

February 6, 2020
SL11576-1

Client:
Stantec
Attn: Todd Porter
3437 Empresa Drive,
Suite A,
San Luis Obispo
California 93420

Project name:
Kuhnle Ranch
Phillips 66 Company
Site No. 5750
Shandon Highway,
San Luis Obispo
County, California

TEMPORARY SLOPE STABILITY EVALUATION

Dear Mr. Porter:

1.0 INTRODUCTION

As requested, we have completed a stability evaluation for the temporary construction slope for the proposed remedial soil excavations to be located at Kuhnle Ranch, Phillips 66 Company Site No. 5750 along Shandon Highway, in the County of San Luis Obispo, California. The purpose of the evaluation was to assess the stability of the temporary construction slopes and provide a numeric factor of safety for the conformation. The numerical analysis was conducted utilizing SLOPE/W, a computer-modeling program.

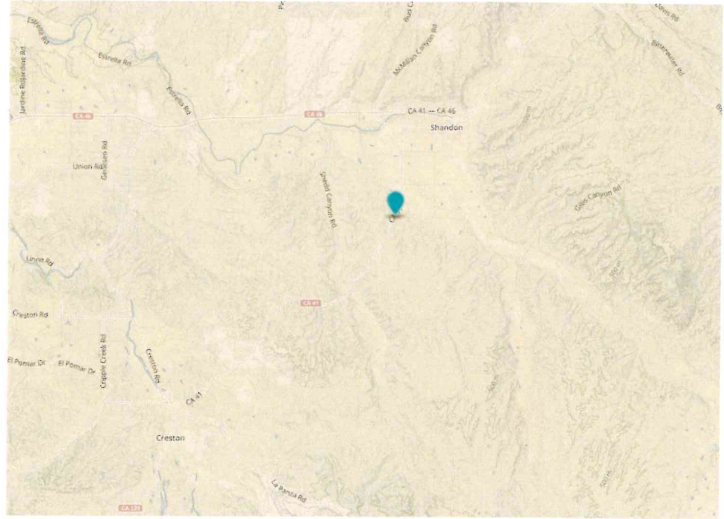


Figure 1: Area Location Map (TopoView, 2020)

2.0 SITE DESCRIPTION

The temporary construction slopes are proposed at various excavations along the existing Phillips 66 pipeline to a maximum height of 12 feet at a 1:1 (horizontal:vertical) slope gradient. The proposed excavations will hereafter be referred to as the "Site." See Figure 1 and 2 for the general locations of the excavations.

3.0 NUMERICAL SLOPE STABILITY

A slope stability analysis was performed on a proposed 1:1 slope to a height of 12 feet. The purpose of the analysis was to determine the stability of the temporary cut slopes proposed during construction. Utilizing the results of laboratory testing performed on representative samples of soil material from the slope area, the numerical slope stability analysis was performed in SLOPE/W, a computer-modeling program by Geo-Slope International, Limited (Geo-Slope, 2002). SLOPE/W uses limit equilibrium theory to compute the factor of safety of earth slopes.

For temporary construction slopes, a static factor of safety greater than 1.2 is required to be considered stable. Given the temporary nature of the construction slopes, the pseudo-static condition is typically not considered.

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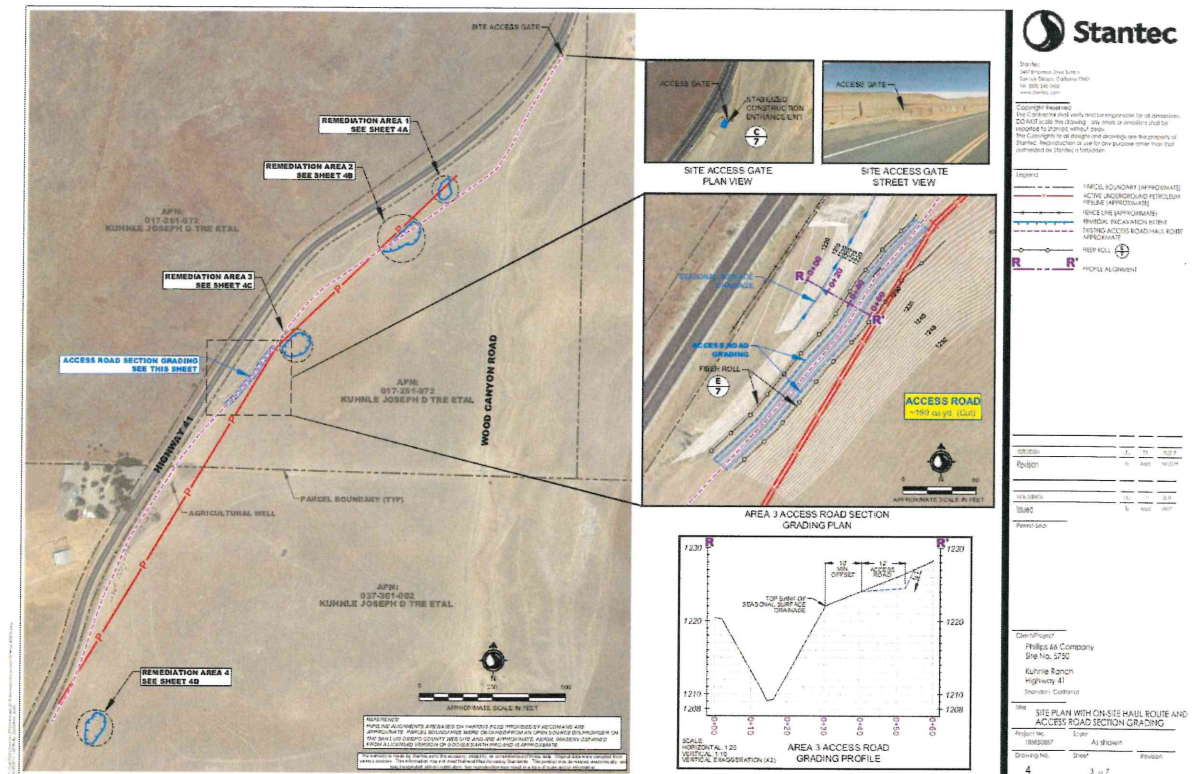


Figure 2: Excavation Location Map (Stantec, 2019)

3.1 Slope/W Discussion

SLOPE/W was utilized to determine the critical factor of safety along profile A-A'. SLOPE/W performs the stability analysis by passing a slip surface through the earth mass and dividing it into vertical slices. To compute the factor of safety, SLOPE/W utilizes the theory of limit equilibrium of forces and moments. The limit equilibrium method may be utilized to analyze circular and noncircular failure surfaces and assumes that:

1. The soil behaves as a Mohr-Coulomb material.
2. The factor of safety of the cohesive component of strength and the frictional component of strength are equal for all soils involved.
3. The factor of safety is the same for all slices.

The General Limit Equilibrium formulation and solution may be used to simulate most of the commonly used methods of slices. The characteristics of Spencer's method are identified as an "satisfies all conditions of equilibrium; applicable to any shape of slip surface; assumes that inclinations of side forces are the same for every slice; side force inclination is calculated in the process of solution so that all conditions of equilibrium are satisfied; accurate method; 3N equations and unknowns" (Duncan, 1996).

Each potential slip surface results in a different value for factor of safety. The smaller the factor of safety (the smaller the ratio of shear strength to shear stress required for equilibrium), the greater the potential for failure to occur by movement on that surface. Movement is most likely to occur on the slip surface with the minimum factor of safety. This is referred to as the critical slip surface. However, for movement to occur the ratio must be below 1.0.

The general method of analysis involves computing the factor of safety and associated slip surface for multiple nodes within a grid-like pattern on the diagram, shown above the ground surface. By

placing a set of radius lines within the soil profile, the slip surfaces are forced to reside within and tangent to the radius lines. Through computer iterations, the program derives a set of factor of safety contour lines. The minimum value within the set of contour lines is the resulting minimum factor of safety and produces the critical slip surface.

3.2 Modeling Conditions

Based on discussions with the Client, temporary 1:1 cut slopes will be used during remedial soil construction. Our analysis considered a 1:1 (horizontal:vertical) cut slope to a maximum height of 12 feet to result in a stable condition, i.e. a factor of safety greater than 1.2.

The subsurface materials modeled along the cross-section were determined based on the subsurface conditions observed, results of laboratory testing, and our understanding of the geologic conditions at the Site. Groundwater was not modeled in the analysis due to the assumed absence of groundwater. The subsurface materials interpreted along profile A-A' consisted of dark olive brown poorly graded sand with silt. The following table summarizes the material properties used in the analysis.

Table 1: Material Properties for Slope Analysis

Material	Unit Weight (pcf)	Friction Angle, Phi (degrees)	Cohesion, c (psf)
Dark Olive Brown SAND with Silt	138.2	32	152

3.3 Results

The temporary slope conditions modeled in profile A-A' resulted in a critical static factor of safety value above the minimum standard, indicating stable conditions for temporary 1:1 cut slopes up to 12 feet. At the time of construction, a representative of GeoSolutions, Inc. should observe cut slopes to verify the field conditions are consistent with the properties assumed in this analysis.

Table 2: Factors of Safety Results

Profile	Static Factor of Safety
A-A' (12-foot 1:1 cut slope)	1.60

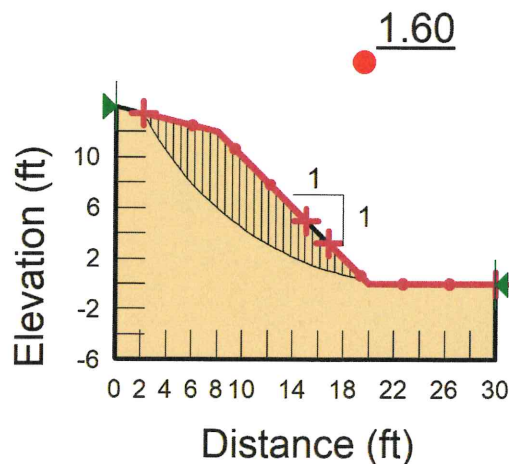


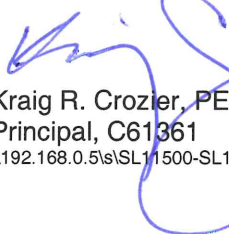
Figure 1: Static Analysis along for the Temporary 1:1 Cut Slope Conditions (12' Maximum)

4.0 LIMITATIONS

As of the present date, the findings of this report are valid for the property studied. With the passage of time, changes in the conditions of a property can occur whether they are due to natural processes or to the works of man on this or adjacent properties. Therefore, this report should not be relied upon after a period of one year without our review nor should it be used or is it applicable for any properties other than those studied.

If you have any questions, please contact us to set up an appointment at your earliest convenience at (805) 543-8539.

Sincerely,
GeoSolutions, Inc.


Kraig R. Crozier, PE
Principal, C61361



\\192.168.0.5\\s\\SL11500-SL11990-SL11576-1-Kuhnle Ranch\\Engineering\\SL11576-1 Temp Slope Stability Analysis.doc

To:	Todd Porter	From:	Brett Reiman
	Stantec, San Luis Obispo CA		Stantec, San Luis Obispo CA
File:	P66 Site No. 5750	Date:	March 21, 2019

**Reference: Biological Survey for Remedial Excavation
Kuhnle Ranch, San Luis Obispo County**

INTRODUCTION

Stantec biologist Brett Reiman conducted a biological survey for the proposed remedial excavation sites located at Kuhnle Ranch in Shandon, California (Project Area) on March 21, 2019. The Project Area and surrounding vicinity is partially developed native/non-native grassland habitat characterized as pasture land for grazing domesticated livestock. The project area borders a seasonal surface drainage that was not flowing while the survey took place. Figures 1 is a project vicinity map. Figure 2 is a site map showing the project survey area.

SURVEY METHODOLOGY

The survey consisted of walking the proposed Project Area with an additional 200-foot buffer. During the survey period the temperature range ranged from 58°F to 61°F with 20 percent cloud coverage.

RESULTS

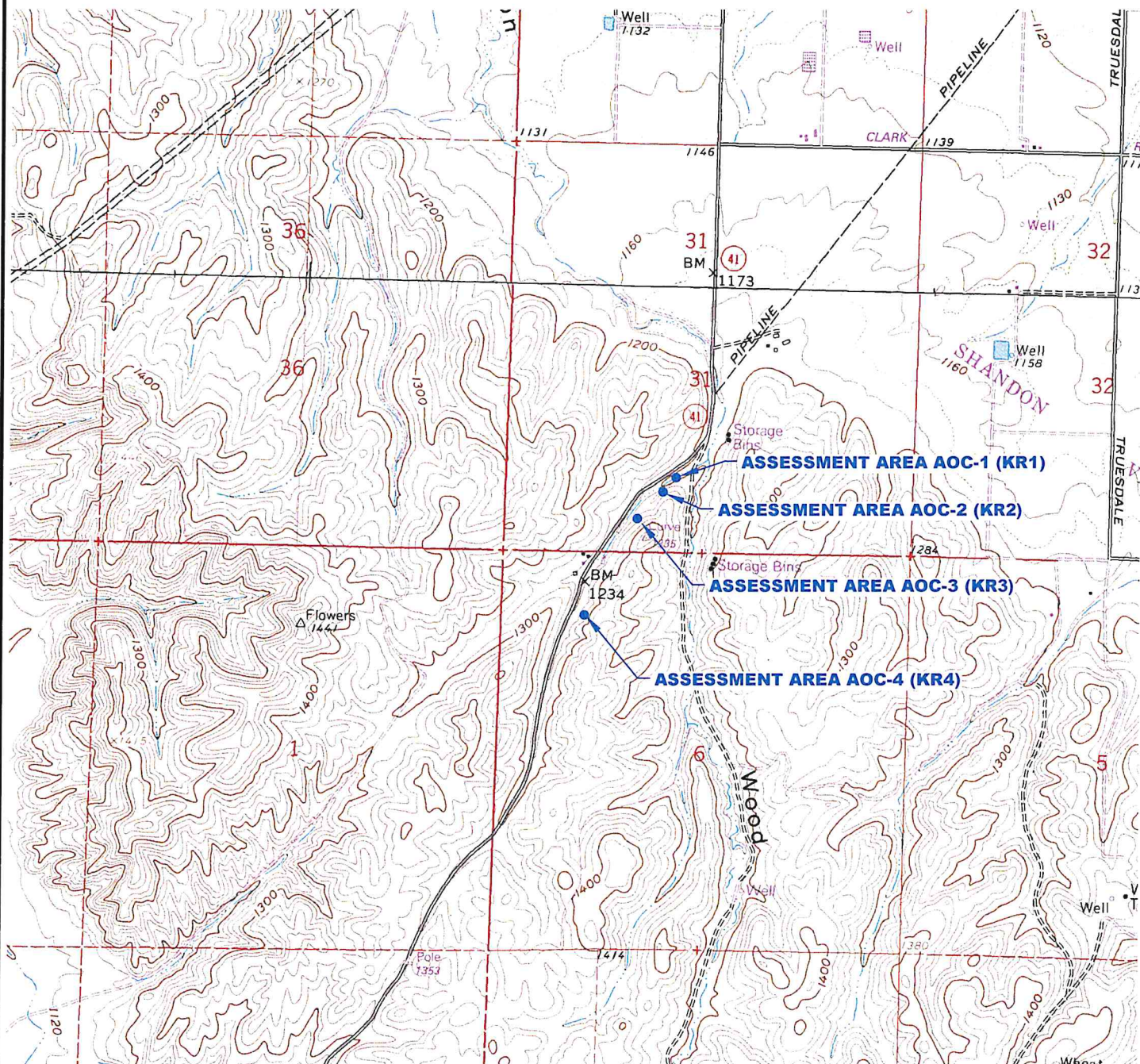
The native/non-native grassland habitat contains moderate to dense cover of redstem filaree (*Erodium cicutarium*), yellow sweetclover (*Melilotus officinalis*), coast fiddleneck (*Amsinckia menziesii*), ripgut brome grass (*Bromus diandrus*), fennel (*Foeniculum vulgare*), common mallow (*Malva neglecta*), Indian clover (*Trifolium albopurpureum*) purple owl's clover (*Castilleja exserta*), popcorn flower (*Plagiobothrys tenellus*), collard annual lupine (*Lupinus traratus*), silver lupine (*Lupinus albifrons*), meadow barely (*Hordeum brachyantherum*), and blue dicks (*Dichelostemma capitatum*).

The location borders a seasonal surface drainage with small mammal burrows within the banks. There were insufficient characteristics to identify species of small mammal inhabiting the burrows. Additionally, there were active California ground squirrel (*Otospermophilus beecheyi*) burrows near the southern most portion of the Project Area. There were no special-status species observances during the survey. Moreover, there were no observances of nesting birds.

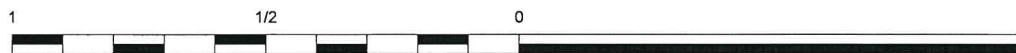
Additionally, a California National Diversity Database (CNDDDB) search was conducted and no threatened or endangered species are currently known to inhabit the proposed excavation site. *kit fox...*

CONCLUSION

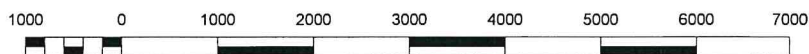
In conclusion, there were no observances of any special status species during the biological survey on March 21, 2019. However, the location borders a potentially sensitive ecological habitat (surface drainage channel). As such, it is recommended that the project be periodically monitored throughout the duration of excavation activities. In addition, all open pits should have wildlife escape ramps installed.



CALIFORNIA



SCALE IN MILE



SCALE IN FEET

REFERENCE: CA Digital Raster Graphics(<http://gis.ca.gov/casil/usgs.gov/>)
7.5 Minute Series, Albers NAD83, Trimmed
Block o37122d2, Dated 1953 Revised 1980



3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR:

CHEVRON SITE NO. 377274
KUHNLE RANCH
SHANDON, CALIFORNIA

SITE VICINITY MAP

FIGURE:

1

JOB NUMBER:

185850392

DRAWN BY:

JBL

CHECKED BY:

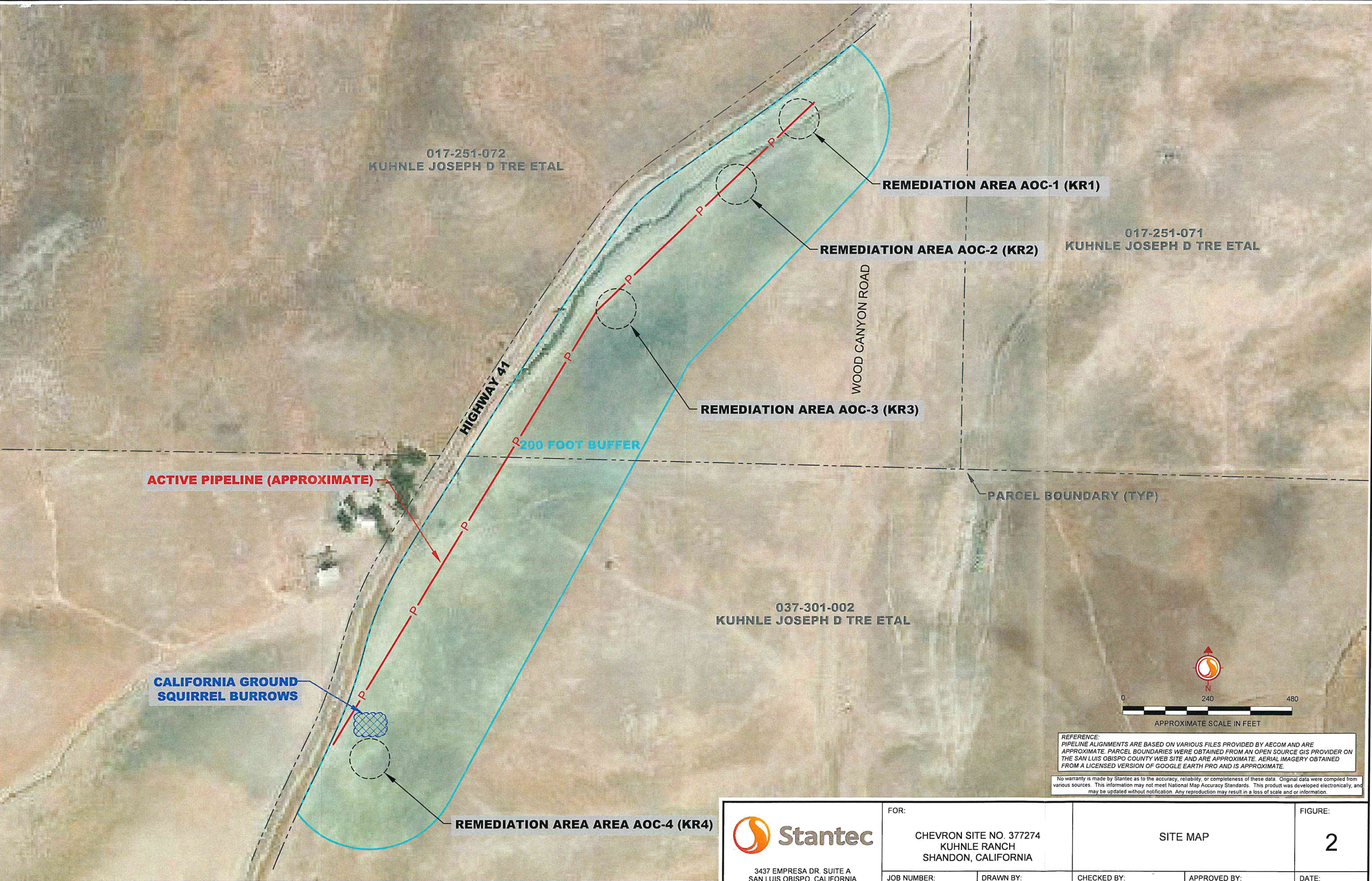
SL

APPROVED BY:

TP

DATE:

04/03/19



3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR:		CHEVRON SITE NO. 377274 KUHNLE RANCH SHANDON, CALIFORNIA		SITE MAP		FIGURE: 2	
JOB NUMBER:	185850392	DRAWN BY:	JBL	CHECKED BY:	SL	APPROVED BY:	TP
				DATE:		04/03/19	

**KUHNLE RANCH PIPELINE REMEDIATION PROJECT
SHANDON, SAN LUIS OBISPO COUNTY, CALIFORNIA
(APNs 017-251-072 and 037-301-002; PMT2019-00090)**

SAN JOAQUIN KIT FOX HABITAT EVALUATION



Prepared for:

Stantec, Inc.

