 2-1. The length of the pipeline is approximately 1,980 feet, of which about 25 feet is belowground as the pipeline crosses the access road from the Station to the MW-24 Bench. There is a small section of belowground pipe trench (about 15 feet) at the MW-20 Bench to tie-in the pipe to the existing Interim Measure 3 (IM-3) valve vault.

The temporary pipeline from the TW-01 at the Station will tied-in to the existing pipeline through an installed flanged cleanout port at the remedy “jack-n-bore” location. The temporary piping will be secured to blocks at the top and toe of slopes with soil anchors where necessary to maintain its alignment. Two access ports will be installed at the low elevation points of the pipeline for leak inspections. Two or more air/vacuum relief assembly will be installed within an above ground concrete vault at the high points of the pipeline.

As stated, piping and modification will be necessary at the MW-20 bench to allow a temporary connection between the remedy piping and the existing IM-3 piping to transfer the extracted fluid to the IM-3 Treatment Plant. The three storage tanks located at the MW-20 Bench (IM-3 Brine Tanks) may be used for temporary storage and/or used as surge tanks in the process of transferring extracted TW-01 water to the IM-3 Treatment Plant. An in-line booster pump will also be installed between the remedy piping and the IM-3 piping to ensure transfer of the water to the IM-3 Treatment Plant. PG&E will conduct periodic monitoring at nearby well networks to gather data during the pump test.

Although this pump test at the TW-01 location was not envisioned in the original Basis of Design that was approved and evaluated under the 2018 certified SEIR, all functional components and process of this Pump Test project are considered in the SEIR, with the exceptions of 1) the introduction of tracer dyes to the groundwater, 2) Installation of a power pole and transformer for electrical supply, and 3) the addition of a temporary pipeline in an alignment not specified within the Basis of Design and outside of the identified construction footprint under the Federal programmatic biological assessment. Although the temporary pipeline is outside of the identified construction footprint, the entire pump test project is still within the Groundwater SEIR Project Area (Figure 2-1).

3.0 Environmental Analysis

This section of the Addendum provides analysis and cites substantial evidence that supports the conclusion that the project revisions (implementation of the Pump Test) do not meet the criteria requiring preparation of a subsequent EIR or a negative declaration. As required under CEQA Guidelines Section 15164(d), “... the decision-making body shall consider the addendum with the final EIR or adopted negative declaration prior to making a decision on the project.” A brief explanation of the decision to not prepare a subsequent document shall be supported by substantial evidence.

The Pump Test project occurs within the Project Area identified in 2018. All impacts related to the physical conditions of the site would be similar to that previously identified in the adopted SEIR.

All work to be conducted are temporary and does not require any action that changes the circumstance of previous project approvals. No substantially altered use would be developed on-site. The surrounding environment is essentially unchanged from that identified and analyzed in previous documents. No new adjacent use would be impacted by implementation of the Pump Test project. Although an addition of an above ground pipeline, although temporary, is outside of the existing construction footprint identified in the Programmatic Biological Assessment, the USFWS has already provided approval for the adjustment in construction footprint. Furthermore, the 2018 SEIR has anticipated and approved additional future activities that may be at locations not identified in the groundwater remedy design. Due to the similarity in operation and function of the already contemplated 72 hours pump test within the groundwater remedy design, it is reasonable to conclude that the severity of identified impacts related to specific land uses would not exceed that previously identified in the SEIR or this Addendum.

All mitigations identified in the adopted SEIR remain equally applicable to the project as revised. Because of the similarity in location, site condition, and environmental impacts; as set forth in the following sections, it is reasonable to conclude the previously identified mitigation would be equally effective at reducing the impacts associated with implementation of the Pump Test proposed. Compliance with appropriate project mitigation measures as well as ARARs will reasonably assure that the project is constructed and operated in a safe and effective manner. In the absence of any new impact or the increase in severity of a previously identified impact; no new, revised or alternative mitigation is warranted.

3.1 Aesthetics

The Pump Test project is within the Project Area evaluated in the April 24, 2018 certified SEIR. The project will not substantially alter or cause physical changes to the visual character within the regional viewshed and the 2018 Remedy Project Area. Impacts to aesthetic resources were addressed in the certified 2011 Topock Compressor Station Groundwater Remediation Project Final EIR and further evaluated in the April 24, 2018 SEIR. View sensitivity with respect to specific viewer groups were considered at key views of the project area. The SEIR concluded that the only two key views that has potentially significant impacts are for View 5, a pedestrian with views near the Topock Maze; a scenic vista, and Key View 11, a recreational viewer group from the Colorado River. The Pump Test project area is not visible within those key views. Although some aspects of the Pump Test is within the viewing perspective of View 10, the only components visible in comparison to the existing setting would be the new power pole and the temporary tanks for the dye tracer during its injection (approximately 30 hours). Since the perspective of View 10 captures the industrial operation of the Station. The addition of the new power pole and use of temporary tanks for the short injection duration do not significantly alter the current visual components at View 10 (Figure 3.1a and 3.1b).

Notable is that the 2011 Final EIR and the 2018 SEIR have indicated that several Native American Tribes inhabiting the region considers the Project Area and vicinity to be part of a broader cultural landscape

and in 2010, the U.S. Bureau of Land Management determined the area constitutes a Traditional Cultural Property (TCP). This area continues to play a central role in the beliefs and practices of Native American Tribes with ties to the region that ascribe significance to many aspects of the cultural and natural environment, including the regional viewshed. Descriptions of the visual setting from Tribal members with ties to the area indicate the viewshed is perceived as an interconnected and contiguous entity.

As a result of the analysis conducted in the 2011 Final EIR and the 2018 SEIR, mitigation measures were established and adopted in the certification of the 2011 Final EIR and the 2018 SEIR. These mitigation measures will continue to be followed and implemented during this Pump Test project. Since the elements of this Pump Test project are consistent with the scope of the groundwater remediation project, the findings of the SEIR remains unchanged. Although this Pump Test project will require additional ground disturbance for the temporary pipeline in an alignment that was not specified in the Basis of Design for the groundwater remedy, and is outside of the Programmatic Biological Assessment construction footprint, the entire pump test project is within the Groundwater SEIR Project Area. The certified SEIR includes a general contingency or allowance for future activities that may be carried out as part of the Project (the "Future Activity Allowance").

