

Initial Study/Mitigated Negative  
Declaration for the East Niles  
Community Services District  
Shalane Tank and Transmission  
Pipeline Project, Kern County,  
California

APRIL 2023

PREPARED FOR

**East Niles Community Services District**

PREPARED BY

**SWCA Environmental Consultants**



**INITIAL STUDY/MITIGATED NEGATIVE DECLARATION  
FOR THE  
SHALANE TANK AND TRANSMISSION PIPELINE PROJECT,  
KERN COUNTY, CALIFORNIA**

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# 1 INTRODUCTION

The East Niles Community Services District (District) owns and operates a water distribution system and sewage collection system serving portions of the city of Bakersfield and unincorporated areas of Kern County, California. The District is proposing to construct an aboveground steel water storage tank on an undeveloped site in Kern County with an associated transmission pipeline. This Initial Study/Mitigated Negative Declaration (IS/MND) evaluates the environmental effects of the proposed Shalane Tank and Transmission Pipeline Project (project) and has been prepared in accordance with relevant provisions of the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code [PRC] Section 21000 et seq.) as amended, and the State CEQA Guidelines (California Code of Regulations [CCR] Title 14, Section 15000 et seq., as revised).

## 1.1 Project Location

The project site location is shown in Figure 1. The project site is located in the western portion of unincorporated Kern County, California, and includes the tank site and transmission pipeline alignment. The tank would be located on a portion of a single undeveloped parcel (Assessor's Parcel Number [APN] 388-080-15). While the parcel is approximately 20 acres in size, the tank would only require a portion of the parcel. The route of the transmission pipeline would extend underneath Shalane Avenue and through a portion of the undeveloped parcel. The pipeline alignment would terminate at California State Route (SR) 184 (Kern County Road) to the west and the tank site to the east (Figure 2). The project site is surrounded by undeveloped land within the incorporated city of Bakersfield to the east; single-family residential development, vacant land, and Hillcrest Memorial Park and Mortuary to the north; single-family residential development and vacant land to the south; and Kern Canyon Road and Lowrider Lifestyle Estates Mobile Home Park to the west. The project site is in the southwest quarter of the Oil Center, California U.S. Geological Survey (USGS) 7.5-minute quadrangle in Section 30, Township 29 South, Range 29 East, Mount Diablo Meridian.

## 1.2 Environmental Setting

The project site includes the tank site and the transmission pipeline. The tank site is vacant and undeveloped. The transmission pipeline primarily occurs within the right-of-way (ROW) of Shalane Avenue, a previously developed, local roadway. The remaining portion of the transmission pipeline would occur within the undeveloped parcel. The pipeline alignment is located within approximately 30 feet of single-family residential development to the north and south.

The Metropolitan Bakersfield Planning Area consists of the incorporated city of Bakersfield and surrounding areas of unincorporated Kern County. The project site is in the eastern portion of the Metropolitan Bakersfield Planning Area, in unincorporated Kern County (Kern County 2011). As such, the analysis included in this IS/MND primarily uses Kern County planning documents as a basis for evaluation. As identified in the *Kern County General Plan*, the land use designations for the project site are Suburban Residential (SR), Low Density Residential (LR), Low Medium Density Residential (LMR), and General Commercial (GC), and the zoning designations for the project site are Estate-½ acre (E [1/2]), Low Density Residential (R-1), Light Industrial (M-1), and General Commercial (C-2) (Kern County 2009). Surrounding land uses generally include undeveloped land within the incorporated city of Bakersfield to the east, low-density residential development to the north and south, and a mobile home park to the west.



Figure 1. Project Vicinity Map.





Figure 2. Project Boundary Map.

The tank site is currently vacant and consists of moderately sloping topography. The transmission pipeline would be aligned along relatively flat topography within a previously developed roadway and a portion of the vacant site. The project site consists entirely of developed areas and nonnative annual grassland. The project site does not support any surface water or wetland features.

### **1.3 Project Description**

The District is proposing to construct a 2.0-million-gallon (MG) aboveground welded steel water storage tank with associated appurtenances and yard piping and install approximately 5,000 feet of new 14-inch potable water transmission pipeline. The project also includes installation of chain-link fencing and electrical components for lighting and security around the tank site. Implementation of the project would provide the District with additional water storage and bolster redundancy of the water distribution system. The project would not increase pipeline capacity for additional customers; rather, it would strengthen the existing operations, allowing for more efficient delivery, and prevent potential disruptions in service.

The project's tank would be constructed in the northeastern corner of the undeveloped parcel (APN 388-080-15). The tank would be approximately 30 feet tall and 120 feet in diameter, requiring approximately 2 acres of the 20-acre parcel to be dedicated to the tank site. A 6- to 8-foot chain-link fence with privacy slats would be installed around the tank site and would include an automated gate for access. In addition, electrical components for lighting and security would be also installed at the tank site.

The transmission pipeline would be aligned through Shalane Avenue, and a portion of the undeveloped parcel. The alignment would terminate at Highway 184 (Kern County Road) to the west and the tank site to the east. The pipeline would primarily be installed under the pavement within the Shalane Avenue rights-of-way (ROW) and continue through the undeveloped parcel connecting at the tank site, approximately 800 feet to the east of the Shalane Avenue terminus. The pipeline ROWs assume 40-foot construction easements, with the pipeline centered within it, and no disturbance is anticipated beyond the easements. An unpaved access road would be established within the pipeline construction easement east of Shalane Avenue to allow for access to the tank site.

The project would result in a total of approximately 3 acres of ground disturbance within the undeveloped parcel, including approximately 2 acres of ground disturbance for construction of the tank and approximately 1 acre of ground disturbance for the installation of the transmission pipeline. The remaining portion of the pipeline construction would occur within previously disturbed ROW along Shalane Avenue. Construction equipment would consist of an excavator, a backhoe, a loader, a rolling compactor, an asphalt concrete (AC) paver, a crew truck, a foreman truck, a water truck, and a street sweeper. Construction vehicles and equipment would access the site via Kern Canyon Road through Shalane Avenue. All equipment staging would be contained within the project boundary and the 40-foot construction easement.

Construction of the project would last approximately 7 months (130 working days). Construction work would typically take place on weekdays only between the hours of 7:00 a.m. and 4:30 p.m. If additional construction is needed on weekends to accommodate the project schedule, work would generally occur between 8:00 a.m. and 4:00 p.m. No nighttime construction is anticipated.

### **1.4 Required Discretionary Approvals**

CEQA requires that all state and local government agencies consider the potentially significant and significant environmental impacts of projects they propose to carry out or over which they have discretionary authority, before implementing or approving those projects. The public agency that has the

principal responsibility for carrying out or approving a project is the lead agency for CEQA compliance (State CEQA Guidelines, CCR Section 15367).

The District has principal responsibility for carrying out the project and is therefore the CEQA lead agency for this IS/MND. There are no other discretionary approvals are required for this project.

## **1.5 Intended Uses of this Document**

The intent of this IS/MND is to (1) determine whether project implementation would result in potentially significant or significant impacts on the physical environment, and (2) incorporate mitigation measures into the project design, as necessary, to eliminate the project's potentially significant impacts or reduce them to a less-than-significant level.

This IS/MND will be circulated for 30 days for public and agency review, during which time individuals and agencies may submit comments on the adequacy of the environmental review. Following the public review period, the District's Board will consider any comments received on the IS/MND when deciding whether to adopt the document.

## 2 ENVIRONMENTAL CHECKLIST AND ENVIRONMENTAL EVALUATION

### ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The proposed project could have a “Potentially Significant Impact” for environmental factors checked below. Please refer to the attached pages for discussion on mitigation measures or project revisions to either reduce these impacts to less than significant levels or require further study.

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Aesthetics                         | <input type="checkbox"/> Greenhouse Gas Emissions        | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Recreation                         |
| <input type="checkbox"/> Air Quality                        | <input type="checkbox"/> Hydrology and Water Quality     | <input type="checkbox"/> Transportation                     |
| <input type="checkbox"/> Biological Resources               | <input type="checkbox"/> Land Use and Planning           | <input type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Mineral Resources               | <input type="checkbox"/> Utilities and Service Systems      |
| <input type="checkbox"/> Energy                             | <input type="checkbox"/> Noise                           | <input type="checkbox"/> Wildfire                           |
| <input type="checkbox"/> Geology and Soils                  | <input type="checkbox"/> Population and Housing          | <input type="checkbox"/> Mandatory Findings of Significance |

### ENVIRONMENTAL DETERMINATION

On the basis of this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Date: March 28, 2023

Signed: \_\_\_\_\_

## I. Aesthetics

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Except as provided in Public Resources Code Section 21099, would the project:</i>				
(a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Setting

The project site is located in unincorporated Kern County. As such, this analysis uses the *Kern County General Plan* and *Kern County Municipal Code* as the bases for evaluation. Based on the General Plan, areas that support oaks and oak woodlands; provide access to lakeshores, beaches, rivers, or streams; consist of open-space reservations; and/or support trails and scenic highway corridors generally have high and/or unique scenic value (Kern County 2009). The project site does not support, nor is it located in the vicinity of an area with, high or unique scenic value as defined in the General Plan. In addition, the General Plan identifies three roadways with scenic value in the county, including SR 14 and SR 395, from Mojave north toward the Inyo County line; SR 58, from Mojave east toward Boron; and SR 41, through northwest Kern County (Kern County 2009). The project site is not located within the vicinity of these roadways.

The project site includes property in an urban area within unincorporated Kern County. It is surrounded by undeveloped land within the incorporated city of Bakersfield to the east; residential development, vacant land, and Hillcrest Memorial Park and Mortuary to the north; residential development and vacant land to the south; and Kern Canyon Road and residential development to the west. The project site consists entirely of developed areas and nonnative annual grassland. The project site is not located in an area with significant features of visual interest or panoramic views of large geographic areas of scenic quality. According to the California Department of Transportation (Caltrans) California State Scenic Highway Map, the nearest designated and/or eligible State Scenic Highway is SR 14, located more than 50 miles east of the project site (Caltrans 2018).

### Environmental Evaluation

#### a) *Would the project have a substantial adverse effect on a scenic vista?*

**No Impact.** There are no scenic vistas or resources with high or unique scenic value within the project site or surrounding areas (Kern County 2009). Therefore, the project would not have a substantial adverse effect on a scenic vista, and no impacts would occur.

**b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?**

**No Impact.** The project site is not located in the vicinity of a state designated or eligible scenic highway and there are no officially designated or eligible State Scenic Highways within 50 miles of the project site (Caltrans 2018). Therefore, the project would not damage scenic resources within the viewshed of a State Scenic Highway, and no impacts would occur.

**c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views of the site and its surroundings? (public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?**

**Less than Significant Impact.** The project site is located within an urbanized area in Kern County, within the Estate (E) zoning district. The project includes the construction of a new, aboveground 24-foot-tall steel water tank, which would be approximately 120 feet in diameter. Other proposed aboveground features include a 6- to 8-foot-tall chain-link fence, and an unpaved access road to the tank site. *Kern County Municipal Code* Section 19.16 limits the development of buildings and accessory structures to 35 feet in height within the E zoning district. The project does not include the development of buildings or accessory structures that would be applicable to this requirement; however, in regard to determining consistency with existing and future surrounding development, all proposed aboveground features would be less than 35 feet in height, which would be consistent with the building and accessory structure height requirements for the E zoning district. Further, the tank would be painted a neutral earth tone color like the existing water tanks in the District's service area, which would blend with the coloration of existing undeveloped areas to the north, south, and east, minimizing visual contrast with the surroundings. Further, the project site and surrounding areas do not consist of any resources with high or unique scenic value; therefore, implementation of the project would not block or impede views of scenic value.

The project also includes the installation of approximately 5,000 feet of underground transmission pipeline. Installation of the transmission pipeline would not result in new aboveground features that could permanently change or block existing views of the site or its surroundings. Installation of the pipeline would be consistent with the permitted uses for the E zoning district, which allows for installation of underground utility infrastructure. Therefore, implementation of the project would not conflict with the existing visual character or scenic quality of the site, and impacts would be less than significant.

**d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?**

**Less than Significant Impact.** The project would include installation of overhead security lighting and cameras around the tank site only. This security lighting would likely be placed in the four corners surrounding the tank site and would be hooded and angled so it would not introduce elements that would create a substantial source of light or glare. Project construction would be limited to daytime hours Monday through Friday and is not anticipated to require nighttime lighting. However, in the event that construction lighting is required, it would be properly shielded to avoid spillover effects. Once project construction is complete, any temporary lighting that was required would be removed from the site. The project would not create a new permanent source of substantial light or glare that would adversely affect day or nighttime views in the area; therefore, impacts would be less than significant.

## Conclusion

The project would not result in a significant adverse impact to Aesthetics, and no mitigation measures are required.

## II. Agriculture and Forestry Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:</i>				
(a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey, the project site is underlain by the following two soil types (NRCS 2022):

- **(135) Cuyama loam, 9 to 15 percent slopes.** This well-drained soil has a high runoff class and a depth to restrictive feature of more than 80 inches. The typical soil profile of this soil consists of loam, gravelly loam, gravelly clay loam, stratified cobbly sandy loam to cobbly clay loam, and stratified gravelly loamy sand to sandy clay loam. This soil is not considered Prime Farmland by the NRCS.
- **(139) Delano sandy loam, 2 to 5 percent slopes.** This well-drained soil has a medium runoff class and a depth to restrictive feature of more than 80 inches. The typical soil profile of this soil consists of sandy loam and clay loam. This soil is considered Prime Farmland if irrigated by the NRCS.

The project site includes Urban and Built-Up Land and Grazing Land classifications by the Farmland Mapping and Monitoring Program (FMMP) (California Department of Conservation [CDOC] 2016). The project site is not located on land currently under a Williamson Act contract and is not designated or zoned as agricultural land. The project site and surrounding areas are not currently used for an agricultural use. Additionally, the project site is not located on land designated as forestland or timberland and is void of dense natural tree cover.

## Environmental Evaluation

- a) ***Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?***

**No Impact.** The project site is located on land classified as Urban and Built-Up Land and Grazing Land by the FMMP; therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use, and no impacts would occur.

- b) ***Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?***

**No Impact.** The project site is not located on land currently under a Williamson Act contract or land located on or adjacent to a site currently zoned for agricultural use; therefore, no impacts would occur.

- c) ***Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?***

**No Impact.** The project site is not located on land zoned for forestland or timberland and is not located on or adjacent to a site currently zoned for forestland or timberland production; therefore, no impacts would occur.

- d) ***Would the project result in the loss of forest land or conversion of forest land to non-forest use?***

**No Impact.** There is no designated forestland within or adjacent to the project area; therefore, the project would not result in the loss of forestland or conversion of forestland to non-forest use, and no impacts would occur.

- e) ***Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

**No Impact.** There is no designated farmland or forestland within or near the project site. The project would not introduce new incompatible land uses that could otherwise result in the conversion of farmland or forestland; therefore, the project would not result in the conversion of farmland or forestland, and no impacts would occur.



## Conclusion

The project would not result in a significant adverse impact to Agriculture and Forestry Resources, and no mitigation measures are required.

## III. Air Quality

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:</i>				
(a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

The project site is located within the San Joaquin Valley Air Basin (SJVAB), which is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the SJVAB portion of Kern. Air quality within the SJVAB is regulated by several jurisdictions, including the U.S. Environmental Protection Agency (USEPA), California Air Resources Board (CARB), and San Joaquin Valley Air Pollution Control District (SJVAPCD).

The SJVAPCD prepares air quality plans for the SJVAB to comply with national and state standards that are used to assess potential air quality impacts. The San Joaquin Valley has been in attainment for carbon monoxide (CO) since 1994 and reached attainment for the federal particulate matter less than 10 microns in diameter (PM<sub>10</sub>) standard in 2008. The entire air basin is classified as non-attainment for the California Ambient Air Quality Standards (CAAQS) 24-hour and annual PM<sub>10</sub> standards, the CAAQS annual particulate matter less than 2.5 microns in diameter (PM<sub>2.5</sub>) standard, and the CAAQS 1-hour and 8-hour ozone (O<sub>3</sub>) standards. The SJVAB is also classified as non-attainment for the National Ambient Air Quality Standards (NAAQS) 8-hour O<sub>3</sub> standard and the 24-hour and annual PM<sub>2.5</sub> standards. The SJVAPCD-recommended thresholds for determining whether individual projects have significant adverse air quality impacts are provided in the *Guidance for Assessing and Mitigating Air Quality Impacts* (SJVAPCD 2015). Table 1 shows SJVAPCD thresholds, which are applied separately to construction emissions, permitted operational emissions, and non-permitted operational emissions.

**Table 1. San Joaquin Valley Air Pollution Control District Significance Thresholds**

	Pollutant/Precursor					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Emissions tons/year	10	10	100	27	15	15

Source: SJVAPCD (2015)

Additionally, a project may have a significance impact on air quality if it would:

- a. Cause or contribute to an exceedance of any CAAQS; or
- b. Be inconsistent with adopted federal and state Air Quality Attainment Plans.

### **Construction Emissions**

As described in Section 1.3, *Project Description*, the project would include the construction of a 2.0-MG aboveground welded steel water storage tank with associated appurtenances and yard piping, and the installation of approximately 5,000 feet of new 14-inch potable water transmission pipeline. The project also includes installation of chain-link fencing and electrical components for lighting and security around the tank site. The tank would be located on a single undeveloped parcel, approximately 20 acres in size. The route of the transmission pipeline would extend underneath Shalane Avenue and through a portion of the undeveloped parcel, terminating at Kern County Road to the west and the tank site to the east.

Construction of the project has the potential to result in a short-term increase in dust and vehicle emissions, including diesel particulate matter (DPM), reactive organic gases (ROGs), nitrogen oxides (NO<sub>x</sub>), and particulate matter. Estimated construction emissions from the project were calculated using the California Emission Estimator Model (CalEEMod), Version 2020.4.0. Emissions were quantified based on the construction schedules and equipment use for the project and the default construction vehicle trips contained in the model with additional trips added for a conservative assumption. Fugitive dust control measures were not included in the modeling assumptions. Construction emissions modeling assumptions are provided in Appendix A and estimated short-term construction emissions are shown in Table 2.

**Table 2. Project Construction Emissions**

	Construction Emissions (tons/year)					
	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Project Construction Emissions 2022	0.34	2.87	2.55	0.007	0.28	0.15
SJVAPCD Threshold tons/year	10	10	100	27	15	15
Exceed Threshold?	No	No	No	No	No	No

Source: SJVAPCD (2015)

As shown in Table 2, short-term construction emissions are not anticipated to exceed established thresholds. Although the project would not result in significant construction-related emissions, the project is required to incorporate strategies to comply with SJVAPCD Regulation VIII, to reduce air quality impacts associated with construction of the project.

SJVAPCD Regulation VIII requires property owners, contractors, developers, equipment operators, farmers, and public agencies to control fugitive dust emissions from specified outdoor fugitive dust sources (SJVAPCD 2004). For example, SJVAPCD Regulation VIII contains the following required control measures during project construction:

- Pre-water the site enough to limit visible dust emissions (VDE) to 20% opacity.
- Phase the work to reduce the amount of surface area disturbed at any one time.
- During active construction:
  - Apply enough water or chemical/organic stabilizers or suppressants to limit VDE to 20% opacity.
  - Construct and maintain wind barriers sufficient to limit VDE to 20% opacity.
  - Apply water or chemical/organic stabilizers or suppressants to unpaved access/haul roads and unpaved vehicle/equipment traffic areas in sufficient quantity to limit VDE to 20% opacity and meet the conditions of a stabilized unpaved road surface.
- Limit the speed of vehicles traveling on uncontrolled, unpaved access/haul roads within construction sites to a maximum of 15 miles per hour (mph).

### ***Sensitive Receptors***

SJVAPCD has additional control measures that are strongly encouraged at construction sites located near sensitive receptors. Surrounding sensitive receptors include single-family residential dwellings approximately 30 feet to the north and south and a mobile home park approximately 100 feet to the west.

However, construction would be short term and is not large in area; therefore, only the SJVAPCD Regulation VIII standard measures for reducing fugitive dust are required.

### ***Operational Emissions***

Implementation of the project would not result in any additional air quality emissions. The project consists of the construction of the water storage tank and associated transmission pipeline and after construction is complete, there would be no emissions associated with the project and operational emissions have not been quantified.

### **Environmental Evaluation**

#### **a) *Would the project conflict with or obstruct implementation of the applicable air quality plan?***

**Less than Significant Impact.** The SJVAPCD has established thresholds of significance for criteria pollutant emissions, which are based on New Source Review offset requirements for stationary sources. Because the SJVAB is an extreme O<sub>3</sub> non-attainment area, stationary sources in the SJVAPCD are subject to some of the toughest regulatory requirements in the nation. Emission reductions achieved through implementation of offset requirements are a major component of the SJVAPCD's air quality plans. Therefore, projects with emissions below the thresholds of significance for criteria pollutants would be determined to not conflict or obstruct implementation of the air quality plans, while emissions exceeding those thresholds would conflict with and obstruct implementation. Table 2, above, presents the construction emissions, and no operational emissions are anticipated resulting from the project. As shown, emissions would not exceed thresholds. Because the project would not exceed thresholds, it would not conflict with or obstruct implementation of the SJVAPCD's O<sub>3</sub> attainment plans, including its most

recent 2016 Plan for 2008 8-Hour Ozone Standard (SJVAPCD 2016). Therefore, impacts would be considered less than significant.

**b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?**

**Less than Significant Impact.** Any project-level significant impacts would be considered significant at a cumulative level. As previously discussed, criteria pollutant emissions would be less than significant with the implementation of required SJVAPCD regulated control measures and therefore would not contribute to significant cumulative impacts. As discussed above, project activities would neither expose sensitive receptors to substantial pollutant concentrations nor generate objectionable odors. Accordingly, no new or more severe cumulative impacts are anticipated as part of the project. Therefore, impacts would be less than significant.