3437 Empressa Drive, Suite A
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Contact: Mr. Todd Porter

Prepared by:



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Contact: Kevin Merk

January 7, 2020

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Appendices

Appendix A – Site Maps (Stantec)
Appendix B – Photo Plate
Appendix C – San Joaquin Kit Fox Habitat Evaluation Form
Appendix D – San Luis Obispo County San Joaquin Kit Fox Mitigation Ratio Map

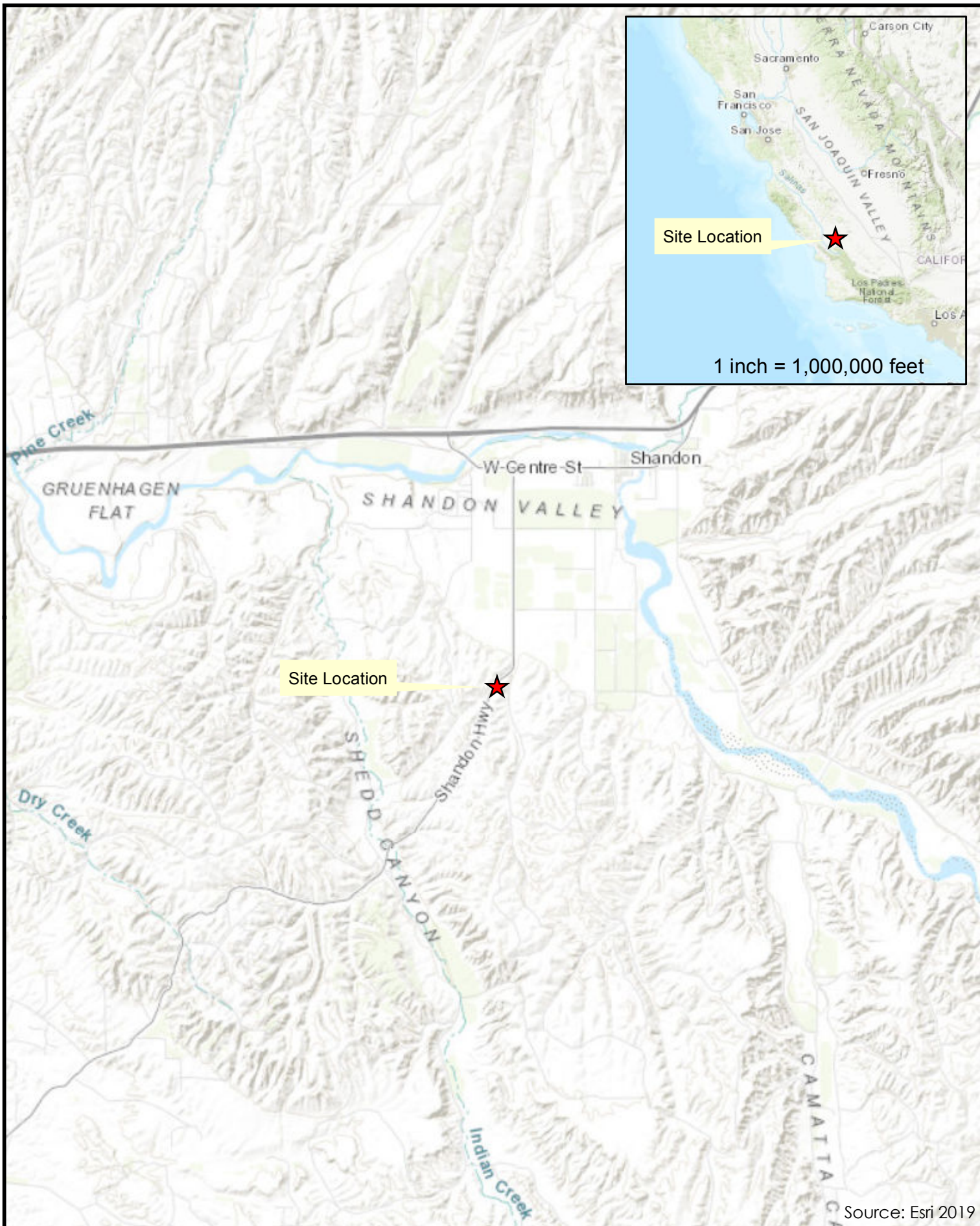
1.0 INTRODUCTION

Kevin Merk Associates, LLC (KMA) conducted a San Joaquin kit fox (*Vulpes macrotis mutica*; SJKF) habitat evaluation for a proposed petroleum pipeline remediation project outside of the community of Shandon, San Luis Obispo County, California (Figure 1). The project is comprised of four Assessment Areas located along the Highway 41 corridor to the southwest of the intersection with Wood Canyon Road (Figure 2). The project is referred to as Chevron Site 377274, and is located on a small portion of properties identified as Assessor's Parcel Numbers 017-251-072 (approximately 231 acres) and 037-301-002 (approximately 640 acres). The project site is on the U. S. Geological Survey (USGS) Shedd Canyon 7.5-minute topographic quadrangle (T 26 S, R 15 E, Section 31; and, T 27 S, R 15 E, Section 6; 35.618661° N, -120.400518° W). The study area is located in a transition zone of relatively flat farmland to the north that segues into more steep, mountainous terrain to the south. It is surrounded by open, rolling grasslands with a few scattered rural residences, corrals and other grazing infrastructure (i.e., watering troughs, etc.).

The SJKF is a federally Endangered and state Threatened species, protected under both the federal Endangered Species Act (FESA) and the California Endangered Species Act (CESA). Discretionary projects that may affect this species must be reviewed by San Luis Obispo County acting as the lead agency pursuant to the California Environmental Quality Act (CEQA). SJKF occur in various plant communities in the northern portion of its range, including grasslands, scrublands, and agricultural land where there is relatively flat to gently sloping terrain. SJKF use dens for temperature regulation, shelter, reproduction, and escape from predators. They may dig their own dens but often modify and use dens constructed by other animals such as the California ground squirrel (*Otospermophilus beecheyi*), American badger (*Taxidea taxus*), and coyote (*Canis latrans*). The species may also use human-made structures (e.g., culverts, abandoned pipelines) as dens. SJKF often change dens, and numerous dens may be used throughout the year, and actively used dens may not always show sign of use. The project site occurs within the known historic range of the SJKF, and is within the migration corridor between the Carrizo Plain (a core population) to the east and Camp Roberts (an historic satellite population) to the northwest.

1.1 Project Description

The proposed project is the remediation of contaminated soils on approximately one (1) acre along the existing petroleum pipeline. The Assessment Areas included in this evaluation were provided by Stantec, Inc., and are referred to as AOC-1 (KR1), AOC-2 (KR2), AOC-3 (KR3) and AOC-4 (KR4) (Appendix A). The petroleum pipeline traverses the Kuhnle Ranch property in a northeast to southwest direction, and includes an approximately 40-foot wide right of way. Soil excavation activities will be accomplished using conventional construction and earthmoving equipment. Qualified field personnel will be onsite to direct excavation activities, conduct environmental monitoring, provide health and safety oversight, and collect soil samples. During excavation activities, non-hydrocarbon-impacted overburden, if any, will be segregated from impacted soil and hauled offsite. Impacted soils may be stockpiled on-site temporarily in staging areas near the excavation and moistened or covered as needed for dust and emissions control. Dust control will be accomplished during remedial excavation activities by wetting the ground within the disturbed areas as needed with a water truck and in accordance with San Luis Obispo County Air Pollution Control District requirements. Temporary safety fencing will be installed as required around any open excavation and will be removed following backfilling activities. Disturbed areas will be seeded with a San Luis Obispo County-approved erosion control seed mixture to promote revegetation of the disturbed area.



Source: Esri 2019



1 inch = 10,000 feet

Kuhnle Ranch Pipeline Remediation Project

Stantec

Figure 1

Site Location Map



1.2 Regulatory Setting

The SJKF is listed as endangered under the FESA and as threatened under the CESA. Therefore, it is illegal to “take” kit foxes. The term “take” means harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. The following is a summary of the regulatory context under which biological resources, in particular SJKF, are managed at the federal, state, and local level. Agencies with responsibility for protection of biological resources within the project area include:

- U.S. Fish and Wildlife Service (federally listed species, candidate and proposed species for federal listing, and migratory birds)
- California Department Fish and Wildlife (state listed and fully-protected species, and other special status plants, wildlife and habitats, including streams, rivers, lakes and riparian vegetation)
- County of San Luis Obispo (CEQA review of project effects on special-status plants, wildlife, and habitats)

A number of federal and/or state statutes provide a regulatory structure that guides the protection of biological resources. The following discussion provides a summary of those laws that are most relevant to the SJKF.

United States Fish and Wildlife Service (USFWS). The USFWS has the responsibility for implementing the FESA (16 USC § 153 *et seq.*). Because of the SJKF status as a federally endangered species, the USFWS has direct jurisdiction over the species. The USFWS generally implements the FESA for terrestrial and freshwater species. Projects that would result in take of any federally listed threatened or endangered species are required to obtain permits from the USFWS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species such as the SJKF and what measures would be required to avoid jeopardizing the species.

California Department of Fish and Wildlife. The CDFW derives its authority from the Fish and Game Code of California and CESA (Fish and Game Code Section 2050 *et seq.*), which prohibits take of state listed threatened or endangered species. Under the CESA, “take” means to hunt, pursue, catch, capture, or kill, or attempt to do any of these activities to kit fox and does not prohibit indirect harm by way of habitat modification.

County of San Luis Obispo. The California Environmental Quality Act requires the County to evaluate potential impacts to kit foxes and other listed species from project activities and requires the County to ensure that impacts to kit foxes from project activities are mitigated to an insignificant level before a discretionary permit can be issued. Over time, the cumulative effects from the permanent loss of kit fox habitat from development projects would likely constrict the range of kit foxes and further reduce kit fox numbers in the area.

The County worked with the CDFW to develop mitigation measures that will reduce impacts to kit fox habitat from these activities to an insignificant level. An in-lieu fee program was also developed

in San Luis Obispo County, and the habitat evaluation process helps determine the appropriate mitigation ratio for a project and ultimately the amount of the in-lieu fee required. The avoidance mitigation measures only apply when the project site is located within the known range of the SJKF and when no kit foxes are present on the project site. Implementation of the CEQA mitigation measures does not authorize project applicants to take kit fox. If kit foxes are determined to be present on a project site, the applicant must demonstrate compliance with the Federal and State Endangered Species Acts by contacting the USFWS and CDFW to obtain the appropriate federal and state permits before their project can proceed.

2.0 METHODS

The purpose of this SJKF habitat evaluation was to characterize the extent of potential SJKF habitat that would be affected by the implementation of the proposed project. The habitat evaluation process is also used to confirm whether the standard mitigation ratio developed by the County of San Luis Obispo (County) is appropriate for this project, and as a basis for coordination with California Department of Fish and Wildlife to determine the final mitigation ratio for the in-lieu fee. The project plans developed by Stantec were the basis for this analysis (see Appendix A). This evaluation followed the County's and CDFW's guidelines for SJKF habitat evaluations. KMA also incorporated our knowledge of other SJKF Early Evaluation and Northern Range Protocol Surveys in the area (including Entrada de Paso Robles, Continental Vineyards/Whitley Gardens, and San Miguel Ranch) into this evaluation.

Land use in the surrounding area was characterized by viewing aerial imagery from Google Earth (2019) and conducting driving or windshield surveys of the area using public roads. The California Natural Diversity Database (CNDDDB) was queried for SJKF occurrences within three and ten miles of the site (CDFW 2019a), and these records were mapped as shown on Figure 3, the SJKF Occurrence Map. Other kit fox biologists were contacted to obtain additional information on SJKF sightings in the area. KMA's Principal Biologist Kevin Merk conducted field work for this investigation on December 12, 2019 between 0900-1100 hours. Weather conditions were sunny and clear, wind less than 5 miles per hour, and air temperature was 55°Fahrenheit at the start. The project area was accessed from Highway 41, and surveyed on foot. Classification of the plant communities onsite and in the surrounding area was based on Holland's (1986) *Preliminary Descriptions of the Terrestrial Natural Communities of California* and Sawyer et al.'s (2009) *Manual of California Vegetation*. Habitat types in the California Wildlife Habitat Relationships (CWHR) System (CDFW 2019b) were referenced. Additional information from a field survey conducted by Stantec biologist Brett Reiman on March 21, 2019 was also incorporated into the site characterization (Reiman 2019). The *Web Soil Survey* was used to identify the soil mapping units present within the study area (Natural Resources Conservation Service [NRCS] 2019). Photos of notable features of the study area were taken, and a photo plate is included as an attachment to this report.

3.0 RESULTS

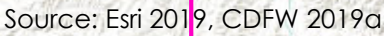
3.1 Regional Setting

The project study area is located approximately 14 miles east of the urban limits of the City of Paso Robles (El Paso de Robles) in the low rolling hills to the southwest of the Shandon Valley (Figures 1 and 2). This area is characterized by grazed grassland, with intermittent streams and canyons that are tributaries to the Estrella River and San Juan Creek, and is largely undeveloped arid grassland.

The Shandon Valley is located just to the northeast, and a majority of this area has been converted from grassland to intensive agriculture. Crops are predominantly wine grapes, and there are numerous irrigation reservoirs and rural residences intermixed. Irrigated row crops and dry farmed grain fields are also present throughout the area. Highway 46 runs east to west, generally following the Estrella River further north in the Shandon area. The meandering channels of the Estrella River and San Juan Creek are composed of a sandy, braided bottom dotted with sparse shrubs compared to the more grass-lined ephemeral drainages in the project area. While Highway 46 may be a barrier to dispersal of wildlife, and/or a significant source of mortality, movement corridors exist along the drainages and undeveloped lands surrounding the Shandon Valley, including the project area. Land use closer to Paso Robles has also become converted to intensive agriculture and urban development. Vineyard development typically contains fencing that is a barrier to the movement of medium- to large-sized mammals. Conversion of the grassland, shrubland and oak savannah in this area to intensive agriculture and development has resulted in the reduction of native plant communities and associated wildlife habitat.

The four Assessment Areas lie along the underground petroleum pipeline, with Highway 41 immediately to the west (refer to Figures 2, 3 and maps provided by Stantec included in Appendix A). To the east of the project site is a steep hillside and then Wood Canyon, which supports an ephemeral drainage feature lacking riparian or scrub vegetation. Shedd Canyon is to the west, and has a meandering channel with patches of agriculture along its floodplain. The habitat type at the project site is Annual Grassland, and is described in Section 3.2 below. It has been used over time for cattle grazing. Elevations on the project site range from approximately 1,200 to 1,260 feet above mean sea level.

The project site is located within the southwestern limits of the historic SJKF movement corridor linking a core SJKF population on the Carrizo Plain with a satellite population in the Salinas and Pajaro river watersheds (Camp Roberts/Fort Hunter Liggett) (Williams et al. 1998, USFWS 2010). The County of San Luis Obispo's San Joaquin Kit Fox Standard Mitigation Ratio Areas Map, provided in Appendix D, illustrates the site's location within the movement corridor. While the Carrizo Plain population remains at sustaining levels, the Camp Roberts population severely declined from 1988 to 1991 likely as a result of rabies and/or distemper and was been thought to possibly be extirpated (White et al. 2000). Additionally, rodenticide poisoning of the population was documented in 1992 (CDFW 2019a). There have been infrequent sightings following the decline, with the most recent observation on Camp Roberts in 2007 (CDFW 2019a). Surveys have continued on Camp Roberts, but SJKF have not been found since 2007 (CDFW 2019a; pers. comm. Michael Moore). Large areas of suitable habitat remain in the Salinas and Pajaro River satellite area; therefore, it is possible that the population could recover especially if there is continuing linkage with the core population on Carrizo. Considerable habitat has been lost in the corridor area as a result of urban and vineyard development, with associated fencing, which can be a barrier to SJKF movement. The current status of SJKF in the corridor area is not well understood. In 2014, SJKF were confirmed present at four locations in the Whitley Gardens area in which bait stations were erected at former known SJKF locations, and scat was collected and identified to species using DNA analysis. In these situations, SJKF dens and other sign had been documented in the early 1990s, but there were no other detections since then. The bait station/DNA study suggests that SJKF may be present at other locations in the area in which they have not recently been detected by conventional methods. In addition, it also suggests that the eastern Paso Robles corridor may still be in use as a linkage between the Carrizo Plain Core Area and the Camp Roberts satellite area.



3.2 Habitat Types

Habitat types, or plant communities, within the ten-mile radius of the project site included: annual grassland; red and arroyo willow riparian along larger drainage features; agriculture; and, developed/ruderal. Please refer to Figures 2 and 3. These habitat types are described below. Representative photographs of the habitat types onsite are provided in Appendix B.

Annual Grassland

The annual grassland plant community is common in northeastern San Luis Obispo County is typically found on dry hillsides and valleys throughout the Central Valley and Coast Ranges, and along the coast of central and southern California. It generally contains a mix of native and non-native grasses and forbs and often contains sparsely distributed shrubs and trees. This plant community occurred at the project site and in the surrounding hills. While the site visit was conducted in December, skeletal remains of last year's vegetation along with young sprouts of herbaceous species were in identifiable condition. The site was dominated by slender wild oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), and red brome (*Bromus madritensis* ssp. *rubens*). Species noted at the project site by Reiman (2019) included redstem filaree (*Erodium cicutarium*), yellow sweet clover (*Melilotus officinalis*), coast fiddleneck (*Amsinckia menziesii*), fennel (*Foeniculum vulgare*), common mallow (*Malva neglecta*), Indian clover (*Trifolium albopurpureum*), purple owl's clover (*Castilleja exserta*), popcorn flower (*Plagiobothrys tenellus*), silver lupine (*Lupinus albifrons*), meadow barley (*Hordeum brachyantherum*), and blue dicks (*Dichelostemma capitatum*). Holland (1986) described this plant community as Non-Native Grassland, and Sawyer et al. (2009) classifies this semi-natural alliance as Wild Oat Grasslands with stands of Upland Mustards. The CWHR classifies this habitat type as Annual Grassland (CDFW 2019b).

Red and Arroyo Willow Riparian

Riparian habitat occurred in patches along the drainages in the vicinity. It ranged in density from sparsely vegetated patches along Cholame Creek, to moderately dense occurrences along San Juan Creek, to areas of dense, well-developed riparian forest along the Estrella River. No riparian habitat is present in the project area, including Shedd and Wood Canyons. Point bars and low terraces in San Juan Creek and the Estrella River were dominated by shrubby species such as narrow-leaved willow (*Salix exigua*), tamarisk (*Tamarix parviflora*), and mule fat (*Baccharis salicifolia*) with scattered occurrences of California rose (*Rosa californica*), saltbush (*Atriplex* spp.), and blue elderberry (*Sambucus mexicana*). Upper terraces were dominated by red willow (*Salix laevigata*) and Fremont cottonwood (*Populus fremontii*) with a shrubby understory of mixed species including arroyo willow (*Salix lasiolepis*). The red and arroyo willow riparian habitat type corresponds to the Central Coast Riparian Scrub and Central Coast Cottonwood-Sycamore Riparian Forest communities described by Holland (1986) and the Red Willow Thickets and Arroyo Willow Thickets alliances described by Sawyer et al. (2009). The CWHR classifies this habitat type as Valley Foothill Riparian (CDFW 2019b).

Agriculture

The agricultural land use type in the greater project area included vineyards, dry-farmed grain fields, irrigated row crops, and fallow fields. The borders of agricultural areas may have summer

mustard (*Hirschfeldia incana*), fiddleneck, common mallow, and other agricultural weeds. This is an anthropogenic land use type and not a natural plant community. The CWHR breaks down the classification into types of crops, including Cropland, Dryland Grain Crops, Irrigated Grain Crops, Irrigated Hayfield, and Vineyard (CDFW 2019b).

Developed/Ruderal

Developed areas included the existing community of Shandon and rural residences outside of the existing urban reserve line, as well as farm infrastructure and ranch roads on the site. Ruderal areas are also typically associated with developed areas in which there is substantial ground disturbance that favors weedy plant species and have a high proportion of bare ground. Ruderal areas are often found along roadsides, fence lines, and in areas undergoing urban development. Plant species that grow in areas are typically weedy forbs such as mustards (*Brassica* spp.), fiddleneck (*Amsinckia* spp.), and many non-native annual grasses such as ripgut brome, slender wild oat, and foxtail barley (*Hordeum murinum* ssp. *leporinum*). This is an anthropogenic land use type and not a natural plant community. In the CWHR classification system, developed areas would be considered Urban, and ruderal areas Barren (CDFW 2019b).

3.3 Soils

There are two soil types mapped within the project area: Balcom-Nacimiento association, moderately steep, and Nacimiento-Los Osos complex, 9 to 30 percent slopes (NRCS 2019). These soils are loamy and are residuum weathered from shale and/or sandstone that occurs on hills. These soils would be considered friable with regard to burrowing mammals.

4.0 SJKF HABITAT EVALUATION

There are numerous SJKF records within ten miles of the project site (Figure 3). The nearest observation is from 2012 and is from Highway 41 0.3 mile north of the intersection of Wood Canyon Road, which is approximately 2,070 feet north of the northernmost assessment area (CDFW 2019a). The four Whitley Gardens locations shown on Figure 3 are located 4.8 to 6.5 miles northwest of the project site. In 2013, a SJKF was detected on Shell Creek Road about 10 miles from the site (CDFW 2019a). One recorded occurrence of SJKF from 2005 was identified of the site along San Juan Creek Road (CNDDDB, 2019). Another SJKF observation was made in 2006 on the Continental Vineyards property to the northwest of the study area near Whitley Gardens (Merk and Vanherweg, 2011). The other CNDDDB SJKF observations in the vicinity are from prior to 2000 (Figure 3).