The Future Activity Allowance in the Project Description of the 2018 SEIR ensured that a comprehensive environmental analysis is included should additional activities be warranted over the decades long project implementation. The Future Activity Allowance includes two components, where locations of the activities are not specifically known at the time: 1) an additional allowance for all Project infrastructure, established at up to 25 percent of the parameter set forth in the Final Remedy Design, and 2) up to 10 additional monitoring well boreholes to be installed in Arizona to assess groundwater levels and chemical constituents changes as a result of continued freshwater pumping to protect private groundwater users. The 25 Percent Potential Allowance is intended to apply generally to the development and implementation of the Final Remedy Design and allows for construction of additional Project features during the initial 5-year construction phase of the Project and/or during the approximate 30-year operation and maintenance phase that constitutes active remediation. As stated in the SEIR, there are a variety of factors that could lead to use of the Future Activity Allowance throughout the duration of the Project. Generally, as information is collected from the construction and operation of the remedy, and as subsurface conditions evolve, it may be necessary or desirable from the viewpoint of maximizing remedy efficiency, to add facilities or equipment, such as utility lines, access roads, wells and associated vaults and structures, and conveyance pipelines, in an amount that would exceed the specific parameters in the Final Remedy Design. The infrastructure analyzed within the 2018 SEIR, including the future activity allowance is summarized in Table 4.3-4 of the 2018 SEIR.

Based on the scope of the evaluation conducted under the SEIR, this Pump Test project would be within the overall scope of the groundwater remedy project evaluated. DTSC; therefore, finds that the TW-01 Pump Test project would have less than significant impacts to the Aesthetics resource, especially with the implementation of the Groundwater Remedy Mitigation Monitoring and Reporting Program (MMRP). Please refer to Section 4 for the Environmental Finding statement.

3.2 Agriculture and Forestry Resources

In evaluating the potential impacts to Agriculture and Forestry Resources, DTSC finds that the Project is consistent with the analysis of the 2018 certified SEIR for the groundwater remedy and that the Pump Test would have no impacts to the Agriculture and Forestry Resources. Please refer to Section 4 for the Environmental Finding statement.

3.3 Air Quality and Greenhouse Gas Emissions

The 2018 Certified SEIR conducted extensive evaluations for Air Quality and Greenhouse Gas Emissions impacts as it relates to construction of the remedy. Since the Pump Test project will be implemented when majority of the phase I groundwater construction activities have been completed, the Pump Test project will not deleteriously reduce the air quality or increase overall greenhouse gas emissions beyond the emissions thresholds evaluated in the SEIR. PG&E will continue to implement the mitigation measures adopted as part of the MMRP for the groundwater remedy. Therefore, this project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR. Please refer to Section 4 for the Environmental Finding statement.

3.4 Biological Resources

As part of the groundwater remedy project, the project area defined by the 2018 certified SEIR has been extensively surveyed for Biological Resources. The surveys and methodologies are well documented in the SEIR. Despite substantial construction activities that have occurred and continues to occur at the project area, there have not been any identifiable change in the diversity or quantities of biological resources within the project area. All activities to be performed as part of the Pump Test are within the same scope that have been considered and evaluated for the Groundwater Remedy Construction, its remedial action workplan, as well as the Operation and Maintenance of the groundwater remedy. Although a portion of the temporary pipeline for conveyance of the extracted water will be situated outside of the construction footprint identified in the 2018 SEIR, the entire project is still within the SEIR Groundwater Project Area which were evaluated as part of the SEIR. The SEIR assumed all native habitats in the Project Area to provide foraging and nesting habitat for the variety of special-status bird species known to occupy the Project Area. The SEIR assumed the worst-case scenario that all additional ground disturbances under the Future Activity Allowance identified in Section 4.3.5.2 of the SEIR to occur within suitable foraging and nesting habitat for special-status birds and developed mitigation measures accordingly. Although the TW-01 Pump Test project would have additional ground disturbances, the temporary pipeline which is the only identified activity outside of the evaluated construction footprint will not likely alter any suitable foraging and nesting habitat.

Nevertheless, to ensure protection of the Biological Resources identified within the entire SEIR Groundwater Project Area, PG&E will continue to implement all adopted mitigation measures established

in the 2018 SEIR. There are, however, two aspects of the pump test project that are notable which differ from the groundwater remediation activities evaluated in the 2018 SEIR and are described below.

Since there are special-status plants that have been identified as possible or likely to occur within the overall groundwater remedy project boundaries, DTSC, in consultation with the California Department of Fish and Wildlife (CDFW), established Mitigation Measure BIO-2h in the 2018 SEIR which requires PG&E to conduct a pre-activity survey to locate and flag special-status plant species for avoidance and to establish a 50-foot avoidance buffer around known locations and to conduct recurring focused botanical surveys for additional facilities under the Future Activity Allowance. Although most of the construction area identified for the TW-01 Pump Test project were included in the Spring 2017 botanical survey, there are some areas of the proposed pipeline which were not evaluated in that botanical survey. However, all project areas, including the area that were not evaluated in the 2017 survey were included in the Spring 2013 survey. The Pump Test project area were found to be absent of special-status plants within the proposed footprint. Nevertheless, PG&E is not able to provide the two years of focused presence/absence survey data of the area within the required previous 5 years. In consultation with CDFW and the U.S. Fish and Wildlife Service (FWS), PG&E will incorporate minimization measures for soil disturbance to potential seed base of a special-status plant by using silt fencing material underneath the pipeline while the pipeline is pulled up the hill from where it will be fused together in the staging area. The proposed minimization measure was accepted by CDFW in a confirmation email to Ms. Virginia Strohl, dated February 9, 2021.

The second aspects of the TW-01 Pump Test project that differs from the SEIR analysis is that the six-inch temporary HDPE water pipeline will be install above ground. PG&E, however, has concluded that the proposed pipeline will not create a wildlife crossing barrier on the project site. PG&E concluded that the only species that might not be able to cross over a six-inch pipe is a juvenile tortoise. However, no live tortoises or other tortoise sign have been observed during all of the preconstruction tortoise surveys and monitoring to date. Similar six-inch pipe has been installed along the Riverbank road alignment for at least a year and on-site biologist have not observed any wildlife crossing issues.

In consultation with the FWS regarding the expanded construction footprint, FWS concurred on February 9, 2021 that the project would not adversely affect the Southwestern Willow Flycatcher and its critical habitat, Yuma clapper rail, Mojave desert tortoise, razorback sucker, bonytail and its critical habitat, northern Mexican gartersnake, and the western yellow-billed cuckoo and its proposed critical habitat. Furthermore, FWS finds that the previous findings of "may affect, but is not likely to affect" the species and critical habitats listed above remains unchanged.

Based on the scope of the evaluation conducted under the SEIR, this Pump Test project would remain within the scope of the groundwater remedy project evaluated. DTSC; therefore, finds that the TW-01 Pump Test project would have less than significant impacts to the Biological Resource with the implementation of the Groundwater Remedy Mitigation Monitoring and Reporting Program (MMRP). Please refer to Section 4 for the Environmental Finding statement.