**c) Would the project expose sensitive receptors to substantial pollutant concentrations?**

**Less than Significant Impact.** As described in detail below, the project would not expose sensitive receptors to substantial pollutant concentrations during construction or operation of the project.

## CONSTRUCTION

The greatest potential for toxic air contaminant exposure during construction would be associated with DPM emissions from heavy equipment exhaust. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level for the maximally exposed individual. The risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a longer period of time. Local exposure would range from weeks to months depending on the construction phase and location.

The tank would be constructed approximately 800 feet east from single-family residential dwellings, and the pipeline alignment would occur within approximately 30 feet of single-family residential dwelling to the north and south. However, construction equipment, vehicle, and material movement activities and associated emissions would progress throughout the project site and would not result in fixed exposure to any single sensitive receptor location. In addition, the project would be subject to the regulations and laws relating to toxic air containments at the federal, state, and regional level that would protect sensitive receptors from substantial concentrations. This impact would be less than significant, and no mitigation would be required.

## OPERATION

Operations would not introduce any new substantial source of air pollutant emissions to the project area and therefore does not have the potential to generate substantial pollutant concentrations. This impact would be less than significant, and no mitigation would be required.

**d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?**

**Less than Significant Impact.** As described in detail below, construction and operation of the project would not result in other emissions, including odorous emissions, that could affect a substantial number of people.

**CONSTRUCTION**

Construction activities have the potential to emit short-term odors from diesel equipment, paints, solvents, fugitive dust, and adhesives. Odors from construction activities would be intermittent and temporary, and generally would not extend beyond the construction area. Further, odors would be typical of most construction sites and would dissipate rapidly from the source with an increase in distance. The project site is not located in an area with potential for naturally occurring asbestos (NOA) to occur and ground disturbance activities would not result in a release of NOA (California Geologic Survey [CGS] 2011).

Construction contractors would employ best management practices (BMPs) (e.g., inspections, maintenance of diesel-fueled heavy-duty equipment) during construction activities and would adhere to all requirements set forth in the SJVAPCD Rules and Regulations to minimize short-term construction-related odors to the extent feasible. Therefore, impacts would be less than significant, and no mitigation would be required.

**OPERATION**

Operational activities involve routine maintenance and would not introduce any new sources of odors to the project area. There is no potential for the project to result in a permanent impact related to odors.

**Conclusion**

The project would not result in a significant adverse impact to Air Quality, and no mitigation measures are required.

**IV. Biological Resources**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Regulatory Setting

The federal Endangered Species Act (FESA) of 1973 provides legislation to protect federally listed plant and wildlife species and requires that the responsible agency or individual consult with the U.S. Fish and Wildlife Service (USFWS) to determine the extent of impact to a particular species. If the USFWS determines that impacts to a species would likely occur, alternatives and measures to avoid or reduce impacts must be identified.

The Migratory Bird Treaty Act (MBTA) of 1918 protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade of bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by USFWS, and potential impacts to species protected under the MBTA are evaluated by USFWS in consultation with other federal agencies.

The California Endangered Species Act (CESA) of 1970 ensures legal protection for plants and wildlife formally listed as endangered or threatened by the State of California. California Fish and Game Code (CFG) Sections 2080 and 2081 prohibits the take (defined as hunting, pursuing, catching, capturing, or killing) of endangered, threatened, or candidate species unless otherwise authorized by permit. The California Department of Fish and Wildlife (CDFW) regulates activities that may result in the “take” of such species. The CESA has a much less inclusive definition of “take” (limited to direct take such as hunting, shooting, capturing, etc.) that does not include the broad “harm” and “harassment” definitions in federal law.

CFG Sections 3511, 4700, 5050, and 5515 include provisions to protect Fully Protected species, such as: (1) prohibiting take or possession “at any time” of the species listed in the statute, with few exceptions; (2) stating that “no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to “take” the species;” and (3) stating that no previously issued permits or licenses for take of the species “shall have any force or effect” for authorizing take or possession. The CDFW is unable to authorize incidental take of “fully protected” species when activities are proposed in areas inhabited by those species; therefore, project-related activities must avoid take of Fully Protected species.

The CDFW also maintains a list of California Species of Special Concern (SSC). Species are given this designation based on limited distribution, declining populations, diminishing habitat, or unusual scientific, recreational, or educational value. Under state law, the CDFW is empowered to review projects for their potential to impact state-listed and SSC species and their habitats.

CFGF Section 3503—Protections of Bird’s Nests includes provisions to protect the nests and eggs of birds. CFGF Section 3503 states: “It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” In addition, CFGF Section 3513 states that it is unlawful to take or possess any migratory bird as designated in the MBTA or any part of such migratory birds except as provided by rules and regulations under provisions of the MBTA.

The project site is located within the boundaries of the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP). The MBHCP is a regional permit where the USFWS and CDFW have authorized the take of “Covered Species” (i.e., certain federally and state-listed species) associated with and incidental to Urban Development in the Metropolitan Bakersfield area. While the MBHCP does not apply to District projects, it does lay out a regional conservation strategy for federally and state-listed species in the project area and provides industry standards for avoidance and mitigation measures already approved and in use by the USFWS and CDFW.

## Methods

The following impact analysis for biological resources is based on a desktop review, including a review of Google Earth and other publicly available aerial imagery, and a reconnaissance-level field survey of the project site. Soil types in the vicinity of the project site were reviewed using the USDA NRCS Web Soil Survey (NRCS 2022). The USFWS National Wetlands Inventory (NWI) and USGS National Hydrography Dataset (NHD) were reviewed to determine the potential for wetlands, riparian habitat, or other jurisdictional features to occur in the study area (USFWS 2022b; USGS 2022).

Three databases were queried to assess the potential for special-status species to occur in the project vicinity. The first was a query of the CDFW California Natural Diversity Database (CNDDDB) (CNDDDB 2022) to identify special-status plant and wildlife species that have reported occurrences and/or are considered to have potential to occur within the Oil Center, California USGS 7.5-minute quadrangle and the adjacent quadrangles: Rio Bravo Ranch, Edison, and Lamont. Second, the California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants of California (CNPS 2022) was reviewed for the same quadrangles to provide additional information on rare plants that are known to occur in the area. Finally, the USFWS Information Planning and Consultation (IPaC) tool (USFWS 2022b) was queried to identify any other federally listed resources that need to be addressed in relation to the project.

A reconnaissance-level field survey of the project site was conducted by SWCA Environmental Consultants (SWCA) Senior Biologist Benjamin Ruiz on March 9, 2022, to assess the habitat types present in the suitability of the site to support special-status species. The timing of this site visit corresponded to the blooming periods of sensitive plants that are known to potentially exist in the vicinity of the project.

As well, protocol-level surveys for blunt-nosed leopard lizard (BNLL) (*Gambelia sila*) were conducted by BPR Consulting, following the CDFW’s survey methodology (CDFW 2019), on May 4, 6, and 26 through 29; June 4, 6, 11, 12, 20, and 21; August 15, 16, and 18; and September 16 and 17, 2022. The BNLL survey report is included as Appendix B.

## Setting

The project area includes the proposed project site, all access roads and staging areas, and a 500-foot buffer around undeveloped areas of the proposed project. The project site elevation ranges from approximately 585 to 645 feet (178 to 197 meters). Land cover types include developed and nonnative grassland (Figure 3). Developed areas include the portion of Shalane Avenue east of Kern Canyon Road and any residences that overlap with the 500-foot buffer area. The undeveloped portion of the project area is classified as nonnative grassland because it is primarily dominated by nonnative annual grasses, including red brome (*Bromus madritensis* ssp. *rubens*), riggut brome (*Bromus diandrus*), rat-tail fescue (*Festuca myuros*), foxtail barley (*Hordeum murinum* ssp. *glaucum*), and Mediterranean grass (*Schismus arabicus*) (Holland 1986). Native grasses present include Arizona brome (*Bromus arizonicus*), salt grass (*Distichlis spicata*) and small fescue (*Festuca myuros*). Forb species observed include red-stemmed filaree (*Erodium cicutarium*), Russian thistle (*Salsola australis*), tumble mustard (*Sisymbrium altissimum*), vinegarweed (*Trichostema lanceolatum*), and yellow burweed (*Amsinckia* spp.). Wildlife species observed during field surveys include California ground squirrel (*Otospermophilus beecheyi*) and common side-blotched lizard (*Uta stansburiana*).



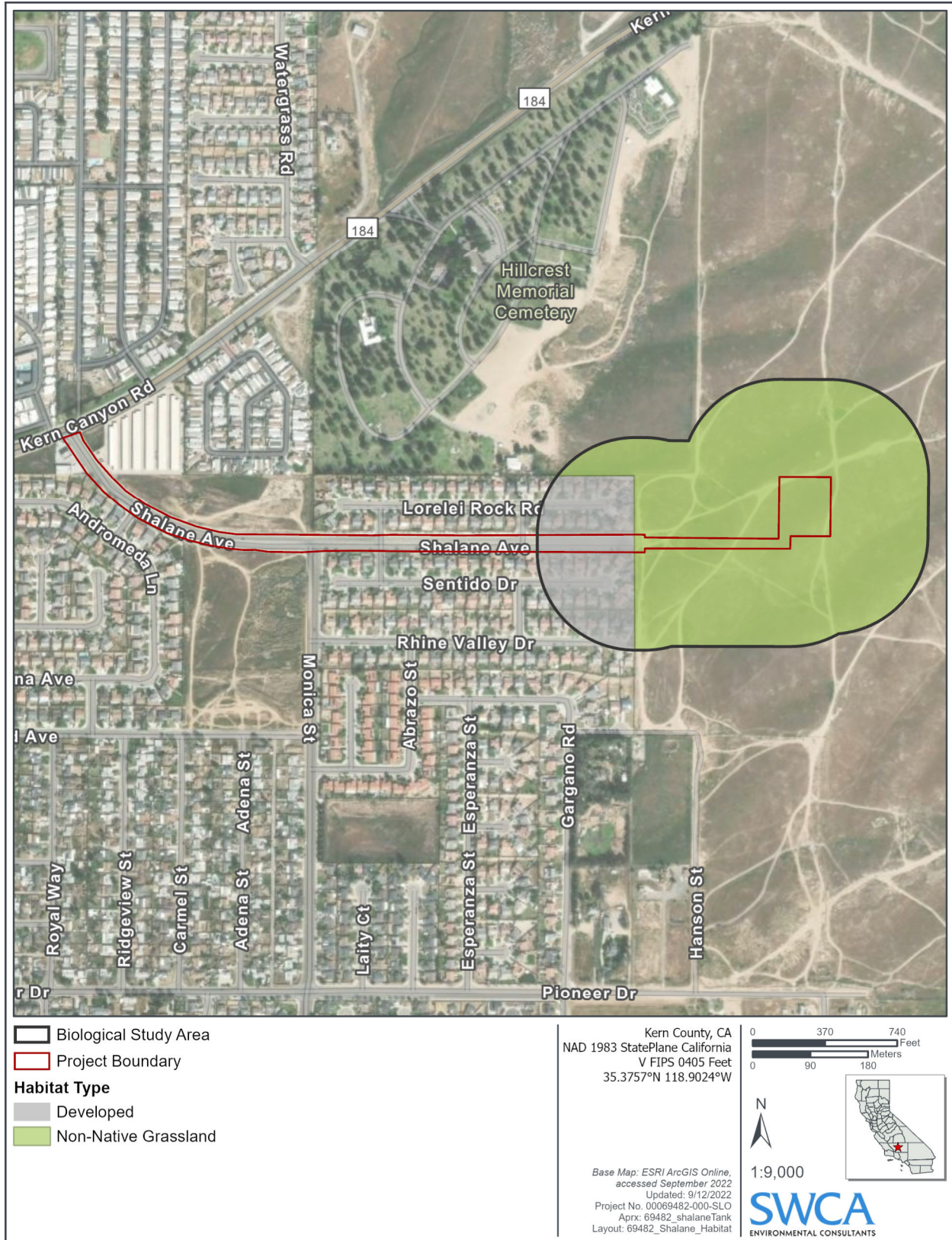


Figure 3. Habitat and Land Cover Types.

### **Special-Status Plant Species**

For the purposes of this analysis, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the FESA (Code of Federal Regulations [CFR] Title 50, Section 17.12 for listed plants and various notices in the *Federal Register* for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA.
- Plants that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Plants considered by the CNPS to be “rare, threatened, or endangered” in California (California Rare Plant Ranks [CRPR] 1, 2, and 3).
- Plants listed by the CNPS as plants about which we need more information and plants of limited distribution (CRPR 4).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the CESA (14 CCR Section 670.5).
- Plants listed as rare under the California Native Plant Protection Act (NPPA; CFGC Section 1900 et seq.).

The background review identified 27 special-status plant species that have the potential to occur within the vicinity of the project site. The project site does not contain sandy soils, alkaline soils, patches of serpentine soils, rocky outcrops, vernal pools, or other types of seasonal wetlands, which are key micro-habitat components for several of the special-status plant species that were identified in the literature review. The site was likely historically chenopod scrub, but due to historic agricultural practices, over time it has been converted to nonnative annual grassland, with low plant species diversity. Although there is historic potential for suitable habitat conditions, based on the current condition of the site, there is low potential for 10 special-status plant species to occur; the habitat is described as marginally suitable for these species. However, none of these species were observed during an appropriately timed botanical survey. Table 3 lists all the special-status plant species that have potential to occur within the vicinity of the project site (i.e., within the four USGS 7.5-minute quadrangles listed above) and their potential to occur in the project area.

**Table 3. Special-Status Plant Species Investigated for Potential Occurrence**

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Howell's onion <i>Allium horwellii</i> var. <i>horwellii</i>	Occurs in valley and foothill grassland on clay and serpentine soils. Elevation: 50–2,200 meters.	March–April	--/--/4.3	<b>Suitable Conditions Absent:</b> The project site does not support serpentine soils.
Horn's milk-vetch <i>Astragalus hornii</i> var. <i>hornii</i>	Annual herb that occurs in meadows and seeps, playas/lake margins, and alkaline soils. Elevation: 60–850 meters.	May–October	--/--/1B.1	<b>Suitable Conditions Absent:</b> The project site does not include alkaline meadows or seeps.
Bakersfield smallscale <i>Atriplex tularensis</i>	Occurs in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland, historically in valley sink scrub or with saltgrass in alkali seeps or meadows. Elevation: 90–200 meters.	June–October	--/--/3	<b>Suitable Conditions Absent:</b> The project site does not include alkaline meadows or seeps.
Mexican mosquito fern <i>Azolla microphylla</i>	Biennial to perennial fern that occurs in marshes and swamps or ponds with slow-moving water. Elevation: 30–100 meters.	August	--/--/4.2	<b>Suitable Conditions Absent:</b> The project site does not include marshes, swamps, or ponds.
California jewelflower <i>Caulanthus californicus</i>	Annual herb that occurs in nonnative grassland, upper Sonoran subshrub scrub, and cismontane juniper woodland and scrub communities in subalkaline and sandy loam soils. Current known naturally occurring populations are in Santa Barbara Canyon, Carrizo Plain, and Kreyenhagen Hills in Fresno County. Elevation: 21–870 meters.	February–May	FE/SE/1B.1	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely due to past disturbances and grazing, the nonnative grassland that occurs on the project site could support this species. This species was not observed during the botanical survey.
slender clarkia <i>Clarkia exilis</i>	Annual herb that occurs in foothill woodland communities (cismontane woodland). Only known to occur in foothills immediately northeast of Bakersfield. Populations are largely proximal to Kern River. Elevation: 120–1,000 meters.	April–May	--/--/4.3	<b>Suitable Conditions Absent:</b> The project site is located outside of the known range of the species and does not contain suitable woodland habitat.
Vasek's clarkia <i>Clarkia tembloriensis</i> ssp. <i>calientensis</i>	Annual herb that occurs in valley and foothill grasslands. Elevation: 275–500 meters.	April	--/--/1B.1	<b>Suitable Conditions Absent:</b> The project site is located outside of the known range of this species at a lower elevation.
Rose-flowered larkspur <i>Delphinium purpusii</i>	Perennial herb that occurs in rocky areas among chaparral, cismontane woodland, and pinyon and juniper woodland. 300–1,340 meters.	April–May	--/--/1B.3	<b>Suitable Conditions Absent:</b> The project site is located outside of the known range of this species and does not contain suitable rocky areas.
Calico monkeyflower <i>Diplacus pictus</i>	Annual herb that occurs in broadleaved upland forest and cismontane woodland. Tolerant of disturbed sites. Usually associated with granitic soils. Elevation: 100–1,430 meters.	March–May	--/--/1B.2	<b>Suitable Conditions Absent:</b> The project site is located outside of the known range of this species and does not contain suitable woodland habitat or associated granitic soils.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Kern mallow <i>Eremalche parryi</i> ssp. <i>kernensis</i>	Annual herb that occurs on dry, open sandy to clay soils in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. Elevation: 70–1,290 meters.	January–May	FE/--/1B.2	<b>Suitable Conditions Present, Species Absent:</b> The nonnative grass habitat in the project area supports suitable conditions for this species. This species was not observed during the botanical survey.
Hoover's eriastrum <i>Eriastrum hooveri</i>	Annual herb that occurs in chenopod scrub, pinyon and juniper woodland, and valley and foothill grassland. Many occurrences on alluvial fans and sandy soil in the Temblor Range. Elevation: 50–915 meters.	March–July	Delisted/--/4.2	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely due to past disturbances and grazing, the nonnative grassland on the site could support this species. This species was not observed during the botanical survey.
Tracy's eriastrum <i>Eriastrum tracyi</i>	Annual herb that occupies chaparral and cismontane woodland. Elevation: 315–1,780 meters.	May–July	--/--/3.2	<b>Suitable Conditions Absent:</b> The project site is located outside of the known elevational range of this species and does not contain suitable chaparral or woodland habitat.
Cottony buckwheat <i>Eriogonum gossypinum</i>	Occurs in chenopod scrub and valley and foothill grassland. Often on clay soils. Known from southern Central Valley and adjacent foothills. Elevation: 100–550 meters.	March–September	--/--/4.2	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely due to past disturbances and grazing, the nonnative grassland on the site could support this species. This species was not observed during the botanical survey.
Kern buckwheat <i>Eriogonum kennedyi</i> var. <i>pinicola</i>	Perennial herb that is found in chaparral and pinyon and juniper woodland. Only known locations are in Sweet Ridge area. Elevation: 1,340–1,950 meters.	May–July	--/--/1B.1	<b>Suitable Conditions Absent:</b> The project site is located outside of the known elevational range of this species and does not contain suitable chaparral or woodland habitat.
Tejon poppy <i>Eschscholzia lemmonii</i> ssp. <i>kernensis</i>	Annual herb that occurs in chenopod scrub and valley and foothill grassland. Elevation: 160–1,000 meters.	March–May	--/--/1B.1	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely due to past disturbances and grazing, the nonnative grassland on the site could support this species, which is only known from one historic (1937) occurrence that was recorded in Bakersfield. This species was not observed during the botanical survey.
striped-adobe lily <i>Fritillaria striata</i>	Perennial bulbiferous herb that typically occurs in clay soil types among cismontane woodland and valley and foothill grassland. Elevation: 135–1455 meters.	February–April	--/ST/1B.1	<b>Suitable Conditions Absent:</b> The project site does not contain suitable woodland habitat.
Shevock's golden aster <i>Heterotheca shevockii</i>	Perennial herb that occurs in sandy soil types among chaparral and cismontane woodland. Elevation: 230–900 meters.	August–November	--/--/1B.3	<b>Suitable Conditions Absent:</b> The project site is located outside of the known elevation range of this species and does not contain suitable chaparral or woodland habitat.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
Comanche point layia <i>Layia leucopappa</i>	Annual herb that occurs in chenopod scrub and valley and foothill grassland. Elevation: 100–350 meters.	March–April	--/--/1B.1	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely due to past disturbances and grazing, the nonnative grassland on-site could potentially support this species, which is only known from one historic (1935) occurrence that was recorded in Bakersfield. This species was not observed during the botanical survey.
Sylvan microseris <i>Microseris sylvatica</i>	Perennial herb that occurs in closed-cone coniferous forest, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation: 5–300 meters.	April–June	--/--/4.2	<b>Suitable Conditions Absent:</b> The project site does not contain suitable forest, woodland, or coastal scrub habitat.
Southern Sierra monardella <i>Monardella linooides</i> ssp. <i>anemonoides</i>	Perennial rhizomatous herb that is usually associated with lower and upper montane coniferous forests and pinyon and juniper woodland. Elevation: 670–2,450 meters.	June–August	--/--/1B.3	<b>Suitable Conditions Absent:</b> The project site is located outside of the known elevation range of this species and does not contain suitable forest or woodland habitat.
San Joaquin woollythreads <i>Monolopia congdonii</i>	Annual herb that occurs in chenopod scrub and valley and foothill grassland; typically associated with sandy soil. Elevation: 60–800 meters.	February–May	FE/--/1B.2	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely due to past disturbances, the nonnative grassland could potentially support this species. This species was not observed during the botanical survey.
Piute Mountains navarretia <i>Navarretia setiloba</i>	Annual herb typically associated with clay or gravelly loam among cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. Elevation: 305–2,100 meters.	April–July	--/--/1B.1	<b>Suitable Conditions Absent:</b> The project site is located outside of the known elevation range of this species and does not contain suitable woodland habitat.
Bakersfield cactus <i>Opuntia basilaris</i> var. <i>treleasei</i>	Perennial succulent found in chenopod scrub, valley and foothill grassland, and cismontane woodland in sandy or gravelly soil. Elevation: 90–550 meters.	April–May	FE/SE/1B.1	<b>Marginal Conditions Present, Species Absent:</b> Although unlikely to occur due to past disturbances, the nonnative grassland could support this species; however, there were CNDDDB occurrences recorded nearby. This species was not observed during the botanical survey.
San Joaquin adobe sunburst <i>Pseudobahia peirsonii</i>	Annual herb that occurs in cismontane woodland and valley and foothill grassland; typically associated with adobe clay soil. Elevation: 130–520 meters.	February–April	--/--/1B.1	<b>Suitable Conditions Absent:</b> The project site is does not contain clay soils or suitable woodland habitat for this species.
oil nestraw <i>Stylocline citroleum</i>	Annual herb that occurs in clay soil among chenopod scrub, coastal scrub, and valley and foothill grassland. Elevation: 50–400 meters.	March–April	--/--/1B.1	<b>Marginal Conditions Present, Species Absent:</b> Historic (1935) CNDDDB occurrences of this species were recorded 1.2 miles north of the project site, the majority of which are in the Elk Hills. Although unlikely to occur due to past disturbances, the disturbed nonnative grassland could support this species. This species was not observed during the botanical survey.