The project site is vegetated by Annual Grassland, and is surrounded on all sides by Annual Grassland habitat. The Highway 41 corridor is just to the west. Annual Grassland with low slopes is considered highly suitable habitat for the SJKF. The Annual Grassland habitat at the project site was grazed by livestock. During the site survey, burrows of the California ground-squirrel, which is a prey species of SJKF, were observed just upslope from the pipeline right of way along the toe of the hillside. Burrows were not observed in the disturbed right of way corridor approximately 40 feet wide, but just as the slope steepened to the east. The project site occurs in part of a large block of potential SJKF habitat. Areas to the northeast of the site in the Shandon Valley are of lower value to SJKF due to conversion to agriculture, that would eliminate habitat for dens and greatly reduce prey resources, but this area can still be used for movement of SJKF because in general fencing that would restrict their movement is absent from most of these fields. SJKF moving around the

perimeter of the agricultural areas could pass through the project site. Additional opportunities for movement are along the San Juan Creek and Estrella River corridors.

There would be no long-term effects on mortality of individuals after the remediation work has been completed. However, there would be construction equipment that could cause vehicle strikes, and excavations that SJKF could become entrapped in, while the project is taking place. There would be no long-term effects of the project on SJKF habitat because once the contaminated soil is removed, the area will be restored as grassland. No fencing is included as part of the project. Less than one (1) acre associated with the four remediation sites along a linear pipeline corridor would be temporarily affected by the remediation work and then be revegetated.

As shown on the attached San Joaquin Kit Fox Habitat Evaluation Form, the project scored 74 points out of 100 (see Appendix C). This equates to a 3:1 mitigation ratio since the score is from 70-79 points. The SJKF habitat evaluation process is a tool used to assess impacts and confirm the County prescribed mitigation ratio for the particular project area is appropriate to mitigate project related activities affecting potential SJKF habitat. The current San Joaquin Kit Fox Standard Mitigation Ratio Areas map produced by the County (2007) shows that the mitigation ratio for the area in which the project is located is 4:1. The County will review the information contained herein, and may consult with the CDFW to determine the appropriate amount for the in-lieu fee project. Following the County's review, if an in-lieu fee is required, payment arrangements (\$2,500/acre of impact according to the final accepted ratio) can be made through the County with either an approved in-lieu fee program or by purchasing credits from an approved conservation bank. Based on this analysis, the mitigation ratio of 3:1 would equate to a cost of \$7,500 per acre for the in-lieu fee payment.

The use of the SJKF habitat evaluation to determine mitigation for impacts on SJKF habitat and implementation of prescribed mitigation measures to avoid or reduce project effects on individual SJKF during construction activities. Implementation of measures to avoid impacts to SJKF such as those detailed in USFWS (2011) *Standardized Recommendations For Protection of the Endangered San Joaquin Kit Fox Prior To Or During Ground Disturbance* and County (2019) *County Guide to San Joaquin Kit Fox Mitigation Procedures under California Environmental Quality Act (CEQA)* would be required to ensure that no take of SJKF pursuant to the FESA or CEQA occurs during the construction phase. These measures are summarized in Section 5.0 below. Implementation of these measures should, in most cases, eliminate "take" of this species and reduce project impacts to less than significant. However, if it is determined that a proposed project may result in death or injury to a SJKF, incidental take authorization from CDFG and USFWS would be necessary.

5.0 RECOMMENDED MITIGATION MEASURES

As stated above, the project site is located within an area identified as important habitat and a movement corridor for the SJKF. The County of San Luis Obispo Kit Fox Habitat Map indicates that this site is within an area with a standard mitigation ratio of 4:1 due in part to recent sightings within the last ten years (please refer to Appendix D). The 4:1 mitigation ratio would typically apply to those projects scoring 80 points and above associated with the construction of permanent structures that would affect the species movement and long-term use of a site. Given the score for the subject site, the project would fall into a reduced 3:1 mitigation ratio. With the payment of the in-lieu fee coupled with the below mitigation measures, the remediation of approximately one (1) acre of annual grassland along the existing pipeline corridor would not be expected to result in significant impacts to the SJKF.

The proposed project consists of the remediation of soils at four specific locations equating to approximately one-acre of disturbance along the linear petroleum pipeline. No permanent structures are proposed and the site will be returned to its current condition upon project completion. There are no significant barriers to prevent SJKF from passing through the site during periods of movement, and the Estrella River and San Juan Creek corridors would be expected to further promote movement for the species during periods of no to little flow.

To prevent inadvertent harm to kit fox, the applicant shall retain a qualified biologist for a pre-construction survey, a pre-construction briefing for contractors, and monitoring activities in addition to implementing cautionary construction measures. The recommended mitigation measures to reduce project-related impacts to SJKF below a significance threshold pursuant to CEQA are provided below:

BR-1 Prior to issuance of grading and/or construction permits, the applicant shall provide evidence that they have retained a qualified biologist acceptable to the County. The retained biologist shall perform the following monitoring activities:

- a. Prior to issuance of grading and/or construction permits and within 30 days prior to initiation of site disturbance and/or construction, the biologist shall conduct a pre-activity (i.e. pre-construction) survey for known or potential kit fox dens and submit a letter to the County reporting the date the survey was conducted, the survey protocol, survey results, and what measures were necessary (and completed), as applicable, to address any kit fox activity within the project limits.
- b. The qualified biologist shall conduct weekly site visits during site-disturbance activities (i.e. grading, excavation, stock piling of dirt, etc.) that proceed longer than 14 days, for the purpose of monitoring compliance with required Mitigation Measures BR-2 through BR10. Site-disturbance activities lasting up to 14 days do not require weekly monitoring by the biologist unless observations of kit fox or their dens are made on-site or the qualified biologist recommends monitoring for some other reason (see BR-1-d3). When weekly monitoring is required, the biologist shall submit weekly monitoring reports to the County.
- c. Prior to or during project activities, if any observations are made of San Joaquin Kit fox, or any known or potential San Joaquin kit fox dens are discovered within the project limits, the qualified biologist shall re-assess the probability of incidental take (e.g. harm or death) to kit fox. At the time a den is discovered, the qualified biologist shall contact the USFWS and the CDFG (see contact information below) for guidance on possible additional kit fox protection measures to implement and whether or not a federal and/or state incidental take permit is needed. If a potential den is encountered during construction, work shall stop until such time the USFWS and/or CDFG determines it is appropriate to resume work.

If incidental take of kit fox during project activities is possible, before project activities commence, the applicant must consult with the U.S. Fish and Wildlife Service and the Department. The results of this consultation may require the applicant to obtain a Federal and/or State permit for incidental take during project activities. The applicant should be aware that the presence of kit foxes or known or potential kit fox dens at the project site could result in further delays of project activities.

- d. In addition, the qualified biologist shall implement the following measures:
1. Within 30 days prior to initiation of site disturbance and/or construction, fenced exclusion zones shall be established around all known and potential kit fox dens. Exclusion zone fencing shall consist of either large flagged stakes connected by rope or cord, or survey laths or wooden stakes prominently flagged with survey ribbon. Each exclusion zone shall be roughly circular in configuration with a radius of the following distance measured outward from the den or burrow entrances:
 - a) Potential kit fox den: 50 feet
 - b) Known or active kit fox den: 100 feet
 - c) Kit fox pupping den: 150 feet
 2. All foot and vehicle traffic, as well as all construction activities, including storage of supplies and equipment, shall remain outside of exclusion zones. Exclusion zones shall be maintained until all project-related disturbances have been terminated, and then shall be removed.
 3. If kit foxes or known or potential kit fox dens are found on site, daily monitoring during ground disturbing activities shall be required by a qualified biologist.

BR-2 Prior to issuance of grading and/or construction permits, the applicant shall clearly delineate as a note on the project plans, that: "Speed signs of 25 mph (or lower) shall be posted for all construction traffic to minimize the probability of road mortality of the San Joaquin kit fox". Speed limit signs shall be installed on the project site within 30 days prior to initiation of site disturbance and/or construction, In addition, prior to permit issuance and initiation of any ground disturbing activities, conditions BR-3 through BR-10 of the Developer's Statement/Conditions of Approval shall be clearly delineated on project plans.

BR-3 During the site disturbance phase, grading and construction activities after dusk shall be prohibited unless coordinated through the County, during which additional kit fox mitigation measures may be required.

BR-4 Prior to issuance of grading and/or construction permit and within 30 days prior to initiation of site disturbance and/or construction, all personnel associated with the project shall attend a worker education training program, conducted by a qualified biologist, to avoid or reduce impacts on sensitive biological resources (i.e. San Joaquin kit fox). At a minimum, as the program relates to the kit fox, the training shall include the kit fox's life history, all mitigation measures specified by the county, as well as any related biological report(s) prepared for the project. The applicant shall notify the County shortly prior to this meeting. A kit fox fact sheet shall also be developed prior to the training program, and distributed at the training program to all contractors, employers and other personnel involved with the construction of the project.

BR-5 During the site-disturbance and/or construction phase, to prevent entrapment of the San Joaquin kit fox, all excavation, steep-walled holes or trenches in excess of two feet in depth shall be covered at the close of each working day by plywood or similar materials, or provided with one or more escape ramps constructed of earth fill or wooden planks. Trenches shall also be inspected for entrapped kit fox each morning prior to onset of field activities and immediately prior to covering with plywood at the end of each working day. Before such holes or trenches are filled, they shall be

thoroughly inspected for entrapped kit fox. Any kit fox so discovered shall be allowed to escape before field activities resume, or removed from the trench or hole by a qualified biologist and allowed to escape unimpeded.

BR-6 During the site-disturbance and/or construction phase, any pipes, culverts, or similar structures with a diameter of four inches or greater, stored overnight at the project site shall be thoroughly inspected for trapped San Joaquin kit foxes before the subject pipe is subsequently buried, capped, or otherwise used or moved in any way. If during the construction phase a kit fox is discovered inside a pipe, that section of pipe will not be moved, or if necessary, be moved only once to remove it from the path of activity, until the kit fox has escaped.

BR-7 During the site-disturbance and/or construction phase, all food-related trash items such as wrappers, cans, bottles, and food scraps generated shall be disposed of in closed containers only and regularly removed from the site. Food items may attract San Joaquin kit foxes onto the project site, consequently exposing such animals to increased risk of injury or mortality. No deliberate feeding of wildlife shall be allowed.

BR-8 Prior to, during and after the site-disturbance and/or construction phase, use of pesticides or herbicides shall be in compliance with all local, State and Federal regulations. This is necessary to minimize the probability of primary or secondary poisoning of endangered species utilizing adjacent habitats, and the depletion of prey upon which San Joaquin kit foxes depend.

BR-9 During the site-disturbance and/or construction phase, any contractor or employee that inadvertently kills or injures a San Joaquin kit fox or who finds any such animal either dead, injured, or entrapped shall be required to report the incident immediately to the applicant and County. In the event that any observations are made of injured or dead kit fox, the applicant shall immediately notify the USFWS and CDFG by telephone (see contact information below). In addition, formal notification shall be provided in writing within three working days of the finding of any such animal(s). Notification shall include the date, time, location and circumstances of the incident. Any threatened or endangered species found dead or injured shall be turned over immediately to Department for care, analysis, or disposition.

BR-10 Prior to final inspection, or occupancy, whichever comes first, should any long internal or perimeter fencing be proposed or installed, the applicant shall do the following to provide for kit fox passage:

- a. If a wire strand/pole design is used, the lowest strand shall be no closer to the ground than 12".
- b. If a more solid wire mesh fence is used, 8" x 12" openings near the ground shall be provided every 100 yards.

Upon fence installation, the applicant shall notify the County to verify proper installation. Any fencing constructed after issuance of a final permit shall follow the above guidelines.

Implementation of the above mitigation measures (BR-1 through BR-10) will reduce impacts to less than significant levels.

6.0 CUMULATIVE IMPACTS

Cumulative impacts include the cumulative or incremental environmental effect of the action together with impacts from past, present, and reasonably foreseeable future actions. The proposed project would provide for the continued use of the project site as annual grassland and would not change the extent of grazing activities on the property over time. Therefore, the proposed project is not expected to substantially increase the extent of human activity or development on the project site or in surrounding areas. As described, the proposed project would not result in the permanent loss of kit fox habitat, but just the temporary impacts associated with the excavation and removal of contaminated soils. Large expanses of similar habitat with a high degree of continuity occur in the surrounding project region, and the project would be returned to a grazed grassland once remediation is complete. With the payment of the in-lieu fee to an approved conservation bank or entity and the implementation of the recommended mitigation measures, the project's contribution towards the regional loss of kit fox habitat and other potential adverse effects to the SJKF is not considered to be significant pursuant to the California Environmental Quality Act.

7.0 CONCLUSIONS

The proposed project will temporarily affect approximately one acre of Annual Grassland that is potential habitat of the SJKF along an existing pipeline right of way. The site is actively grazed and generally free of movement barriers, and could be used by kit foxes for foraging and denning. Ground squirrel burrows were present just to the south of the pipeline right of way along the toe of the hillside, and represent potential den sites and a prey base for kit fox should they be present in this area. As described above, no permanent impacts to SJKF habitat will occur as a result of the project because the site will be restored to its previous condition after the remediation work has been completed. Nevertheless, mitigation in the form of payment at a 3:1 ratio (i.e., \$7,500/acre) into the County's in-lieu fee program and implementation of the mitigation measures prescribed above will be required to ensure potentially significant impacts to SJKF and its habitat are reduced to a less-than-significant level pursuant to CEQA.

8.0 REFERENCES

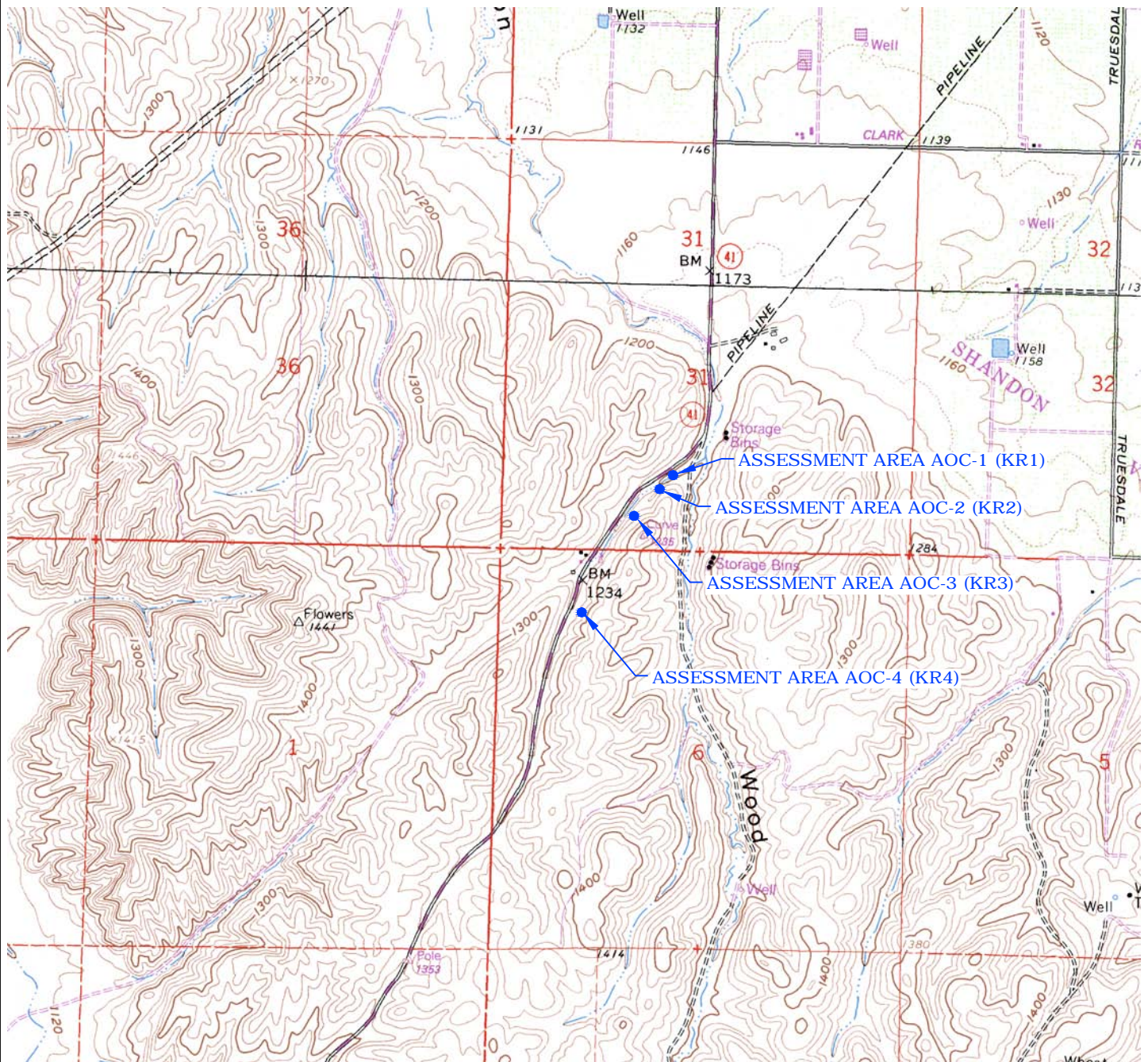
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APPENDIX A

Site Maps (Stantec)

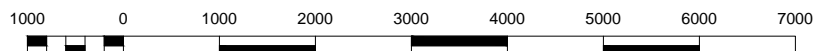




CALIFORNIA



SCALE IN MILE



SCALE IN FEET

REFERENCE: CA Digital Raster Graphics(<http://gis.ca.gov/casil/usgs.gov/>)
7.5 Minute Series, Albers NAD83, Trimmed
Block o37122d2, Dated 1953; Revised 1980



3437 EMPRESA DR. SUITE A
SAN LUIS OBISPO, CALIFORNIA
PHONE: (805) 546-0455 FAX: (805) 546-0583

FOR:

CHEVRON SITE NO. 377274
KUHNLE RANCH
SHANDON, CALIFORNIA

JOB NUMBER:

185850392

DRAWN BY:

JBL

CHECKED BY:

SL

APPROVED BY:

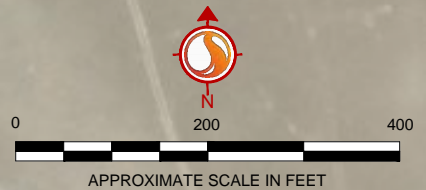
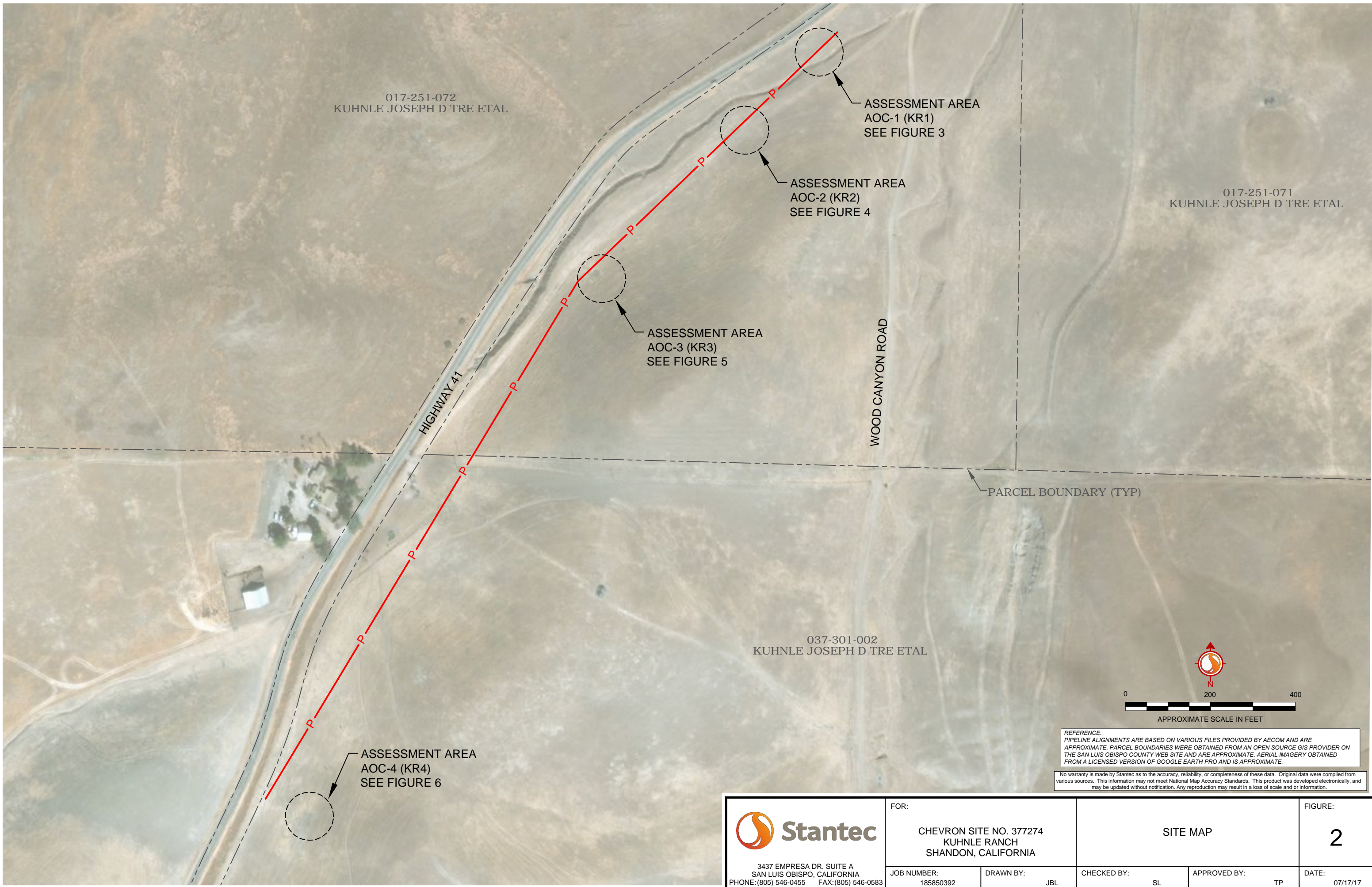
TP

FIGURE:

1


DATE:

08/15/16



REFERENCE:
PIPELINE ALIGNMENTS ARE BASED ON VARIOUS FILES PROVIDED BY AECOM AND ARE APPROXIMATE. PARCEL BOUNDARIES WERE OBTAINED FROM AN OPEN SOURCE GIS PROVIDER ON THE SAN LUIS OBISPO COUNTY WEB SITE AND ARE APPROXIMATE. AERIAL IMAGERY OBTAINED FROM A LICENSED VERSION OF GOOGLE EARTH PRO AND IS APPROXIMATE.