3.5 Cultural Resources

In evaluating the TW-01 Pump Test project, DTSC finds that the project would have no impacts to the Cultural Resources as defined in the Appendix G, Environmental Checklist Form regarding adverse change in the significance of a historical resource, substantial adverse change in the significance of an archaeological resource, or disturbance of any human remains. Tribal Cultural Resources are evaluated under its separate category below. Please refer to Section 4 for the Environmental Finding statement.

3.6 Energy

PG&E will utilize power supplied by Needles Electric and will install a new power pole with a pole mounted transformer on the plateau near the MW-24 bench. The 2018 SEIR conducted extensive evaluations of potential energy consumption and impacts as it relates to construction of the remedy. Since the Pump Test project will be implemented when majority of the groundwater construction activities have been completed, and likely within a period of time with a reduction of the Interim Measure 3 extraction to balance the amount of water treated at the IM-3 Treatment Plant prior to the remedy start-up, the Pump Test project will not result in excess consumption of energy resources.

PG&E estimates that the electrical demand at the new powerline for the Pump Test at the MW-24 bench will be approximately 18 kilovolt amperes (KVA). In addition, the booster pump at the MW-20 bench will require approximately 7 KVA. Assuming a power factor of 0.7 for the electrical components, the electrical demand for the pump test would be approximately 17.5 Kilo-watt hour (kWh) or approximately 0.153 million kWh per year. In comparison, the 2018 SEIR cited that PG&E purchased 0.947 million kWh from the City of Needles in 2015 for the operation of the IM-3 Facility.

PG&E will likely require additional fuel to support the transportation of equipment and/or use of energy to construct the infrastructure required for the Pump Test project. However, the construction will be a relatively short duration. Aside from the construction, PG&E will have additional personnel traveling to the station to conduct monitoring and data interpretation. Nevertheless, these activities are within the scope of the approved groundwater remedy system construction, operation and maintenance as evaluated in the 2018 SEIR. Since the Pump Test will be implemented after most of the on-site construction activities are complete, there will be less vehicular traffic to and from the site than during the heaviest construction activities evaluated in the 2018 SEIR. Based on the information provided, DTSC finds that the project will not result in a significant change to the potential impacts analyzed in the 2018 certified SEIR and has less than significant impacts on the energy resource due to wasteful or inefficient consumption of energy above those analyzed in the SEIR. Please refer to Section 4 for the Environmental Finding statement.

3.7 Geology and Soils

Since the Pump Test project is within the same evaluated area as the Groundwater Remedy Project area, there are no additional geological impacts anticipated with the implementation of this project. Although the temporary pipeline will be placed along slopes, the pipeline will be pulled into place guided by T-posts and slide into place over silt fence material. It is unlikely that the project will create unstable soil that

would result in a significant landslide, subsidence, or collapse. DTSC finds that this project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR and has less than significant impact to the Geology and Soils resource. Please refer to Section 4 for the Environmental Finding statement.

3.8 Greenhouse Gas Emissions

PG&E will mainly utilize energy from Needles Electric, the pump test project will not increase the greenhouse gas emissions beyond those analyzed in the 2018 SEIR or contribute to exceedance of standards set by the Mojave Desert Air Quality Management District. Even if PG&E transport extracted water for management off-site after the shut-down of the IM-3 Treatment Plant, that would occur after the phase I groundwater remedy construction activities. Any additional vehicular traffic and fossil fuel used for water management will be less than the maximum period of use and greenhouse gas emission analyzed as part of the worse-case scenario of the 2018 SEIR for the groundwater remedy construction. DTSC finds that this project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR and has less than significant impact to the contribution of Greenhouse Gas Emissions. Please refer to Section 4 for the Environmental Finding statement.

3.9 Hazards and Hazardous Materials

The TW-01 Pump Test project will not require the use or management of hazardous material. Although a tracer test is a component of the project, Fluorescein, Eosine and Rhodamine WT dyes are not classified as hazardous for transportation. Fluorescein can cause eye and skin irritation; it is also toxic if inhaled. Eosine can cause eye irritation and does have toxic effects to animals if ingested at concentration above 2000 milligram per kilogram. Rhodamine WT can be an eye and skin irritant by contact and may cause respiratory irritation if inhaled. General precautionary management practices are required by minimizing contact with the material and keeping containers closed. The handling of these dye tracers will be by experienced personnel equipped with proper personal protective equipment. The tracer dyes will be mixed and diluted in temporary tanks with spill containment.

Monitoring wells MW-67-185 and MW-68-180 are both within the PG&E Compressor Station with storm water controls. PG&E has spill prevention and cleanup response on-site for accidental releases. MW-38D, however is located within Bat Cave Wash. Since the Fluorescein will be mixed and stored in two 6,000 gallon tanks, it is unlikely that both tanks will suffer catastrophic uncontained failures at the same time. In a worst-case scenario that both tanks would rupture simultaneously, it is still unlikely that the Fluorescein dye would flow into the Colorado River due to the distance between MW-38D and the open water. Nevertheless, PG&E will implement spill control and best management practices with secondary containment to ensure the dye will not impact navigable water in a catastrophic release as part of the standard operating procedure. PG&E will have equipment and personnel on-site to contain and control all releases from this project.

Based on the information provided, DTSC finds that this project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR and has less than significant impact to the environment because of hazards and hazardous materials to be used and managed for this project. Please refer to Section 4 for the Environmental Finding statement.

3.10 Hydrology and Water Quality

The TW-01 Pump Test will also have a tracer test component. The methodologies and procedure to be employed for the tracer test is a standard practice. Furthermore, the use of dye tracers has also been employed at the site in the past. Although PG&E will be conducting the Pump Test under a CERCLA Section 121(e) response action and are therefore exempt from a discharge permit from the Regional Water Quality Control Board (RWQCB), PG&E will comply with all Applicable or Relevant and Appropriate Requirements (ARARs) set forth by the RWQCB for the injection and water management for the TW-01 Pump Test project. As stated in the evaluation for Hazards and Hazardous Materials above, the injection of the tracers is not anticipated to create an environmental concern. It is not expected that this project will violate any water quality standards or will substantially degrade surface or groundwater quality at the site.

Although the pump test will be extracting up to 90 gallons per minute of groundwater from the site, the extracted water will initially be treated at the IM-3 Treatment Plant and the cleaned water returned to the aquifer via existing injection wells. This operation will return a significant portion of the available water to the subsurface. As analyzed in the 2018 SEIR, the operation of the IM-3 facility was able to successfully demonstrate that more than 95% of the water was returned to the subsurface in 2008 and 2009.