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Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CRPR	Rationale for Expecting Presence or Absence
California screw moss <i>Tortula californica</i>	Moss that occurs in chenopod scrub and valley and foothill grassland associated with sandy soil. Elevation: 10–1460 meters	NA	--/--/1B.2	<b>Suitable Conditions Absent:</b> This species is not expected to occur in the study area due to disturbance and the lack of sandy soil. The closest CNDDDB occurrence is from Hart Memorial Park adjacent to the Kern River.
San Joaquin bluecurls <i>Trichostema ovatum</i>	Annual herb that occurs in grassland habitat, as well as disturbed and alkali soils, such as chenopod scrub. Elevation: 65–320 meters.	April–June	--/--/4.2	<b>Marginal Conditions Present, Species Absent:</b> Although suitable habitat is present in the project area, this species is not expected to occur. This species was not observed during the botanical survey.

**General references:** Baldwin et al. (2012); all plant descriptions paraphrased from CNDDDB (2022) or CNPS (2022).

**Status Codes:**

--= No status

**Federal:** FE = Federal Endangered; FT=Federal Threatened

**State:** SE=State Endangered; ST= State Threatened; SR= State Rare

**CNPS Rare Plant Ranking:**

1B = rare, threatened, or endangered in California and elsewhere.

2 = rare, threatened, or endangered in California, but more common elsewhere.

3 = plants that about which more information is needed.

4 = a watch list plants of limited distribution.

**Threat Code:**

\_.1 = Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat)

\_.2 = Fairly endangered in California (20-80% occurrences threatened)

\_.3 = Not very endangered I California (<20% of occurrences threatened or no current threats known)

**Rationale Terms:**

Species Present: Species was or has been observed in the survey area.

Suitable Conditions Present: The appropriate habitat, soils, and elevation are present in the survey area.

Marginal Conditions Present: The appropriate habitat and/or soils are present but other factors (past disturbances, elevation range) may preclude species occurrence.

Suitable Conditions Absent: The survey area did not support the appropriate habitat, soils, and/or elevation for the species.

### **Special-Status Wildlife Species**

For the purposes of this analysis, special-status wildlife species are defined as the following:

- Wildlife listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed wildlife and various notices in the *Federal Register* for proposed species).
- Wildlife that are candidates for possible future listing as threatened or endangered under the FESA.
- Wildlife that meet the definitions of rare or endangered species under CEQA (State CEQA Guidelines Section 15380).
- Wildlife listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR Section 670.5).
- Wildlife SSC to the CDFW.
- Wildlife species that are fully protected in California (CFGF Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

The background review identified 32 special-status wildlife species that have to the potential to occur within the project region. None of these species were observed on-site during the field surveys. Because the list of special-status wildlife species is considered regional, an analysis of the range and habitat preferences of those species was conducted to identify which sensitive wildlife species have the potential to occur in or near the project site. Based on this analysis, it was determined that the nonnative grassland habitat, dominated by weeded species, supports marginally suitable habitat for eight special-status wildlife species. Of these eight, four are even less likely to occur due to range restrictions, where most of the known occurrences are west of the city of Bakersfield. Table 4 lists the special-status wildlife species that have to the potential to occur within the project region (i.e., within the four USGS 7.5-minute quadrangles listed above) and their potential to occur in the project area.

**Table 4. Special-Status Wildlife Species Investigated for Potential Occurrence**

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
<b>Insects</b>			
Crotch bumble bee <i>Bombus crotchii</i>	Inhabits grassland and scrub habitats in California, Nevada, and Baja California. Feeds on milkweeds, dustymaidens, lupines, medics, phacelias, and sages.	--/CE/--	<b>Suitable Conditions Absent:</b> The project site mostly supports weedy nonnative vegetation and does not support significant populations of wildflowers that would attract this species.
monarch butterfly <i>Danaus plexippus</i>	Occurs along coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind-protected tree groves (eucalyptus, Monterey pine [ <i>Pinus radiata</i> ], and cypress), with nectar and water sources nearby.	FC/SA/--	<b>Suitable Conditions Absent:</b> The project site does not contain eucalyptus, Monterey pine, or cypress trees suitable for winter roosting. This species was not observed during surveys.
valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	Occurs in central valley of California and vicinity, in association with blue elderberry ( <i>Sambucus mexicana</i> ).	FT/--/--	<b>Suitable Conditions Absent:</b> The project site does not support any blue elderberry, the necessary host plant for this species.
<b>Branchiopods</b>			
vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Occurs in vernal pool habitats, including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or occasionally muddy bottom in grassland.	FT/-- /--	<b>Suitable Conditions Absent:</b> The project site does not support vernal pools.
<b>Fish</b>			
delta smelt <i>Hypomesus transpacificus</i>	Euryhaline species (tolerant of a wide salinity range) occurring in estuarine waters up to 14 ppt salinity. Found only from Suisun Bay upstream through delta in Contra Costa, Sacramento, San Joaquin, Solano, and Yolo Counties.	FT/SE/--	<b>Suitable Conditions Absent:</b> The project site does not support requisite waterbodies.
<b>Amphibians</b>			
relictual slender salamander <i>Batrachoseps relictus</i>	Found in mixed coniferous forest on western slope of southern Sierra Nevada, from south side of Kern River Canyon to Breckenridge Mountain. Usually found under boards, rotting logs, rocks, and surface litter in very close proximity to or in water.	--/--/SSC	<b>Suitable Conditions Absent:</b> No mixed coniferous forest is found on the project site and no suitable habitat conditions for this species are present.
western spadefoot <i>Spea hammondi</i>	Inhabits vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands. Vernal pools are essential for breeding and egg laying.	--/--/SSC	<b>Suitable Conditions Absent:</b> Suitable breeding habitat for this species does not occur in the project area and uplands are likely located too far from potential breeding habitat. This species was not observed during surveys and is not expected to occur.



Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
<b>Reptiles</b>			
western pond turtle <i>Emys marmorata</i>	Typically occurs in deepest parts of ponds, lakes, streams, and marshes, in quiet waters with an abundance of basking sites.	--/--/SSC	<b>Suitable Conditions Absent:</b> The project site does not support freshwater habitat with basking structures.
Bakersfield legless lizard <i>Anniella grinnelli</i>	Restricted to southern San Joaquin Valley and east side of Carrizo Plain, including within city limits of Bakersfield. Occurs in moist warm loose soil with plant cover; moisture is essential. Occurs in sparsely vegetated areas of chaparral, pine oak woodlands, desert scrub, sandy washes, and stream terraces. Leaf litter under trees and bushes in sunny areas often indicates suitable habitat. Often found under rocks, boards, driftwood, and logs (California Herps 2022).	--/--/SSC	<b>Marginal Conditions Present:</b> The project site is heavily compacted by grazing and off-road vehicle use, making the soils less friable. The soil moisture and vegetative cover is low, also making the site less suitable for this species. This species was not observed during surveys; however, preconstruction clearance surveys are recommended.
blunt-nosed leopard lizard <i>Gambelia sila</i>	Inhabits open, sparsely vegetated areas of low relief on San Joaquin Valley floor and in surrounding foothills. Occurs on valley floor; most commonly found in Nonnative Grassland, saltbrush scrub, and valley sink scrub at 100 to 2,400 feet elevation.	FE/SE/--	<b>Marginal Conditions Present, Species Absent:</b> The project site supports marginally suitable habitat. One CNDDDB occurrence (#76395) was recorded within the study area and two additional occurrences were recorded on adjacent parcels. This species was not observed during protocol-level surveys conducted in 2022. The results of protocol-level surveys are valid for up to 1 year upon completion.
coast horned lizard <i>Phrynosoma blainvillii</i>	Frequents wide variety of habitats, most commonly in lowlands along sandy washes with scattered low bushes. Uses open areas for sunning, bushes for cover, loose soil for burial, and abundant supply of ants and other insects for food.	--/--/SSC	<b>Marginal Conditions Present, Species Absent:</b> Marginally suitable habitat for this species occurs in the project area. This species was not observed during the protocol-level BNLL surveys conducted in 2022.
Sierra night lizard <i>Xantusia vigilis sierrae</i>	Only occurs on western edge of Greenhorn Mountains in Kern County in small granite outcrops in open grassland or oak woodland. Found under exfoliating granite caps and flakes.	--/--/SSC	<b>Suitable Conditions Absent:</b> The project site falls outside of the known range of this species and does not contain granite outcrops.
California glossy snake <i>Arizona elegans occidentalis</i>	Patchily distributed from eastern San Francisco Bay, southern San Joaquin Valley, and Coast, Transverse, and Peninsular Ranges, south to Baja California. Generalist reported from range of scrub and grassland habitats, often with loose or sandy soils.	--/--/SSC	<b>Marginal Conditions Present:</b> Marginally suitable habitat for this species occurs in the nonnative grassland. This species was not observed during the protocol-level BNLL surveys conducted in 2022. Preconstruction clearance surveys are recommended.
San Joaquin coachwhip <i>Masticophis flagellum ruddocki</i>	Occurs in open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in San Joaquin Valley. Needs mammal burrows for refuge and oviposition. Only occurs from Sacramento Valley in Colusa County southward to Kern County portion of San Joaquin Valley, and westward into inner South Coast Ranges.	--/--/SSC	<b>Marginal Conditions Present, Species likely absent:</b> Suitable habitat for this species occurs within the nonnative grasslands of the project area, but it is unlikely to occur on the eastern side of Bakersfield. The closest CNDDDB occurrence (#66) and all other occurrences were recorded west of Bakersfield. Preconstruction clearance surveys for California glossy snake would also accommodate this species.

East Niles Community Services District Shalane Tank and Transmission Pipeline Project  
Initial Study/Mitigated Negative Declaration

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
<b>Birds</b>			
tricolored blackbird <i>Agelaius tricolor</i>	(Nesting colony); requires open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	MBTA/--/SSC	<b>Suitable Conditions Absent:</b> The project site does not support freshwater marsh habitat for nesting.
burrowing owl <i>Athene cunicularia</i>	Occurs in open, dry grasslands, deserts, and scrublands. Subterranean nester, dependent on burrowing mammals.	MBTA/-- /SSC	<b>Marginal Conditions Present:</b> The nonnative grassland could potentially support this species. The site appears to contain a low population of ground squirrels, likely from years of control. Nesting bird surveys are recommended.
Swainson's hawk <i>Buteo swainsoni</i>	Occurs in open desert, grassland, or cropland containing scattered, large trees or small groves. Roosts in large trees but will roost on ground if none are available. Breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannah in Central Valley.	--/ST/--	<b>Marginal Foraging Conditions Present:</b> The nonnative grassland at the project site provides marginal foraging habitat but based on the field surveys, the prey base is low. Suitable nesting trees are not present.
mountain plover (wintering) <i>Charadrius montanus</i>	Inhabits short grasslands, newly sprouting grain fields, and sometimes sod farms with short vegetation, bare ground, and flat topography. Prefers grazed areas with burrowing rodents.	--/--/SSC	<b>Suitable Wintering Conditions Absent:</b> Suitable wintering habitat for this species does not occur in the project area. This species was not observed during the surveys and is not expected to occur.
western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	Occurs in forests to open riparian woodlands with thick understory.	FT/SE/--	<b>Suitable Nesting Conditions Absent:</b> Suitable nesting habitat for this species does not occur in the project area. This species was not observed during the field surveys and is not expected to occur.
fulvous whistling duck <i>Dendrocygna bicolor</i>	Occurs in fresh and brackish shallow water and cultivated fields, primarily in tropical and subtropical regions.	--/--/SSC	<b>Suitable Nesting Conditions Absent:</b> Suitable nesting habitat for this species does not occur in the project area. This species was not observed during the field surveys and is not expected to occur.
white-tailed kite <i>Elanus leucurus</i>	Occurs along rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes are used for foraging close to isolated, dense-topped trees for nesting and perching.	--/--FP	<b>Suitable Nesting Conditions Absent:</b> Suitable nesting habitat for this species does not occur in the project area. This species was not observed during the field surveys and is not expected to occur.
southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Occurs in riparian woodlands of southern California.	FE/SE/--	<b>Suitable Nesting Conditions Absent:</b> Suitable nesting habitat for this species does not occur in the project area. This species was not observed during the field surveys and is not expected to occur.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	Nesting summer resident of southern California in low riparian areas near water or river bottoms. Nests placed along margins of bushes or on twigs.	FE/SE/--	<b>Suitable Nesting Conditions Absent:</b> The only CNDDDB regional record is from 1907 at the mouth of the Kern River, at the north end of the Buena Vista Lakebed (CNDDDB 2022). Suitable nesting habitat for this species no longer remains in this area as it has been converted to agricultural land. Suitable nesting habitat necessary to support this species is not present within the project area.
yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	Nests in freshwater marshes in central-western North America and disperses to open cultivated land and marshes as far as southern Mexico.	FE/SE/--	<b>Suitable Nesting Conditions Absent:</b> Suitable nesting habitat for this species does not occur in the project area. This species was not observed during the field surveys and is not expected to occur.
Class Aves Other migratory bird species (nesting)	Annual grasslands, coastal scrub, chaparral, and oak woodlands may provide nesting habitat.	MBTA/--/--	<b>Suitable Conditions Present:</b> Potential nesting habitat for this species occurs throughout the site. Pre-disturbance nesting bird surveys are proposed to avoid impacts to nesting birds.
<b>Mammals</b>			
Nelson's antelope squirrel <i>Ammospermophilus nelsoni</i>	Found in Western San Joaquin Valley from 200 to 1,200 feet on dry sparsely vegetated loam soils. Needs widely scattered shrubs, forbs, and grasses in broken terrain with gullies and washes. Dig burrows or use k-rat burrows.	--/ST/--	<b>Marginal Conditions Present, Species Absent:</b> Marginally suitable habitat for this species occurs in nonnative grassland habitat within the project area. Only one historic CNDDDB occurrence (#257) was recorded east of Bakersfield; most occurrences were recorded west of Interstate 5. No signs of this species were observed during the protocol-level BNLL surveys conducted in 2022, and this species is not expected to occur.
pallid bat <i>Antrozous pallidus</i>	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and buildings.	--/--/SSC	<b>Suitable Conditions Absent:</b> The project site does not support rocky outcrops or crevices for roosting.
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Occurs in wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, requires caves, mines, rock faces, bridges, or buildings for maternity roosts. Maternity roosts are in relatively warm sites.	--/--/SSC	<b>Suitable Conditions Absent:</b> The project site does not support suitable habitat for this species. This species is not expected to occur.
Tipton kangaroo rat <i>Dipodomys nitratoides</i>	Occurs in saltbush scrub and sink scrub communities in Tulare Lake basin of southern San Joaquin Valley. Also occurs in terrace grasslands lacking woody shrubs. Needs soft friable soils that escape seasonal flooding. Digs burrows in elevated soil mounds at bases of shrubs.	FE/SE/--	<b>Marginal Conditions Present, Species Absent:</b> Marginally suitable habitat occurs in nonnative grassland within the project area. The closest CNDDDB occurrence (#104) was recorded over 3 miles southeast of the project area and is likely extirpated from agricultural practices. Most of the occurrences recorded are from the western side of Bakersfield. No signs of kangaroo rats were observed during the protocol-level BNLL surveys conducted in 2022.

Species Name	Habitat and Distribution	Legal Status Federal/ State/CDFW	Rationale for Expecting Presence or Absence
western mastiff bat <i>Eumops perotis californicus</i>	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	--/--/SSC	<b>Suitable Conditions Absent:</b> Suitable roosting habitat for bats does not occur in the project area. This species was not observed during the field surveys and is not expected to occur.
Tulare grasshopper mouse <i>Onychomys torridus tularensis</i>	Inhabits hot, arid valleys and scrub deserts in southern San Joaquin Valley. Feeds mostly on arthropods and needs abundant supply of insects.	--/--/SSC	<b>Marginal Conditions Present, Species Absent:</b> Marginally suitable habitat occurs in nonnative grassland in the project area. There are very few CNDDDB occurrences recorded. The closest occurrence (#3) was recorded approximately 8 miles south. The lack of vegetation and proximity to residential development makes the presence of this species unlikely. No signs of this species were observed during the protocol-level BNLL surveys conducted in 2022.
American badger <i>Taxidea taxus</i>	Occurs in open stages of shrub, forest, and herbaceous habitats. Needs uncultivated ground with friable soils.	--/--/SSC	<b>Marginal Conditions Present:</b> The project site supports a small ground squirrel population, and friable soils in the nonnative grassland could potentially support this species. No species or potential dens were observed during recent field surveys; however, this species has the potential to disperse through and/or forage in the project area. Preconstruction clearance surveys are recommended.
San Joaquin kit fox <i>Vulpes macrotis mutica</i>	Historic range included most of San Joaquin Valley from San Joaquin County southward to southern Kern County (USFWS 1998). Currently occurs in remaining native valley and foothill grasslands and saltbush scrub communities of valley floor and surrounding foothills from southern Kern County north to Merced County.	FE/ST/--	<b>Suitable Habitat Present:</b> Suitable habitat for this species occurs in the project area, and it is within the known range of this species. There are multiple CNDDDB occurrences recorded on adjacent parcels, and the species has the potential to disperse through and/or forage in the project area. No species or potential dens were observed during recent surveys. Preconstruction clearance surveys and habitat mitigation are recommended.

**General references:** Unless otherwise noted, all habitat and distribution data provided by the CNDDB (2022).

**Status Codes:**

--= No status

**Federal:** FE = Federal Endangered; FT= Federal Threatened; FC= Federal Candidate; CH= Federal Critical Habitat; PCH= Proposed Federal Critical Habitat; MBTA= Protected by Federal Migratory Bird Treaty Act

**State:** SE= State Endangered; ST= State Threatened; SCT= State Candidate Threatened

**California Department of Fish and Game:** SSC= CDFW Species of Special Concern ; FP= Fully Protected Species; SA= Not formally listed but included in CDFW "Special Animal" List; WL= Watch List

**Rationale Terms:**

Species Present: Species was or has been observed in the survey area.

Suitable Conditions Present: The survey area is within the species range and supports the appropriate habitat, soils, elevation, and other habitat requirements.

Marginal Conditions Present: The survey area is in the species range and supports the appropriate habitat but other factors (past disturbances, presence of predators, etc.) may preclude species occurrence.

Suitable Conditions Absent: The survey area is not in the species range and/or does not support the appropriate habitat, soils, elevation, and/or other habitat requirements.

## Environmental Evaluation

- a) ***Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?***

**Less than Significant with Mitigation Incorporated.** Construction of the proposed project would have the potential to result in direct removal of special-status plant species if present within the project area. In addition, construction activities have the potential to result in direct (e.g., take) or indirect (e.g., noise, dust, light pollution) disturbance to special-status wildlife species if present within the project area. Potential impacts to special-status plant and wildlife species are described in detail, below. Mitigation Measures BIO-1 and BIO-2 have been identified to require the District to retain an environmental monitor and to provide environmental awareness training prior to the initiation of construction activities on-site. In addition, eight additional mitigation measures (BIO-3 through BIO-9) have been identified to provide appropriate measures to address potential impacts to special-status plants and wildlife species. Further detail about these potential impacts and the recommended mitigation requirements is provided in the following sections.

### SPECIAL-STATUS PLANT SPECIES

The project area supports marginally suitable habitat for 10 special-status plant species (see Table 3). A botanical survey was conducted during the blooming period for the remaining species, and none were found in the project area. Since no special-status plant species were observed within the project area, construction activities are not anticipated to adversely affect special-status plant species. However, if construction does not occur within 2 years of the date of the botanical surveys, then a new botanical survey is warranted due to the lack of rainfall in 2022. Mitigation Measure BIO-3 requires an additional appropriately timed botanical survey to reverify absence of special-status plant species prior to construction. Impacts to special-status plant species are considered less than significant with mitigation incorporated.

### SPECIAL-STATUS WILDLIFE SPECIES

There is potential for the following 10 special-status wildlife species to occur within the project area (see Table 4).

#### Blunt-Nosed Leopard lizard

No BNLL individuals were observed in the project area during protocol-level surveys conducted for this species; however, the project area provides marginally suitable habitat for this species and there are previously documented occurrences of this species directly adjacent to the project area. Therefore, this species may exist in surrounding habitat areas and has the potential to occur within the project area in future seasons as it moves within its home range or seeks suitable breeding and foraging habitat. If present within the project area there may be a potential to impact BNLL through direct injury or mortality and/or entombment in burrows. Any take of this species would be a violation of the Fish and Game Code, and the federal Endangered Species Act.

To avoid any potential impacts to BNLL from construction activities, Mitigation Measure BIO-4 has been identified to require the District to either install and maintain an exclusion fence around the project area, or conduct updated surveys following the BNLL protocol. Measure BIO-4 also identifies the proper

avoidance measures to be implemented if BNLL are observed within the project area as a result of these surveys. Therefore, impacts to BNLL are considered less than significant ~~with mitigation incorporated~~.