No warranty is made by Stantec as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.

 3437 EMPRESA DR. SUITE A SAN LUIS OBISPO, CALIFORNIA PHONE: (805) 546-0455 FAX: (805) 546-0583	FOR: CHEVRON SITE NO. 377274 KUHNLE RANCH SHANDON, CALIFORNIA		SITE MAP		FIGURE: 2
	JOB NUMBER: 185850392	DRAWN BY: JBL	CHECKED BY: SL	APPROVED BY: TP	DATE: 07/17/17

APPENDIX B

Photo Plate



Appendix B. Photo Plate

Photo 1. Southerly view of annual grassland along the pipeline corridor. Assessment Area AOC-1 is located in the foreground. An ephemeral drainage feature runs through the study area and Highway 41 is visible in the upper right side of photo.



Photo 2. Southerly view of pipeline right of way and remediation areas 1, 2 and 3 looking toward Shandon Valley in the distance. Highway 41 is visible to the left.



Photo 3. Southerly view of livestock grazing infrastructure within the study area. The pipeline right of way and remediation areas are annual grassland actively grazed by cattle.



Photo 4. Overview of pipeline right of way from nearby hillside looking at Assessment Area AOC-4, which is in the flat area immediately adjacent to Highway 41.



Photo 5. Southerly view of remediation area AOC-4 and the pipeline right of way. Small mammal (ground squirrel) burrows were present on the lower toe of hillside to the right of the photo just outside the right of way and cattle traffic areas.



Photo 6. View of hillside where some grading will be required to facilitate equipment access along the pipeline alignment. Ground squirrel burrows are present on the lower toe of the hillside in the right central part of the photo.



Photo 7. Representative view of ground squirrel burrows present along the lower hillside south of the pipeline right of way and four remediation areas.



Photo 8. Example of ground squirrel burrow opening adjacent to pipeline right of way. Most burrows were located outside the disturbance footprint, and many did not show evidence of current use at the time of survey.

APPENDIX C

SJKF Habitat Evaluation Form



Appendix E. Kit Fox Habitat Evaluation Form

Cover Sheet

Project Name Kuhnle Ranch Pipeline Remediation Project **Date** December 30, 2019

Project Location* Kuhnle Ranch, Shandon, CA 93446 (Southwest of the intersection of Highway 41 and Wood Canyon Road), APNs 017-251-072 and 037-301-002.

*Please refer to the Site Vicinity Map on U.S.G.S. 7.5-minute topographic quadrangle.

U.S.G.S. Quad Map Name Shedd Canyon T 26 S, R 15 E, Section 31; and, T 27 S, R 15 E, Section 6

Lat/Long or UTM coordinates (if available)

Latitude 35.618661° N Longitude -120.400518° W

Project Description: Remediation of contaminated soils at four Assessment Areas along a petroleum pipeline. Please refer to project site location maps provided by Stantec.

Project Size 6.0 Acres **Amount of Kit Fox Habitat Affected** 1.0 Acres

Quantity of WHR Habitat Types Impacted (i.e. - 2 acres annual grassland, 3 acres blue oak woodland)

WHR type Annual Grassland 6.0 Acres

WHR type _____ Acres

WHR type _____ Acres

Comments: Study area is grazed grassland with 4 project impact areas identified for remediation. The sites are located along an existing pipeline right of way that is immediately adjacent to Highway 41 south of Shandon. Minor grading to improve an equipment access road between the 4 sites is also anticipated. A small ephemeral drainage feature is also present adjacent to pipeline right of way.

Form Completed By: Kevin Merk, Kevin Merk Associates LLC

San Joaquin Kit Fox Habitat Evaluation form

Is the project area within 10 miles of a recorded San Joaquin kit fox observation or within contiguous suitable habitat as defined in question 2 (A-E)

Yes - Continue with evaluation form

No - Evaluation form/surveys are not necessary

1. Importance of the project area relative to Recovery Plan for Upland Species of the San Joaquin Valley, California (Williams et al., 1998)

A. Project would block or degrade an existing corridor linking core populations or isolate a subpopulation (20)

B. Project is within core population (15)

C. Project area is identified within satellite populations (12)

D. Project area is within a corridor linking satellite populations (10)

E. Project area is not within any of the previously described areas but is within known kit fox range (5)

2. Habitat characteristics of project area.

A. Annual grassland or saltbush scrub present >50% of site (15)

B. Grassland or saltbush scrub present but comprises <50% of project area (10)

C. Oak savannah present on >50% of site (8)

D. Fallow ag fields or grain/alfalfa crops (7)

E. Orchards/vineyards (5)

F. Intensively maintained row crops or suitable vegetation absent (0)

3. Isolation of project area.

A. Project area surrounded by contiguous kit fox habitat as described in Question 2a-e (15)

B. Project area adjacent to at least 40 acres of contiguous habitat or part of an existing corridor (10)

C. Project area adjacent to <40 acres of habitat but linked by existing corridor (i.e., river, canal, aqueduct) (7)

D. Project area surrounded by ag but less than 200 yards from habitat (5)

E. Project area completely isolated by row crops or development and is greater than 200 yards from potential habitat (0)

4. Potential for increased mortality as a result of project implementation. Mortality may come from direct (e.g., - construction related) or indirect (e.g., - vehicle strikes due to increases in post development traffic) sources.

A. Increased mortality likely (10)

B. Unknown mortality effects (5)

C. No long-term effect on mortality (0)

5. Amount of potential kit fox habitat affected.

- A. >320 acres (10)
- B. 160 - 319 acres (7)
- C. 80 - 159 acres (5)
- D. 40 - 79 acres (3)
- E. < 40 acres (1)

6. Results of project implementation.

- A. Project site will be permanently converted and will no longer support foxes (10)
- B. Project area will be temporarily impacted but will require periodic disturbance for ongoing maintenance (7)
- C. Project area will be temporarily impacted and no maintenance necessary (5)
- D. Project will result in changes to agricultural crops (2)
- E. No habitat impacts (0)

7. Project Shape

- A. Single Block (10)
- B. Linear with > 40 foot right-of-way (5)
- C. Linear with < 40 foot right-of-way (3)

8. Have San Joaquin kit foxes been observed within 3 miles of the project area within the last 10 years?

- A. Yes (10)
- B. No (0)

Scoring

Recovery importance	<u>20</u>
Habitat condition	<u>15</u>
Isolation	<u>15</u>
Mortality	<u>5</u>
Quantity of habitat impacted	<u>1</u>
Project results	<u>5</u>
Project shape	<u>3</u>
Recent observations	<u>10</u>

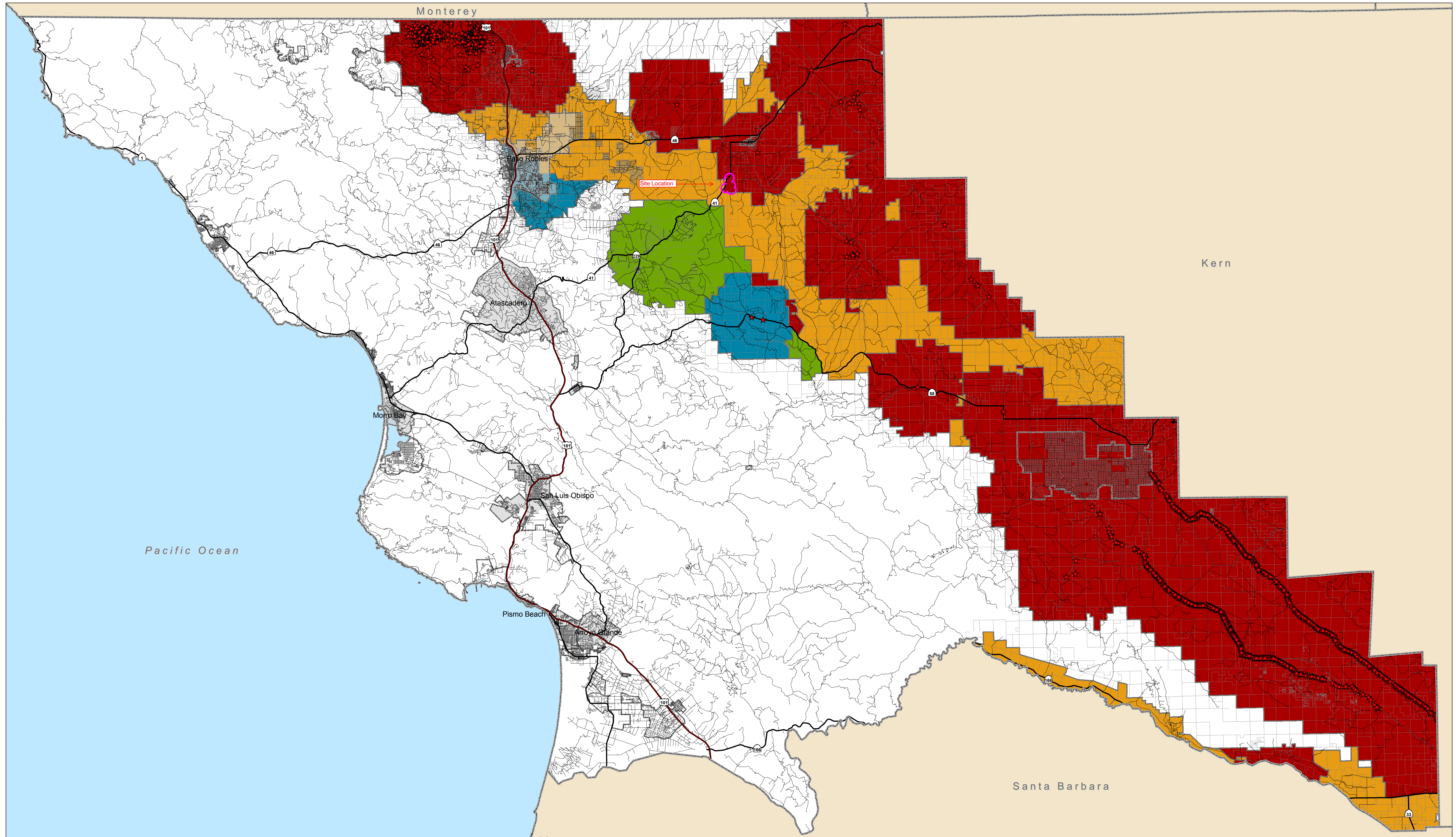
TOTAL 74

APPENDIX D

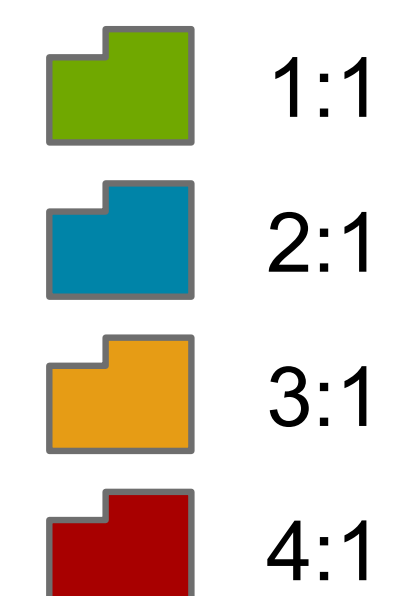
San Luis Obispo County San Joaquin Kit Fox Mitigation Ratio Map



San Joaquin Kit Fox Standard Mitigation Ratio Areas



Standard Mitigation Ratio

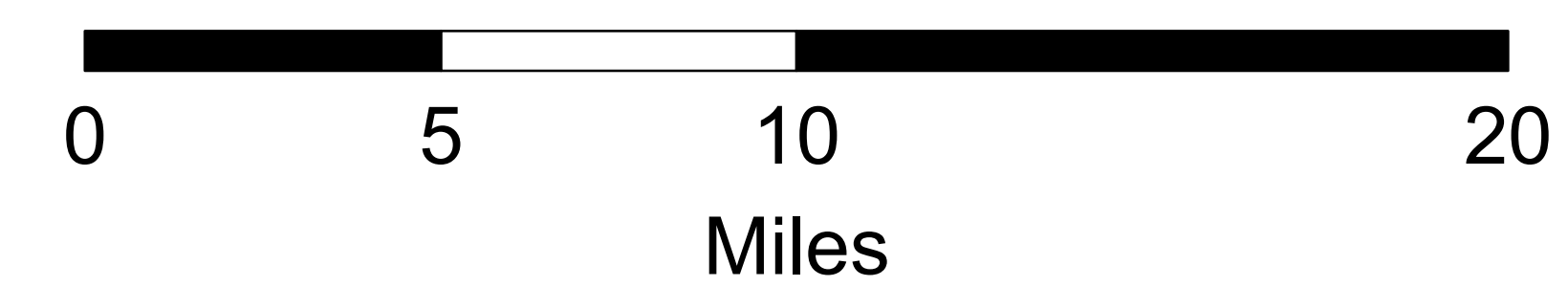


Legend

- ★ SJKF Sightings (Last 10 yrs.)
- ~ Highway 101
- ~ State Highways

- City Limits
- Urban Areas
- Parcels

N



Geographic Technology & Design
DEPARTMENT OF PLANNING & BUILDING



State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Central Region
1234 East Shaw Ave
Fresno, Ca 93710
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director



April 30, 2020

Todd Porter
Stantec, Inc.
3437 Empressa Drive, Suite A
San Luis Obispo, California 93401

Subject: **San Joaquin Kit Fox Mitigation**
Kuhnle Ranch Pipeline Remediation Project

Dear Mr. Porter:

The Department of Fish and Wildlife (CDFW) assists the County of San Luis Obispo (County) and project applicants in mitigating project impacts to San Joaquin kit fox and kit fox habitat. CDFW and the County apply a habitat evaluation method which considers the functions and values of kit fox habitat affected at each project site. The Kit Fox Evaluation, which was completed for your Project, Kuhnle Ranch Pipeline Remediation, on January 7, 2020, by Kevin Merk and revised by CDFW on April 21, 2020, indicates your project will impact **1.0** acre of kit fox habitat. Your Project earned a score of **74** on the evaluation, which requires that all impacts be mitigated at a ratio of three (3) acres conserved for each acre impacted (**3:1**). Total compensatory mitigation required for your Project is **3.0** acres, based on three (3) times 1.0 acres impacted.

This letter identifies the options for satisfying this mitigation obligation, based on options which were identified in condition BR-1 of your signed Developer's Statement/Conditions of Approval on file with the County. The mitigation options identified below apply to **the proposed Project only**; should your Project change, your mitigation obligation may also change, and a reevaluation of your mitigation measures would be required.

1. *Provide for the protection in perpetuity, through acquisition of fee or a conservation easement, of **3.0** acres of suitable habitat in the kit fox corridor area (e.g., within the San Luis Obispo County kit fox habitat area northwest of Highway 58), either on-site or off-site, and provide for a non-wasting endowment to provide for management and monitoring of the property in perpetuity. Lands conserved shall be subject to the review and approval of the CDFW and the County.*

Should you choose this mitigation alternative, please be advised that all aspects of this program must be in place prior to issuance of County permits and initiation of any ground-disturbing activities.

2. *Deposit funds into an approved in-lieu fee program, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area located primarily within San Luis Obispo County and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.*

Stantec, Inc.
April 30, 2020
Page 2

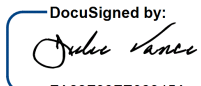
If you elect to meet mitigation requirements by way of option (2) above, you can do so by providing funds, in the amount determined by the CDFW through the evaluation described above, to The Nature Conservancy (TNC), at the first address listed below, pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established through an agreement between the CDFW and TNC to preserve San Joaquin kit fox habitat and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA). A copy of the agreement between the CDFW and TNC is enclosed with this letter. CDFW has determined that your fee, which is payable to TNC, would total **\$7,500.00**. This fee is calculated based on the current cost-per-unit, \$2,500 per acre of mitigation, which is scheduled to be adjusted to address the increasing cost of property in San Luis Obispo County; your actual cost may increase depending on the timing of payment. This fee would need to be paid prior to issuance of County permit and initiation of any ground disturbing activities.

3. *Purchase 3.0 credits in an approved conservation bank, which would provide for the protection in perpetuity of suitable habitat in the kit fox corridor area and provide for a non-wasting endowment for management and monitoring of the property in perpetuity.*

If you elect to meet mitigation requirements by way of option (3) above, you can do so by purchasing credits, in the amount determined by the CDFW through the evaluation described above, from the Palo Prieto Conservation Bank, at the third address listed below. The Bank was established through an agreement between the CDFW and the Grant Family Trust to preserve San Joaquin kit fox habitat and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with CEQA. Purchase of credits would need to be completed prior to issuance of a County permit and initiation of any ground-disturbing activities.

Should you have questions regarding your mitigation alternatives, please contact Aimee M. Braddock of the Department of Fish and Wildlife at (559) 243-4014 ext.243. CDFW concurs with the County that implementation of all of the mitigation measures identified in your signed Developer's Statement will result in mitigating potential impacts to San Joaquin kit fox habitat to a level of less-than-significant, based on the evaluation of potential impacts which would result from your project, as proposed. Should you have questions regarding the status of your application with the County, please contact Emi Sugiyama at the San Luis Obispo County Department of Planning and Building at (805) 788-9470.

Sincerely,

DocuSigned by:

FA83F09FE08945A
Julie A. Vance
Regional Manager

Enclosure

cc: See Page Three

Stantec, Inc.
April 30, 2020
Page 3

cc: Leslie Jordan
The Nature Conservancy
201 Mission Street, Fourth Floor
San Francisco, California 94105

The Nature Conservancy
Attention: Legal Department
201 Mission Street, Fourth Floor
San Francisco, California 94105

Palo Prieto Conservation Bank
c/o Althouse and Meade
1602 Spring Street
Paso Robles, California 93446

ec: Emi Sugiyama
County of San Luis Obispo
esugiyama@co.slo.ca.us

Department of Fish and Wildlife:
Aimee M. Braddock

For Department Use Only

PROJECT NAME: Kuhnle Ranch Pipeline Remediation Project

PROJECT PROPONENT: Todd Porter

LEAD AGENCY: County of San Luis Obispo

AMOUNT OF IN-LIEU FEE: \$7,500.00

DEPARTMENT CONTACT PERSON: Aimee M. Braddock

**Agreement between The Nature Conservancy
and the California Department of Fish and Game, Central Coast Region**

**To Establish a Voluntary Fee-Based Compensatory Mitigation Pilot Program
Pursuant to the California Environmental Quality Act**

This Agreement is made on this 18th day of MARCH, 2003, by and between the California Department of Fish and Game (the "Department") and The Nature Conservancy, a District of Columbia nonprofit corporation ("TNC"), hereinafter referred to collectively as the "Parties."

I. RECITALS

This agreement is based on the following facts, intentions and expectations:

A. The Department and TNC wish to cooperate in facilitating the development of a regional program ("Program") to conserve important San Joaquin kit fox habitat within San Luis Obispo County, California. Two subpopulations of the endangered species exist in the county, one at Camp Roberts, northern San Luis Obispo County, and the other at the Carrizo Plain, eastern San Luis Obispo County. The goal of this Program is to provide an effective, efficient option that the Department can offer to private individual applicants (hereafter collectively referred to as "Proponents"), who in accordance with the California Environmental Quality Act (CEQA) must mitigate the impacts of their projects within San Joaquin kit fox habitat, if those impacts cannot be otherwise avoided. The Program will focus specifically on preserving the habitat within the corridor stretching between Camp Roberts and the Carrizo Plain, essentially the same area identified as the Salinas, Estrella and San Juan Rivers Conservation Area in *Conserving the Landscapes of San Luis Obispo County*, a report completed by TNC in July 2000 (Exhibit A) and may also include the Carrizo Plain and TNC portfolio sites within Kern, Monterey and Santa Barbara Counties included in the range of one or both of those two kit fox subpopulations.

Under this Program, Proponents can voluntarily elect to meet their mitigation requirements by providing funds in an amount determined by the Department to TNC ("Fees" or "Program Fees") for preservation of habitat within the program area, if the CEQA lead agency concurs.

B. Under California Fish and Game Code § 1802, and other State laws, the Department has jurisdiction over the conservation, protection, restoration, enhancement and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. The Department is also the manager and trustee of fish and wildlife resources and their habitat pursuant to California Fish and Game Code Section 1802.

C. TNC is a non-profit corporation of the District of Columbia and is authorized to conduct activities in California.

D. The purpose of this agreement is to facilitate conservation of habitat within the Salinas, Estrella, and San Juan Rivers corridor, which links the Carrizo Plain and Camp Roberts subpopulations of San Joaquin kit fox, by providing a means for Proponents to expedite their

compliance with CEQA through payment of a San Joaquin kit fox Fee to be used to conserve existing San Joaquin kit fox habitat within the aforementioned corridor.

II. AGREEMENT

NOW, THEREFORE, in consideration of the recitals set forth above. The covenants contained herein, the receipt and adequacy of which are hereby acknowledged, the Parties agree as follows:

A. Obligations of the Parties

1. The Department

(a) The Department shall establish voluntary San Joaquin kit fox Fees for projects that require review under CEQA within San Luis Obispo County that result in impacts to San Joaquin kit fox habitat. Necessary Fee amounts shall be determined by a formula developed and set forth by the Department's Regional office, which the Department's Regional office will review annually, and revise as conditions warrant. The Fee will reflect the cost of protecting suitable kit fox habitat, providing for TNC's project and administrative fees (as set forth below in Paragraph II.A.2(b)), and providing long term management and maintenance of the protected lands.