Depending on the data, PG&E may be authorized to continue the pump test beyond the operational period of the IM-3 Treatment Plant to further evaluate the hydrogeologic data. In this scenario, PG&E may reinject the water as make-up water for the In-situ Reactive Zone as part of the groundwater remedy, place the extracted water into the existing evaporation ponds permitted by the RWQCB, or transport the water off-site for treatment and disposal. The 2018 SEIR considered the existing water usage and PG&E's entitlement and found that PG&E has reported a water usage range of 0.2 to 4.3 acre-feet per annum (afa) in 2016. In contrast, the 2018 SEIR finds that PG&E was entitled to 422 afa of consumptive use; therefore, the water usage for the groundwater remedy is well within PG&E's allocations.

DTSC notes that PG&E will likely continue to use water for dust control during construction of the pump test infrastructures. Based on the construction monthly report, as of January 2021, PG&E has used approximately 4.7 million gallons of water for fugitive dust suppression since the beginning of construction, which is approximately 14.4 acre-feet of water used. It is not anticipated that a significant quantity of water will be necessary for the Pump Test dust suppression.

Based on this analysis, DTSC does not anticipate the project to significantly decrease the groundwater supply or for PG&E to exceed their annual water allocation as a result of this project. DTSC finds that this project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR and

has less than significant impact to the Hydrology, Water Quality and Water Supply. Please refer to Section 4 for the Environmental Finding statement.

3.11 Land Use and Planning

In evaluating the potential impacts to Land Use and Planning, DTSC finds that the Project is consistent with the analysis of the 2018 certified SEIR for the groundwater remedy and that the Pump Test would have no impacts to Land Use and Planning. Please refer to Section 4 for the Environmental Finding statement.

3.12 Mineral Resources

In evaluating the potential impacts to Mineral Resources, DTSC finds that the Project is consistent with the analysis of the 2018 certified SEIR for the groundwater remedy and that the Pump Test would have no impacts to the Mineral Resources. Please refer to Section 4 for the Environmental Finding statement.

3.13 Noise

Although the TW-01 Pump Test will require construction and mobilization of some temporary facilities and equipment for mixing of the tracers, laying water conveyance pipeline, soil anchors, bin blocks, placement of vaults, minor trenching and grading of an area beneath access crossing, and joining of pipes. These activities are all within the scope of the 2018 SEIR at locations near the groundwater remedy infrastructures. Noise monitoring and mitigation measures will continue to be performed. DTSC does not anticipate the project to generate or contribute to substantial temporary or permanent increase in ambient noise levels in the vicinity which would exceed the noise thresholds evaluated in the 2018 SEIR. DTSC finds that this project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR and will have less than significant impact in noise. Please refer to Section 4 for the Environmental Finding statement.

3.14 Population and Housing

In evaluating the TW-01 Pump Test project, DTSC finds that the Project would have no impacts to population growth or substantially alter the existing population and housing around the project area. DTSC finds that the Project is consistent with the analysis of the 2018 certified SEIR for the groundwater remedy. Please refer to Section 4 for the Environmental Finding statement.

3.15 Public Services

In evaluating the TW-01 Pump Test project, DTSC finds that the Project would have no impacts to and would not alter the existing public services around the project area. DTSC finds that the Project is consistent with the analysis of the 2018 certified SEIR for the groundwater remedy. Please refer to Section 4 for the Environmental Finding statement.

3.16 Recreation

In evaluating the TW-01 Pump Test project, DTSC finds that the Project would have no impacts to and would not alter the recreational facilities or opportunities around the project area beyond those evaluated in the 2018 SEIR. The Pump Test project will be implemented mostly within an operating gas compressor station. Although the temporary pipeline is above ground, it is only six inches in diameter and should not alter the accessibility of the area for recreation. The pump test and tracer test will utilize existing monitoring wells. DTSC finds that the Project would have no impacts to and would not alter the recreational resources at or near the project area. Please refer to Section 4 for the Environmental Finding statement.

3.17 Transportation

The range of activities for the TW-01 Pump Test project are within the existing scope of the groundwater remedy project. The project is likely to add additional truck trips for delivery of pipelines, and supporting equipment such as bin blockers, silt fencing, and pre-cast vaults, as well as a slight increase in frequencies and duration of workers on-site, these additional vehicular trips are significantly less than the period of highest construction work for the groundwater remedy. Therefore, DTSC finds that the Project will not pose a significant change to the potential impacts analyzed in the 2018 certified SEIR and will have less than significant impact to Transportation. Please refer to Section 4 for the Environmental Finding statement.

3.18 Tribal Cultural Resources

No known archaeological resources have been identified during surveys conducted within the footprint of the project. However, the Pump Test project area is situated within a larger area determined by the U.S. Bureau of Land Management to be a Traditional Cultural Property (TCP) for Native American Indian Tribes. There are substantial quantities of documented cultural and archaeological resources throughout the TCP and discovery of additional resources within the area is common. The Pump Test work plan has been circulated to the Native American Tribes with interest in the project for comments. PG&E prepared responses to all the comments received, conducted a response to comment meeting with the commenting Native American Tribes, and prepared a revised work plan as a result. Additional comments received on the revised work plan were also responded to and are incorporated in the Pump Test response to comment appendix to the work plan.

The 2018 SEIR has conducted extensive analysis of the potential impacts within the Groundwater Remedy Project Area and adopted specific mitigation measures to identify, protect and mitigate for the potentially significant impact to cultural resources of the overall groundwater remedy project. Since the TW-01 Pump Test project is fully situated within the Groundwater Remedy Project Area, PG&E will continue to adhere to all the precautions, assessments, protocols and procedures developed and implemented in relations to the Tribal Cultural Resources mitigation measures during the planning and implementation of the TW-01 Pump Test. Although this project may not contribute to a significant impact on the physical manifestation of cultural resources with the implementation of the 2018 SEIR adopted mitigation measures, like the groundwater remediation project as a whole, the activities within this project area will continue to be a potential impact to the spiritual values held by some Native American Tribes and the spiritual impacts are unavoidable and unmitigable. As a result, DTSC finds that this project will not significantly change the potential impacts analyzed in the 2018 certified SEIR. Please refer to Section 4 for the Environmental Finding statement.

3.19 Utilities and Service Systems

The Pump Test project will require the installation of an additional single service electrical pole with a pole mounted transformer by Needles Electric at the MW-24 Bench location. It is anticipated that the new powerline will be an overhead line tapped into an existing power pole in the PG&E Compressor Station. Needles Electric will not need to access Bat Cave Wash or its vicinity for the new electrical line. The new electrical supply will provide power to the pump and ancillary monitoring equipment for the Pump Test. The line will not be used for other equipment or critical functions at the Compressor Station. Needles Electric is a commercial utility company which serves the community of Needles and are experienced in supplying and distributing electricity to its customers. Although as noted in the SEIR, PG&E has experienced periodic electrical outages using the City of Needles's distribution system, primarily during lightning storms and equipment failures. The Pump Test project is not considered a critical function. Temporary disruption of power would be acceptable, albeit undesirable, but manageable during data interpretation.