#### Coast Horned Lizard, Bakersfield Legless Lizard, California Legless Lizard, California Glossy Snake, San Joaquin Coachwhip

Coast horned lizard (*Phrynosoma blainvillii*), Bakersfield legless lizard (*Anniella grinnelli*), California legless lizard (*Anniella pulchra*), California glossy snake (*Arizona elegans occidentalis*), or San Joaquin coachwhip (*Masticophis flagellum ruddocki*) individuals were observed during protocol-level BNLL surveys conducted for the project. The nonnative annual grassland habitat provides marginally suitable habitat for these species, but the soils are not sandy, the soils are only moderately friable, and there were low densities of burrows, which further limits the suitability of the habitat for these species. Therefore, there is a low potential that these species are present or could migrate from adjacent areas into the project area. If present within the project area during proposed construction activities, construction of the water tank could impact these species through direct injury or mortality and/or entombment in burrows from construction equipment conducting earthwork if these species are found to be present on-site. Mitigation Measures BIO-1, BIO-2, and BIO-5 would prevent direct impacts through preconstruction surveys and the presence of a biological monitor during initial grading activities. If any of these species are observed during preconstruction surveys, construction, or operations, mitigation measures have been recommended to avoid impacts. Therefore, impacts to coast horned lizard, Bakersfield legless lizard, California legless lizard, California glossy snake, and San Joaquin coachwhip are considered less than significant with mitigation incorporated.

#### Burrowing Owls

No burrowing owl (BUOW) (*Athene cunicularia*) were observed during protocol-level BNLL surveys conducted for the project. However, marginally suitable habitat for this species occurs in the nonnative grassland areas of the project area, and ground squirrel burrows were observed on-site. Therefore, there is some potential for this species to occur within the project area. Mitigation Measures BIO-1, BIO-2, and BIO-6 would prevent direct impacts through preconstruction surveys and the presence of a biological monitor during initial grading activities. These measures are designed to prevent potential impacts. If BUOW are observed during preconstruction surveys, construction, or operations, mitigation has been recommended to avoid impacts. Therefore, impacts to BUOW are considered less than significant with mitigation incorporated.

#### Nesting Birds and Raptors

Suitable habitat for migratory nesting birds is present within the project area. The project site also provides suitable foraging habitat for raptors of special concern, such as Swainson's hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*), but these species may only be present transiently and would not be adversely affected by project activities. In addition, common passerines and raptors may use the nonnative grassland on-site for nesting and/or foraging. If project activities are conducted between February 15 and September 15, birds may be nesting in the affected area and the individuals could be directly impacted. Direct impacts could include loss of active nests during vegetation removal. Mitigation Measure BIO-7 requires that a nesting bird survey be conducted by a qualified biologist no more than 2 weeks prior to the start of construction to determine presence/absence of nesting birds. In addition, Mitigation Measures BIO-1 and BIO-2 would require preconstruction surveys and the presence of a biological monitor during initial grading activities to reduce the potential to directly impact nesting or other birds. Therefore, potential impacts to migratory birds and raptors would be less than significant with mitigation incorporated.

### American Badger

Although no large burrows with signs indicative of badgers were observed during surveys, the project site supports marginally suitable habitat and soil conditions for this species and is located along the edge of a large expanse of undeveloped open grassland. As previously stated, construction activities would permanently impact 1.82 acres of habitat from the construction of the tank and approximately 1 acre of temporary impacts to habitat for the installation of the transmission pipeline. If present, they could be crushed by construction equipment. Mitigation Measures BIO-1, BIO-2, and BIO-8 require preconstruction surveys and the presence of a biological monitor during initial grading activities to reduce the potential to directly impact American badger individuals. Therefore, potential impacts to American badger would be less than significant with mitigation incorporated.

### San Joaquin Kit Fox

Although no San Joaquin kit fox (SJKF) (*Vulpes macrotis mutica*) dens were observed within the project area, SJKF is a highly mobile species with a large home range. The project site abuts a large continuous area of undeveloped land and there are multiple CNDDDB occurrences recorded on adjacent parcels (#379, #380, and #766); therefore, there is potential for this species to occur within the project area. The project would result in the permanent impact of 1.82 acres of habitat from the construction of the tank and approximately 1 acre of temporary impacts for the installation of the transmission pipeline. Mitigation Measure BIO-9 has been identified to mitigate permanent impacts to habitat by preserving occupied habitat at an approved mitigation bank at a 1:1 ratio and requiring preconstruction surveys for SJKF. In addition, Mitigation Measures BIO-1 and BIO-2 would require preconstruction surveys and the presence of a biological monitor during initial grading activities to reduce the potential to directly impact SJKF. If SJKF are observed during preconstruction surveys, construction, or operations, mitigation has been recommended to avoid impacts. Therefore, potential impacts to SJKF would be less than significant with mitigation incorporated.

### CONCLUSION

Based on the analysis provided above, with implementation of Mitigation Measures BIO-1 through BIO-9, potential impacts to special-status species would be less than significant.

- b) *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?***

**No Impact.** The project site does not support any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations. Therefore, there would be no impact on these resources.

- c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?***

**No Impact.** Based on the results of the field survey and a review of the NWI and NHD, no federally or state-protected wetlands, as defined by Section 404 of the federal Clean Water Act (CWA), are located within the project site (USFWS 2022b). Therefore, there would be no impact on these resources.

**d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?***

**No Impact.** The project site is adjacent to existing residential development and does not support any corridors of natural habitat that facilitate wildlife movement, and construction of the project would not block the existing movement of wildlife across the landscape of contiguous undeveloped parcels. The project site does not support fish movement corridors or wildlife nursery sites. Therefore, the project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species and there would be no impact on established native resident or migratory wildlife corridors or native wildlife nursery sites.

**e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?***

**No Impact.** There are no trees present on the project site and the project would not require tree removal. As no sensitive habitats would be modified by construction or operation of the project, there would be no conflict with local policies or ordinances pertaining to biological resources, and no impacts would occur.

**f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?***

**No impact.** The project site is located within the MBHCP planning area; however, the project is not a covered activity under the MBHCP and does not require compliance with the MBHCP (SWCA 2022b). In addition, the project site is not designated as a sensitive habitat area or identified as a site instrumental to implementing the conservation strategy of the MBHCP. Therefore, implementation of the project would not conflict with the adopted conservation plan and no impacts would occur.

## **Conclusion**

The mitigation measures listed below have been included to minimize the potential impacts to rare plant species, BNLL, other special-status reptiles, BUOW, nesting birds and raptors, SJKF, and American badger. None of these species were observed in the project area during surveys; however, there is potential for these species to migrate into the construction area from the adjacent undeveloped areas. The District is not a participant of the MBHCP; however, the project location does fall within the service area of the MBHCP. Therefore, mitigation measures from that MBHCP were incorporated into the measures below as accepted standard practice to mitigate impacts to the listed species. With implementation of the measures identified below, potential impacts to biological resources would be less than significant.

## **Mitigation Measures**

**BIO-1 *Environmental Monitor.*** Prior to ground disturbance, the District should retain an environmental monitor for all measures requiring environmental mitigation. The monitor shall be responsible for:

1. ensuring that procedures for verifying compliance with environmental mitigations are implemented;
2. establishing lines of communication and reporting methods;
3. conducting compliance reporting;



4. conducting construction crew training regarding environmentally sensitive areas and protected species;
5. maintaining authority to stop work; and
6. outlining actions to be taken in the event of non-compliance.

Monitoring shall be conducted full time during the initial disturbances (site clearing) and be reduced to monthly following initial disturbances.

**BIO-2**

**Worker Environmental Awareness Training.** Prior to the commencement of site grading, the environmental monitor should conduct an environmental awareness training for all construction personnel. The environmental awareness training shall include discussions of the special-status species that occur or have potential to occur in the project area. Topics of discussion shall include descriptions of the species' habitats, general provisions and protections afforded by the FESA and CEQA, measures implemented to protect special-status species, review of the project boundaries and special conditions, the monitor's role in project activities, lines of communication, and procedures to be implemented in the event a special-status species is observed in the work area.

**BIO-3**

**Special-Status Plant Species Preconstruction Surveys.** If construction does not occur within 2 years of the original botanical survey, which was conducted on March 9, 2022, additional botanical surveys are warranted to prevent impacts to special-status plant species. If construction occurs 2 years after the botanical survey conducted on March 9, 2022, the following measures shall apply:

1. An appropriately timed preconstruction survey for Kern mallow and San Joaquin woollythreads shall be conducted by a qualified biologist during the spring season (or when reference populations are flowering) that precedes construction. The distribution of the special-status populations shall be marked in the field with flagging and mapped with the Global Positioning System (GPS), and population size/number of individual plants will be estimated.
2. A minimum 50-foot avoidance buffer measured outward from the individual plants, cluster of plants, or mapped population boundaries shall be maintained around populations of Kern mallow or San Joaquin woollythreads.
3. If impacts must encroach on Kern mallow or San Joaquin woollythreads avoidance buffers, a qualified biologist shall quantify the impacts to the population (e.g., impacted number of plants, impacted acreage). The District shall comply with MBHCP requirements, and, if applicable, coordinate with the USFWS to develop a Salvage/Relocation Plan for Kern mallow or San Joaquin woollythreads. For example, a Relocation Plan strategy may include:
  - a. Collection of seed by a biologist with proper plant collecting permits, with reseeded undertaken at the site following the activity during appropriate seasonal timeframes and weather conditions favorable for germination and growth.
  - b. In areas where mapped Kern mallow or San Joaquin woollythreads will be impacted, stockpiling the top 6 inches of topsoil collected to preserve the seed banks. The soil may be redistributed in other areas of the project site that are to be left undisturbed (if available) or at a protected off-site location.

**BIO-4 Blunt-Nosed Leopard Lizard Exclusion Fencing/Preconstruction Surveys.** The preconstruction surveys conducted in 2022 are valid for 1 year prior to initiation of construction. If the construction will not begin before the 2022 surveys are set to expire (September 17, 2023), the District shall install and maintain exclusion fencing around the perimeter of the entire disturbance area to prevent BNLL from potentially migrating in from adjacent parcels. The District shall provide written and photographic proof of installation and weekly maintenance to the CDFW prior to construction post survey expiration. If exclusion fencing is not installed and properly maintained, the following mitigation measures for BNLL shall be implemented:

1. Preconstruction surveys shall be conducted by a qualified biologist following *Revised Survey Methodology for the Blunt-Nosed Leopard Lizard* (CDFW 2019). Surveys must be completed, and a survey report must be submitted to the USFWS and CDFW, a minimum of 30 calendar days prior to initiation of construction and a maximum of 1 year prior to initiation of construction for negative findings to be accepted. If BNLL absence is reverified, project activities can proceed providing acceptance by the USFWS and CDFW of the survey results. The USFWS and CDFW may require additional protocol surveys prior to construction for FESA and CESA compliance.
2. If BNLL are observed during preconstruction surveys or construction, the District shall coordinate with the USFWS and CDFW to develop and implement measures to avoid take of BNLL.

**BIO-5 Coast Horned Lizard, Bakersfield Legless Lizard, California Legless Lizard, California Glossy Snake, and San Joaquin Coachwhip Preconstruction Surveys.** The following mitigation measures for coast horned lizard, Bakersfield legless lizard, California legless lizard, California glossy snake, and San Joaquin coachwhip will be implemented:

1. Within 30 days prior to initiation of construction, qualified biologists shall conduct a preconstruction survey in areas of suitable habitat for coast horned lizard, Bakersfield legless lizard, California legless lizard, California glossy snake, and San Joaquin coachwhip that are proposed for disturbance. If absence of these species is reverified, project activities can proceed.
2. If coast horned lizard, Bakersfield legless lizard, California legless lizard, California glossy snake, and/or San Joaquin coachwhip are observed during preconstruction surveys or construction, the location(s) where they are observed shall be marked with flagging and mapped with GPS. To avoid the potential for injury/mortality to these species resulting from project-related activities:
  - a. Minimum 50-foot avoidance buffers shall be implemented at the point(s) of observation; or
  - b. A qualified biologist shall capture and relocate individuals of these species to suitable habitat outside of the area of impact.

**BIO-6 Burrowing Owl Preconstruction Surveys.** The following mitigation measures for BUOW will be implemented:

1. A qualified biologist shall conduct preconstruction surveys of all areas of potential habitat that will be permanently or temporarily impacted, plus a 200-meter (656-foot) buffer in areas subject to legal access, to locate active breeding or wintering BUOW burrows. The survey(s) shall occur no more than 14 days

prior to ground-disturbing activities (e.g., vegetation clearance, grading) or decommissioning. The survey methodology shall be consistent with the take avoidance survey methods outlined in the CDFW *Staff Report on Burrowing Owl Mitigation* (CDFW 2012). Because BUOW may recolonize a site after only a few days, time lapses between project activities may trigger subsequent surveys, including, but not limited to, a final survey conducted within 24 hours prior to ground disturbance to identify any additional BUOW or burrows necessitating avoidance, minimization, or mitigation measures. The need for additional surveys will be at the final discretion of the project biologist. If BUOW absence is reverified, project activities can proceed, providing acceptance by CDFW of the survey results.

2. If BUOW are detected on-site during preconstruction surveys or during construction, no ground-disturbing activities within a minimum 200-meter avoidance buffer shall occur around occupied burrows during the breeding season (February 1–August 31), unless authorized by the CDFW. During the non-breeding season (September 1–January 31), no ground-disturbing activities within a minimum 50-meter avoidance buffer shall occur around occupied burrows, unless authorized by the CDFW.
3. If burrow avoidance is infeasible during the non-breeding season or during the breeding season where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, the District shall coordinate with the CDFW to develop a BUOW Exclusion and Mitigation Plan. For example, an Exclusion and Mitigation Plan strategy may include:
  - a. Passive exclusion of BUOW from burrows within the project site using one-way doors.
  - b. Excavation of potential BUOW burrows that are confirmed to be empty of BUOW adults and/or young.
  - c. Creation of artificial BUOW burrows to offset the loss of known occupied BUOW burrows.
  - d. Acquisition of BUOW conservation lands and/or bank credits.

**BIO-7**

**Nesting Bird Preconstruction Surveys.** The following mitigation measures for nesting birds will be implemented:

1. If feasible, initial ground disturbance and vegetation clearing shall be scheduled to occur in the fall and winter (between October 1 and January 31), outside of the typical nesting season.
2. If any construction activities are proposed to occur during the typical nesting season (February 1–August 31), surveys shall be conducted by qualified biologists no more than 2 weeks prior to construction to determine presence/absence of nesting birds. If absence of nesting birds is verified, construction can proceed.
3. If an active bird nest is observed during preconstruction surveys or during construction, at a minimum, a 500-foot avoidance buffer surrounding the nest shall be implemented for nesting raptors and a 250-foot avoidance buffer shall be implemented for other nesting avian species, unless the USFWS or CDFW authorize a reduction of these buffers. Nests, eggs, or young of birds covered by the MBTA and CFGC shall not be moved or disturbed until a qualified biologist

has determined that the nest has become inactive or young have fledged and become independent of the nest.

**BIO-8 American Badger Preconstruction Surveys.** Prior to ground-disturbing activities, a qualified biologist should conduct a preconstruction survey for American badger dens. The badger survey should be conducted no more than 2 weeks prior to construction. If the survey results are negative (no badger dens observed), no additional work would be necessary. If the results are positive (badger dens observed), the biologist should contact the District within 24 hours; work in the area should be delayed until the District and the biologist have determined the appropriate steps to avoid or minimize impacts to badgers. The following guidelines for avoiding impacts to badgers should be considered if a den is discovered:

1. If the biologist determines that potential dens are inactive, the biologist should excavate the dens with a shovel to prevent badgers from reusing them.
2. If the qualified biologist determines that dens may be active, the biologist should install a game camera for 3 days and 3 nights to determine if the den is in use. If the game camera does not capture an individual entering/exiting the den, the den should be excavated as discussed above. If the camera captures badger use of the den, the biologist should install a one-way door in the den opening and continue use of the game camera. Once the camera captures the individual exiting the one-way door, the den can be excavated as discussed above.

**BIO-9 San Joaquin Kit Fox Preconstruction Surveys.** The following mitigation measures for SJKF shall be implemented:

1. Within 30 days prior to grading or other ground-disturbing activities, a qualified biologist shall conduct a preconstruction Biological Clearance Survey. The survey shall include all areas of potential habitat to be permanently and/or temporarily impacted, as well as a 50-foot buffer of impacted areas.
2. If the Biological Clearance Survey results determine that known, active, or natal SJKF dens will be impacted, then the following mitigation measures shall be implemented (this follows the guidelines per MBHCP *Exhibit D Covered Species Minimization Measures* Condition of Approval 7.5 [SJKF Den Avoidance]):
  - a. A permanent minimum avoidance buffer using fencing or flagging shall be maintained as follows:
    - i. At least 100 feet around den(s);
    - ii. At least 200 feet around natal dens (in which young are reared); and
    - iii. At least 500 feet around any natal dens with observed young (i.e., SJKF pups) (except for any portions of the buffer zone that are already fully developed).
  - b. Avoidance buffer zones shall be considered Environmentally Sensitive Areas (ESAs), and no activities are allowed within a buffer except as follows:
    - i. If the work within the buffer area will not result in the destruction of the den and the den will be conserved/retained.
    - ii. If the den is unoccupied (based on the required 4 consecutive days of monitoring), then the den can be covered in a secure

manner to prevent access by SJKF while the work is being conducted. After the work is done, the den can be uncovered to allow use by SJKF.

- iii. If the den is occupied and the SJKF does not vacate the den, then a smaller buffer could be established, including a barricade to prevent the SJKF from exiting the den and entering the work site. A qualified biologist shall monitor the den while the work is being conducted.

The USFWS and CDFW shall be notified immediately via telephone or e-mail if any SJKF active dens, natal dens, or occupied atypical dens are discovered within or immediately adjacent to any proposed development footprint. The District shall bear the costs of implementing the SJKF den avoidance requirements. A reduced avoidance buffer may be authorized with regulatory agency approval.

- c. For active dens and potential dens that exhibit signs of SJKF use or characteristics suggestive of SJKF dens (including dens in natural substrate and in/under manmade structures) that cannot be avoided, and if, after 4 consecutive days of monitoring with tracking medium or infrared camera, a qualified biologist has determined that SJKF is not currently present, the den may be excavated. Natal dens shall not be excavated until the pups and adults have vacated and then only after consultation with the USFWS and CDFW. If the excavation process reveals evidence of current use by SJKF, then den excavation shall cease immediately and tracking or camera monitoring, as described above, shall be conducted/resumed. Excavation of the den may be completed when, in the judgment of a qualified biologist, the SJKF has escaped from the partially excavated den. SJKF dens shall be carefully excavated until it is certain no SJKF individuals are inside. Dens shall be fully excavated, filled with dirt, and compacted to ensure that SJKF cannot reenter or use the den during Covered Activities. If an individual SJKF does not vacate a den within the proposed construction footprint within a reasonable timeframe, the District shall coordinate with USFWS and CDFW and obtain written/email guidance from both agencies prior to proceeding with den excavation. The District shall bear the costs of implementing the SJKF den excavation requirements.
3. The following construction requirements as included in the *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011) will be implemented:
    - a. Project-related vehicles should observe a daytime speed limit of 20 mph throughout the site in all project areas, except on county roads and federal and state highways; this is particularly important at night when SJKF are most active. Nighttime construction should be minimized to the extent possible. However, if it does occur, then the speed limit should be reduced to 10 mph. Off-road traffic outside of designated project areas should be prohibited.
    - b. To prevent inadvertent entrapment of SJKF or other wildlife during the construction phase of a project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be

- closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped wildlife. If at any time a trapped or injured SJKF is discovered, the USFWS and CDFW shall be contacted.
- c. SJKF are attracted to den-like structures, such as pipes, and may enter stored pipes and become trapped or injured. All construction pipes, culverts, or similar structures with a diameter of 4 inches or greater that are stored at a construction site for one or more overnight periods should be thoroughly inspected for SJKF before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If SJKF are discovered inside a pipe, that section of pipe should not be moved until USFWS has been consulted. If necessary, and under the direct supervision of the biological monitor, the pipe may be moved only once to remove it from the path of construction activity, until the fox has escaped.
  - d. All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or project site.
  - e. No firearms shall be allowed on the project site.
  - f. No pets, such as dogs or cats, should be permitted on the project site to prevent harassment, mortality of SJKF, or destruction of dens.
  - g. Use of rodenticides and herbicides in project areas should be restricted. This is necessary to prevent primary or secondary poisoning of SJKF and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other federal and state legislation, as well as additional project-related restrictions deemed necessary by the USFWS. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to SJKF.
  - h. A representative shall be appointed by the District who will be the contact source for any employee or contractor who might inadvertently kill or injure a SJKF or who finds a dead, injured, or entrapped SJKF. The representative will be identified during the employee education program and their name and telephone number shall be provided to the USFWS.
  - i. An employee education program should be conducted for any project that has anticipated impacts to SJKF or other endangered species. The program should consist of a brief presentation by persons knowledgeable in SJKF biology and legislative protection to explain endangered species concerns to contractors, their employees, and military and/or agency personnel involved in the project. The program should include the following: a description of the SJKF and its habitat needs, a report of the occurrence of SJKF in the project area, an explanation of the status of the species and its protection under the FESA and CESA, and a list of measures being taken to reduce impacts to the species during project construction and implementation. A fact sheet conveying this information should be prepared for distribution to the previously referenced people and anyone else who may enter the project site.