(b) If the Department determines that a project is suitable for participation in the Program, the Department shall inform the Proponents, and the CEQA lead agency, in writing of the Program, of the Fee amount required for participation in the San Joaquin kit fox Program, and that the payment of the Fee will, in the Department's judgment, satisfy, in part, the Proponent's obligations under CEQA to address project impacts on San Joaquin kit fox habitat. The Department shall also inform each Proponent that payment of a San Joaquin kit fox Fee to TNC (as defined herein) is voluntary and that other options are available to satisfy the Proponent's obligation under CEQA to mitigate project impacts on San Joaquin kit fox habitat. The Department shall provide each Proponent with an explanation of the process for participation in the Program and with a copy of this Agreement prior to the Proponent's payment of a San Joaquin kit fox Fee. The Department will advise the Proponent that TNC's Fee for administering the San Joaquin kit fox Fund shall be the amount set forth below in Paragraph II.A.2.(b) of this Agreement.

(c) In exercising its approval authority under section II.A.1.(d) of this Agreement, the Department shall insure to the extent possible that all San Joaquin kit fox Fees deposited in TNC's San Joaquin kit fox Program's Fund in accordance with this Agreement, and the interest and earnings thereon, and all disbursements from the Fund, with the exception of the Project Fee and Administrative Fee identified under Paragraph II.A.2.(b) below, shall be used to finance conservation of San Joaquin kit fox habitat within the aforementioned corridor in San Luis Obispo County in the form of fee interest in land, conservation easement acquisition, and/or other activities related directly to the identification, purchase, and stewardship of said land, specifically to offset project impacts to such habitat as provided in Paragraph II.A.1.(a) and (b) above. If kit fox habitat cannot be acquired in the corridor, the Department shall insure that the fees are used to finance acquisition and management of habitats in the same geographical region as the corridor.

(d) Upon receipt of written notification of TNC's intent to procure fee title or a conservation easement of San Joaquin kit fox habitat within the area using any amount

of San Joaquin kit fox Fees, the Department shall be responsible for providing written approval of the project and associated costs (as set forth in Paragraph II.A.2.(d)) to TNC (see Exhibit C).

(e) Any proposal to procure fee title or a conservation easement in which the fee title or conservation easement will be held by an entity not a party to this agreement must be approved by the Department. Additionally, the Department must approve all conservation easements and deeds as to form, which approval shall not be unreasonably withheld. The Department's standard conservation easement attached as Exhibit D; however, TNC shall not be required to use the Department's standard conservation easement.

(f) The Department will provide written notification to TNC whenever it learns that a Proponent intends to participate in the Program by submitting a Fee (Exhibit C). The notification shall include the amount of the Fee, the identity of the proponent, the project or transaction for which the fee is being made, and the expected date for TNC's receipt of the fee.

2. TNC's Obligations

(a) TNC will provide written notification to the Proponent and to the Department upon receipt of Fees from a Proponent (Exhibit B). Funds Received by TNC under this agreement may be pooled and invested in accounts ("Fee accounts") with other funds TNC holds for similar or other purposes. The funds received by TNC for the Program shall be separately accounted for on a project basis. The Fee accounts will be credited with Fee funds as they are received by TNC, for the benefit of each project. Investments shall be in funds which carry a very slight risk of loss of capital, conforming to accepted standards of prudence. Investments may be in short-term certificates of deposit, U.S. Treasury obligations, or commercial paper.

(b) Interest from the funds held in the Fee accounts will remain in the accounts until the funds are expended or until this agreement is terminated in accordance with the provisions of the Amendment and Termination sections of this agreement. TNC will deduct from each payment into the Fee accounts a management fee (the "Project Fee") of two percent (2%) of the mitigation project's anticipated costs. TNC shall deduct the Project Fee upon receipt of the Program Fee. Additionally TNC will deduct from the Fee accounts two percent (2%) of the average annual balance of the Fee accounts, as calculated at June 30 of each year (the "Administrative Fee") to cover the direct management costs of the program and to help defray the costs associated with TNC's ongoing programmatic involvement with the Program. The Department acknowledges that the Project Fee and Administrative Fee represent reasonable consideration for TNC's efforts under this agreement.

(c) TNC shall provide to the Department a semi-annual report which shall contain a description of projects funded during the prior six (6) months as well as a financial report itemizing all project receipts and disbursements and reconciling the current balance of the project. These reports will be prepared as of 30 June and 31 December, and will be submitted to the Department within 30 days of the report date.

(d) TNC shall disburse funds in the San Joaquin kit fox Conservation Account only on projects which have received prior written authorization of the Department. The Parties agree that in addition to fee title or conservation easement costs, funds under this

agreement may be applied to direct and indirect costs for: (1) reasonable pre-acquisition expenses which apply directly to the project purpose, including, but not limited to, negotiations (staff time), travel, appraisals, boundary and water rights surveys, environmental hazard surveys, easement documentation or baseline reports, title insurance, and closing costs and (2) management, restoration, and stewardship costs (including property tax expense). TNC may use the funds under this agreement to cover pre-acquisition costs even in the event that the acquisition is not completed for any reason. In addition to the above-referenced items, TNC will charge the Project Fee and the Administrative Fee (as set forth in Paragraph II.A.2.(b)).

(e) For all acquisitions pursuant to this agreement, TNC shall reserve sufficient funds from the Fee to provide for the long term management of the habitat.

(f) Funds collected pursuant to this program must be committed for the acquisition of suitable habitat within three years of TNC's receipt of the funds.

(g) To the extent that kit fox habitat is procured by TNC with funds provided to TNC pursuant to this agreement, such habitat shall be protected in perpetuity by either restrictive covenants or conservation easements. The purpose of the restrictive covenants or conservation easements shall be to ensure that such property will be retained forever in a condition that does not impair or interfere with the conservation values of the property. Land uses which are compatible with the preservation of kit fox habitat shall not be unreasonably restricted.

III. SPECIAL TERMS AND CONDITIONS

A. For any project within San Luis Obispo County where there are impacts to the San Joaquin kit fox habitat, the Department shall have discretion as to whether payment of fees as described in this Agreement would adequately fulfill the needs of the species.

B. TNC reserves the right to refuse mitigation funds for any particular project.

C. This Agreement does not impose upon TNC any obligation to maintain an accounting of the biological values associated with San Joaquin kit fox Fees deposited or disbursed pursuant to this Agreement or to match San Joaquin kit fox Fees deposited with specific San Joaquin kit fox habitat acquisitions.

D. Nothing in this Agreement shall prohibit the disbursement of San Joaquin kit fox Fees to enable the purchase of a land parcel otherwise appropriate for use as kit fox habitat for the sole reason that a portion of the parcel is not suitable for San Joaquin kit fox habitat conservation, subject to the discretion and approval of the Department.

E. Notwithstanding anything contained herein to the contrary, TNC shall have no obligation pursuant to this Agreement other than to deposit and disburse the San Joaquin kit fox Fees in accordance with this Agreement, subject to the terms and conditions hereof.

IV. EFFECTIVE DATE

This Agreement shall take effect immediately upon execution by the Department and TNC.

V. AMENDMENTS

Amendments to this Agreement may be proposed by either Party and shall become effective upon the written agreement of both Parties.

VI. AUTOMATIC RENEWAL

Subject to the limitations in Paragraph VIII, this agreement shall remain in effect for a period of three years from the date of execution. At three years, and at each year thereafter, the agreement will automatically renew for the period of one additional year, continuing yearly unless and until the Department gives TNC a notice of non-renewal. Upon issuance of a notice of non-renewal by the Department, the agreement will terminate effective one year from the date of the notice of non-renewal. Upon receiving a notice of non-renewal, TNC shall begin the process of completing transactions undertaken pursuant to this agreement and shall comply with Section VII termination provisions.

VII. TERMINATION

This Agreement may be terminated by either Party without cause at any time upon thirty (30) days written notice to the other Party. Upon termination, TNC shall provide the Department with an accounting of the San Joaquin kit fox Fee Account in accordance with the following procedures. Immediately upon termination, and as a condition of the release of TNC from its obligations under this Agreement, TNC shall disburse all funds in the San Joaquin kit fox Conservation Account in accordance with written instructions provided by the Department (which shall be provided within 60 days of the receipt by the Department of TNC's Termination Notice). Thereafter, TNC shall be relieved of all further obligations and liabilities under the Agreement provided, however, that within 60 days following disbursement, TNC provides the Department final accounting showing the deposits and disbursements of all sums received by it pursuant to the Agreement, from the date of the last annual accounting through the date of final disbursement.

VIII. MISCELLANEOUS PROVISIONS

A. Entire Agreement

This Agreement and its related Exhibits contain the entire agreement of the Parties with respect to the matters covered by this Agreement, and no other agreement, statement, or promise made by either Party, or to any employee, officer, or agent of either Party, which is not contained in this Agreement shall be binding or valid.

B. Interpretation and Headings

The language in all parts of this agreement shall in all cases be simply construed according to its fair meaning and not strictly for or against either Party. Headings of the paragraphs of this Agreement are for the purpose of convenience only and the words contained

in such headings shall in no way be held to explain, modify, amplify, or aid in the interpretation, construction, or meaning of the provisions of this agreement.

C. Notices

All notices, demands, or requests from one Party to the other Party may be personally delivered, sent by facsimile, sent by recognized overnight delivery service, or sent by mail, certified or registered, postage prepaid, to the addresses stated in this paragraph and shall be effective at the time of personal delivery, facsimile, transmission, or mailing.

The Department

Department of Fish and Game, Central Coast
Region Headquarters
7329 Silverado Trail, Napa CA 94558
Attn: Carl Wilcox
Telephone: (707) 944-5500
Fax: (707) 944-5563

TNC:

The Nature Conservancy
California Regional Office
201 Mission Street, 4th Floor
San Francisco, CA 94105
Attn: Legal Department
Telephone: (415) 777-0487
Fax: (415) 777-0244

Either party may change the address to which such notices, demands, requests or other communications may be sent by giving the other party written notice of such change. The Parties agree to accept facsimile transmitted, signed documents and agree to rely on such documents as if they bore original signatures. Each Party agrees to provide the other Party, within seventy-two (72) hours after transmission, such documents bearing the original signatures.

D. Successors and Assigns

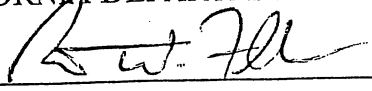
This agreement, and the rights and obligations thereunder, shall not be transferred or otherwise assigned by TNC without prior written approval of the proposed transferee/assignee by the Department.

E. Execution

This Agreement may be executed in several counterparts and all counterparts so executed shall constitute one agreement which shall be binding on all the parties, notwithstanding that all of the parties are not signatory to the original or the same counterpart. If any provision of this Agreement is held invalid, the other provisions shall be affected thereby. Each party to this Agreement warrants to the other that it is duly organized, validly existing and, if a corporation, qualified to do business in the State of California, and that it and the respective signatories have full right and authority to enter into and consummate this Agreement and all related documents.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the date first set forth above:

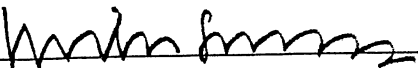
CALIFORNIA DEPARTMENT OF FISH AND GAME

By: 

Name: ROBERT W. FLOATE

Title: REGIONAL MANAGER

THE NATURE CONSERVANCY

By: 

Name: MIKE SWEENEY

Title: COO-CA

Enclosures (3)

Exhibit A: *Conserving the Landscapes of San Luis Obispo County*

Exhibit B: Letter from TNC to Proponent and Department Acknowledging Receipt of Fee

Exhibit C: Letter from Department Authorizing Conservancy's Disbursement of Funds

Exhibit D: Department's Standard Conservation Easement Form.

Exhibit A

See Accompanying Bound Report: "Conserving the Landscapes of San Luis Obispo County."

Exhibit B

Dear [Applicant]

The Nature Conservancy hereby acknowledges the receipt of \$ _____ in connection with [Applicant's] Department of Fish and Game [permit of other identifying case number]. The Nature Conservancy (the "Conservancy") has not been involved in the permitting process or any non-compliance determination, but it is committed to working with the Department of Fish and Game (the "Department") and [Applicant] to use these funds to conserve habitat along the Salinas, Estrella, San Juan Rivers corridor linking the Carrizo Plain and Camp Roberts subpopulations of San Joaquin kit fox. By accepting these funds from [Applicant] with the written approval of the Department, the Conservancy does not make any direct or implied statement that the funds are adequate "mitigation" for any purpose.

The Conservancy's only obligation is to receive these funds and apply them as described in this letter. The Conservancy retains the flexibility to use these funds for a number of purposes within the area described above, including acquisition of fee interest in land, conservation easement acquisition, and/or other activities related to identification of said land. These funds may also be used to cover the indirect and administrative costs associated with any project. The Conservancy does not guarantee any specific results, actions or effects on the lands acquired, managed or restored with these funds but will use good faith efforts to meet the objectives of the Fee-Based Compensatory Mitigation Program. [Applicant] agrees that it remains ultimately responsible for any matters pending between the Department and [Applicant]. [Applicant] agrees to release, indemnify, defend and hold the Conservancy harmless for any and all claims, damages, losses, liabilities, costs or expenses, including without limitation attorneys' fees, in the event that any claim is brought against the Conservancy for any act or omission arising out of any acts it takes pursuant to the Agreement, the Fee-Based Compensatory Mitigation Program, and/or the mitigation matter between the Department and [Applicant] that brought about the payment of these funds.

The funds received by the Conservancy from [Applicant] will be pooled and invested with other funds the Conservancy holds for similar or other purposes in accordance with an agreement with the Department. The funds received shall be separately accounted for by the Conservancy in accordance with the Agreement.

The Conservancy will consult with the Department on the intended use of these funds and notify the Department in accordance with the Agreement before disbursing them.

Please acknowledge your agreement to the terms of this letter by signing below and returning the original to me. Once the Conservancy received the counter-signed letter, the Conservancy will notify the Department in accordance with the Agreement.

Thank you,

Sincerely,

Project Director

[Applicant]

cc: CA Department of Fish and Game
[add contact info]

DEPARTMENT OF FISH AND GAME

EXHIBIT C

1416 NINTH STREET
P.O. BOX 944209
SACRAMENTO, CA 94244-2090
916) 654-3821



Date: _____

Margaret C. McNutt
Director, Central Coast Ecoregion
C/O Legal Department
The Nature Conservancy
201 Mission Street, 4th Floor
San Francisco, CA 94105

Re: Notification of In-Lieu Fee for San Joaquin Kit Fox Mitigation

Dear Ms. McNutt and Legal Department,

The Department of Fish and Game (Department) is, by way of this letter, notifying you of a project proponent's election to meet mitigation requirements by providing funds to the Nature Conservancy (TNC) pursuant to the Voluntary Fee-Based Compensatory Mitigation Program (Program). The Program was established in agreement between the Department and TNC to preserve San Joaquin kit fox habitat, and to provide a voluntary mitigation alternative to project proponents who must mitigate the impacts of projects in accordance with the California Environmental Quality Act (CEQA) and the California Endangered Species Act (CESA).

This letter is to advise TNC of the following project:

PROJECT NAME: _____

PROJECT PROPONENT: _____

AMOUNT OF FEE: _____

EXPECTED DATE FOR TNC'S RECEIPT OF FEE: _____

DEPARTMENT CONTACT PERSON: _____

Based on the review of this project, the Department has determined that the project is eligible to participate in the Program.

Sincerely,

REGIONAL MANAGER

EXHIBIT D

RECORDING REQUESTED BY AND)
WHEN RECORDED MAIL TO:)
)
State of California)
Wildlife Conservation Board)
1807 13th Street, Suite 103)
Sacramento, CA 95814)
)

Space Above Line for Recorder's Use Only

CONSERVATION EASEMENT DEED

THIS CONSERVATION EASEMENT DEED is made this _____ day of _____, 20____, by _____ ("Grantor"), in favor of THE STATE OF CALIFORNIA ("Grantee"), acting by and through its Department of Fish and Game, a subdivision of the California Resources Agency, with reference to the following facts:

RECITALS

A. Grantor is the sole owner in fee simple of certain real property in the County of _____, State of California, designated Assessor's Parcel Number _____ and more particularly described in Exhibit "A" attached hereto and incorporated herein by this reference (the "Property");

B. The Property possesses wildlife and habitat values (collectively, "conservation values") of great importance to Grantee and the people of the State of California;

C. The Property provides high quality habitat for [*list plant and/or animal species*] and contains [*list habitats; native and/or non-native*];

D. The Department of Fish and Game has jurisdiction, pursuant to Fish and Game Code Section 1802, over the conservation, protection, and management of fish, wildlife, native plants and the habitat necessary for biologically sustainable populations of those species, and the Department of Fish and Game is authorized to hold easements for these purposes pursuant to Civil Code Section 815.3, Fish and Game Code Section 1348, and other provisions of California law.

E. This Conservation Easement provides mitigation for certain impacts of [*describe project*] located in the City of [], County of [], State of California, pursuant to [*California Endangered Species Act Incidental Take Permit No. [] by and between [] and the Department of Fish and Game, dated [] the Agreement Regarding Proposed Stream or Lake Alteration [Notification No. [] ("Section 1603 Agreement") executed by [] and the Department of Fish and Game, dated [] the [document prepared pursuant to CEQA]*]

certified by the [] for [project] [SCH No. [] dated [], and the Mitigation Plan created thereunder.]

COVENANTS, TERMS, CONDITIONS AND RESTRICTIONS

For good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and pursuant to California law, including Civil Code Section 815, *et seq.*, Grantor hereby voluntarily grants and conveys to Grantee a conservation easement in perpetuity over the Property.

1. Purpose. The purpose of this Conservation Easement is to ensure the Property will be retained forever in a natural condition and to prevent any use of the Property that will impair or interfere with the conservation values of the Property. Grantor intends that this Conservation Easement will confine the use of the Property to such activities, including, without limitation, those involving the preservation and enhancement of native species and their habitat in a manner consistent with the habitat conservation purposes of this Conservation Easement.

2. Grantee's Rights. To accomplish the purposes of this Conservation Easement, Grantor hereby grants and conveys the following rights to Grantee:

- (a) To preserve and protect the conservation values of the Property;
- (b) To enter upon the Property at reasonable times in order to monitor Grantor's compliance with and to otherwise enforce the terms of this Conservation Easement, and for scientific research and interpretive purposes by Grantee or its designees, provided that Grantee shall not unreasonably interfere with Grantor's authorized use and quiet enjoyment of the Property;
- (c) To prevent any activity on or use of the Property that is inconsistent with the purposes of this Conservation Easement and to require the restoration of such areas or features of the Property that may be damaged by any act, failure to act, or any use that is inconsistent with the purposes of this Conservation Easement;
- (d) All mineral, air and water rights necessary to protect and to sustain the biological resources of the Property; and
- (e) All present and future development rights.

3. Prohibited Uses. Any activity on or use of the Property inconsistent with the purposes of this Conservation Easement is prohibited. Without limiting the generality of the foregoing, the following uses by Grantor, Grantor's agents, and third parties, are expressly prohibited:

- (a) Unseasonal watering; use of fertilizers, pesticides, biocides, herbicides or other agricultural chemicals; weed abatement activities; incompatible fire protection activities; and any and all other activities and uses which may adversely affect the purposes of this Conservation Easement;
- (b) Use of off-road vehicles and use of any other motorized vehicles except on existing roadways;

- (c) Grazing or other agricultural activity of any kind;
- (d) Recreational activities including, but not limited to, horseback riding, biking, hunting or fishing, except as may be specifically permitted under this Conservation Easement;
- (e) Commercial or industrial uses;
- (f) Any legal or de facto division, subdivision or partitioning of the Property;
- (g) Construction, reconstruction or placement of any building, billboard or sign, or any other structure or improvement of any kind;
- (h) Depositing or accumulation of soil, trash, ashes, refuse, waste, bio-solids or any other materials;
- (i) Planting, introduction or dispersal of non-native or exotic plant or animal species;
- (j) Filling, dumping, excavating, draining, dredging, mining, drilling, removing or exploring for or extraction of minerals, loam, soil, sands, gravel, rocks or other material on or below the surface of the Property;
- (k) Altering the surface or general topography of the Property, including building of roads;
- (l) Removing, destroying, or cutting of trees, shrubs or other vegetation, except as required by law for (1) fire breaks, (2) maintenance of existing foot trails or roads, or (3) prevention or treatment of disease; and
- (m) Manipulating, impounding or altering any natural water course, body of water or water circulation on the Property, and activities or uses detrimental to water quality, including but not limited to degradation or pollution of any surface or sub-surface waters.

4. Grantor's Duties. Grantor shall undertake all reasonable actions to prevent the unlawful entry and trespass by persons whose activities may degrade or harm the conservation values of the Property. In addition, Grantor shall undertake all necessary actions to perfect Grantee's rights under Section 2 of this Conservation Easement, including but not limited to, Grantee's water rights.

5. Reserved Rights. Grantor reserves to itself, and to its personal representatives, heirs, successors, and assigns, all rights accruing from its ownership of the Property, including the right to engage in or to permit or invite others to engage in all uses of the Property that are consistent with the purposes of this Conservation Easement.

6. Grantee's Remedies. If Grantee determines that Grantor is in violation of the terms of this Conservation Easement or that a violation is threatened, Grantee shall give written notice to Grantor of such violation and demand in writing the cure of such violation. If Grantor fails to cure the violation within fifteen (15) days after receipt of written notice and demand from Grantee, or if the cure reasonably requires more than fifteen (15) days to complete and Grantor fails to begin the cure within the fifteen (15)-day period or fails to continue diligently to complete the cure, Grantee may bring an action at law or in equity in a court of competent jurisdiction to enforce compliance by Grantor with the terms of this Conservation Easement, to recover any damages to which Grantee may be entitled for violation by Grantor of the terms of this Conservation Easement or for any injury to the conservation values of the Property, to enjoin the violation, *ex parte* as necessary, by temporary or permanent injunction without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies, or for other equitable relief, including, but not limited to, the restoration of the Property to the condition in which it existed prior to any such violation or injury. Without limiting Grantor's liability therefor, Grantee may apply any damages recovered to the cost of undertaking any corrective action on the Property.