Aside from the additional power pole and transformer, the Pump Test project will not require or cause any other alteration of existing services. The Pump Test is considered a relatively short-term project in comparison to the Groundwater Remedy identified in the SEIR and will not create additional permanent

demands in energy, telecommunication or public services. In evaluating the TW-01 Pump Test project, DTSC finds that the Project would have a less than significant impact to and would not alter the utilities and service systems beyond those evaluated in the 2018 SEIR. Please refer to Section 4 for the Environmental Finding statement.

3.20 Wildfire

Wildfire has been known to happen near the Topock Compressor Station and near the vicinity of the Groundwater remedy. Notable is the April 2016 wildfire which burned over 2,200 acres in both Arizona and California. The only project component which may exacerbate the potential risk of wildfire will be the new powerline from the PG&E Topock Compressor Station to the MW-24 Bench. The powerline, however, will serve only the extraction pump and test equipment in support of the Pump Test. Because the pump test is a short duration operation (less than one year), shrub clearance and tree trimming to reduce fire danger is not likely to be necessary; furthermore, there are minimal vegetation near the power pole or the electrical line. PG&E will inspect the project systems and use best management practices to reduce fire danger at or near the power line. As a result, DTSC finds that this project would have less than significant potential wildfire impacts. Please refer to Section 4 for the Environmental Finding statement.

4.0 Environmental Finding

The 2018 SEIR adopted for the groundwater remediation project was supported by detailed aesthetics, air quality and greenhouse gas emissions, biological resources, cultural resources, hazard and hazardous materials evaluation, hydrology and water quality, noise, utilities services, energy, traffic, and water supply analyses. The SEIR underwent required public review. All public review comments were addressed prior to the approval of the project and adoption of the SEIR on April 24, 2018. The adopted SEIR is inclusive of the project Initial Study, all previously referenced site-specific technical studies, public comments, responses to comments, and the Mitigation Monitoring and Reporting Program. All mitigation measures identified in the adopted SEIR remains equally applicable to the Pump Test project. Compliance with City, State, and federal conditions, guidelines, and ARARs would apply for this project, thereby reasonably ensuring the project is constructed and operated in a safe and effective manner.

As stated in the previously provided analysis, the proposed project consists of an extended duration pump test which is similar in operation and methodologies identified for the standard and approved 72 hours pump test. The inclusion of the extended Pump Test project does not cause a new significant impact or substantially increase the severity of a previously identified impact. No new plans, policies, or regulations that would result in new significant environmental impacts or an increase in the severity of environmental impacts were identified. There have been no significant changes in circumstances that would involve new significant environmental effects or a substantial increase in the severity of

previously identified significant effects. None of the “new information” conditions listed in CEQA Guidelines Section 15162[a][3] are present here to trigger the need for a subsequent EIR or negative declaration.

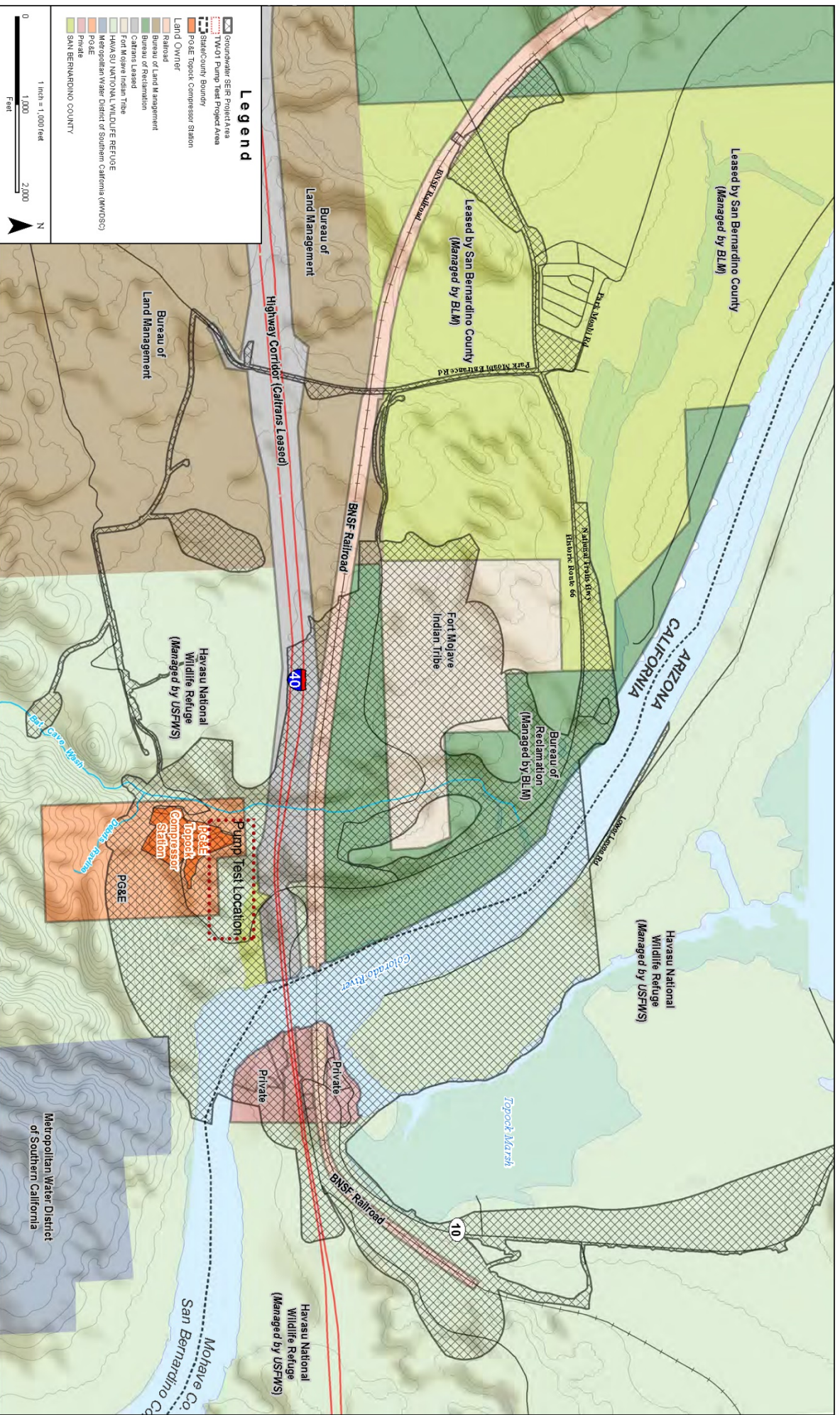
CEQA Guidelines Section 15164 states that “the lead agency or a responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.”