- j. Upon completion of the project, all areas subject to temporary ground disturbances, including storage and staging areas, temporary roads, pipeline corridors, etc., should be recontoured, if necessary, and revegetated to promote restoration of the area to pre-project conditions. An area subject to “temporary” disturbance means any area that is disturbed during the project, but after project completion will not be subject to further disturbance and has the potential to be revegetated. Appropriate methods and plant species used to revegetate such areas should be determined on a site-specific basis in consultation with the USFWS, the CDFW, and revegetation experts.
- k. In the case of trapped wildlife, escape ramps or structures should be installed immediately to allow the wildlife to escape, or the USFWS should be contacted for guidance.
- l. Any contractor, employee, or District personnel who are responsible for inadvertently killing or injuring an SJKF shall immediately report the incident to their representative. This representative shall contact the CDFW immediately in the case of a dead, injured, or entrapped SJKF. The USFWS shall be contacted at (916) 414-6620 or (916) 414-6600, and the CDFW contact for immediate assistance is State Dispatch at (916) 445-0045.
- m. The Sacramento USFWS and CDFW shall be notified in writing within 3 working days of the accidental death or injury to an SJKF during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured wildlife and any other pertinent information.
- n. New sightings of SJKF shall be reported to the CNDDDB. A copy of the reporting form and a topographic map clearly marked with the location of where the SJKF was observed should also be provided to the USFWS.

## V. Cultural Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Setting

A Phase I Archaeological Survey Report (ASR) was prepared for the project (SWCA 2022a). The ASR documents the resource investigations carried out for the project, which consisted of a Sacred Lands Files

(SLF) database search with the Native American Heritage Commission (NAHC), background research conducted at the South San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System (CHRIS), review of historic maps and ethnographic documents, archival research at local repositories, and an archaeological pedestrian survey of the project area.

On January 31, 2022, SWCA requested a records search of the project area and all areas within a 0.25-mile radius. Staff at the SSJVIC completed the records search on February 15, 2022. The records search included any previously recorded cultural resources and investigations within a 0.25-mile radius of the project area.

In addition to official maps and records on file at the SSJVIC, the following inventories, publications, and technical studies were consulted as part of the record search:

- National Register of Historic Places–Listed Properties
- California Register of Historical Resources
- California Inventory of Historical Resources
- California State Historical Landmarks
- California Points of Historical Interest
- California Office of Historic Preservation Historic Property Directory and Determinations of Eligibility

The SSJVIC records search results revealed that no previously documented cultural resources are within a 0.25-mile radius or within the project area

SWCA Staff Archaeologist Morgan Bird conducted an intensive pedestrian survey of the project area on February 7, 2022. The survey was conducted using parallel pedestrian transects spaced no more than 5 meters apart over the entire project area. All areas of exposed ground surface were examined for prehistoric artifacts (e.g., chipped stone tools and production debris, stone milling tools), historic artifacts (e.g., metal, glass, ceramics), soil discoloration that might indicate the presence of a cultural midden, linear features, soil depressions, and other features indicative of the former presence of historic structures or buildings (e.g., foundations).

At the time of the current survey effort, the entire project area was accessible and surface visibility ranged from fair to excellent (50%–100%) in unpaved portions of the project area. In areas of diminished visibility from dense vegetation growth, survey emphasis was placed on areas of cleared vegetation. The project area has been subject to extensive disturbance from the construction of Shalane Avenue, residential development, and vehicle and foot traffic. Modern refuse (e.g., plastic, metal, wood, glass, etc.) was observed throughout the project area, and no archaeological resources were identified within the project area during the field survey.

A separate discussion and analysis of tribal cultural resources is included in Section XVIII, *Tribal Cultural Resources*, of this IS/MND.

## Environmental Evaluation

### **a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?***

**Less than Significant:** As documented in the ASR prepared for the project, the SSJVIC records search results revealed that no previously documented cultural or historic resources are within the project site or



a 0.25-mile radius (SWCA 2022a). No cultural or historic resources were observed during the pedestrian survey of the project site, and no cultural or historic resources have been previously identified within or adjacent to the project site. Therefore, impacts associated with cultural and historic resources would be less than significant. In the unlikely event that cultural or historic resources are exposed during project implementation, work should stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (National Park Service [NPS] 1983) should be retained to evaluate the find and recommend relevant mitigation measures.

**b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

**Less than Significant.** The records search and field survey did not identify the presence of previously undocumented archaeological resources within or near the project area. Therefore, as defined by CEQA, no historical resources or unique archaeological resources were identified within the project area, and no further archaeological study is recommended at this time. Therefore, impacts associated with archaeological resources would be less than significant. In the unlikely event that archaeological resources are exposed during project implementation, work should stop in the immediate vicinity, and an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards (NPS 1983) should be retained to evaluate the find and recommend relevant mitigation measures. As adherence to qualification standards is required for all development, no separate mitigation for the project is required.

**c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?***

**Less than Significant.** No human remains have been discovered in the project site and it is not anticipated that human remains, including those interred outside of dedicated cemeteries, would be discovered during ground-disturbing activities with the project. There is no specific indication that the project site has been used for human burial purposes in the recent or distant past. In the event that human remains are discovered, California Health and Safety Code (CHSC) Section 7050.5 shall be followed. The CHSC states that if human remains are discovered on-site, no further disturbance shall occur until the Kern County Coroner has made a determination of origin and disposition. Disposition of the human remains shall occur in the manner provided in PRC Section 5097.98. If the Kern County Coroner determines that the remains are not subject to the authority of the coroner, and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, the Kern County Coroner shall contact the NAHC by telephone within 24 hours. As adherence to state regulations is required for all development, no separate mitigation is required for the project. Therefore, impacts associated with the discovery of human remains would be less than significant.

## **Conclusion**

The project would not result in a significant adverse impact to Cultural Resources, and no mitigation measures are required.

## VI. Energy

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

Kern County possesses a long history of energy development in the forms of oil, natural gas, and electricity. The county's oil industry is foremost in the nation with regard to development of thermally enhanced oil recovery techniques and its petroleum operations are also using state-of-the-art technology. In addition, the county produces approximately one third of the state's wind energy and extensive geothermal and solar energy development occurs just outside the county boundaries (Kern County 2009).

The *Kern County General Plan Energy Element* provides goals, policies, and implementation measures intended to protect the county's energy resources and encourage energy development in a manner that promotes public and environmental health and safety (Kern County 2009). However, the Energy Element does not include plans or policies for renewable energy or energy efficiency. Additionally, the District does not have an adopted plan for renewable energy or energy efficiency.

### Environmental Evaluation

- a) *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?***

**Less Than Significant Impact.** Heavy equipment and vehicle use during short-term construction activities would require the use of limited quantities of diesel fuel and gasoline. Additionally, limited energy consumption may be required for temporary lighting during construction activities. Construction activities would be required to comply with diesel-idling requirements identified by the CARB, including limiting idling to 5 minutes or less, which would avoid unnecessary, wasteful, and inefficient energy consumption during construction.

The project would be part of a larger water conveyance pipeline system. No addition of electrical or pumps would be required as part of the project. Therefore, potential impacts associated with wasteful, inefficient, or unnecessary consumption of energy resources would be *less than significant*.

- b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?***

**No Impact.** As evaluated above, the project would not result in the unnecessary, wasteful, or inefficient consumption of energy resources during construction or operation. There would be no conflict with any state or local plans regarding renewable energy or energy efficiency. Therefore, no impacts would occur.

## Conclusion

The project would not result in a significant adverse impact to Energy, and no mitigation measures are required.

## VII. Geology and Soils

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
(i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Setting

Under the Alquist-Priolo Earthquake Fault Zoning Act (Alquist-Priolo Act) of 1972, an active fault is defined as a fault that has ruptured in the last 11,000 years. According to the CDOC Fault Activity Map of California, the project site is located approximately 0.8 mile southwest of an unnamed quaternary fault zone, which is described as a fault that has moved within the past 1.6 million years. In addition, the project site is located approximately 3 miles southwest of an unnamed historic fault zone, which last slipped in 1952 and would be considered an active fault under the Alquist-Priolo Act (CDOC 2015). Kern

County is located in one of the more seismically active areas of California and may, at any time, be subject to moderate-to-severe ground shaking (Kern County 2009).

Liquefaction is the sudden loss of soil strength due to a rapid increase in soil pore water pressures resulting from ground shaking during an earthquake. Typically, low-lying areas adjacent to creeks, rivers, beaches, and estuaries underlain by unconsolidated alluvial soil are most likely to be vulnerable to liquefaction. Landslides typically occur in areas with steep slopes or in areas containing escarpments. Landslides and slope instability can occur as a result of wet weather, weak soils, improper grading, improper drainage, steep slopes, adverse geologic structure, earthquakes, or a combination of these factors. The project site is not underlain by unconsolidated alluvial soil deposits or located near any major surface water features and therefore would be considered to have a low potential for liquefaction. According to the CDOC and CGS, the project site is not located in an area identified for landslide or liquefaction hazards (CDOC 2022). In addition, the project site consists of relatively flat to moderately sloping topography near previously developed areas and would be considered to have a low potential for landslide.

As included in Section II, *Agriculture and Forestry Resources*, the project site is underlain by the following two soil types (NRCS 2022):

- **(135) Cuyama loam, 9 to 15 percent slopes.** This well-drained soil has a high runoff class and a depth to restrictive feature of more than 80 inches. The typical soil profile of this soil consists of loam, gravelly loam, gravelly clay loam, stratified cobbly sandy loam to cobbly clay loam, and stratified gravelly loamy sand to sandy clay loam. This soil does not have a frequency of flooding or ponding.
- **(139) Delano sandy loam, 2 to 5 percent slopes.** This well-drained soil has a medium runoff class and a depth to restrictive feature of more than 80 inches. The typical soil profile of this soil consists of sandy loam and clay loam. This soil has a rare frequency of flooding and does not have a frequency of ponding.

Based on geological maps provided by the USGS National Geologic Map Database, the project site is underlain by the Kern River Formation (QTkr) from the late Pleistocene era (USGS 2008).

## Environmental Evaluation

- a) ***Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***
- a-i) ***Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.***

**Less Than Significant Impact.** The project site is not directly underlain by an Alquist-Priolo fault zone; however, the project site is located approximately 3 miles southwest of an unnamed historically active fault zone (CDOC 2015). The project site is located within a seismically active region in southern California; therefore, moderate to strong ground motions resulting from future regional earthquakes could occur. However, the project does not include the development of any occupiable buildings or structures that could result in the risk of loss, injury, or death as a result of fault rupture; therefore, impacts would be less than significant.

**a-ii) Strong seismic ground shaking?**

**Less Than Significant Impact.** The project site is located in a seismically active region, approximately 0.8 mile southwest of an unnamed quaternary fault zone and approximately 3 miles southwest of an unnamed historically active fault zone (CDOC 2015). As previously identified, the project does not include the development of any occupiable buildings or structures that could result in the risk of loss, injury, or death as a result of seismic ground shaking. In addition, the water tank would consist of a welded steel tank constructed pursuant to current American Water Works Association (AWWA) Standard D100-05 for welded steel tank construction and all other applicable codes for the type of structure, including adequate structural design. Therefore, the project would not result in exposure of people or structures to substantial adverse effects involving strong seismic ground shaking, and impacts would be less than significant.

**a-iii) Seismic-related ground failure, including liquefaction?**

**Less Than Significant Impact.** Zones of Required Investigation, referred to as “Seismic Hazard Zones” in CCR Article 10, Section 3722, are areas shown on Seismic Hazard Zone Maps where site investigations are required to determine the need for mitigation of potential liquefaction and/or earthquake-induced landslide ground displacements. The project site is not located in an area identified or mapped as a Seismic Hazard Zones and is not located in a liquefaction zone (CDOC 2022). Therefore, the project would not result in exposure of people or structures to substantial adverse effects involving seismic-related ground failure, including liquefaction, and impacts would be less than significant.

**a-iv) Landslides?**

**Less Than Significant Impact.** Landslides typically occur in areas with steep slopes or in areas containing escarpments. The project site consists of a relatively flat to moderately sloping topography, with a low potential for landslide to occur. Proposed excavation would not include major cuts within a steeply sloping areas or other activities that could exacerbate the potential for landslides to occur on-site. Additionally, the project does not include the development of buildings or structures for human occupancy that could result in the risk of loss, injury, or death as a result of landslide. Therefore, the project would not result in exposure of people or structures to substantial adverse effects involving landslides, and impacts would be less than significant.

**b) Result in substantial soil erosion or the loss of topsoil?**

**Less Than Significant Impact.** The project would require approximately 3 acres of ground disturbance, which has the potential to increase short-term erosion and loss of topsoil at the project site. Typical erosion control measures required for projects implemented by the District and the District’s contractors include the following:

- Installation of erosion control devices to prevent silt or dust from leaving the site.
- Protection of driveways and construction entrances against erosion and tracking mud and debris.
- Protection of stockpiles against wind and water erosion.
- Protection of fresh cut and fill slopes by using erosion control devices, and until permanent erosion control is established.
- Sweeping the project site frontages and keeping them free of dirt, dust, and debris.

- Not washing waste materials off-site. This includes, but is not limited to, soil, paint, grout, concrete dust, saw residues, grindings, and oil.
- Placement of erosion control devices when it rains.

These measures would reduce the potential for short-term increases in erosion and/or loss of topsoil to runoff from the project site during construction. Following construction activities, the project site would be re-graded to a condition which would generally maintain existing drainage patterns and avoid the potential for a long-term increase in erosion and/or loss of topsoil at the project site. In addition, the project does not require tree or vegetation removal, which further reduces the risk of long-term erosion and/or loss of topsoil at the project site. For these reasons, the project's effects to the potential loss of topsoil and erosion would be less than significant.

**c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

**Less Than Significant Impact.** The project would not be located on an unstable soil or geologic unit or placed in an area that would become unstable and potentially result in landslides, lateral spreading, subsidence, liquefaction, or collapse. As previously discussed under Impact Discussions VII.a-iii and VII.a-iv, the project site is located in an area with low potentials for liquefaction and landslides. The project does not include structures for human occupancy and would not expose people or buildings to liquefaction or any other seismic-related ground failure. Incorporation of professional engineering standards would ensure the project is designed to adequately address potential impacts related to unstable geologic units. Therefore, potential impacts would be less than significant.

**d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

**Less Than Significant Impact.** Typically, soils that contain clay or clay materials are considered expansive soils. Soils at the project site consist of clay materials and have some potential for expansion. The project does not include the development of any occupiable buildings or structures that could result in risk to life or property as a result of development on expansive soils. Incorporation of current professional engineering standards would ensure the project is designed to adequately address potential impacts related to expansive soil conditions; therefore, potential impacts would be less than significant.

**e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?***

**No Impact.** The project would not involve construction or use of septic tank or alternative wastewater systems; therefore, no impacts would occur.

**f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

**Less than Significant with Mitigation Incorporated.** Based on geologic mapping by Bartow (1986) at a scale of 1:24,000 the project overlies the late Miocene-, Pliocene-, and Pleistocene-aged Kern River Formation (QTkr), which consists of nonmarine, coarse grained, pebbly arkosic sandstone and conglomerate, with some thin interbeds and lenticular bodies of siltstone and claystone, deposited in paleoenvironmental settings that are conducive to fossil preservation. The Kern River Formation has

yielded numerous paleontological resources in its mappable extent, including extinct vertebrate taxa comprising of fox, horse, pronghorn, peccary, mustelid, ringtail cat, rabbit, rodent, mole, bird, lizard, snake, tortoise, and frog fossils, spanning the upper Miocene through the Pleistocene (Bartow and Pittman 1983; Reynolds and Czaplewski 1989; Wilson 1937). Additionally, a museum records search did not return known localities within the immediate project area but does include a summary of seven localities within the region (approximately 26 to 76 miles) from the same sedimentary deposits (Natural History Museum of Los Angeles County [NHMLA] 2022).

Because of the very high potential for paleontological resources, the Kern River Formation has a high paleontological sensitivity based on the Society of Vertebrate Paleontology (SVP) guidelines (SVP 2010). Ground-disturbing activities are anticipated to involve grading, minor excavations, and trenching that would likely impact previously undisturbed sediments of the Kern River Formation. Therefore, with implementation of Mitigation Measure GS-1, impacts would be less than significant.

## **Conclusion**

With implementation of Mitigation Measure GS-1, impacts related to Geology and Soils would be less than significant.

## **Mitigation Measures**

- GS-1** The following measures shall be implemented prior to and during construction by a project paleontologist that meets SVP standards (SVP 2010):
1. A paleontologist shall develop a Worker Environmental Awareness Program (WEAP) to train the construction crew on the legal requirements for preserving fossil resources, as well as procedures to follow in the event of a fossil discovery. This training program will be given to the crew before ground-disturbing work commences and will include handouts to be given to new workers as needed. The training could occur remotely (e.g., via a video conference), as long as the training format allows for a slide and/or visual presentation to be given).
  2. In the event of a fossil discovery, whether by the paleontological monitor or a member of the construction crew, all work will cease in a 50-foot radius of the find while the project paleontologist assesses the significance of the fossil and documents its discovery. Should the fossil be determined significant, it will be salvaged following the procedures and guidelines of the SVP. Recovered fossils will be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility. A repository will be identified, and a curatorial arrangement will be signed prior to collection of the fossils.

## VIII. Greenhouse Gas Emissions

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

Global climate change results from greenhouse gas (GHG) emissions caused by several activities, including fossil fuel combustion, deforestation, and land use change. GHGs trap infrared radiation emitted from the Earth’s surface, which otherwise escapes to space. The most prominent GHGs contributing to this process include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O). Certain refrigerants, including chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and hydrofluorocarbons (HFCs), also contribute to climate change. The greenhouse effect keeps the Earth’s atmosphere near the surface warmer than it would be otherwise and allows for successful habitation by humans and other forms of life.

Fossil fuel combustion removes carbon stored underground and releases it into the atmosphere. Emissions of GHGs are responsible for the enhancement of the greenhouse effect and contribute to what is termed “global warming,” a trend of unnatural warming of the Earth’s natural climate. Increased concentrations of GHGs in the earth’s atmosphere increase the absorption of radiation and further warm the lower atmosphere. This process increases evaporation rates and temperatures near the surface. Climate change is a global problem, and GHGs are global pollutants, unlike criteria pollutants (such as O<sub>3</sub>, CO, and particulate matter) and toxic air contaminants, which are pollutants of regional and local concern.

Global warming potential (GWP) is a measure of how much a given mass of GHG contributes to global warming. A relative scale is used to compare the gas in question to CO<sub>2</sub> (whose GWP is defined as 1). In this analysis, CH<sub>4</sub> is assumed to have a GWP of 21, and N<sub>2</sub>O is assumed to have a GWP of 310. Refrigerants have a GWP ranging from 76 to 12,240. Consequently, using each pollutant’s GWP, emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, CFCs, HCFCs, and HFCs can be converted into CO<sub>2</sub> equivalence (CO<sub>2</sub>e).

Recent environmental changes linked to global warming include rising temperatures, shrinking glaciers, thawing permafrost, a lengthened growing season, and shifts in plant and wildlife ranges (Intergovernmental Panel on Climate Change [IPCC] 1995; California Climate Change Center [CCCC] 2012; U.S. Global Change Research Program [USGCRP] 2014). In California, an assessment of climate change impacts predicts that temperatures will increase between 4.1 degrees Fahrenheit (°F) to 8.6°F by 2100, based on low and high global GHG emission scenarios (CCCC 2012). Predictions of long-term negative environmental impacts in California include worsening of air quality problems, a reduction in municipal water supply from the Sierra snowpack, sea level rise, an increase in wildfires, damage to marine and terrestrial ecosystems, and an increase in the incidence of infectious diseases, asthma, and other human health problems (CCCC 2012).



Executive Order (EO) S-3-05, signed by then-Governor Schwarzenegger on June 1, 2005, established the following GHG reduction targets for California: 1) by 2010, reduce GHG emissions to 2000 levels; 2) by 2020, reduce GHG emissions to 1990 levels; and 3) by 2050, reduce GHG emissions to 80% below 1990 levels. EO S-3-05 also called for the California Environmental Protection Agency (CalEPA) to prepare biennial reports on progress made towards achieving these goals, impacts to California from global warming, and mitigation and adaptation plans to combat these impacts.

The California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32) required the CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. The CARB was directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. AB 32 set a timeline for adopting a scoping plan for achieving GHG reductions in a technologically and economically feasible manner. AB 32 also required the CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions. On December 11, 2008, the CARB adopted the AB 32 Scoping Plan, which set forth the framework for meeting the state's GHG reduction goal set by EO S-3-05. On October 20, 2011, the CARB adopted the final cap-and-trade regulation. The CARB also approved an adaptive management plan that monitors the progress of reductions and recommends corrective actions if progress is not as planned or there are unintended consequences in other environmental areas (e.g., concentration of local criteria pollutants).

In 2014 the CARB adopted an update to the 2008 AB 32 Scoping Plan that builds upon that initial plan with new strategies and recommendations. The 2008 AB 32 Scoping Plan and 2014 Scoping Plan Update require that reductions in GHG emissions come from virtually all sectors of the economy and be accomplished from a combination of policies, regulations, market approaches, incentives, and voluntary efforts. These efforts target GHG emission reductions from cars and trucks, electricity production, fuels, and other sources.

In 2017 the CARB prepared an update to the Scoping Plan. The update established a set goal to reduce GHG emissions to 40% below 1990 inventory levels by 2030 (CARB 2017). In August 2008, SJVAPCD adopted the Climate Change Action Plan to assist lead agencies in assessing and reducing the impacts of project-specific GHG emissions on global climate change (SJVAPCD 2009a, 2009b). The Climate Change Action Plan relies on the use of performance-based standards, otherwise known as Best Performance Standards (BPSs), to assess the significance of project-specific GHG emissions on global climate change. Projects implementing BPS are determined to have a less-than-significant impact. Otherwise, demonstration of a 29% reduction in GHG emissions from business as usual is required to classify a project's impact as less than significant.