If Grantee, in its sole discretion, determines that circumstances require immediate action to prevent or mitigate damage to the conservation values of the Property, Grantee may pursue its remedies under this Section 6 without prior notice to Grantor or without waiting for the period provided for cure to expire. Grantee's rights under this section apply equally to actual or threatened violations of the terms of this Conservation Easement. Grantor agrees that Grantee's remedies at law for any violation of the terms of this Conservation Easement are inadequate and that Grantee shall be entitled to the injunctive relief described in this section, both prohibitive and mandatory, in addition to such other relief to which Grantee may be entitled, including specific performance of the terms of this Conservation Easement, without the necessity of proving either actual damages or the inadequacy of otherwise available legal remedies. Grantee's remedies described in this section shall be cumulative and shall be in addition to all remedies now or hereafter existing at law or in equity, including but not limited to, the remedies set forth in Civil Code Section 815, *et seq.*, inclusive. The failure of Grantee to discover a violation or to take immediate legal action shall not bar Grantee from taking such action at a later time.

If at any time in the future Grantor or any subsequent transferee uses or threatens to use the Property for purposes inconsistent with this Conservation Easement then, notwithstanding Civil Code Section 815.7, the California Attorney General or any entity or individual with a justiciable interest in the preservation of this Conservation Easement has standing as interested parties in any proceeding affecting this Conservation Easement.

6.1. Costs of Enforcement. Any costs incurred by Grantee, where Grantee is the prevailing party, in enforcing the terms of this Conservation Easement against Grantor, including, but not limited to, costs of suit and attorneys' and experts' fees, and any costs of restoration necessitated by Grantor's negligence or breach of this Conservation Easement shall be borne by Grantor.

6.2. Grantee's Discretion. Enforcement of the terms of this Conservation Easement by Grantee shall be at the discretion of Grantee, and any forbearance by Grantee to exercise its rights under this Conservation Easement in the event of any breach of any term of this Conservation Easement by Grantor shall not be deemed or construed to be a waiver by Grantee of such term or of any subsequent breach of the same or any other term of this Conservation Easement or of any of Grantee's rights under this Conservation Easement. No delay or omission by Grantee in the exercise of any right or remedy upon any breach by Grantor shall impair such right or remedy or be construed as a waiver.

6.3. Acts Beyond Grantor's Control. Nothing contained in this Conservation Easement shall be construed to entitle Grantee to bring any action against Grantor for any injury to or change in the Property resulting from (i) any natural cause beyond Grantor's control, including, without limitation, fire not caused by Grantor, flood, storm, and earth movement, or any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Property resulting from such causes; or (ii) acts by Grantee or its employees.

6.4. Department of Fish and Game Right of Enforcement. All rights and remedies conveyed to Grantee under this Conservation Easement Deed shall extend to and are enforceable by the Department of Fish and Game. These rights are in addition to, and do not limit, the rights of enforcement under *[insert title of permit/Agreement described in Recital E, above]*.

7. Fence Installation and Maintenance. Grantor shall install and maintain a fence reasonably satisfactory to Grantee around the Conservation Easement area to protect the conservation values of the Property, including but not limited to wildlife corridors.

8. Access. This Conservation Easement does not convey a general right of access to the public.

9. Costs and Liabilities. Grantor retains all responsibilities and shall bear all costs and liabilities of any kind related to the ownership, operation, upkeep, and maintenance of the Property. Grantor agrees that Grantee shall have no duty or responsibility for the operation or maintenance of the Property, the monitoring of hazardous conditions thereon, or the protection of Grantor, the public or any third parties from risks relating to conditions on the Property. Grantor remains solely responsible for obtaining any applicable governmental permits and approvals for any activity or use permitted by this Conservation Easement Deed, and any activity or use shall be undertaken in accordance with all applicable federal, state, local and administrative agency statutes, ordinances, rules, regulations, orders and requirements.

9.1. Taxes; No Liens. Grantor shall pay before delinquency all taxes, assessments, fees, and charges of whatever description levied on or assessed against the Property by competent authority (collectively "taxes"), including any taxes

imposed upon, or incurred as a result of, this Conservation Easement, and shall furnish Grantee with satisfactory evidence of payment upon request. Grantor shall keep Grantee's interest in the Property free from any liens, including those arising out of any obligations incurred by Grantor or any labor or materials furnished or alleged to have been furnished to or for Grantor at or for use on the Property.

9.2. Hold Harmless. Grantor shall hold harmless, protect and indemnify Grantee and its directors, officers, employees, agents, contractors, and representatives and the heirs, personal representatives, successors and assigns of each of them (each an "Indemnified Party" and, collectively, "Indemnified Parties") from and against any and all liabilities, penalties, costs, losses, damages, expenses (including, without limitation, reasonable attorneys' fees and experts' fees), causes of action, claims, demands, orders, liens or judgments (each a "Claim" and, collectively, "Claims"), arising from or in any way connected with: (1) injury to or the death of any person, or physical damage to any property, resulting from any act, omission, condition, or other matter related to or occurring on or about the Property, regardless of cause, unless due solely to the negligence of Grantee or any of its employees; (2) the obligations specified in Sections 4, 9, and 9.1; and (3) the existence or administration of this Conservation Easement. If any action or proceeding is brought against any of the Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Indemnified Party or reimburse Grantee for all charges incurred for services of the Attorney General in defending the action or proceeding.

9.3. Condemnation. The purposes of the Conservation Easement are presumed to be the best and most necessary public use as defined at Code of Civil Procedure Section 1240.680 notwithstanding Code of Civil Procedure Sections 1240.690 and 1240.700.

10. Assignment. This Conservation Easement is transferable by Grantee, but Grantee may assign its rights and obligations under this Conservation Easement only to an entity or organization authorized to acquire and hold conservation easements pursuant to Civil Code Section 815.3. Grantee shall require the assignee to record the assignment in the county where the Property is located.

11. Subsequent Transfers. Grantor agrees to incorporate the terms of this Conservation Easement in any deed or other legal instrument by which Grantor divests itself of any interest in all or any portion of the Property, including, without limitation, a leasehold interest. Grantor further agrees to give written notice to Grantee of the intent to transfer any interest at least thirty (30) days prior to the date of such transfer. Grantee shall have the right to prevent subsequent transfers in which prospective subsequent claimants or transferees are not given notice of the covenants, terms, conditions and restrictions of this Conservation Easement. The failure of Grantor or Grantee to perform any act provided in this section shall not impair the validity of this Conservation Easement or limit its enforceability in any way.

12. Notices. Any notice, demand, request, consent, approval, or communication that either party desires or is required to give to the other shall be in writing and be served personally or sent by recognized overnight courier that guarantees next-day delivery or by first class mail, postage fully prepaid, addressed as follows:

To Grantor:

To Grantee: Department of Fish and Game
Region ____
[Region's address]
Attn: Regional Manager

With a copy to: Department of Fish and Game
Office of the General Counsel
1416 Ninth Street, 12th Floor
Sacramento, California 95814-2090
Attn: General Counsel

or to such other address as either party shall designate by written notice to the other. Notice shall be deemed effective upon delivery in the case of personal delivery or delivery by overnight courier or, in the case of delivery by first class mail, five (5) days after deposit into the United States mail.

13. Amendment. This Conservation Easement may be amended by Grantor and Grantee only by mutual written agreement. Any such amendment shall be consistent with the purposes of this Conservation Easement and shall not affect its perpetual duration. Any such amendment shall be recorded in the official records of [] County, State of California.

14. General Provisions.

(a) Controlling Law. The interpretation and performance of this Conservation Easement shall be governed by the laws of the State of California, disregarding the conflicts of law principles of such state.

(b) Liberal Construction. Any general rule of construction to the contrary notwithstanding, this Conservation Easement shall be liberally construed to effect the purposes of this Conservation Easement and the policy and purpose of Civil Code Section 815, *et seq.* If any provision in this instrument is found to be ambiguous, an interpretation consistent with the purposes of this Conservation Easement that would render the provision valid shall be favored over any interpretation that would render it invalid.

(c) Severability. If a court of competent jurisdiction voids or invalidates on its face any provision of this Conservation Easement Deed, such action shall not affect the remainder of this Conservation Easement Deed. If a court of competent jurisdiction voids or invalidates the application of any provision of this Conservation Easement Deed to a person or circumstance, such action shall not affect the application of the provision to other persons or circumstances.

(d) Entire Agreement. This instrument sets forth the entire agreement of the parties with respect to the Conservation Easement and supersedes all prior discussions, negotiations, understandings, or agreements relating to the Conservation Easement. No alteration or variation of this instrument shall be valid or binding unless contained in an amendment in accordance with Section 13.

(e) No Forfeiture. Nothing contained herein will result in a forfeiture or reversion of Grantor's title in any respect.

(f) Successors. The covenants, terms, conditions, and restrictions of this Conservation Easement Deed shall be binding upon, and inure to the benefit of, the parties hereto and their respective personal representatives, heirs, successors, and assigns and shall constitute a servitude running in perpetuity with the Property.

(g) Termination of Rights and Obligations. A party's rights and obligations under this Conservation Easement terminate upon transfer of the party's interest in the Conservation Easement or Property, except that liability for acts or omissions occurring prior to transfer shall survive transfer.

(h) Captions. The captions in this instrument have been inserted solely for convenience of reference and are not a part of this instrument and shall have no effect upon its construction or interpretation.

(i) No Hazardous Materials Liability. Grantor represents and warrants that it has no knowledge of any release or threatened release of Hazardous Materials (defined below) in, on, under, about or affecting the Property. Without limiting the obligations of Grantor under Section 9.2, Grantor agrees to indemnify, protect and hold harmless the Indemnified Parties (defined in Section 9.2) against any and all Claims (defined in Section 9.2) arising from or connected with any Hazardous Materials present, alleged to be present, or otherwise associated with the Property at any time, except any Hazardous Materials placed, disposed or released by Grantee, its employees or agents. If any action or proceeding is brought against any of the Indemnified Parties by reason of any such Claim, Grantor shall, at the election of and upon written notice from Grantee, defend such action or proceeding by counsel reasonably acceptable to the Indemnified Party or reimburse Grantee for all charges incurred for services of the Attorney General in defending the action or proceeding.

Despite any contrary provision of this Conservation Easement Deed, the parties do not intend this Conservation Easement to be, and this Conservation Easement shall not be, construed such that it creates in or gives to Grantee any of the following:

(1) The obligations or liabilities of an "owner" or "operator," as those terms are defined and used in Environmental Laws (defined below), including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Section 9601 *et seq.*; hereinafter, "CERCLA"); or

(2) The obligations or liabilities of a person described in 42 U.S.C. Section 9607(a)(3) or (4); or

(3) The obligations of a responsible person under any applicable Environmental Laws; or

(4) The right to investigate and remediate any Hazardous Materials associated with the Property; or

(5) Any control over Grantor's ability to investigate, remove, remediate or otherwise clean up any Hazardous Materials associated with the Property.

The term "Hazardous Materials" includes, without limitation, (a) material that is flammable, explosive or radioactive; (b) petroleum products, including by-products and fractions thereof; and (c) hazardous materials, hazardous

wastes, hazardous or toxic substances, or related materials defined in CERCLA, the Hazardous Materials Transportation Act (49 U.S.C. Section 6901 *et seq.*); the Hazardous Waste Control Law (California Health & Safety Code Section 25100 *et seq.*); the Hazardous Substance Account Act (California Health & Safety Code Section 25300 *et seq.*), and in the regulations adopted and publications promulgated pursuant to them, or any other applicable federal, state or local laws, ordinances, rules, regulations or orders now in effect or enacted after the date of this Conservation Easement Deed.

The term "Environmental Laws" includes, without limitation, any federal, state, local or administrative agency statute, ordinance, rule, regulation, order or requirement relating to pollution, protection of human health or safety, the environment or Hazardous Materials. Grantor represents, warrants and covenants to Grantee that Grantor's activities upon and use of the Property will comply with all Environmental Laws.

(j) Warranty. Grantor represents and warrants that there are no outstanding mortgages, liens, encumbrances or other interests in the Property which have not been expressly subordinated to this Conservation Easement Deed, and that the Property is not subject to any other conservation easement.

(k) Additional Easements. Grantor shall not grant any additional easements, rights of way or other interests in the Property (other than a security interest that is subordinate to this Conservation Easement Deed), or grant or otherwise abandon or relinquish any water agreement relating to the Property, without first obtaining the written consent of Grantee. Grantee may withhold such consent if it determines that the proposed interest or transfer is inconsistent with the purposes of this Conservation Easement or will impair or interfere with the conservation values of the Property. This Section 14(k) shall not prohibit transfer of a fee or leasehold interest in the Property that is subject to this Conservation Easement Deed and complies with Section 11.

(l) Counterparts. The parties may execute this instrument in two or more counterparts, which shall, in the aggregate, be signed by both parties; each counterpart shall be deemed an original instrument as against any party who has signed it. In the event of any disparity between the counterparts produced, the recorded counterpart shall be controlling.

IN WITNESS WHEREOF Grantor has executed this Conservation Easement
Deed the day and year first above written.

GRANTOR:

Approved as to form:

BY: _____

NAME: _____

TITLE: _____

DATE: _____

General Counsel
State of California
Department of Fish and Game

BY: _____
Ann S. Malcolm
Deputy General Counsel

CERTIFICATE OF ACCEPTANCE

This is to certify that the interest in real property conveyed by the Conservation Easement Deed by _____, dated _____, to the State of California, grantee, acting by and through its Department of Fish and Game (the "Department"), a governmental agency (under Government Code Section 27281), is hereby accepted by the undersigned officer on behalf of the Department, pursuant to authority conferred by resolution of the California Fish and Game Commission on _____.

GRANTEE:

**STATE OF CALIFORNIA, by and through its
DEPARTMENT OF FISH AND GAME**

By: _____

Title: _____
Authorized Representative

Date: _____



**Preliminary Jurisdictional
Wetlands and Waters Delineation**

Kuhnle Ranch Pipeline Soil
Remediation Project

July 12, 2019

Prepared for:


Phillips 66 Company
76 Broadway
Sacramento, California 95818

Prepared by:


Stantec Consulting Services Inc.
3437 Empresa Drive, Suite A
San Luis Obispo, California 93401

PRELIMINARY JURISDICTIONAL WETLANDS AND WATERS DELINEATION

This document entitled Preliminary Jurisdictional Wetlands and Waters Delineation was prepared by Stantec Consulting Services Inc. ("Stantec") for the account of Phillips 66 Company (the "Client"). Any reliance on this document by any third party is strictly prohibited. The material in it reflects Stantec's professional judgment in light of the scope, schedule and other limitations stated in the document and in the contract between Stantec and the Client. The opinions in the document are based on conditions and information existing at the time the document was published and do not take into account any subsequent changes. In preparing the document, Stantec did not verify information supplied to it by others. Any use which a third party makes of this document is the responsibility of such third party. Such third party agrees that Stantec shall not be responsible for costs or damages of any kind, if any, suffered by it or any other third party as a result of decisions made or actions taken based on this document.

Reviewed by 
(signature)

Logan Elms

Reviewed by 
(signature)

Todd Porter

Prepared and Approved by 
(signature)

Jared Varonin, Principal Biologist

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Abbreviations

amsl	above mean sea level
bgs	below ground surface
CDFW	California Department of Fish and Wildlife
CWA	Clean Water Act
GPS	Global Positioning System
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High Water Mark
RAP	Remedial Action Plan
RWQCB	Regional Water Quality Control Board
USACE	United States Army Corps of Engineers
USFWS	U.S. Fish & Wildlife Service
USGS	U.S. Geological Survey



1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report presents the findings of an investigation of potential jurisdictional features conducted by Stantec Consulting Services Inc. (Stantec) for the Kuhnle Ranch Pipeline Soil Remediation Project (Project), near the town of Shandon, California (refer to Appendix A, Figure 1). The assessment of jurisdictional wetlands, other "waters of the U.S.," waters of the State, and California Department of Fish and Wildlife (CDFW) jurisdictional waters was conducted on June 18, 2019, by Stantec Principal Biologist Jared Varonin and Staff Scientist Brett Reiman. The investigation included a section of an unnamed drainage passing through one proposed excavation location (identified as AOC-1) and within a 100-ft buffer; defined as the Survey Area (Survey Area) (refer to Appendix A, Figure 2). The Project site extends further west from the Survey Area however none of the proposed Project would occur in close proximity to or within potentially jurisdictional features. This assessment was conducted to determine the extent of resources under the jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW that occur within the Survey Area. Photographs representative of conditions within the Survey Area are provided in Appendix B.

1.2 PROJECT LOCATION

The Project site is located on the east side of State Highway 41, just south of the intersection with Wood Canyon Road, approximately 3 miles south/southwest of the town of Shandon in unincorporated San Luis Obispo County, California (refer to Appendix A, Figure 1). The Project site occurs on property referred to as the Kuhnle Ranch, also identified as Assessor's Parcel Numbers 017-251-072 and 037-301-002 which together encompass approximately 872 acres of rural ranch land. Phillips 66 (P66) currently operates two 8-inch diameter buried petroleum pipelines carrying semi-refined product within an easement crossing the subject property. The buried petroleum pipelines trend along the eastern side of Highway 41 in a northeast/southwest direction.

1.3 PROJECT DESCRIPTION

Previous phases of subsurface assessment for the Project site have identified residual petroleum hydrocarbon-impacted soil at four separate locations where the property owner had reported historically stressed vegetation or lack of vegetative cover. Stantec prepared a *Revised Remedial Action Plan* (RAP) for the Project site (Stantec, 2018). The RAP describes the rationale and technical approach for limited depth removal of both hydrocarbon-impacted soil identified in the subsurface and surface soil in areas of observed stressed vegetation. The scope of work identified in the RAP includes the following:

The primary scope of work associated with soil remediation project includes the following tasks:

- Prepare engineering design drawings and project specifications for planning and permitting purposes.



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- Prepare permit applications, including the results of special studies, as required based on agency consultation (federal, state and local).
- Waste profiling and acceptance at a P66-approved disposal facility.
- Quality control project planning, internal reviews, and health and safety planning.
- Site preparation, utility location, notifications, and coordination with the property owner and other project stakeholders.
- Field equipment mobilization, set up, and staging.
- Limited depth soil excavation at four areas of concern (AOC) to the extent practicable including monitoring, stockpiling, confirmation sampling and laboratory analysis.
- Transport hydrocarbon-impacted soil to an offsite disposal facility.
- Backfilling, compaction, revegetation, erosion control installation and equipment demobilization.
- Data compilation and preparation of a site restoration report containing a request for site closure/no further action.
- Preparation of a soil management plan to address hydrocarbon-affected soil remaining in place onsite post-excavation.
- Post-excavation inspection of the interim erosion controls, backfill and vegetation.

2.0 EXISTING SITE CONDITIONS

2.1 TOPOGRAPHY AND SURROUNDING LAND USES

The topography of the Survey Area is characterized by low rolling hills dominated locally by northeasterly trending ridges and intervening drainages that slope gently downward to the north. At the subject site, Highway 41 follows a seasonal drainage channel with surface elevations declining from approximately 1,270 feet above mean sea level (amsl) at the southern portion of the investigation area to 1,200 feet amsl near the confluence with Wood Canyon, just north of the investigation area. Seasonal surface drainage flows northerly and eventually joins the Estrella River approximately 2.75 miles north of the Survey Area. The Survey Area is located in an area primarily used for agricultural purposes. Land use in the Survey Area consists of livestock grazing with a ranch house and several outbuildings situated on the west side of Highway 41.



2.2 VEGETATION

In general, mapping and description of plant communities follows the classification system described in the second edition of A Manual of California Vegetation (Sawyer et al., 2009). Species scientific and common names correspond to those described in the second edition of The Jepson Manual (Baldwin et al., 2012).

2.2.1 Vegetation Communities

2.2.1.1 Annual Brome Grasslands

As the lone habitat type within the Survey Area this community was dominated by annual brome grass (*Bromus diandrus*) with other herbaceous species such as common mallow (*Malva neglecta*), meadow barely (*Hordeum brachyantherum*), and vinegar weed (*Trichostema lanceolatum*) also present.

2.2.2 Other Land Cover Types

2.2.2.1 Disturbed/Developed

This classification was used to map portions of the Survey Area that are developed, primarily existing paved roadways and disturbed earthen road shoulders that are unvegetated.

2.3 CLIMATE

The Shandon area weather is characterized by a hot-summer Mediterranean climate with mild to cold winters and hot, dry summers. According to the weather station nearest the Survey Area, PASO ROBLES, CALIFORNIA (046730), the average high temperature is 92.6°F (degrees Fahrenheit) and the annual low temperature during winter is 32.3°F. The region typically receives an average annual rainfall of 15.21 inches with the majority of rainfall occurring November through April. This data was collected during the period of record of 1894 to 2016. (Western Regional Climate Center, 2019).

2.4 HYDROLOGY AND GEOMORPHOLOGY

Hydrologically, the Survey Area is located within the Paso Robles Subbasin which is bordered on the north by the Upper Valley Aquifer Subbasin, on the southwest by the La Panza Mountains, and on the west by the Santa Lucia Mountains. The San Andreas Fault zone bounds the basin on the northeast. The sub-basin is drained by the Salinas River and Estrella, San Juan, and Huerhuero Creeks. Groundwater is found in Holocene age alluvium and the Pleistocene age Paso Robles Formation. The unconsolidated Holocene age alluvium provides limited amounts of groundwater and reaches up to 130 feet thick near the Salinas River, but is generally less than 30 feet thick in the minor stream valleys. Groundwater within the Holocene alluvium is mostly unconfined.

Depth to uppermost groundwater within the nonmarine sedimentary strata beneath the Survey Area has not been determined. A search of the Geotracker GAMA (Groundwater Ambient Monitoring and Assessment) database, the USGS National Water Information System, and the California DWR Water



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Data Library did not yield nearby wells with depth to water data. A well located in Shedd Canyon, approximately 2.25 miles northwest of the Survey Area, recorded a water level of 123 feet below ground surface (bgs) in 1983, or 255 feet below the elevation of the Project site. Within the alluvial valley of San Juan Creek, located approximately 2 miles east at a surface elevation about 170 feet lower than the Survey Area, unconfined groundwater occurs within the alluvium at depths less than 30 feet bgs. The National Wetlands Inventory has mapped the unnamed drainage within the Survey Area as R4SBJ (Riverine, Intermittent, Streambed, and Intermittently Flooded).