An addendum is appropriate for the proposed project because, as explained above, the extended duration Pump Test at the site is substantially similar to the construction and operational activity already assessed in the adopted SEIR, is of limited scale and duration, and would not result in a new significant impact or increase the severity of a previously identified impact. As such, the revised project does not entail project changes warranting the preparation of a subsequent EIR or negative declaration.

5.0 References

- Addendum to Pacific Gas and Electric Company's Topock Groundwater Remediation Project Preconstruction Floristic Survey Report – Late Season Survey 2017*, CH2M, March 5, 2018
- Basis of Design Report/Final (100%) Design Submittal for the Final Groundwater Remedy, PG&E Topock Compressor Station, Needles, California*, CH2M Hill, November 2015
- Bat Surveys of the Topock Compressor Station Soil Investigation and Groundwater Remediation Project Areas*, Brown, Patricia E, PhD., June 2015
- Desert Tortoise Habitat Survey, PG&E Topock Compressor Station Evaporation Ponds and Access Roadway*, Transcon Environmental, Inc., April 2015
- Final Environmental Impact Report, Volumes 1 and 2, for the Topock Compressor Station Groundwater Remediation Project*, AECOM, January 2011
- Final Subsequent Environmental Impact Report for the Pacific Gas and Electric Company Topock Compressor Station Final Groundwater Remediation Project, Volume 2*, ESA, December 2017
- Pacific Gas and Electric Company TW-01 Aquifer Test Plan, Topock Compressor Station, Needles, California*, Arcadis, February 26, 2021
- Southwestern Willow Flycatcher Presence/Absence Surveys for the PG&E Topock Compressor Station*. Garcia and Associates (GANDA), October 2012
- .

6.0 Figures



Map date: 3/16/2021 Source: ESRI Aerial, ESA

Land Ownership, SEIR Project Area and Pump Test Project Area

Figure 2-1



Visual Simulation of the proposed Project (VP 10)

Refer to Figure 4. 1-3 for photograph viewpoint locations

SOURCE: ENVIRONMENTAL VISION

Topock Final Groundwater Remediation Project. 120112

Figure 3.1a - Excerpt from 2018 SEIR Visual Simulation of Groundwater Remedy



Visual Simulation of Groundwater Remediation Project with TW-01 Pump Test from View Point 10

Figure 3.1b

7.0 Appendices - Communications

7.1 Pipeline Length Email with Ms. Christina Hong

From: [Hong, Christina/LAC](#)
To: [Yue, Aaron@DTSC](#)
Cc: [Russell, Curt](#)
Subject: Per your request - Temporary pipeline for TW-01 aquifer test
Attachments: [PGE Topock Temporary Pipeline for Aquifer Test.pdf](#)

Hi Aaron –

Per your request in yesterday's coordination call, attached is a map of the proposed pipeline alignment with a portion of it on NTH. This route was discussed during the 1/28/2021 site walk, in addition to all of the other alignments presented in the draft WP.

The length of the pipeline depicted in yellow is approximately 1,980 feet, of which about 25 feet is belowground as the pipeline crossed the access road from TCS to the MW-24 Bench. There is a small section of belowground pipe trench (about 15 feet) at the MW-20 Bench to tie-in the buried pipe stub to the IM-3 valve vault.

The temporary pipe is a 3-inch by 6-inch double-walled HDPE pipe. Please

let me know if you need any additional info.

Thanks and have a good weekend,
Christina

7.2 Electrical Demand

From: [Hong, Christina/LAC](#)
To: [Yue, Aaron@DTSC](#)
Subject: TW-01 Work Plan - electrical demand
Date: Friday, March 5, 2021 4:37:04 PM

EXTERNAL:

Hi Aaron –

Below is the electrical demand info for your CEQA evaluation.

For the service at MW-24 from City of Needles (powering downhole equipment/small control panel at TW-01 well site):

- Electrical Service requested: 480V, 1-phase, 3-wire, total electrical load is ~18 KVA.

Single load at MW-20 bench powered from the IM-3 service (also from City of Needles) (powering pump located in the IM3 valve vault):

- 480V, 3-phase, total electrical load is ~7 KVA

Christina

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7.3 U.S. FWS Approval of Work Outside of Construction Footprint

From: [Strohl, Virginia](#)
To: [Yue, Aaron@DTSC](#)
Cc: [Russell, Curt](#); [Bonnett, Kristina](#); [Hong, Christina/LAC](#)
Subject: FW: [EXTERNAL] Request #11 for Work Outside the Designated Work Area for Topock Groundwater Remediation Project
Date: Monday, February 22, 2021 11:27:07 AM

EXTERNAL:

Hi Aaron,

Please see USFWS approval below for the work outside the designated work area as well as their approval for minimization measures to sensitive plant species for TW-01. Thanks, -Virginia

From: Russell, Kevin R <kevin_russell@fws.gov>
Sent: Tuesday, February 09, 2021 4:05 PM
To: Strohl, Virginia <V1S4@pge.com>; West, Jason R <jrwest@blm.gov>; Ian Ralston (Ian.Ralston@Wildlife.ca.gov) <Ian.Ralston@Wildlife.ca.gov>; Funk, Alexander@Wildlife <Alexander.Funk@Wildlife.ca.gov>
Cc: Kim, Richard@Wildlife <Richard.Kim@wildlife.ca.gov>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; Cochran, Adam B <acochran@blm.gov>; Innis, Pamela S <Pamela_Innis@ios.doi.gov>; Russell, Curt <GCR4@pge.com>; Bonnett, Kristina <KABY@pge.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: Re: [EXTERNAL] Request #11 for Work Outside the Designated Work Area for Topock Groundwater Remediation Project

*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

Virginia:

Thank you for your e-mail of February 5, 2021 regarding the Pacific Gas and Electric Topock Compressor Station Final Groundwater Remedy. The U.S. Fish and Wildlife Service issued a concurrence letter for this project on March 21, 2018 concerning potential impacts of the project to the following listed species under the Endangered Species Act: southwestern willow flycatcher and its critical habitat, Yuma clapper rail, Mojave desert tortoise, razorback sucker, bonytail and its critical habitat, northern Mexican gartersnake, and the western yellow-billed

cuckoo and its proposed critical habitat. In our concurrence, we determined that the project would not adversely affect these species or critical habitats.