## Environmental Evaluation

### **a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?***

**Less than Significant.** The SJVAPCD has established GHG thresholds for projects subject to CEQA. For projects implementing the SJVAPCD's BPS, quantification of project-specific GHGs is not required (SJVAPCD 2009a, 2009b). The SJVAPCD's BPS generally apply to projects with stationary industrial emission sources. Most the project's emissions are from mobile sources; therefore, the SJVAPCD's BPS do not apply. The SJVAPCD has not established BPS for the wide variety of land use sources that can occur within the San Joaquin Valley. Instead, the SJVAPCD recommends determining whether the GHG emissions applied to a project would result in a 29% reduction compared to business as usual.

No GHG emissions would be generated by the project except during short-term construction activities and very limited, infrequent operational maintenance activities. In addition, construction activities would be required to comply with diesel-idling requirements identified by the CARB, including limiting idling to

5 minutes or less, which would further reduce GHG emissions from construction equipment and vehicle use during construction. The project would have a beneficial effect on existing District operations allowing for more efficient water delivery and prevent potential disruptions in service; therefore, the project would not result in a considerable contribution to cumulative GHG emissions, and potential impacts would be less than significant.

**b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

**No Impact.** As discussed above, there are numerous statewide regulations and initiatives related to overall GHG reductions. As discussed above, the SJVAPCD’s BPS generally apply to projects with stationary industrial emission sources. The project would not generate significant additional long-term vehicle trips or stationary or mobile-source emissions and the SJVAPCD’s BPS do not apply. The project would not conflict with state and local regulations related to GHG emissions. The project would increase the efficiency of the District’s water supply system. The project would not conflict with plans and policies adopted for the purpose of reducing GHG emissions, therefore, no impacts would occur.

**Conclusion**

The project would not result in a significant adverse impact to Greenhouse Gas Emissions, and no mitigation measures are required.

**IX. Hazards and Hazardous Materials**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The Hazardous Waste and Substances Site (Cortese) List is a planning document used by the state, local agencies, and developers to comply with CEQA requirements related to the disclosure of information about the location of hazardous materials release sites. California Government Code Section 65962.5 requires the CalEPA to develop, at least annually, an updated Cortese List. Various state and local government agencies are required to track and document hazardous material release information for the Cortese List. The California Department of Toxic Substance Control (DTSC) EnviroStor database tracks DTSC cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination, such as federal superfund sites, state response sites, voluntary cleanup sites, school cleanup sites, school investigation sites, and military evaluation sites. The State Water Resources Control Board (SWRCB) GeoTracker database contains records for sites that impact, or have the potential to impact, water in California, such as Leaking Underground Storage Tank (LUST) sites, Department of Defense sites, and Cleanup Program Sites. The remaining data regarding facilities or sites identified as meeting the “Cortese List” requirements can be located on the CalEPA website: <https://calepa.ca.gov/sitecleanup/corteselist/>.

Based on a query of the DTSC EnviroStor database and SWRCB GeoTracker system, there are no hazardous waste cleanup sites within or adjacent to the project site (DTSC 2022; SWRCB 2022). The nearest recorded hazardous materials site is a closed LUST site, approximately 0.2 mile north, within the Hillcrest Memorial Park and Mortuary.

The project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest school is a private elementary school, located approximately 0.35 mile northeast of the project site, and the nearest public school is Hort Elementary School, located approximately 0.4 mile northwest of the project site.

According to the California Department of Forestry and Fire Protection (CAL FIRE) Fire Hazard Severity Zone (FHSZ) viewer, the project site is located in an area designated as a local responsibility area (LRA) and is not within a very high FHSZ (VHFHSZ) (CAL FIRE 2022).

## Environmental Evaluation

### a) **Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?**

**Less than Significant.** The project is anticipated to require limited quantities of hazardous substances including, but not limited to, gasoline, diesel fuel, hydraulic fluid, solvents, oils, and paints during construction. Use of these materials has the potential to result in an accidental release. Construction contractors would be required to comply with applicable federal and state environmental and workplace safety laws for the handling, transport, and storage of hazardous materials, including CCR Title 22. Following completion of construction activities, the project would not require the routine transport, use,

or disposal of hazardous substances. Therefore, potential impacts associated with routine transport, use, or disposal of hazardous materials would be less than significant.

**b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

**Less than Significant.** As evaluated above, construction of the project is anticipated to require use of limited quantities of hazardous substances (e.g., gasoline, diesel fuel, hydraulic fluid, solvents, oils, paints, etc.) and construction contractors would be required to comply with CCR Title 22 to reduce the potential for accidental hazardous materials release during construction, including cleanup procedures in the event of accidental release. Additionally, the project would not require the routine transport, use, or disposal of hazardous substances during operation. Based on required compliance with CCR Title 22, the project is not anticipated to create significant hazard to the public or the environment through reasonably foreseeable upset or accident conditions involving the release of hazardous materials into the environment; therefore, impacts would be less than significant.

**c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

**No Impact.** The project site is not located within 0.25 mile of an existing school; therefore, no impacts would occur.

**d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

**No Impact.** Based on a query of the DTSC EnviroStor database and SWRCB GeoTracker database, there are no hazardous waste cleanup sites within or adjacent to the project site; therefore, no impacts would occur.

**e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?***

**No Impact.** The nearest airport is Breckenridge Airport, located approximately 2.6 miles southeast of the project site. The project would not be located within an airport land use plan or in close proximity to a public airport; therefore, no impacts would occur.

**f) *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

**Less than Significant.** The project would not have a permanent impact on any adopted emergency response plans or emergency evacuation plans. Temporary construction activities for installation of the transmission pipeline would occur within the Shalane Avenue ROW and would require short-term traffic controls; however, Shalane Avenue would remain open during proposed construction activities to allow for emergency response and public ingress and egress. Construction of the water tank would occur within the project boundary on an undeveloped parcel and would not alter existing circulation patterns or trips through traffic controls or road closures. Therefore, the project would not impair implementation of or

physically interfere with an adopted emergency response plan or emergency evacuation plan, and impacts would be less than significant.

**g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?**

**No Impact.** The project site is located in an area designated as an LRA and is not within a VHFHSZ (CAL FIRE 2022). The project would not permanently increase or exacerbate potential fire risks and the project does not include any design elements that would exacerbate risks during long-term project operation. The project does not include the construction of any buildings or structures intended for human occupancy and would not expose project occupants to pollutant concentrations from wildfire or post-fire risks. Therefore, no impacts related to wildland fires would occur.

**Conclusion**

The project would not result in a significant adverse impact to Hazards and Hazardous Materials, and no mitigation measures are required.

**X. Hydrology and Water Quality**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

The state of California fulfills its responsibility for protection of the quality of water resources through the SWRCB and nine RWQCBs. The RWQCBs establish requirements prescribing the quality of point sources of waste discharge, including discharges of municipal wastes, individual industrial waste discharges, and solid waste disposal sites. The project site is located within the Central Valley RWQCB, which has prepared the *Water Quality Control Plan for the Central Valley Basin* (Central Valley RWQCB 2018). In addition, the City of Bakersfield and Kern County have a joint Stormwater Management Plan (SWMP) that details how the quality of surface water and groundwater in the region should be managed to provide the highest water quality reasonably possible (City of Bakersfield and Kern County 2015). The SWMP requires erosion control and BMPs on construction sites to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality.

There are no surface water features within or adjacent to the project site. The nearest surface water feature is a 0.35-acre freshwater pond mapped by the NWI located approximately 150 feet west of the proposed disturbance area associated with the transmission pipeline (USFWS 2022a).

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 06029C1845E effective date 9/26/2008, the project site is located within Zone X, an area with minimal flood hazard (FEMA 2008).

## Environmental Evaluation

**a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

**Less than Significant.** Construction and operation of the project does not include any waste discharge that could directly affect water quality. The project would require approximately 3 acres of ground disturbance. However, the District would incorporate standard erosion control and best management practices into all construction documents. In the event of accidental spill, construction contractors would be required to implement cleanup procedures in compliance with CCR Title 22 to avoid the potential for pollutants to enter waterways. Following construction activities, the project site would be regraded to avoid the potential for a long-term increase in erosion or other pollutants at the project site. Therefore, potential impacts would be less than significant.

**b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?***

**Less than Significant.** Implementation of the project would result in new impervious surface areas associated with installation of the water tank. The remaining portion of the 20-acre parcel would remain undeveloped to allow for long-term groundwater recharge at the site. The project would result in the conveyance of surface water supplies within buried pipelines and would not require the use groundwater as a supply. Therefore, impacts would be less than significant.

**c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**c-i) Result in substantial erosion or siltation on- or off-site?**

**Less than Significant.** The project would require approximately 3 acres of ground disturbance, which has the potential to increase short-term erosion and/or siltation that could runoff from the project site. During project construction, the project would implement the erosion control measures previously outlined under the discussion addressing geology and soils. Following construction activities, the project site would be graded to avoid the potential for a long-term increase in erosion or siltation at the project site that could runoff from the site. Therefore, potential impacts would be less than significant.

**c-ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;**

**Less than Significant.** During project construction, the District would require typical erosion control measures to avoid polluted surface runoff. Implementation of the project would result in new impervious surface areas associated with installation of the steel tank and associated aboveground features. The remaining portion of the 20-acre parcel would remain undeveloped to allow for groundwater infiltration, which would reduce potential for flooding to occur. In addition, the transmission pipeline would be installed underground, and the area above the buried pipeline would be returned to preconstruction conditions, which would retain existing drainage conditions at the project site to the extent practical to avoid the potential for flooding to occur as a result from surface runoff. Upon project completion, surface runoff would be similar to existing conditions and accommodated by existing stormwater drainage systems. The potential for flooding on- or off-site would be negligible; therefore, impacts related to the increase of the rate or amount of surface runoff would be less than significant.

**c-iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

**Less than Significant.** As previously evaluated, upon project completion, surface runoff would be similar to existing conditions and would be accommodated by existing stormwater drainage systems. The construction contractor would implement erosion control measures during construction activities to address erosion control to minimize runoff into the stormwater drains and surrounding properties. Therefore, with implementation of typical erosion control measures, impacts related to exceedance of the capacity of stormwater systems or creation of additional polluted runoff would be less than significant.

**c-iv) Impede or redirect flood flows?**

**No Impact.** Based on FEMA FIRM map 06029C1845E effective date 9/26/2008, the project site is located within an area with minimal flood hazard and flood flows are not anticipated to occur within the project region (FEMA 2008). In addition, following construction activities, the project site would maintain areas for groundwater infiltration and existing drainage conditions to further avoid the potential to impede or redirect flood flows. Therefore, no impacts related to impeding or redirecting of flood flows would occur.

**d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?**

**No impact.** The project site is not located within or adjacent to a flood zone and is not located in an area of identified for flood hazards (FEMA 2008). Seiches occur as a series of standing waves induced by seismic shaking or land sliding into an impounded body of water. The project site is not located in proximity to any impounded body of water that would be subject to seiche. The project site is located in California’s Central Valley region and is outside of a tsunami inundation zone (CDOC 2009). The project is not located in an area that would be subject to inundation; therefore, no impacts would occur related to risk of release of pollutants due to project inundation.

**e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?**

**Less than Significant.** The project does not include any waste discharge into waterways and would not substantially affect water quality or interfere with a water quality control plan. During operation, the project would not result in regular or substantial pumping of groundwater and would not interfere with a sustainable groundwater management plan. Therefore, the project would not result in a conflict with existing water quality control and groundwater management plans, and impacts would be less than significant.

**Conclusion**

Impacts related to Hydrology and Water Quality would be less than significant and no mitigation measures are required.

**XI. Land Use and Planning**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Setting**

The Metropolitan Bakersfield Planning Area consists of the incorporated city of Bakersfield and surrounding areas of unincorporated Kern County. The project site is located in the eastern portion of the Metropolitan Bakersfield Planning Area, in unincorporated Kern County (Kern County 2011). As identified in the *Kern County General Plan*, the land use designations for the project site are Suburban Residential (SR), Low Density Residential (LR), Low Medium Density Residential (LMR), and General Commercial (GC) and the zoning designations for the project site are Estate–½ acre (E [1/2]), Low Density Residential (R-1), Light Industrial (M-1), and General Commercial (C-2) (Kern County 2009). Surrounding land uses generally include undeveloped land within the incorporated city of Bakersfield to the east, low-density residential development to the north and south, and a mobile home park to the west.



## Environmental Evaluation

### a) **Would the project physically divide an established community?**

**No Impact.** The water tank would be constructed on an undeveloped parcel located east of the terminus of Shalane Avenue. The project would also include the establishment of an unpaved access road and installation of a chain-link fence around the tank site. These project features are intended to provide access to the tank site and prohibit entry at the tank site by unauthorized personnel. Other project components would result in installation of an underground transmission pipeline and would not physically divide or otherwise impede the existing roadway. The project would not result in the permanent removal or blockage of existing public roadways or other circulation paths and would not otherwise include any features that would physically divide an established community. Therefore, the project would not physically divide an established community, and no impacts would occur.

### b) **Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?**

**No Impact.** The project would not include elements that would conflict with current land use plans or zoning regulations. The project is included in the District’s Water Master Plan and project implementation would not increase pipeline capacity for additional customers; rather, it would strengthen the existing operations, allowing for more efficient delivery, and prevent potential disruptions in service. Therefore, the project would not conflict with a land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and no impacts would occur.

## Conclusion

The project would not result in a significant adverse impact to Land Use and Planning, and no mitigation measures are required.

## XII. Mineral Resources

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

Although the project site is located within a Mineral Study Area, it is not located in an area of known significant mineral deposits (CGS 2009). The nearest areas of known significant mineral deposits are identified in the *Kern County General Plan* with Natural Resource (NR) zoning designations (Kern County 2009); the nearest designated NR land is located approximately 5 miles northwest of the project site.

## Environmental Evaluation

**a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

**No Impact.** The project site would not be located on land that is zoned or designated for mineral extraction; therefore, the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, and no impacts would occur.

**b) Would the project result in the loss of availability of a locally- important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?**

**No Impact.** There are no known mineral resources within the project site. Therefore, no impacts would occur related to the loss of availability of a locally important mineral resource recovery site.

## Conclusion

The project would not result in a significant adverse impact to Mineral Resources, and no mitigation measures are required.

## XIII. Noise

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project result in:</i>				
(a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## Setting

The project site is located in unincorporated Kern County. As such, this analysis uses the noise requirements outlined in the *Kern County General Plan Noise Element* and *Kern County Municipal Code* as a basis for evaluation.

The Noise Element identifies land use planning strategies to improve the ambient noise environment of the county and also establishes reasonable standards for maximum desired noise levels. The Noise Element measures noise levels through two categories, including community noise level equivalent (CNEL) and day-night average sound level (Ldn). According to the Noise Element, noise-sensitive land

uses include residential areas, schools, convalescent and acute care hospitals, parks and recreational areas, and churches. Permanent ambient noise levels at noise-sensitive land uses shall not exceed 65 decibel (dB) Ldn at outdoor areas or 45 dB Ldn in interior spaces (Kern County 2009).

Section 8.36.020 of the *Kern County Municipal Code* prohibits construction-related noise, which is audible to a person with average hearing faculties at a distance of 150 feet from the construction site if the construction site is within 1,000 feet of an occupied residential dwelling between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends. As a result, construction-related noise is exempt from Kern County noise standards between the hours of 6:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. and 9:00 p.m. on weekends.

According to the Federal Highway Administration (FHWA), noise from standard construction equipment generally range from 80 dBA to 85 dBA at 50 feet from the source, as shown in Table 5 below.

**Table 5. Construction Equipment Noise Emission Levels**

Equipment Type	Typical Noise Level (dBA) 50 Feet from Source
Concrete Mixer, Dozer, Excavator, Jackhammer, Man Lift, Paver, Scraper	85
Heavy Truck	84
Crane, Mobile	83
Concrete Pump	82
Backhoe, Compactor	80

Source: FHWA (2018)

Noise produced by construction equipment is generally reduced over distance at a rate of about 6 dB per doubling of distance.

Construction of the water tank is anticipated to occur approximately 550 feet east from noise-sensitive single-family residential land uses and approximately 1,000 feet east from Hillcrest Memorial Park and Mortuary. In addition, the pipeline alignment is located within close proximity to several noise-sensitive land uses, including single-family residences, approximately 30 feet to the north and south as well as Hillcrest Memorial Park and Mortuary, approximately 380 feet north.

## Environmental Evaluation

- a) ***Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

**Less Than Significant with Mitigation Incorporated.** The project does not include any features that would generate a permanent or consistent source of mobile or stationary noise. Upon completion of the construction phase, the project would not create a new permanent stationary or mobile noise source, which is consistent with the Noise Element standards.

Construction noise would be variable, temporary, and limited in nature and duration. Heavy trucks and machinery for grading and excavation, concrete pouring, waste disposal, and other construction activities have the potential to generate a significant amount of noise. Portions of the pipeline would be constructed within approximately 30 feet of single-family residences and the water tank would be constructed

approximately 550 feet from single-family residences. *Kern County Municipal Code* Section 8.36.020 allows construction-related noise within 1,000 feet of noise-sensitive land uses, including residential dwellings, between the hours of 6:00 a.m. and 9:00 p.m. on weekdays and 8:00 a.m. and 9:00 p.m. on weekends. Proposed construction activities would occur on weekdays only between the hours of 7:00 a.m. and 4:30 p.m. If additional construction is needed on weekends to accommodate the project schedule, work would generally occur between 8:00 a.m. and 4:00 p.m. No nighttime construction is anticipated. However, due to the project's close proximity to noise-sensitive receptors, Mitigation Measure N-1 has been identified to ensure construction activities are limited to no more than 8 hours during the day, require construction equipment be equipped with appropriate mufflers recommended by the manufacturer, maintain all equipment properly, and maximize distance between noise-generating activities and sensitive receptors to the greatest extent feasible. With implementation of Mitigation Measure N-1, potential impacts would be less than significant.

**b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?***

**No Impact.** Common sources of groundborne vibrations are trains, buses on rough roads, and heavy construction activities, such as blasting, pile driving, and extensive grading and heavy earthmoving equipment. No blasting or pile driving activities are proposed as part of the project. Groundborne vibrations generally attenuate over 25 feet from the source and are not anticipated to reach residences within 30 feet of the project site. Additionally, any groundborne vibrations from construction activities would be temporary, short term in nature, and likely imperceptible. Therefore, no impacts related to generation of excessive groundborne noise would occur.

**c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

**No Impact.** The project site is not located within the vicinity of a private airstrip or within 2 miles of a public airport or public use airport; therefore, no impacts would occur.

## **Conclusion**

With implementation of Mitigation Measure N-1, impacts related to Noise would be reduced to less than significant.

## **Mitigation Measures**

- N-1** The following measures shall be implemented to ensure that noise impacts are kept to less than significant levels.
1. Construction activity shall be limited to the following hours: between 7:00 a.m. and 5:00 p.m. on weekdays and between 8:00 a.m. and 4:00 p.m. on Saturdays. No construction shall occur on Sundays or federal or state holidays.
  2. Internal combustion engines shall be equipped with the muffler recommended by the manufacturer. Internal combustion engines shall not be operated on the project site without the appropriate muffler.

## XIV. Population and Housing

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

As of 2020, the population of Kern County was 909,235 persons. As of 2019, there were 302,898 housing units within the county and an average person per household rate of 3.17. Approximately 58.3% of housing units within the county were owner-occupied (U.S. Census Bureau 2020).

The tank site is located on vacant, undeveloped land and the transmission pipeline is located within a previously developed roadway near residential land uses. The project site does not contain housing and people do not reside on-site.

### Environmental Evaluation

- a) *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

**Less Than Significant Impact.** The project does not include the construction of new homes or businesses that would induce direct population growth in the project region. The project would not increase pipeline capacity for additional customers; rather, it would strengthen existing operations, allowing for more efficient delivery, and prevent potential disruptions in service. Therefore, the project would not result in new population growth in the area and thus would not require additional housing, roads, or other development-related infrastructure. In addition, the project would not generate any new long-term employment opportunities in the area that may necessitate growth. The construction of the project would be completed over a 7-month period, and workers would travel to the construction site from nearby existing cities and towns. Thus, the construction and the operation would not result in additional population growth. Therefore, there would be no impact to population and housing.

- b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

**No Impact.** The project site does not contain any existing permanent or temporary housing; therefore, implementation of the project would not displace existing housing or necessitate the construction of replacement housing elsewhere, and no impacts would occur.

## Conclusion

The project would not result in a significant adverse impact to Population and Housing, and no mitigation is required.

## XV. Public Services

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The project would be provided fire protection services by the Kern County Fire Department (KCFD) and would be provided police protection services by the Kern County Sheriff's Office (KCSO). The nearest KCFD station to the project site is Kern County Fire Station 42, located at 2011 North Fairfax Road, approximately 1.9 miles west of the project site. The KCSO is located at 1350 Norris Road, approximately 9 miles northeast of the project site. The project site is located in the Bakersfield City School District (BCSD), and the nearest school to the project site is Hort Elementary School, which is located approximately 0.4 mile west.

## Environmental Evaluation

- a) ***Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:***

### ***Fire protection?***

**Less than Significant Impact.** The project does not include the development of new occupiable buildings that would directly increase demand on the KCFD. The project includes the development of a new water storage tank and associated transmission infrastructure and would not induce population growth, nor would it require an increase in the need for fire protection services. Therefore, the project

would not result in an adverse impact associated with the provision of new facilities for fire protection, and no impacts would occur.

**Police protection?**

**No Impact.** The project does not include the development of new occupiable buildings that would increase demand on the KCSO. The project would not require long-term police protection, necessitate the construction of new facilities, increase the long-term demand on police protection services, or result in extended response times for police protection services. Therefore, no impacts associated with police protection facilities and resources would occur.

**Schools?**

**No Impact.** The project would be limited to the development of a new water storage tank and associated transmission infrastructure. The project would not facilitate an increase in school-aged children in the region or otherwise create an increase in demand for additional school capacity. No school facilities would be displaced as a result of project implementation. Therefore, no impacts associated with public schools would occur.