The Survey Area is located in the Southern Coast Ranges geomorphic province of California. The Coast Ranges extend to the San Francisco Bay to the north and to the Santa Ynez River to the south. The Coast Ranges are characterized by northwest-southeast trending mountain ranges and intervening valleys which are generally separated by faults. The Survey Area is further located in the southeastern-most portion of the Salinas Valley. The Salinas Valley is bounded to the east by the Temblor Range, to the northeast by the Cholame Hills, by the La Panza Range to the south, and to the southwest by the Santa Lucia Range.

The Survey Area is underlain by Quaternary age non-marine sediments eroded from the surrounding mountain ranges. The major drainages flowing northward from the La Panza range are underlain by Quaternary age alluvium. The hills surrounding the site are composed of Plio-Pleistocene age nonmarine sediments and Pleistocene age terrace deposits. These sedimentary deposits are dominated by silt, sand, and gravel.

Mapped faults in the vicinity of the Survey Area include the Huerhuero fault located approximately 7 miles to the southwest and the Red Hills fault located approximately 10 miles northeast of the Survey Area. The San Andreas fault zone lies approximately 14 miles to the northeast of the Survey Area.

2.5 SOILS

Prior to conducting the delineation, historic soils data from the Natural Resources Conservation Service (NRCS) were used to determine potential soil types that may occur within the Survey Area and included determining whether hydric soils have historically occurred (refer to Appendix A, Figure 3). Characteristics of soils present on the site are summarized in Appendix C. Only one soil type is historically known to occur within the Survey Area and is described below; this soil type does not appear on the NRCS hydric soils list.

Table 1 Historic Soil Units Occurring within the Survey Area

Map Unit Symbol	Map Unit Name	Description
179	Nacimiento-Los Osos complex, 9 to 30 percent slopes	A somewhat excessively well-drained soil with high runoff that is associated with hills from 600-1,500 feet in elevation; parent material is residuum weathered from calcareous shale and/or sandstone; depth to restrictive layer and water table is more than 80 inches; silty clay loam (0-28 inches) and weathered bedrock (28-32 inches).



3.0 REGULATORY BACKGROUND

The USACE Regulatory Program regulates activities pursuant to Section 404 of the federal Clean Water Act (CWA); the CDFW regulates activities under California Fish and Game Code Sections 1600-1607; and the RWQCB regulates activities under Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act. Refer to Appendix E for additional details on regulatory authorities and background.

4.0 WATERS/WETLANDS DELINEATION

This section describes the methods employed by Stantec during the survey conducted on June 18, 2019, to determine the extent of potentially jurisdictional wetlands and/or waters that occur within the Survey Area. Prior to conducting the field assessment, Stantec reviewed current and historic aerial photographs, detailed topographic maps, and soil maps of the Survey Area (USDA, 2018), the National Wetlands Inventory (USFWS, 2018), and local and state hydric soil lists (NRCS, 2018a and 2018b) to evaluate the potential active channels and wetland features that may occur in the Survey Area. During the field assessment, hydrophytic vegetation and hydrologic features were mapped over recent aerial photograph base maps using the Esri® Collector for ArcGIS app on an Apple® iPad® coupled with a Bad Elf® GNSS Surveyor sub-meter external global positioning system (GPS) unit (refer to Appendix A, Figure 4). Mapping was further refined in the office using ArcGIS (version 10.6) with aerial photograph base maps with an accuracy of one foot, and the total jurisdictional area for each regulatory jurisdiction was calculated. Data collected was recorded in part on field data sheets provided in Appendix F.

4.1 DELINEATION METHODOLOGY

4.1.1 Federal Wetlands/Waters

Jurisdictional non-wetland “waters of the U.S.” were delineated based on the limits of the ordinary high water mark (OHWM) as determined by changes in physical and biological features, such as bank erosion, deposited vegetation or debris, and vegetative characteristics. Where present, jurisdictional wetlands are delineated using a routine determination in accordance with the methods outlined in the USACE Wetland Delineation Manual (Environmental Laboratory, 1987) and the Arid West Supplement (Environmental Laboratory, 2011). The determination of whether an area may be considered a federally-jurisdictional wetland is based on the presence of three parameters: dominant hydrophytic vegetation, wetland hydrology, and hydric soils. See Appendix D, Tables 1 and 2 (Potential Geomorphic and Vegetative Indicators of Ordinary High Water Marks for the Arid West) for a list of key physical features used to determine the OHWM identified by the Arid West Manual.

4.1.1.1 Wetland Vegetation

Vegetation percent cover was visually estimated for plant species in each of the four strata (tree, sapling/shrub, herb, and woody vine), and species in each stratum were ranked based on canopy



PRELIMINARY JURISDICTIONAL WETLANDS AND WATERS DELINEATION

dominance. Species with a total percent cover of at least 50 percent and species with 20 percent coverage within each stratum were recorded on the Field Data Sheets (50/20 Rule). Wetland indicator status was assigned to each dominant species using the USACE Arid West Regional Wetland Plant List (Lichvar et. al., 2016). If greater than 50 percent of the dominant species from all strata were Obligate, Facultative-Wetland, or Facultative species, the criteria for wetland vegetation was considered to be met (refer to Appendix D, Table 3).

4.1.1.2 Wetland Hydrology

The presence of wetland hydrology was evaluated by recording the extent of observed primary and secondary indicators, as listed in Attachment D, Tables 4 and 5 (Environmental Laboratory, 2011). Wetland hydrology indicators are divided into two categories (primary and secondary indicators) and the presence of one primary indicator from any of the groups is considered evidence of wetland hydrology. If only secondary indicators are present, two or more must be observed to conclude the presence of wetland hydrology. Indicators are intended to be one-time observations of site conditions representing evidence of wetland hydrology when hydrophytic vegetation and hydric soils are present (Environmental Laboratory, 2011).

4.1.1.3 Wetland Soils

Soils data from the NRCS was referenced to determine if hydric soils have been previously documented and/or historically occurred in or near the Survey Area. Based on this review hydric soils are not expected to occur within the Survey Area. Appendix D, Tables 6 and 7, includes a complete list of hydric soils indicators. A total of two soil test pits were excavated within Survey Area. The locations of each soil test pit are depicted on Figure 4 (refer to Appendix A).

4.1.2 CDFW Waters

CDFW jurisdiction was delineated to the top of the banks of the channel and/or to the edge of contiguous riparian canopy/riparian habitat. Within the Survey Area, the CDFW jurisdictional boundary extend beyond the OHWM. Therefore, the total acreage of CDFW jurisdictional waters within the Survey Area is greater than the acreage of federal jurisdictional waters.

4.2 RESULTS

Based on the data collected in the field, two types of jurisdictional features occur within the Survey Area. These include USACE/RWQCB non-wetland waters of the U.S. and CDFW jurisdictional waters, as depicted in Figure 4 (refer to Appendix A).



PRELIMINARY JURISDICTIONAL WETLANDS AND WATERS DELINEATION

Table 2 Potentially Jurisdictional Features within the Survey and Project Areas

Drainage Feature	USACE/RWQCB Non-Wetland "Waters of the U.S."		CDFW Jurisdictional Waters	
	Survey Area (acres)	Project Impact Area (acres)	Survey Area (acres)	Project Impact Area (acres)
Unnamed Drainage	0.024	0.004	0.149	0.024

According to the NRCS Hydric Soils List, no hydric soil associations have been historically mapped in the Survey Area (refer to Section 2.5 above), and soil pits dug within the Survey Area confirmed the absence of hydric soils. Vegetation occurring at the soil pit locations did not satisfy the 50/20 Rule required to meet the hydrophytic vegetation threshold; therefore, the wetland vegetation criteria was not met. Plants observed within the Survey Area are listed below in Table 3, along with their wetland indicator status.

Table 3 Plant Species Observed within the Survey Area and their Wetland Indicator Status

Scientific Name	Common Name	Wetland Indicator Status*
<i>Amsinckia menziesii</i>	coast fiddleneck	--
<i>Bromus diandrus</i> **	ripgut brome	--
<i>Croton setiger</i>	doveweed	--
<i>Erodium cicutarium</i> **	red-stem filaree	UPL
<i>Hordeum brachyantherum</i>	meadow barely	FACW
<i>Malva neglecta</i> **	common mallow	--
<i>Melilotus officinalis</i> **	yellow sweetclover	FACU
<i>Trichostema lanceolatum</i>	vinegar weed	FACU

* Wetland Indicator Status codes are defined in Appendix D

** Non-native/invasive species

4.2.1 Federal Non-Wetland Waters

The unnamed drainage occurring with the Survey Area flows north to the Estrella River, which eventually confluences with the Salinas River, a known Waters of the U.S. Based on Stantec's professional opinion following an assessment of hydrology, soil characteristics, vegetation, the limits of the OHWM, and connectivity to a known Waters of the U.S., an approximate total of 0.024 acres of non-wetland waters of the U. S. are estimated to occur within the Survey Area; 0.004 acres within the proposed impact area of the Project site. The hydrologic indicators observed during the delineation within the Survey Area included Sediment Deposits (Riverine) (B2) – refer to Appendix D for detailed information on these and other indicators.

4.2.2 Federal Wetlands

Based on Stantec's professional opinion following an assessment of hydrology, vegetation, and soils, no portion of the Survey Area satisfies the criteria to be considered wetlands (Environmental Laboratory, 1987 and 2008).



PRELIMINARY JURISDICTIONAL WETLANDS AND WATERS DELINEATION

4.2.3 CDFW Jurisdictional Waters

Based on Stantec's professional opinion following an assessment of hydrology and the presence of bed and bank, there is a total of approximately 0.149 acres of CDFW jurisdictional waters present within the Survey Area; 0.024 acres would be impacted by the Project.

5.0 SUMMARY/CONCLUSIONS

The Survey Area supports USACE/RWQCB non-wetland waters of the United States and CDFW jurisdictional waters; surface water was not present within the Survey Area during the survey event. Stantec's professional opinion following an assessment of hydrology, soil characteristics, and vegetation, is that no wetlands were present within the Survey Area. Based on the limits of the OHWM, there is approximately 0.024 acres of non-wetland waters of the U. S. present within the Survey Area, of which approximately 0.004 acres occur in the Project impact area.

Following an assessment of hydrology and the presence of bed and bank, it was estimated that there are a total of 0.149 acres of CDFW jurisdictional waters is present within the Survey Area, of which approximately 0.024 acres occur in the Project impact area.

Project-related impacts to jurisdictional areas will require the Project proponent to procure regulatory permits from the USACE, CDFW, and RWQCB. These include a Clean Water Act Section 401 and 404 and CDFW Lake and Streambed Alteration Agreement permits.

The conclusions presented above represent Stantec's professional opinion based on our knowledge and experience with the applicable regulatory agencies, including their technical guidance documents and manuals. However, the USACE, CDFW, and RWQCB have final authority in determining the status and presence of jurisdictional wetlands/waters and the extent of their boundaries.

6.0 REFERENCES

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Appendix A FIGURES



PRELIMINARY JURISDICTIONAL WETLANDS AND WATERS DELINEATION

Appendix B Site Photographs

Appendix B SITE PHOTOGRAPHS



**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client:

Job Number: 1858

Site Name:

Photographer: J. Varonin

Photo 1: June 18, 2019



View of Soil Test Pit P1.

Photo 2: June 18, 2019



View of Soil Test Pit P2.

**STANTEC CONSULTING SERVICES INC.
PHOTOGRAPHIC RECORD**

Client:

Job Number: 1858

Site Name:

Photographer: J. Varonin

Photo 3: June 18, 2019



View looking upstream from Soil Test Pit P1.

Photo 4: June 18, 2019



Culverts under Highway 41.

Appendix C HISTORIC SOILS INFORMATION



San Luis Obispo County, California, Paso Robles Area

179—Nacimiento-Los Osos complex, 9 to 30 percent slopes

Map Unit Setting

National map unit symbol: hbv1

Elevation: 600 to 1,500 feet

Mean annual precipitation: 12 to 20 inches

Mean annual air temperature: 60 degrees F

Frost-free period: 200 days

Farmland classification: Not prime farmland

Map Unit Composition

Nacimiento and similar soils: 30 percent

Los osos and similar soils: 20 percent

Minor components: 50 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Nacimiento

Setting

Landform: Hills

Landform position (two-dimensional): Backslope

Landform position (three-dimensional): Side slope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from calcareous shale and/or sandstone

Typical profile

H1 - 0 to 18 inches: silty clay loam

H2 - 18 to 28 inches: silty clay loam

H3 - 28 to 32 inches: weathered bedrock

Properties and qualities

Slope: 9 to 30 percent

Depth to restrictive feature: 20 to 40 inches to paralithic bedrock

Natural drainage class: Well drained

Runoff class: Very high

Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.57 in/hr)

Depth to water table: More than 80 inches

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate, maximum in profile: 10 percent

Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)

Available water storage in profile: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): 4e

Land capability classification (nonirrigated): 4e

Hydrologic Soil Group: C

Ecological site: Fine Loamy 9-13 (R015XE020CA)

Hydric soil rating: No

Description of Los Osos

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from shale and/or sandstone

Typical profile

H1 - 0 to 14 inches: clay loam
H2 - 14 to 24 inches: clay
H3 - 24 to 59 inches: weathered bedrock

Properties and qualities

Slope: 9 to 30 percent
Depth to restrictive feature: 20 to 40 inches to paralithic bedrock
Natural drainage class: Well drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): 4e
Land capability classification (nonirrigated): 4e
Hydrologic Soil Group: D
Ecological site: Fine Loamy 9-13 (R015XE020CA)
Hydric soil rating: No

Minor Components

Balcom, loam

Percent of map unit: 10 percent
Hydric soil rating: No

Positas, coarse sandy loam

Percent of map unit: 10 percent
Hydric soil rating: No

Unnamed, similar to los osos soil

Percent of map unit: 10 percent
Hydric soil rating: No

Ayar, silty clay

Percent of map unit: 5 percent
Hydric soil rating: No

Diablo, clay

Percent of map unit: 5 percent
Hydric soil rating: No

Shimmon, loam

Percent of map unit: 5 percent

Hydric soil rating: No

Arbuckle, fine sandy loam

Percent of map unit: 1 percent

Hydric soil rating: No

Greenfield, fine sandy loam

Percent of map unit: 1 percent

Hydric soil rating: No

Rincon, clay loam

Percent of map unit: 1 percent

Hydric soil rating: No

Unnamed, gr/cb surfaces

Percent of map unit: 1 percent

Hydric soil rating: No

Unnamed, slopes of 30 to 50 percent

Percent of map unit: 1 percent

Hydric soil rating: No

Appendix D ARID WEST INDICATOR TABLES



Table 1. Potential Geomorphic Indicators of Ordinary High Water Marks for the Arid West

(A) Below OHW	(B) At OHW	(C) Above OHW
1. In-stream dunes	1. Valley flat	1. Desert pavement
2. Crested ripples	2. Active floodplain	2. Rock varnish
3. Flaser bedding	3. Benches: low, mid, most prominent	3. Clast weathering
4. Harrow marks	4. Highest surface of channel bars	4. Salt splitting
5. Gravel sheets to rippled sands	5. Top of point bars	5. Carbonate etching
6. Meander bars	6. Break in bank slope	6. Depositional topography
7. Sand tongues	7. Upper limit of sand-sized particles	7. Caliche rubble
8. Muddy point bars	8. Change in particle size distribution	8. Soil development
9. Long gravel bars	9. Staining of rocks	9. Surface color/tone
10. Cobble bars behind obstructions	10. Exposed root hairs below intact soil layer	10. Drainage development
11. Scour holes downstream of obstructions	11. Silt deposits	11. Surface relief
12. Obstacle marks	12. Litter (organic debris, small twigs and leaves)	12. Surface rounding
13. Stepped-bed morphology in gravel	13. Drift (organic debris, larger than twigs)	
14. Narrow berms and levees		
15. Streaming lineations		
16. Desiccation/mud cracks		
17. Armored mud balls		
18. Knick Points		

Table 2. Potential Vegetation Indicators of Ordinary High Water Marks for the Arid West

	(D) Below OHW	(E) At OHW	(F) Above OHW
Hydroriparian indicators	1. Herbaceous marsh species 2. Pioneer tree seedlings 3. Sparse, low vegetation 4. Annual herbs, hydromesic ruderals 5. Perennial herbs, hydromesic clonals	1. Annual herbs, hydromesic ruderals 2. Perennial herbs, hydromesic clonals 3. Pioneer tree seedlings 4. Pioneer tree saplings	1. Annual herbs, xeric ruderals 2. Perennial herbs, non-clonal 3. Perennial herbs, clonal and non-clonal co-dominant 4. Mature pioneer trees, no young trees 5. Mature pioneer trees w/upland species 6. Late-successional species
Mesoriparian Indicators	6. Pioneer tree seedlings 7. Sparse, low vegetation 8. Pioneer tree saplings 9. Xeroriparian species	5. Sparse, low vegetation 6. annual herbs, hydromesic ruderals 7. Perennial herbs, hydromesic clonals 8. Pioneer tree seedlings 9. Pioneer tree saplings 10. Xeroriparian species 11. Annual herbs, xeric ruderals	7. Xeroriparian species 8. Annual herbs, xeric ruderals 9. Perennial herbs, non-clonal 10. Perennial herbs, clonal and non-clonal codominant 11. Mature pioneer trees, no young trees 12. Mature pioneer trees, xeric understory 13. Mature pioneer trees w/upland species 14. Late-successional species 15. Upland species
Xeroriparian indicators	10. Sparse, low vegetation 11. Xeroriparian species 12. Annual herbs, xeric ruderals	12. Sparse, low vegetation 13. Xeroriparian species 14. Annual herbs, xeric ruderals	16. Annual herbs, xeric ruderals 17. Mature pioneer trees w/upland species 18. Upland species

Table 3. Summary of Wetland Indicator Status

Category		Probability
Obligate Wetland	OBL	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland	FACW	Usually occur in wetlands (estimated probability of 67–99%)
Facultative	FAC	Equally likely to occur in wetlands/non-wetlands (estimated probability of 34–66%)
Facultative Upland	FACU	Usually occur in non-wetlands (estimated probability 67–99%)
Obligate Upland	UPL	Almost always occur in non-wetlands (estimated probability >99%)
Non-Indicator	NI	No indicator status has been assigned

Source: Reed, 1988; USFWS, 1997; USACE, 2012.

Table 4. Wetland Hydrology Indicators*

Primary Indicators	Secondary Indicators
Watermarks	Oxidized Rhizospheres Associated with Living Roots
Water-Borne Sediment Deposits	FAC-Neutral Test
Drift Lines	Water-Stained Leaves
Drainage Patterns Within Wetlands	Local Soil Survey Data

*Table adapted from 1987 USACE Manual and Related Guidance Documents.

Table 5. Wetland Hydrology Indicators for the Arid West*

	Primary Indicator (any one indicator is sufficient to make a determination that wetland hydrology is present)	Secondary Indicator (two or more indicators are required to make a determination that wetland hydrology is present)
Group A – Observation of Surface Water or Saturated Soils		
A1 – Surface Water	X	
A2 – High Water Table	X	
A3 – Saturation	X	
Group B – Evidence of Recent Inundation		
B1 – Water Marks	X (Non-riverine)	X (Riverine)
B2 – Sediment Deposits	X (Non-riverine)	X (Riverine)
B3 – Drift Deposits	X (Non-riverine)	X (Riverine)
B6 – Surface Soil Cracks	X	
B7 – Inundation Visible on Aerial Imagery	X	
B9 – Water-Stained Leaves	X	
B10 – Drainage	X	X
B11 – Salt Crust	X	
B12 – Biotic Crust	X	
B13 – Aquatic Invertebrates	X	

Table 5. Wetland Hydrology Indicators for the Arid West*

	Primary Indicator (any one indicator is sufficient to make a determination that wetland hydrology is present)	Secondary Indicator (two or more indicators are required to make a determination that wetland hydrology is present)
Group C – Evidence of Current or Recent Soil Saturation		
C1 – Hydrogen Sulfide Odor	X	
C2 – Dry-Season Water Table		X
C3 – Oxidized Rhizospheres along Living Roots	X	

*Table adapted from Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0.

Table 6. Field Indicators of Hydric Soil Conditions*

1. Indicators of Historical Hydric Soil Conditions	2. Indicators of Current Hydric Soil Conditions
a. Histosols b. Histic epipedons; c. Soil colors (e.g., gleyed or low-chroma colors, soils with bright mottles (Redoximorphic features) and/or depleted soil matrix d. High organic content in surface of sandy soils e. Organic streaking in sandy soils f. Iron and manganese concretions g. Soil listed on county hydric soils list	a. Aquic or peraquic moisture regime (inundation and/or soil saturation for *7 continuous days) b. Reducing soil conditions (inundation and/or soil saturation for *7 continuous days) c. Sulfidic material (rotten egg smell)

*Table adapted from 1987 USACE Manual and Related Guidance Documents.

Table 7. Hydric Soil Indicators for the Arid West*

Hydric Soil Indicators	Hydric Soil Indicators	Hydric Soil Indicators	Hydric Soil Indicators
A1 – Histosol	S1 – Sandy Mucky Mineral	F1 – Loamy Mucky Mineral	A9 – 1 cm Muck
A2 – Histic Epipedon	S4 – Sandy Gleyed Matrix	F2 – Loamy Gleyed Matrix	A10 – 2 cm Muck
A3 – Black Histic	S5 – Sandy Redox	F3 – Depleted Matrix	F18 – Reduced Verti
A4 – Hydrogen Sulfide	S6 – Stripped Matrix	F6 – Redox Dark Surface	TF2 – Red Parent Material
A5 – Stratified Layers	—	F7 – Depleted Dark Surface	Other (See Section 5 of Regional Supplement, Version 2.0)
A9 – 1 cm Muck	—	F8 – Redox Depressions	—
A11 – Depleted Below Dark Surface	—	F9 – Vernal Pools	—
A12 – Thick Dark Surface	—	—	—

* Table adapted from Regional Supplement to the USACE of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0. ** Indicators of hydrophytic vegetation and wetland hydrology must be present

Appendix E REGULATORY BACKGROUND



Regulatory Background Information

Section 404 of the Clean Water Act (CWA)

Section 404 of the CWA regulates the discharge of dredged material, placement of fill material, or certain types of excavation within "waters of the U.S." (resulting in more than incidental fallback of material) and authorizes the Secretary of the Army, through the Chief of Engineers, to issue permits for such actions. Permits can be issued for individual projects (individual permits) or for general categories of projects (general permits). "Waters of the U.S." are defined by the CWA as "rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands." Wetlands are defined by the CWA as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions." The USACE has adopted several revisions to their regulations in order to more clearly define "waters of the U.S." Until the beginning of 2001, "waters of the U.S." included, among other things, isolated wetlands and lakes, intermittent streams, prairie potholes, and other waters that are not part of a tributary system to interstate waters or to navigable "waters of the U.S."