Your e-mail indicated that Pacific Gas and Electric anticipates activities outside the designated work area. You indicated that impacts to 0.36 acres of upland habitat and 0.79 acres of disturbed area would occur outside the designated construction footprint, but still within the previously approved Action Area. You also indicated that most of the expanded work area was included in the special-status species surveys. For the small area not previously covered by the special-status plant species surveys, you indicated that Pacific Gas and Electric will incorporate minimization measures to ensure the ground is not disturbed during pipeline installation in this area.

Given the small impact, implementation of avoidance and minimization measures for sensitive plant species, that the work will not result in a change to the Action Area, and your determination that these changes will have no additional impacts to the species listed above, our effects analysis as stated in our concurrence letter will not change as a result of the modification in the proposed action as described in your e-mail. Our concurrence that this project "may affect, but is not likely to affect" the species and critical habitats listed above remains unchanged.

Thanks,

Kevin

Kevin R. Russell, Ph.D.
Fish and Wildlife Biologist

U.S. Fish and Wildlife Service

Arizona Ecological Services Field Office9828
North 31st Ave #C3

Phoenix, AZ 85051-2517

602.889-5963

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Kevin R. Russell

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Phoenix, AZ 85051-2517

602.889-5963

kevin_russell@fws.gov

From: Strohl, Virginia <V1S4@pge.com>

Sent: Friday, February 5, 2021 3:02 PM

To: West, Jason R <jrwest@blm.gov>; Russell, Kevin R <kevin_russell@fws.gov>; Ian Ralston
(Ian.Ralston@Wildlife.ca.gov) <Ian.Ralston@Wildlife.ca.gov>

Cc: Kim, Richard@Wildlife <Richard.Kim@wildlife.ca.gov>; Vigil, David@Wildlife
<David.Vigil@wildlife.ca.gov>; Cochran, Adam B <acochran@blm.gov>; Innis, Pamela S
<Pamela_Innis@ios.doi.gov>; Russell, Curt <GCR4@pge.com>; Bonnett, Kristina <KABY@pge.com>;
Hong, Christina/LAC <Christina.Hong@jacobs.com>

Subject: [EXTERNAL] Request #11 for Work Outside the Designated Work Area for Topock
Groundwater Remediation Project

**This email has been received from outside of DOI - Use caution before clicking on links,
opening attachments, or responding.**

Jason, Kevin and Ian -

PG&E is requesting regulatory approval for Final Groundwater Remedy construction activities that will occur outside the designated work area (aka the Maximum Construction Footprint) that was used to analyze project impacts in the 2014 Programmatic Biological Assessment (PBA) (CH2M HILL 2014).

In accordance with the General Project Management Measures of the PBA, PG&E is required to obtain written approval from BLM, USFWS, and CDFW for all work outside the original designated work area.

16. Activities shall be restricted to the designated work areas that are determined by the latest Remedy Design documents as approved by BLM, USFWS, and CDFW. If unforeseen circumstances require project expansion outside of the designated work area, 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 designated work area shall proceed only after receiving written approval from the BLM, USFWS and CDFW describing the exact location of the expansion.

There are a number of areas where work would occur outside of the designated work area as shown in Figure 1 (attached) and described in the table below. All these areas occur outside the designated construction footprint, but still within the previously approved Action Area (2017 Updated PBA Action Area). Almost all of the expanded work areas were included in the special-status species surveys, including the pre-construction plant surveys completed in Spring 2017, except for the area identified as "Pre-Construction Plant Surveys Not Completed in Spring 2017" in Figure 1. Please see discussion below addressing potential impacts to special-status plant species and the additional

minimization measure to protect any special-status plant species that may occur in this area. There would be no additional impacts to jurisdictional waters at any of the proposed areas. All project mitigation measures will be implemented for proposed work.

Pre-construction plant surveys for special-status species were not completed in Spring 2017 in a small area (See Figure 1) to confirm the presence/ absence of special-status plant species. This area was included though during botanical surveys in Spring 2013 and no special-status plant species were observed. It is unlikely that the area is occupied by any special-status plant species, but to ensure no impacts to any special-status plant species or their seed base occurs, PG&E will incorporate minimization measures to ensure the ground is not disturbed during the installation of the above ground pipeline in this area. Disturbance to the ground may be caused from the pipeline when it is pulled up the hill from the bottom of the hill where it will be fused together in the staging area. To prevent any soil disturbance to the potential seed base of a special-status plant, silt fencing material will be placed underneath the pipeline.

We would appreciate your written approval to proceed by February 11, 2021 or sooner. Please contact me with any questions or concerns. Thanks, -Virginia

Location/Description	Reason	Amount of Upland Area (in acres)
The various areas are north of the Topock Compressor Station and the Transwestern Bench and south of I-40. (See Figure 1).	PGE plans to test the existing TW-01 extraction well to provide additional hydraulic data to update the conceptual site model, groundwater model, and possible design improvements for efficiencies, cost savings, and site disturbance reduction. Groundwater will be pumped from TW-01 and transferred to the IM-3 treatment plant for processing. Temporary, above ground piping will convey the pumped water from the TW-01 wellhead to the pipeline connection located near the southern end of the National Trails Highway jack and bore. The alignment of the pipeline was selected to avoid underground utilities and the Topock Compressor Station.	1.15 total requested. 0.36 upland habitat. 0.79 disturbed area.
Total of Current Request		1.15
Total of Prior Requests		3.376
Total of all Requests to Date		4.53

Virginia Strohl | Senior Biologist

Pacific Gas and Electric Company | 1455 E Shaw Ave. #23 Fresno, CA 93710 559.515.3904
cell | v1s4@pge.com

7.4 CDFW Approval of work outside designated area and minimization measures

From: [Strohl, Virginia](#)
To: [Yue, Aaron@DTSC](#)
Cc: [Russell, Curt](#); [Bonnett, Kristina](#); [Hong, Christina/LAC](#)
Subject: FW: Request #11 for Work Outside the Designated Work Area for Topock Groundwater Remediation Project
Date: Monday, February 22, 2021 11:32:33 AM
Attachments: [TW_01_2021Feb03_v2.pdf](#)

EXTERNAL:

Hi Aaron,
Please see CDFW's approval below for the work outside the designated work area as well as their approval for minimization measures to sensitive plant species for TW-01. I hadn't realized until you requested their approval that you weren't cc'd on these emails. Thanks, -Virginia

Virginia Strohl | Senior Biologist

Pacific Gas and Electric Company | 1455 E Shaw Ave. #23 Fresno, CA 93710
559.515.3904 cell | v1s4@pge.com

From: Funk, Alexander@Wildlife <Alexander.Funk@Wildlife.ca.gov>
Sent: Tuesday, February 09, 2021 10:02 AM
To: Jason West <jrwest@blm.gov>; Kevin Russell <kevin_russell@fws.gov>; Strohl, Virginia <V1S4@pge.com>
Cc: Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; 'acochran@blm.gov' <acochran@blm.gov>; Pamela_Innis@ios.doi.gov; Russell, Curt <GCR4@pge.com>; Bonnett, Kristina <KABY@pge.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: RE: Request #11 for Work Outside the Designated Work Area for Topock Groundwater Remediation Project

*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

Hello Virginia,

I am now the Environmental Scientist for CDFW, in Richard Kim's previous position in Blythe, my name is Alex Funk.