**Parks?**

**No Impact.** The project would not result in an increase in population and would not increase demand on existing local or regional park and recreation facilities. Construction of the project would not displace any existing or known proposed recreational facilities. Therefore, no impacts related to public park and recreational facilities would occur.

**Other public facilities?**

**No Impact.** The project would not result in the increased demand or need for expansion of other public services or facilities within the project vicinity. Therefore, no impacts related to other public facilities would occur.

**Conclusion**

The project would not result in a significant adverse impact to Public Services, and no mitigation measures are required.

**XVI. Recreation**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The project site does not include any park or recreational facilities. The nearest park and recreational facilities include the Mesa Marin Sports Complex, approximately 1.5 miles northeast.

## Environmental Evaluation

- a) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

**No Impact.** The project consists of the construction of a new water storage tank and installation of transmission pipeline to improve water system efficiency. Implementation of the project would not induce substantial population growth that could increase demand on existing parks or recreational facilities in a manner that could result in physical deterioration of the resource; therefore, no impacts would occur.

- b) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

**No impact.** The project would not include the construction of recreational facilities or require the construction or expansion of recreational facilities; therefore, no impacts would occur.

## Conclusion

The project would not result in a significant adverse impact to Recreation, and no mitigation measures are required.

## XVII. Transportation

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

The project site is located in the eastern portion of the Metropolitan Bakersfield Planning Area, in unincorporated Kern County (Kern County 2011). As such, this analysis in uses the *Kern County General Plan Circulation Element* and *Metropolitan Bakersfield General Plan Circulation Element* as a basis for



evaluation. The Circulation Element evaluates existing roadway conditions using levels of service (LOS), which is categorized according to the flow of traffic. Within the county, LOS D is considered an acceptable LOS. In addition, according to the Circulation Element, Kern County and the City of Bakersfield have jointly adopted a general plan with its own Circulation Element for the Metropolitan Bakersfield area, which includes a more focused evaluation of existing issues related to the planning area's circulation system and provides goals, policies, and implementation measures intended to fix those issues (Kern County 2009; City of Bakersfield 2002).

The Kern Council of Governments (Kern COG) has prepared the *2022 Regional Transportation Plan* (RTP) as a long-term blueprint for the region's transportation system, including vehicle, pedestrian, intermodal, and aviation. The 2022 RTP also includes the Sustainable Communities Strategy (SCS), which is designed to help reduce emissions from passenger vehicle travel (Kern COG 2022).

The project site consists of a single undeveloped parcel located to the east of the terminus of Shalane Avenue in addition to the Shalane Avenue ROW. The site is accessed from Shalane Avenue, which is classified as a minor, local roadway.

## Environmental Evaluation

**a) Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?**

**Less than Significant.** The *Kern County General Plan Circulation Element*, *Metropolitan Bakersfield General Plan Circulation Element*, and Kern COG 2018 RTP provides goals, policies, and implementation measures intended to reduce traffic congestion, provide safe alternatives to vehicle travel, and fix existing circulation system issues within the region. The project does not include the development of new homes, businesses, or roadways that would be subject to transportation or land use planning strategies included in the identified plans (e.g., construction of pedestrian, bicycle, or transit facilities; mixed-land use development; vehicle miles traveled [VMT] reduction strategies, etc.). The project would require short-term construction-related vehicle trips during the 7-month construction period and would require limited operational vehicle trips for maintenance and repairs on an as-needed basis. Implementation of the project would not increase traffic congestion along Shalane Avenue or other nearby roadways in a manner that would be inconsistent with the goals and policies included in the *Kern County General Plan Circulation Element*, *Metropolitan Bakersfield General Plan Circulation Element*, or Kern COG 2018 RTP. Therefore, potential impacts would be less than significant.

**b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?**

**Less than Significant.** State CEQA Guidelines Section 15064.3(b) establishes criteria for analyzing transportation impacts. For land use projects, VMT exceeding an applicable threshold of significance may indicate a significant impact. The project would not result in generation of any regular vehicle trips or permanent long-term changes in traffic or circulation. Long-term maintenance activities would not substantially increase traffic trips above those currently used to maintain District facilities; therefore, VMT for those trips would be approximately equal to existing VMT for maintenance of the existing facilities on-site. Construction-related traffic would be short term during the 7-month construction period. Therefore, the project would not conflict with or be inconsistent with State CEQA Guidelines criteria for evaluating transportation impacts, and impacts would be less than significant.

**c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

**Less Than Significant Impact.** The project does not include design features that would introduce new hazards on-site. The project includes installation of a new transmission pipeline that would be buried underground. Following pipeline installation, the roadway would be returned to preconstruction conditions, which would avoid introducing new hazardous roadway design within the Shalane Avenue ROW. The project also includes the construction of a new water storage tank, associated improvements, and a new unpaved access road. The access road would be subject to current engineering standards to allow for adequate emergency and other access to the project site. In addition, implementation of new aboveground features would be limited to an undeveloped parcel and would not introduce roadway hazards or result in incompatible uses along Shalane Avenue or other nearby roadways; therefore, potential impacts would be less than significant.

**d) Would the project result in inadequate emergency access?**

**Less than Significant.** The project would require traffic controls along Shalane Avenue during pipeline installation; however, the road would remain accessible to the public and emergency response vehicles during the duration of the construction period. Following construction activities, the pipeline would be located underground and would not result in new aboveground features along Shalane Avenue that could permanently impede access to the project site or surrounding land uses. The project includes the development of a new unpaved access road to the tank site that could accommodate access by emergency vehicles, including fire engines, in the event of an emergency; therefore, potential impacts related to inadequate emergency access would be less than significant.

**Conclusion**

The project would not result in significant adverse impacts related to Transportation, and no mitigation measures are required.

**XVIII. Tribal Cultural Resources**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
(i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

AB 52 requires consideration of tribal cultural resources early in the CEQA process to ensure that local and tribal governments, public agencies, and project proponents would have information available early in the project planning process to identify and address potential adverse impacts to tribal cultural resources. A tribe that is traditionally and culturally affiliated to the geographic area where a project is located must have requested that the lead agency provide notification to the tribe of projects in the tribe’s area of traditional and cultural affiliation. Without this request, there is no requirement that a lead agency engage in AB 52 tribal consultation.

On January 27, 2022, a request was sent to the NAHC requesting a list of Native American contacts for the project site and requesting a search of the NAHC’s Sacred Lands File. On April 30, 2022, the NAHC responded to the request and indicated that there are no known Sacred Sites listed in their Sacred Lands File for the project site (i.e., negative results). No tribes have requested consultation with the District for any projects within the tribes’ area of cultural affiliation.

## Environmental Evaluation

- a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:***
- a-i) *Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?***
- a-ii) *A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

**Less than Significant.** Tribal Cultural Resources are either 1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that is either on or eligible for inclusion in the California Register of Historical Resources (CRHR) or a local historic register; or 2) a resource that the lead agency, at its discretion and supported by substantial evidence, chooses to treat as a tribal cultural resource. Additionally, a cultural landscape may also qualify as a tribal

cultural resource if it meets the criteria to be eligible for inclusion in the CRHR and is geographically defined in terms of the size and scope of the landscape. Other historical resources (as described in PRC 21084.1), a unique archaeological resource (as defined in PRC 21083.2(g)), or non-unique archaeological resources (as described in PRC 21083.2(h)) may also be a tribal cultural resource if it conforms to the criteria to be eligible for inclusion in the CRHR.

Based on the negative results of the Sacred Lands File database search, the lack of previously identified tribal cultural resources on the project site, and the absence of Native American archaeological sites, human remains, or other Native American cultural resources revealed during the cultural resources background investigation or pedestrian survey, no tribal cultural resources are known to be present within the project area. In the event that human remains are discovered, CHSC Section 7050.5 shall be followed. The CHSC states that if human remains are discovered on-site, no further disturbance shall occur until the Kern County Coroner has made a determination of origin and disposition. Disposition of the human remains shall occur in the manner provided in PRC Section 5097.98. If the Kern County Coroner determines that the remains are not subject to their authority, and if the coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, the Kern County Coroner shall contact the NAHC by telephone within 24 hours. As adherence to state regulations is required for all development, no separate mitigation is required for the project. Impacts related to tribal cultural resources would be less than significant.

## Conclusion

The project would not result in a significant adverse impact to Tribal Cultural Resources, and no mitigation measures are required.

## XIX. Utilities and Service Systems

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>Would the project:</i>				
(a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

The project site is located on a single 20-acre, undeveloped parcel in unincorporated Kern County. The District provides water and sewer services to the project site, has groundwater production capabilities, and purchases treated surface water from the Kern County Water Agency Improvement District. The District’s sewer collection system consists of approximately 70 miles of sewer main, and the District has agreements with the City of Bakersfield and the Kern Sanitation Authority that allow for the treatment of wastewater at its wastewater treatment plant.

## Environmental Evaluation

- a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?***

**Less than Significant.** No wastewater treatment, natural gas, electrical, or telecommunication facilities are proposed as part of the project, nor would the project require the construction or expansion of identified facilities. The project includes the construction of a new water storage tank and associated transmission pipeline. The construction and operation of the project is not anticipated to result in significant environmental effects with respect to this criterion. Therefore, impacts would be less than significant.

- b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?***

**No Impact.** The project would not result in changes to the existing water supply. The purpose of the project is not to increase capacity for additional customers; rather, it would strengthen the existing operations, allowing for more efficient delivery, and prevent potential disruptions in service. Water supply needs are discussed in the District’s 2020 Urban Water Management Plan (UWMP) and are not addressed as part of this project. The project does not propose development that would generate increased demand on water supplies; therefore, no impacts would occur.

- c) *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?***

**No Impact.** The project would not include wastewater facilities or create an increase in demand on existing wastewater facilities. The project site would not require the construction of occupiable buildings or structures or new restroom facilities that could generate a new source of wastewater. A wastewater treatment provider would not be required to serve the project and the project would not affect the existing commitments of any provider; therefore, no impacts would occur.

**d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?**

**Less than Significant Impact.** Upon completion, operation and use of the project would not generate any solid waste. Construction activities would result in the generation of solid waste materials. However, any solid waste materials generated during project construction activities would be hauled off-site to an approved facility. The nearest landfill to the project site is the Bena Landfill, which is operated by the Kern County Waste Management Department. The Bena Landfill accepts construction waste pursuant to acceptance and handling criteria outlined by Kern County Public Works (Kern County Public Works 2022). Upon project completion, operation and use of the project would not generate any solid waste. Therefore, impacts related to solid waste generation in excess of local infrastructure capacity would be less than significant.

**e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?**

**Less than Significant Impact.** As discussed in Impact Discussion XIX.d, any solid waste generated during the construction period would be taken to an approved facility in accordance with the appropriate acceptance and handling criteria. Therefore, impacts related to regulations related to solid waste would be less than significant.

**Conclusion**

The project would not result in a significant adverse impact to Utilities and Service Systems, and no mitigation measures are required.

**XX. Wildfire**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
<i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:</i>				
(a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

CAL FIRE has mapped areas of significant fire hazards in the state through its Fire and Resources Assessment Program (FRAP). These maps place areas of California into different FHSZs, based on a hazard scoring system using subjective criteria for fuels, fire history, terrain influences, housing density, and occurrence of severe fire weather that could influence fire behavior and result in catastrophic losses. As part of this mapping system, land where CAL FIRE is responsible for wildland fire protection and generally located in unincorporated areas is classified as a State Responsibility Area (SRA). Where local fire protection agencies are responsible for wildfire protection, the land is classified as an LRA. In addition to establishing state or local responsibility for wildfire protection in a specific area, CAL FIRE designates areas as VHFHSZ or non-VHFHSZ. The project site is located in an area designated as an LRA and a non-VHFHSZ (CAL FIRE 2022).

## Environmental Evaluation

- a) ***If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?***

**No Impact.** The project is not located in an SRA or in a VHFHSZ. Additionally, implementation of the project would not have a permanent impact on any adopted emergency response plans or emergency evacuation plans. The project would require traffic controls along Shalane Avenue during pipeline installation; however, the road would remain accessible to the public and emergency response vehicles during the duration of the construction period. Therefore, the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan in an SRA, and no impacts would occur.

- b) ***Due to slope, prevailing winds, and other factors, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?***

**No Impact.** The project is not located in an SRA or in a VHFHSZ. The project does not include construction of any buildings or structures for human occupancy and would not result increase the risk of pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; therefore, no impacts would occur.

- c) ***If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?***

**No Impact.** The project site is not located in or near SRAs or lands classified as VHFHSZs. The project includes installation of a water storage tank and associated transmission infrastructure; however, the project does not include any components could permanently increase or exacerbate potential fire risks and does not propose any design elements that would exacerbate risks during long-term project operation; therefore, no impacts would occur.

**d) If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?**

**No Impact.** The project does not include construction of habitable buildings or structures in an SRA or a VHFHSZ and would not expose people or structures to significant risks from post-fire conditions; therefore, no impacts would occur.

**Conclusion**

The project would not result in a significant adverse impact to Wildfire, and no mitigation measures are required.

**XXI. Mandatory Findings of Significance**

Environmental Issues	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
(a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**Environmental Evaluation**

**a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?**

**Less Than Significant Impact with Mitigation Incorporated.** Based on the foregoing evaluation, the project is not expected to significantly impact biological or cultural resources in a manner that cannot be reduced to a less-than-significant level through implementation of existing regulatory requirements and proposed mitigation measures. As evaluated in Section IV, *Biological Resources*, impacts on biological resources would be less than significant with mitigation incorporated. The project would not substantially



degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, or reduce the number or restrict the range of an endangered, rare, or threatened species. As discussed in Section V, *Cultural Resources*, and Section XVIII, *Tribal Cultural Resources*, the project would not eliminate important examples of the major periods of California history or prehistory.

- b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?**

**Less Than Significant Impact.** The project would result in less-than-significant impacts or no impacts on aesthetics, agriculture and forestry resources, air quality, cultural resources, energy, GHG emissions, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, transportation, tribal cultural resources, utilities and services systems, and wildfire. The temporary nature of the project’s construction impacts (approximately 7 months) related to biological resources, geology and soils, hydrology and water quality, and noise would result in less-than-significant impacts with mitigation incorporated. None of the project’s impacts make significant or cumulatively considerable, incremental contributions to significant cumulative impacts. This impact would be less than significant.

- c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?**

**No Impact.** Based on the foregoing analysis, the project would not cause environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly.

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## **APPENDIX A**

**California Emission Estimator Model, Version 2020.4.0**





## **APPENDIX B**

### **Blunt-Nosed Leopard Lizard Survey Results**



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Shalane Tank and Transmission Pipeline Project**

**San Joaquin Valley Air Basin, Annual**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.70	User Defined Unit	6.50	283,140.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	45
<b>Climate Zone</b>	3			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

Project Characteristics -

Land Use - Approx 6.5-acre project site

Construction Phase - Approx. 130 working days

Off-road Equipment - Construction 8 hr/day  
Equipment provided by client

Off-road Equipment - Construction 8 hr/day  
Equipment provided by client

Trips and VMT - Assumed conservative worker, vendor, haul

On-road Fugitive Dust -

Demolition -

Grading - Conservative assumption

Vehicle Emission Factors -

Vehicle Emission Factors -

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Emission Factors -

Consumer Products - None

Area Coating - none

Landscape Equipment - None

Fleet Mix -

Vehicle Trips -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	141570	0
tblAreaCoating	Area_Nonresidential_Interior	424710	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	44.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	AcresOfGrading	22.00	100.00
tblLandUse	LandUseSquareFeet	0.00	283,140.00
tblLandUse	LotAcreage	0.00	6.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	46.00	60.00

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tbITripsAndVMT	WorkerTripNumber	119.00	160.00
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**2.0 Emissions Summary**

**2.1 Overall Construction**

**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3425	2.8736	2.5518	6.9500e-003	0.1629	0.1198	0.2827	0.0355	0.1110	0.1465	0.0000	615.2224	615.2224	0.1488	0.0141	623.1364
<b>Maximum</b>	<b>0.3425</b>	<b>2.8736</b>	<b>2.5518</b>	<b>6.9500e-003</b>	<b>0.1629</b>	<b>0.1198</b>	<b>0.2827</b>	<b>0.0355</b>	<b>0.1110</b>	<b>0.1465</b>	<b>0.0000</b>	<b>615.2224</b>	<b>615.2224</b>	<b>0.1488</b>	<b>0.0141</b>	<b>623.1364</b>

**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.3425	2.8736	2.5518	6.9500e-003	0.1629	0.1198	0.2827	0.0355	0.1110	0.1465	0.0000	615.2219	615.2219	0.1488	0.0141	623.1359
<b>Maximum</b>	<b>0.3425</b>	<b>2.8736</b>	<b>2.5518</b>	<b>6.9500e-003</b>	<b>0.1629</b>	<b>0.1198</b>	<b>0.2827</b>	<b>0.0355</b>	<b>0.1110</b>	<b>0.1465</b>	<b>0.0000</b>	<b>615.2219</b>	<b>615.2219</b>	<b>0.1488</b>	<b>0.0141</b>	<b>623.1359</b>

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	7-1-2022	9-30-2022	1.6857	1.6857
		Highest	1.6857	1.6857

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep & Grading	Grading	7/1/2022	8/31/2022	5	44	
2	Building Construction	Building Construction	7/1/2022	12/29/2022	5	130	

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**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 100**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep & Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	3	8.00	402	0.38
Building Construction	Pavers	1	8.00	130	0.42
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40
Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep & Grading	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	160.00	60.00	40.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**



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**3.2 Site Prep & Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1300e-003	0.1157	0.0379	1.5000e-004		3.6800e-003	3.6800e-003		3.3800e-003	3.3800e-003	0.0000	12.7987	12.7987	4.1400e-003	0.0000	12.9022
<b>Total</b>	<b>9.1300e-003</b>	<b>0.1157</b>	<b>0.0379</b>	<b>1.5000e-004</b>	<b>0.0530</b>	<b>3.6800e-003</b>	<b>0.0567</b>	<b>5.7300e-003</b>	<b>3.3800e-003</b>	<b>9.1100e-003</b>	<b>0.0000</b>	<b>12.7987</b>	<b>12.7987</b>	<b>4.1400e-003</b>	<b>0.0000</b>	<b>12.9022</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.6000e-004	1.8000e-003	0.0000	5.3000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	1.0000e-005	1.0000e-005	0.4404
<b>Total</b>	<b>2.3000e-004</b>	<b>1.6000e-004</b>	<b>1.8000e-003</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4360</b>	<b>0.4360</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.4404</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Site Prep & Grading - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.1300e-003	0.1157	0.0379	1.5000e-004		3.6800e-003	3.6800e-003		3.3800e-003	3.3800e-003	0.0000	12.7987	12.7987	4.1400e-003	0.0000	12.9022
<b>Total</b>	<b>9.1300e-003</b>	<b>0.1157</b>	<b>0.0379</b>	<b>1.5000e-004</b>	<b>0.0530</b>	<b>3.6800e-003</b>	<b>0.0567</b>	<b>5.7300e-003</b>	<b>3.3800e-003</b>	<b>9.1100e-003</b>	<b>0.0000</b>	<b>12.7987</b>	<b>12.7987</b>	<b>4.1400e-003</b>	<b>0.0000</b>	<b>12.9022</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.3000e-004	1.6000e-004	1.8000e-003	0.0000	5.3000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4360	0.4360	1.0000e-005	1.0000e-005	0.4404
<b>Total</b>	<b>2.3000e-004</b>	<b>1.6000e-004</b>	<b>1.8000e-003</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4360</b>	<b>0.4360</b>	<b>1.0000e-005</b>	<b>1.0000e-005</b>	<b>0.4404</b>

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**3.3 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2891	2.5156	2.1667	5.2200e-003		0.1133	0.1133		0.1049	0.1049	0.0000	453.7988	453.7988	0.1418	0.0000	457.3433
<b>Total</b>	<b>0.2891</b>	<b>2.5156</b>	<b>2.1667</b>	<b>5.2200e-003</b>		<b>0.1133</b>	<b>0.1133</b>		<b>0.1049</b>	<b>0.1049</b>	<b>0.0000</b>	<b>453.7988</b>	<b>453.7988</b>	<b>0.1418</b>	<b>0.0000</b>	<b>457.3433</b>

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.0500e-003	5.8000e-004	1.0000e-005	3.4000e-004	3.0000e-005	3.7000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.1739	1.1739	1.0000e-005	1.8000e-004	1.2290
Vendor	8.4400e-003	0.2141	0.0616	8.2000e-004	0.0259	2.3800e-003	0.0282	7.4700e-003	2.2800e-003	9.7500e-003	0.0000	78.3133	78.3133	5.1000e-004	0.0117	81.8247
Worker	0.0356	0.0251	0.2832	7.5000e-004	0.0832	4.7000e-004	0.0836	0.0221	4.3000e-004	0.0225	0.0000	68.7018	68.7018	2.3400e-003	2.1400e-003	69.3968
<b>Total</b>	<b>0.0441</b>	<b>0.2422</b>	<b>0.3454</b>	<b>1.5800e-003</b>	<b>0.1094</b>	<b>2.8800e-003</b>	<b>0.1122</b>	<b>0.0297</b>	<b>2.7400e-003</b>	<b>0.0324</b>	<b>0.0000</b>	<b>148.1889</b>	<b>148.1889</b>	<b>2.8600e-003</b>	<b>0.0141</b>	<b>152.4505</b>

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**3.3 Building Construction - 2022**