The jurisdictional extent of USACE regulation changed with the 2001 SWANCC (Solid Waste Agency of Northern Cook County) ruling. The U.S. Supreme Court held that the USACE could not apply Section 404 of the CWA to extend their jurisdiction over an isolated quarry pit. The Court ruled that the CWA does not extend Federal regulatory jurisdiction over non-navigable, isolated, intra-state waters. However, the Court made it clear that non-navigable wetlands adjacent to navigable waters are still subject to USACE jurisdiction.

Section 401 of the CWA

Section 401 of the CWA requires that any applicant for a Federal permit for activities that involve a discharge to 'waters of the State,' shall provide the Federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act. Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the RWQCB. Applications to the RWQCB must include a complete CEQA document (e.g., Initial Study/Mitigated Negative Declaration).

Section 1602 of the California Fish and Game Code

Section 1602 of the California Fish and Game Code requires any person, State or local governmental agency, or public utility which proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or use materials from a streambed, or result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake, to first notify the CDFW of the proposed project. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. Based on the notification materials

submitted, the CDFW will determine if the proposed project may impact fish or wildlife resources. If the CDFW determines that a proposed project may substantially adversely affect existing fish or wildlife resources, a Lake or Streambed Alteration Agreement (SAA) will be required. A completed CEQA document must be submitted to CDFW before a SAA will be issued.

Appendix F FIELD DATA SHEETS



WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Kuhnle Ranch Pipeline Soil Remediation Project City/County: Shandon/San Luis Obispo Sampling Date: 18 June 2019
 Applicant/Owner: Kuhnle Family/Phillips 66 State: CA Sampling Point: P1
 Investigator(s): Jared Varonin, Brett Reiman Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): n/a Local relief (concave, convex, none): none Slope (%): n/a
 Subregion (LRR): C - Mediterranean California Lat: 35°37'5.18"N Long: 120°24'4.34"W Datum: WGS84
 Soil Map Unit Name: Nacimiento-Los Osos complex, 9 to 30 percent slopes NWI classification: R4SBJ

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	
Wetland Hydrology Present?	Yes <input type="radio"/> No <input checked="" type="radio"/>	
Remarks: <u>Dry channel, all upland vegetation.</u>		

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)			
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)			
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)			
4. _____							
Total Cover: <u> </u> %							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1. _____				Total % Cover of: _____ Multiply by: _____			
2. _____				OBL species	x 1 =	<u>0</u>	
3. _____				FACW species	x 2 =	<u>0</u>	
4. _____				FAC species	x 3 =	<u>0</u>	
5. _____				FACU species	x 4 =	<u>0</u>	
Total Cover: <u> </u> %				UPL species	x 5 =	<u>400</u>	
				Column Totals:	<u>80</u> (A)	<u>400</u> (B)	
				Prevalence Index = B/A = <u>5.00</u>			
Herb Stratum				Hydrophytic Vegetation Indicators:			
1. <u>Bromus diandrus</u>	<u>80</u>	<u>Yes</u>	<u>Not Listed</u>	<input checked="" type="checkbox"/> Dominance Test is >50%			
2. _____				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹			
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
5. _____							
6. _____							
7. _____							
8. _____							
Total Cover: <u>80</u> %							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1. _____							
2. _____				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>			
Total Cover: <u> </u> %							
% Bare Ground in Herb Stratum <u>20</u> %			% Cover of Biotic Crust <u> </u> %				

Remarks:

SOIL

Sampling Point: P1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features			Loc ²	Texture ³	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹			
0-12	10 YR 5/3	100					Silt	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- | | |
|--|---|
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Sandy Redox (S5) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C) | <input type="checkbox"/> Depleted Matrix (F3) |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D) | <input type="checkbox"/> Redox Dark Surface (F6) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Vernal Pools (F9) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | |

Indicators for Problematic Hydric Soils:⁴

- ☐
- 1 cm Muck (A9) (LRR C)
-
- ☐
- 2 cm Muck (A10) (LRR B)
-
- ☐
- Reduced Vertic (F18)
-
- ☐
- Red Parent Material (TF2)
-
- ☐
- Other (Explain in Remarks)

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes ☐ No ☒

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- | | |
|--|--|
| <input type="checkbox"/> Surface Water (A1) | <input type="checkbox"/> Salt Crust (B11) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Biotic Crust (B12) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) |
| <input type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) |
| <input type="checkbox"/> Drift Deposits (B3) (Nonriverine) | <input type="checkbox"/> Presence of Reduced Iron (C4) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Water-Stained Leaves (B9) | |

Secondary Indicators (2 or more required)

- ☐
- Water Marks (B1) (Riverine)
-
- ☒
- Sediment Deposits (B2) (Riverine)
-
- ☐
- Drift Deposits (B3) (Riverine)
-
- ☐
- Drainage Patterns (B10)
-
- ☐
- Dry-Season Water Table (C2)
-
- ☐
- Thin Muck Surface (C7)
-
- ☐
- Crayfish Burrows (C8)
-
- ☐
- Saturation Visible on Aerial Imagery (C9)
-
- ☐
- Shallow Aquitard (D3)
-
- ☐
- FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒

Depth (inches): _____

Water Table Present? Yes ☐ No ☒

Depth (inches): _____

Saturation Present? Yes ☐ No ☒
(includes capillary fringe)

Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Kuhnle Ranch Pipeline Soil Remediation Project City/County: Shandon/San Luis Obispo Sampling Date: 18 June 2019
 Applicant/Owner: Kuhnle Family/Phillips 66 State: CA Sampling Point: p2
 Investigator(s): Jared Varonin, Brett Reiman Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): n/a Local relief (concave, convex, none): none Slope (%): n/a
 Subregion (LRR): C - Mediterranean California Lat: 35°37'5.35"N Long: 120°24'4.41"W Datum: WGS84
 Soil Map Unit Name: Nacimiento-Los Osos complex, 9 to 30 percent slopes NWI classification: R4SBJ

Are climatic / hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks.)
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>	Is the Sampled Area within a Wetland?	Yes <input type="radio"/>	No <input checked="" type="radio"/>
Hydric Soil Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Wetland Hydrology Present?	Yes <input type="radio"/>	No <input checked="" type="radio"/>			
Remarks: <u>Top of slope above dry channel, all upland vegetation.</u>					

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)			
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)			
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0</u> % (A/B)			
4. _____							
Total Cover: <u> </u> %							
Sapling/Shrub Stratum				Prevalence Index worksheet:			
1. _____				Total % Cover of: _____ Multiply by: _____			
2. _____				OBL species	x 1 =	<u>0</u>	
3. _____				FACW species	x 2 =	<u>0</u>	
4. _____				FAC species	x 3 =	<u>0</u>	
5. _____				FACU species	x 4 =	<u>40</u>	
Total Cover: <u> </u> %				UPL species	x 5 =	<u>400</u>	
				Column Totals:	<u>90</u> (A)	<u>440</u> (B)	
Herb Stratum				Prevalence Index = B/A = <u>4.89</u>			
1. <u>Bromus diandrus</u>	<u>80</u>	<u>Yes</u>	<u>Not Listed</u>	Hydrophytic Vegetation Indicators:			
2. <u>Trichostema lanceolatum</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	<input checked="" type="checkbox"/> Dominance Test is >50%			
3. _____				<input checked="" type="checkbox"/> Prevalence Index is ≤3.0 ¹			
4. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
5. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)			
6. _____							
7. _____							
8. _____							
Total Cover: <u>90</u> %							
Woody Vine Stratum				¹ Indicators of hydric soil and wetland hydrology must be present.			
1. _____				Hydrophytic Vegetation Present? Yes <input type="radio"/> No <input checked="" type="radio"/>			
2. _____							
Total Cover: <u> </u> %							
% Bare Ground in Herb Stratum <u>10</u> %	% Cover of Biotic Crust <u> </u> %						

Remarks:

SOIL

Sampling Point: P2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features			Texture ³	Remarks	
	Color (moist)	%	Color (moist)	%	Type ¹			
0-14	10 YR 5/4	100				Silt		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix. ²Location: PL=Pore Lining, RC=Root Channel, M=Matrix.
³Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils ⁴ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

⁴Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
--	---

Remarks: _____

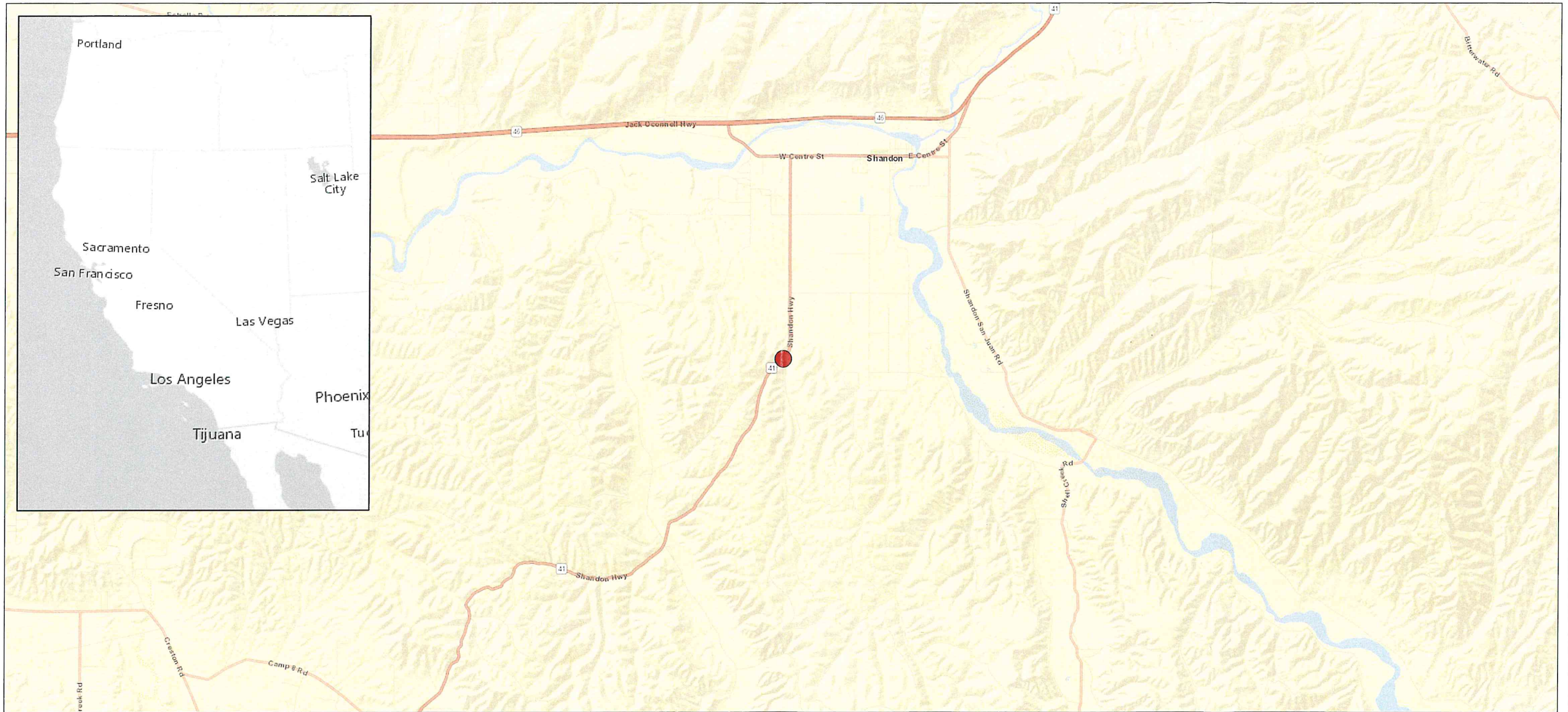
HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (2 or more required)
Primary Indicators (any one indicator is sufficient)		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Water-Stained Leaves (B9)		<input type="checkbox"/> Shallow Aquitard (D3)
		<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Water Table Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ Saturation Present? Yes <input type="radio"/> No <input checked="" type="radio"/> Depth (inches): _____ (includes capillary fringe)				Wetland Hydrology Present? Yes <input type="radio"/> No <input checked="" type="radio"/>
---	--	--	--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: _____

Remarks: _____



● Project Location

0 6,600 13,200 Feet
(At original document size of 11x17)
1:100,000



<i>Project Location</i>	Prepared by JV on 2019-06-28
	TR by LE on 2019-06-28
Shandon, CA (San Luis Obispo County)	IR Review by TP on 2019-02-28
<i>Client/Project</i>	185850857

Kuhnle Ranch Pipeline Soil Remediation Project
Highway 41 Near Wood Canyon Road

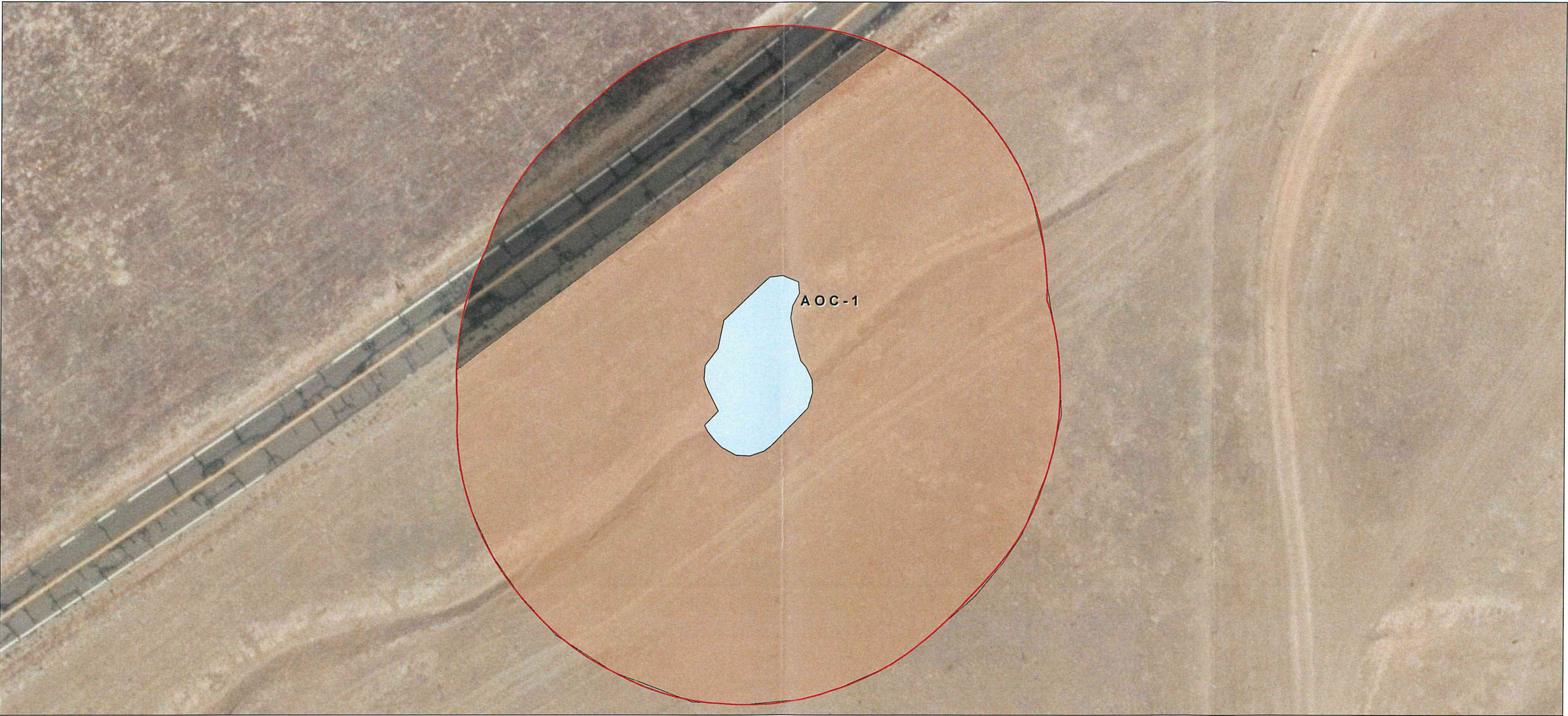
Figure No.

1

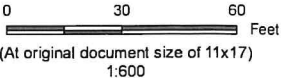
Project Location

Notes

1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Background: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community



- Biological Survey Area
- Proposed Excavations
- Annual Brome Grasslands
- Disturbed/Developed

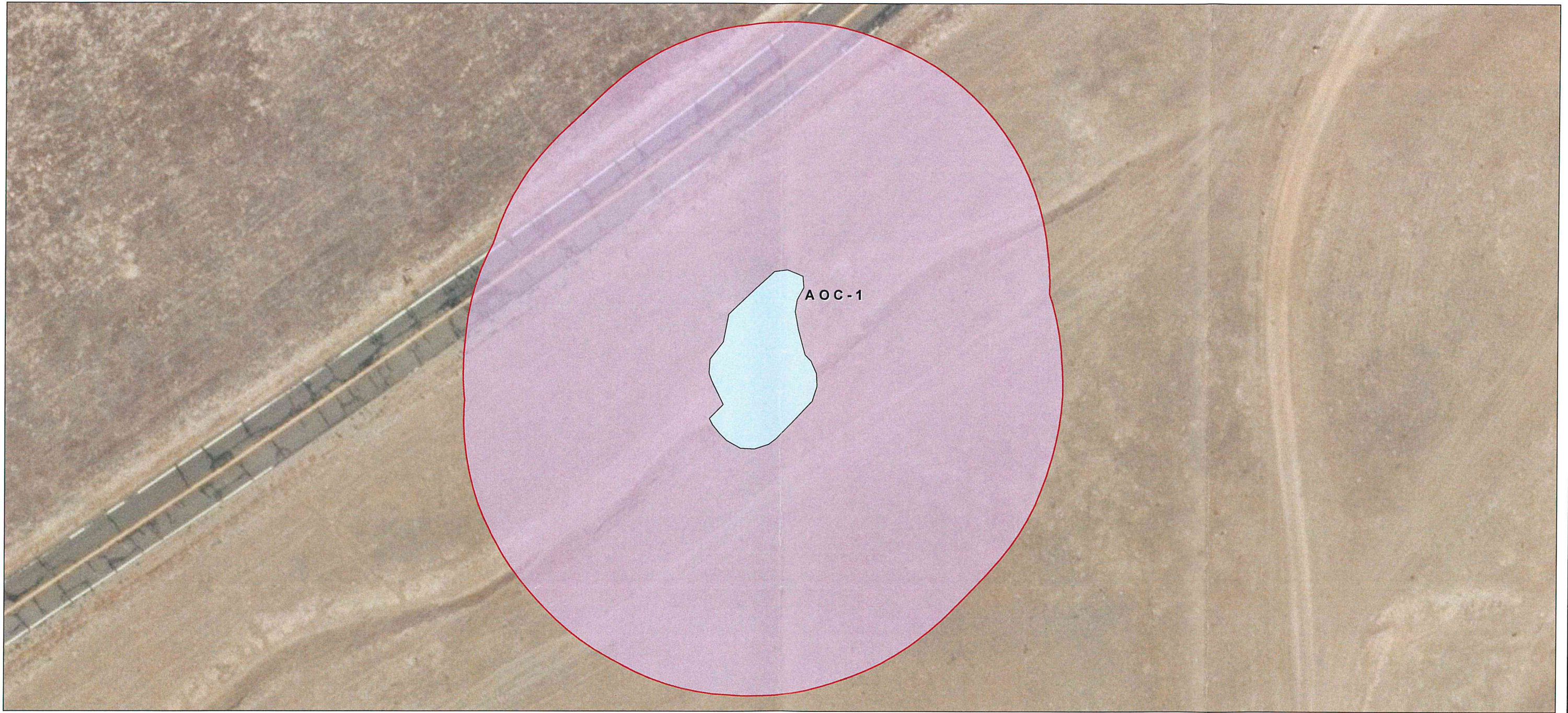


Project Location
Shandon, CA (San Luis Obispo County)
Client/Project
185850857

Prepared by JV on 2019-06-28
TR by LE on 2019-06-28
IR Review by TP on 2019-02-28

Figure No.
2
Title
Vegetation Communities and Land Cover Types

Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Background: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community3. Refer to Section 2.5 of the Jurisdictional Delineation Report for additional information on all reported Soil MUSYM.



Biological Survey Area

Proposed Excavations

Map Unit Symbol

179

0 30 60 Feet
(At original document size of 11x17)
1:600



Project Location
Shandon, CA (San Luis Obispo County)
Client/Project
185850857

Prepared by JV on 2019-06-28
TR by LE on 2019-06-28
IR Review by TP on 2019-02-28

Kuhnle Ranch Pipeline Soil Remediation Project
Highway 41 Near Wood Canyon Road

Figure No.

3

Historic Soil Types

Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Background: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community3. Refer to Section 2.5 of the Jurisdictional Delineation Report for additional information on all reported Soil MUSYM.



- Biological Survey Area
- Proposed Excavations
- Soil Test Pit
- Federal Non-Welland "Waters of the U.S."
- CDFW Jurisdictional Waters

0 30 60 Feet
(At original document size of 11x17)
1:600



Project Location Prepared by JV on 2019-06-28
Shandon, CA (San Luis Obispo County) TR by LE on 2019-06-28
Client/Project IR Review by TP on 2019-02-28
185850857

Kuhnle Ranch Pipeline Soil Remediation Project
Highway 41 Near Wood Canyon Road

Figure No.

4

Title

Potentially Jurisdictional Features

Notes
1. Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere
2. Background: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community