PG&E is approved to conduct the work as described in the below email, and within the attached map, lying outside the Designated Work Areas. CDFW acknowledges the measures to minimize and avoid ground disturbance, inclusive of the silt-fencing measure to protect seeds. CDFW also acknowledges that PG&E will be implementing the avian protection measures outlined in the Bird Impact Avoidance and Minimization Plan, where applicable. If the project changes materially from what is described in the below emails and attachment, PG&E will have to submit a new request to approve work outside of the Designated Work Areas.

If there are any questions, please feel free to reach out.

Thank you,

Alexander L. Funk, B.S., M.S.
Environmental Scientist
California Department of Fish and Wildlife
Lower Colorado River Program
Inland Deserts Region 6
P.O. Box 2160, Blythe, CA 92226
Off: 760.922.6783
Fax: 760.922.5638
alexander.funk@wildlife.ca.gov

From: Strohl, Virginia <V1S4@pge.com>
Sent: Friday, February 5, 2021 2:02 PM
To: Jason West <jrwest@blm.gov>; Kevin Russell <kevin_russell@fws.gov>; Ralston, Ian@Wildlife <Ian.Ralston@Wildlife.ca.gov>
Cc: Kim, Richard@Wildlife <Richard.Kim@wildlife.ca.gov>; Vigil, David@Wildlife <David.Vigil@wildlife.ca.gov>; 'acochran@blm.gov' <acochran@blm.gov>; Pamela_Innis@ios.doi.gov; Russell, Curt <GCR4@pge.com>; Bonnett, Kristina <KABY@pge.com>; Hong, Christina/LAC <Christina.Hong@jacobs.com>
Subject: Request #11 for Work Outside the Designated Work Area for Topock Groundwater Remediation Project

Warning: This email originated from outside of CDFW and should be treated with extra caution.

Jason, Kevin and Ian -

PG&E is requesting regulatory approval for Final Groundwater Remedy construction activities that

will occur outside the designated work area (aka the Maximum Construction Footprint) that was used to analyze project impacts in the 2014 Programmatic Biological Assessment (PBA) (CH2M HILL 2014).

In accordance with the General Project Management Measures of the PBA, PG&E is required to obtain written approval from BLM, USFWS, and CDFW for all work outside the original designated work area.

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We would appreciate your written approval to proceed by February 11, 2021 or sooner. Please contact me with any questions or concerns. Thanks, -Virginia

Location/Description	Reason	Amount of Upland Area (in acres)
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The various areas are north of the Topock Compressor Station and the Transwestern Bench and south of I-40. (See Figure 1).

PGE plans to test the existing TW-01 extraction well to provide additional hydraulic data to update the conceptual site model, groundwater model, and possible design improvements for efficiencies, cost savings, and site disturbance reduction. Groundwater will be pumped from TW-01 and transferred to the IM-3 treatment plant for processing. Temporary, above ground piping will convey the pumped water from the TW-01 wellhead to the pipeline connection located near the southern end of the National Trails Highway jack and bore. The alignment of the pipeline was selected to avoid underground utilities and the Topock Compressor Station.

1.15 total requested.

0.36 upland habitat.

0.79 disturbed area.

Total of Current Request		1.15
Total of Prior Requests	3.376	
Total of all Requests to Date		4.53

7.5 Pipeline Crossing for Wildlife

From: [Strohl, Virginia](#)
To: [Yue, Aaron@DTSC](#)
Cc: [Russell, Curt](#); [Hong, Christina/LAC](#); [Baker, Karen@DTSC](#)
Subject: RE: DTSC TW-01 Work Plan Comments
Date: Friday, February 26, 2021 12:23:41 PM

EXTERNAL:

Hi Aaron,

Based on your request, I have assessed the proposed TW-01 project to determine if the 6" HDPE water pipeline alignment would create a wildlife crossing barrier to wildlife occurring on the project site. I've also evaluated how this proposal is different than the above ground water pipeline proposal that was assessed during the design phase of the GW Remedy.

The only species that might not be able to cross over a 6" HDPE pipe is a juvenile tortoise, if it were present on-site. I think all other protected wildlife could cross a 6" HDPE pipeline, including an adult tortoise. Based on the following reasons below however, I do not think that the 6" HDPE pipeline will be a wildlife movement barrier for juvenile tortoises, for the following reasons:

- 1- We have not observed any live tortoise within the project limits, however scattered tortoiseshell bone fragments were discovered in 2009 and after examination thought to be at least ten years old. The tortoise shell bone fragments would indicate tortoises historically occupied this area. No live tortoises or other tortoise sign have been observed during all of the preconstruction tortoise surveys and during construction monitoring.
- 2- Similar 6" HDPE pipe has been installed above ground for the project along the RB road alignment for at least a year and the on-site biologist have not observed any wildlife prevented from crossing the line.

There are other considerations for the proposed TW-01 water pipeline that are different from the above ground pipeline that was assessed during the design phase of the GW remedy as a wildlife crossing barrier:

- 1- The TW-01 project is only proposing to use a 6" HDPE pipe on the ground versus two options of water pipelines that were assessed during the design phase of the GW Remedy. The two previously assessed above ground pipelines were: 1) the concrete, pre-fabricated above ground pipeline container that was to be anywhere from 3' up to 6' and 12' tall for the length of the water pipelines, and 2) the pipe rack that vertically stack the pipelines on a post from the ground up to 6' tall. While the 6" HDPE pipeline wouldn't be a barrier for wildlife movement for

almost all species, except maybe a juvenile tortoises, the 3' to 6' tall above ground concrete container would be a barrier for quite a few wildlife species.

2- The alignment for the TW-01 water pipeline somewhat parallels the I-40 and the I-40 is already a wildlife movement crossing barrier. So the concern about reducing potential wildlife movement with the TW-01 pipeline alignment is different than what was assessed for the above ground water pipeline during design. The above ground water pipeline assessed during design was for all pipelines in the project, including the floodplain and Pipeline B.

3- The TW-01 project is temporary. The above ground water pipeline that was discussed during design was permanent.

Please let me know if you have additional questions, -Virginia

Virginia Strohl | Senior Biologist

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