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2891	2.5156	2.1667	5.2200e-003		0.1133	0.1133		0.1049	0.1049	0.0000	453.7983	453.7983	0.1418	0.0000	457.3428
<b>Total</b>	<b>0.2891</b>	<b>2.5156</b>	<b>2.1667</b>	<b>5.2200e-003</b>		<b>0.1133</b>	<b>0.1133</b>		<b>0.1049</b>	<b>0.1049</b>	<b>0.0000</b>	<b>453.7983</b>	<b>453.7983</b>	<b>0.1418</b>	<b>0.0000</b>	<b>457.3428</b>

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	8.0000e-005	3.0500e-003	5.8000e-004	1.0000e-005	3.4000e-004	3.0000e-005	3.7000e-004	9.0000e-005	3.0000e-005	1.2000e-004	0.0000	1.1739	1.1739	1.0000e-005	1.8000e-004	1.2290
Vendor	8.4400e-003	0.2141	0.0616	8.2000e-004	0.0259	2.3800e-003	0.0282	7.4700e-003	2.2800e-003	9.7500e-003	0.0000	78.3133	78.3133	5.1000e-004	0.0117	81.8247
Worker	0.0356	0.0251	0.2832	7.5000e-004	0.0832	4.7000e-004	0.0836	0.0221	4.3000e-004	0.0225	0.0000	68.7018	68.7018	2.3400e-003	2.1400e-003	69.3968
<b>Total</b>	<b>0.0441</b>	<b>0.2422</b>	<b>0.3454</b>	<b>1.5800e-003</b>	<b>0.1094</b>	<b>2.8800e-003</b>	<b>0.1122</b>	<b>0.0297</b>	<b>2.7400e-003</b>	<b>0.0324</b>	<b>0.0000</b>	<b>148.1889</b>	<b>148.1889</b>	<b>2.8600e-003</b>	<b>0.0141</b>	<b>152.4505</b>

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.505022	0.051937	0.170337	0.165963	0.030143	0.007880	0.013096	0.025463	0.000664	0.000317	0.023954	0.001505	0.003719

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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.3 Energy by Land Use - Electricity**

**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**



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**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
Unmitigated	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004

**6.2 Area by SubCategory**

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	5.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.0000e-004	1.0000e-004	0.0000	0.0000	1.1000e-004
<b>Total</b>	<b>0.0000</b>	<b>0.0000</b>	<b>5.0000e-005</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.0000e-004</b>	<b>1.0000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.1000e-004</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

**7.2 Water by Land Use**

**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**7.2 Water by Land Use**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.2 Waste by Land Use**

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Annual

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Shalane Tank and Transmission Pipeline Project**

**San Joaquin Valley Air Basin, Summer**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.70	User Defined Unit	6.50	283,140.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	45
<b>Climate Zone</b>	3			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics -
- Land Use - Approx 6.5-acre project site
- Construction Phase - Approx. 130 working days
- Off-road Equipment - Construction 8 hr/day  
Equipment provided by client
- Off-road Equipment - Construction 8 hr/day  
Equipment provided by client
- Trips and VMT - Assumed conservative worker, vendor, haul
- On-road Fugitive Dust -
- Demolition -
- Grading - Conservative assumption
- Vehicle Emission Factors -
- Vehicle Emission Factors -

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Emission Factors -

Consumer Products - None

Area Coating - none

Landscape Equipment - None

Fleet Mix -

Vehicle Trips -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	141570	0
tblAreaCoating	Area_Nonresidential_Interior	424710	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	44.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	AcresOfGrading	22.00	100.00
tblLandUse	LandUseSquareFeet	0.00	283,140.00
tblLandUse	LotAcreage	0.00	6.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	46.00	60.00



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tbITripsAndVMT	WorkerTripNumber	119.00	160.00
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**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.6411	47.5182	41.1414	0.1125	4.1614	1.9542	6.1156	0.7340	1.8094	2.5434	0.0000	10,975.5107	10,975.5107	2.6597	0.2372	11,112.6914
<b>Maximum</b>	<b>5.6411</b>	<b>47.5182</b>	<b>41.1414</b>	<b>0.1125</b>	<b>4.1614</b>	<b>1.9542</b>	<b>6.1156</b>	<b>0.7340</b>	<b>1.8094</b>	<b>2.5434</b>	<b>0.0000</b>	<b>10,975.5107</b>	<b>10,975.5107</b>	<b>2.6597</b>	<b>0.2372</b>	<b>11,112.6914</b>

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.6411	47.5182	41.1414	0.1125	4.1614	1.9542	6.1156	0.7340	1.8094	2.5434	0.0000	10,975.5107	10,975.5107	2.6597	0.2372	11,112.6914
<b>Maximum</b>	<b>5.6411</b>	<b>47.5182</b>	<b>41.1414</b>	<b>0.1125</b>	<b>4.1614</b>	<b>1.9542</b>	<b>6.1156</b>	<b>0.7340</b>	<b>1.8094</b>	<b>2.5434</b>	<b>0.0000</b>	<b>10,975.5107</b>	<b>10,975.5107</b>	<b>2.6597</b>	<b>0.2372</b>	<b>11,112.6914</b>



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3300e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3300e-003</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep & Grading	Grading	7/1/2022	8/31/2022	5	44	
2	Building Construction	Building Construction	7/1/2022	12/29/2022	5	130	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 100**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep & Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	3	8.00	402	0.38
Building Construction	Pavers	1	8.00	130	0.42
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep & Grading	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	160.00	60.00	40.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Site Prep & Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4102	0.0000	2.4102	0.2603	0.0000	0.2603			0.0000			0.0000
Off-Road	0.4150	5.2576	1.7218	6.6200e-003		0.1672	0.1672		0.1538	0.1538		641.2789	641.2789	0.2074		646.4640
<b>Total</b>	<b>0.4150</b>	<b>5.2576</b>	<b>1.7218</b>	<b>6.6200e-003</b>	<b>2.4102</b>	<b>0.1672</b>	<b>2.5774</b>	<b>0.2603</b>	<b>0.1538</b>	<b>0.4141</b>		<b>641.2789</b>	<b>641.2789</b>	<b>0.2074</b>		<b>646.4640</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Site Prep & Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	6.7200e-003	0.0946	2.4000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		23.7595	23.7595	7.2000e-004	6.5000e-004	23.9704
<b>Total</b>	<b>0.0119</b>	<b>6.7200e-003</b>	<b>0.0946</b>	<b>2.4000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6600e-003</b>		<b>23.7595</b>	<b>23.7595</b>	<b>7.2000e-004</b>	<b>6.5000e-004</b>	<b>23.9704</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4102	0.0000	2.4102	0.2603	0.0000	0.2603			0.0000			0.0000
Off-Road	0.4150	5.2576	1.7218	6.6200e-003		0.1672	0.1672		0.1538	0.1538	0.0000	641.2789	641.2789	0.2074		646.4640
<b>Total</b>	<b>0.4150</b>	<b>5.2576</b>	<b>1.7218</b>	<b>6.6200e-003</b>	<b>2.4102</b>	<b>0.1672</b>	<b>2.5774</b>	<b>0.2603</b>	<b>0.1538</b>	<b>0.4141</b>	<b>0.0000</b>	<b>641.2789</b>	<b>641.2789</b>	<b>0.2074</b>		<b>646.4640</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Site Prep & Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0119	6.7200e-003	0.0946	2.4000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		23.7595	23.7595	7.2000e-004	6.5000e-004	23.9704
<b>Total</b>	<b>0.0119</b>	<b>6.7200e-003</b>	<b>0.0946</b>	<b>2.4000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6600e-003</b>		<b>23.7595</b>	<b>23.7595</b>	<b>7.2000e-004</b>	<b>6.5000e-004</b>	<b>23.9704</b>

**3.3 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.4472	38.7008	33.3344	0.0803		1.7426	1.7426		1.6134	1.6134		7,695.8084	7,695.8084	2.4044		7,755.9190
<b>Total</b>	<b>4.4472</b>	<b>38.7008</b>	<b>33.3344</b>	<b>0.0803</b>		<b>1.7426</b>	<b>1.7426</b>		<b>1.6134</b>	<b>1.6134</b>		<b>7,695.8084</b>	<b>7,695.8084</b>	<b>2.4044</b>		<b>7,755.9190</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1800e-003	0.0447	8.8900e-003	1.9000e-004	5.3900e-003	4.7000e-004	5.8700e-003	1.4800e-003	4.5000e-004	1.9300e-003		19.9015	19.9015	1.1000e-004	3.1300e-003	20.8367
Vendor	0.1319	3.1501	0.9340	0.0126	0.4068	0.0366	0.4434	0.1171	0.0350	0.1521		1,327.5879	1,327.5879	8.6500e-003	0.1989	1,387.0816
Worker	0.6339	0.3583	5.0477	0.0125	1.3144	7.1900e-003	1.3216	0.3486	6.6100e-003	0.3552		1,267.1746	1,267.1746	0.0384	0.0345	1,278.4197
<b>Total</b>	<b>0.7670</b>	<b>3.5531</b>	<b>5.9906</b>	<b>0.0253</b>	<b>1.7265</b>	<b>0.0442</b>	<b>1.7708</b>	<b>0.4673</b>	<b>0.0421</b>	<b>0.5093</b>		<b>2,614.6639</b>	<b>2,614.6639</b>	<b>0.0471</b>	<b>0.2366</b>	<b>2,686.3380</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.4472	38.7008	33.3344	0.0803		1.7426	1.7426		1.6134	1.6134	0.0000	7,695.8084	7,695.8084	2.4044		7,755.9190
<b>Total</b>	<b>4.4472</b>	<b>38.7008</b>	<b>33.3344</b>	<b>0.0803</b>		<b>1.7426</b>	<b>1.7426</b>		<b>1.6134</b>	<b>1.6134</b>	<b>0.0000</b>	<b>7,695.8084</b>	<b>7,695.8084</b>	<b>2.4044</b>		<b>7,755.9190</b>



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1800e-003	0.0447	8.8900e-003	1.9000e-004	5.3900e-003	4.7000e-004	5.8700e-003	1.4800e-003	4.5000e-004	1.9300e-003		19.9015	19.9015	1.1000e-004	3.1300e-003	20.8367
Vendor	0.1319	3.1501	0.9340	0.0126	0.4068	0.0366	0.4434	0.1171	0.0350	0.1521		1,327.5879	1,327.5879	8.6500e-003	0.1989	1,387.0816
Worker	0.6339	0.3583	5.0477	0.0125	1.3144	7.1900e-003	1.3216	0.3486	6.6100e-003	0.3552		1,267.1746	1,267.1746	0.0384	0.0345	1,278.4197
<b>Total</b>	<b>0.7670</b>	<b>3.5531</b>	<b>5.9906</b>	<b>0.0253</b>	<b>1.7265</b>	<b>0.0442</b>	<b>1.7708</b>	<b>0.4673</b>	<b>0.0421</b>	<b>0.5093</b>		<b>2,614.6639</b>	<b>2,614.6639</b>	<b>0.0471</b>	<b>0.2366</b>	<b>2,686.3380</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.505022	0.051937	0.170337	0.165963	0.030143	0.007880	0.013096	0.025463	0.000664	0.000317	0.023954	0.001505	0.003719

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
Unmitigated	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>		<b>1.3300e-003</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>		<b>1.3300e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Summer

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**Shalane Tank and Transmission Pipeline Project  
San Joaquin Valley Air Basin, Winter**

**1.0 Project Characteristics**

**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	5.70	User Defined Unit	6.50	283,140.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.7	<b>Precipitation Freq (Days)</b>	45
<b>Climate Zone</b>	3			<b>Operational Year</b>	2023
<b>Utility Company</b>	Pacific Gas and Electric Company				
<b>CO2 Intensity (lb/MWhr)</b>	203.98	<b>CH4 Intensity (lb/MWhr)</b>	0.033	<b>N2O Intensity (lb/MWhr)</b>	0.004

**1.3 User Entered Comments & Non-Default Data**

- Project Characteristics -
- Land Use - Approx 6.5-acre project site
- Construction Phase - Approx. 130 working days
- Off-road Equipment - Construction 8 hr/day  
Equipment provided by client
- Off-road Equipment - Construction 8 hr/day  
Equipment provided by client
- Trips and VMT - Assumed conservative worker, vendor, haul
- On-road Fugitive Dust -
- Demolition -
- Grading - Conservative assumption
- Vehicle Emission Factors -
- Vehicle Emission Factors -



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Vehicle Emission Factors -

Consumer Products - None

Area Coating - none

Landscape Equipment - None

Fleet Mix -

Vehicle Trips -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	141570	0
tblAreaCoating	Area_Nonresidential_Interior	424710	0
tblAreaCoating	ReapplicationRatePercent	10	0
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	230.00	130.00
tblConstructionPhase	NumDays	20.00	44.00
tblConsumerProducts	ROG_EF	2.14E-05	0
tblConsumerProducts	ROG_EF_Degreaser	3.542E-07	0
tblConsumerProducts	ROG_EF_PesticidesFertilizers	5.152E-08	0
tblGrading	AcresOfGrading	22.00	100.00
tblLandUse	LandUseSquareFeet	0.00	283,140.00
tblLandUse	LotAcreage	0.00	6.50
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00
tblTripsAndVMT	HaulingTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	46.00	60.00

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

tbITripsAndVMT	WorkerTripNumber	119.00	160.00
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**2.0 Emissions Summary**

**2.1 Overall Construction (Maximum Daily Emission)**

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.5660	47.8019	40.4103	0.1111	4.1614	1.9543	6.1157	0.7340	1.8095	2.5435	0.0000	10,834.03 15	10,834.03 15	2.6636	0.2417	10,972.65 76
<b>Maximum</b>	<b>5.5660</b>	<b>47.8019</b>	<b>40.4103</b>	<b>0.1111</b>	<b>4.1614</b>	<b>1.9543</b>	<b>6.1157</b>	<b>0.7340</b>	<b>1.8095</b>	<b>2.5435</b>	<b>0.0000</b>	<b>10,834.03 15</b>	<b>10,834.03 15</b>	<b>2.6636</b>	<b>0.2417</b>	<b>10,972.65 76</b>

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	5.5660	47.8019	40.4103	0.1111	4.1614	1.9543	6.1157	0.7340	1.8095	2.5435	0.0000	10,834.03 14	10,834.03 14	2.6636	0.2417	10,972.65 76
<b>Maximum</b>	<b>5.5660</b>	<b>47.8019</b>	<b>40.4103</b>	<b>0.1111</b>	<b>4.1614</b>	<b>1.9543</b>	<b>6.1157</b>	<b>0.7340</b>	<b>1.8095</b>	<b>2.5435</b>	<b>0.0000</b>	<b>10,834.03 14</b>	<b>10,834.03 14</b>	<b>2.6636</b>	<b>0.2417</b>	<b>10,972.65 76</b>



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**2.2 Overall Operational**

**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3300e-003</b>

**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>	<b>0.0000</b>	<b>1.3300e-003</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

**3.0 Construction Detail**

**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Prep & Grading	Grading	7/1/2022	8/31/2022	5	44	
2	Building Construction	Building Construction	7/1/2022	12/29/2022	5	130	

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 100**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Prep & Grading	Graders	1	8.00	187	0.41
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Excavators	1	8.00	158	0.38
Building Construction	Forklifts	0	8.00	89	0.20
Building Construction	Generator Sets	0	8.00	84	0.74
Building Construction	Off-Highway Trucks	3	8.00	402	0.38
Building Construction	Pavers	1	8.00	130	0.42
Building Construction	Rollers	1	8.00	80	0.38
Building Construction	Rubber Tired Dozers	1	8.00	247	0.40

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

Building Construction	Sweepers/Scrubbers	1	8.00	64	0.46
Building Construction	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Welders	2	8.00	46	0.45

**Trips and VMT**

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Prep & Grading	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	13	160.00	60.00	40.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

**3.1 Mitigation Measures Construction**

**3.2 Site Prep & Grading - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4102	0.0000	2.4102	0.2603	0.0000	0.2603			0.0000			0.0000
Off-Road	0.4150	5.2576	1.7218	6.6200e-003		0.1672	0.1672		0.1538	0.1538		641.2789	641.2789	0.2074		646.4640
<b>Total</b>	<b>0.4150</b>	<b>5.2576</b>	<b>1.7218</b>	<b>6.6200e-003</b>	<b>2.4102</b>	<b>0.1672</b>	<b>2.5774</b>	<b>0.2603</b>	<b>0.1538</b>	<b>0.4141</b>		<b>641.2789</b>	<b>641.2789</b>	<b>0.2074</b>		<b>646.4640</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Site Prep & Grading - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	7.9400e-003	0.0806	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.1334	21.1334	8.0000e-004	7.2000e-004	21.3688
<b>Total</b>	<b>0.0106</b>	<b>7.9400e-003</b>	<b>0.0806</b>	<b>2.1000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6600e-003</b>		<b>21.1334</b>	<b>21.1334</b>	<b>8.0000e-004</b>	<b>7.2000e-004</b>	<b>21.3688</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					2.4102	0.0000	2.4102	0.2603	0.0000	0.2603			0.0000			0.0000
Off-Road	0.4150	5.2576	1.7218	6.6200e-003		0.1672	0.1672		0.1538	0.1538	0.0000	641.2789	641.2789	0.2074		646.4640
<b>Total</b>	<b>0.4150</b>	<b>5.2576</b>	<b>1.7218</b>	<b>6.6200e-003</b>	<b>2.4102</b>	<b>0.1672</b>	<b>2.5774</b>	<b>0.2603</b>	<b>0.1538</b>	<b>0.4141</b>	<b>0.0000</b>	<b>641.2789</b>	<b>641.2789</b>	<b>0.2074</b>		<b>646.4640</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.2 Site Prep & Grading - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0106	7.9400e-003	0.0806	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.1334	21.1334	8.0000e-004	7.2000e-004	21.3688
<b>Total</b>	<b>0.0106</b>	<b>7.9400e-003</b>	<b>0.0806</b>	<b>2.1000e-004</b>	<b>0.0246</b>	<b>1.3000e-004</b>	<b>0.0248</b>	<b>6.5400e-003</b>	<b>1.2000e-004</b>	<b>6.6600e-003</b>		<b>21.1334</b>	<b>21.1334</b>	<b>8.0000e-004</b>	<b>7.2000e-004</b>	<b>21.3688</b>

**3.3 Building Construction - 2022**

**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.4472	38.7008	33.3344	0.0803		1.7426	1.7426		1.6134	1.6134		7,695.8084	7,695.8084	2.4044		7,755.9190
<b>Total</b>	<b>4.4472</b>	<b>38.7008</b>	<b>33.3344</b>	<b>0.0803</b>		<b>1.7426</b>	<b>1.7426</b>		<b>1.6134</b>	<b>1.6134</b>		<b>7,695.8084</b>	<b>7,695.8084</b>	<b>2.4044</b>		<b>7,755.9190</b>



Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 Building Construction - 2022**

**Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1400e-003	0.0478	9.1000e-003	1.9000e-004	5.3900e-003	4.7000e-004	5.8700e-003	1.4800e-003	4.5000e-004	1.9300e-003		19.9150	19.9150	1.1000e-004	3.1300e-003	20.8509
Vendor	0.1285	3.3645	0.9665	0.0126	0.4068	0.0367	0.4435	0.1171	0.0351	0.1522		1,328.7825	1,328.7825	8.4800e-003	0.1993	1,388.3839
Worker	0.5636	0.4233	4.2979	0.0112	1.3144	7.1900e-003	1.3216	0.3486	6.6100e-003	0.3552		1,127.1133	1,127.1133	0.0424	0.0386	1,139.6710
<b>Total</b>	<b>0.6932</b>	<b>3.8356</b>	<b>5.2735</b>	<b>0.0239</b>	<b>1.7265</b>	<b>0.0443</b>	<b>1.7709</b>	<b>0.4673</b>	<b>0.0422</b>	<b>0.5094</b>		<b>2,475.8108</b>	<b>2,475.8108</b>	<b>0.0510</b>	<b>0.2410</b>	<b>2,548.9057</b>

**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.4472	38.7008	33.3344	0.0803		1.7426	1.7426		1.6134	1.6134	0.0000	7,695.8084	7,695.8084	2.4044		7,755.9190
<b>Total</b>	<b>4.4472</b>	<b>38.7008</b>	<b>33.3344</b>	<b>0.0803</b>		<b>1.7426</b>	<b>1.7426</b>		<b>1.6134</b>	<b>1.6134</b>	<b>0.0000</b>	<b>7,695.8084</b>	<b>7,695.8084</b>	<b>2.4044</b>		<b>7,755.9190</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**3.3 Building Construction - 2022**

**Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1400e-003	0.0478	9.1000e-003	1.9000e-004	5.3900e-003	4.7000e-004	5.8700e-003	1.4800e-003	4.5000e-004	1.9300e-003		19.9150	19.9150	1.1000e-004	3.1300e-003	20.8509
Vendor	0.1285	3.3645	0.9665	0.0126	0.4068	0.0367	0.4435	0.1171	0.0351	0.1522		1,328.7825	1,328.7825	8.4800e-003	0.1993	1,388.3839
Worker	0.5636	0.4233	4.2979	0.0112	1.3144	7.1900e-003	1.3216	0.3486	6.6100e-003	0.3552		1,127.1133	1,127.1133	0.0424	0.0386	1,139.6710
<b>Total</b>	<b>0.6932</b>	<b>3.8356</b>	<b>5.2735</b>	<b>0.0239</b>	<b>1.7265</b>	<b>0.0443</b>	<b>1.7709</b>	<b>0.4673</b>	<b>0.0422</b>	<b>0.5094</b>		<b>2,475.8108</b>	<b>2,475.8108</b>	<b>0.0510</b>	<b>0.2410</b>	<b>2,548.9057</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**4.0 Operational Detail - Mobile**

**4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**4.2 Trip Summary Information**

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	0.00	0.00	0.00		
Total	0.00	0.00	0.00		

**4.3 Trip Type Information**

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0

**4.4 Fleet Mix**

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.505022	0.051937	0.170337	0.165963	0.030143	0.007880	0.013096	0.025463	0.000664	0.000317	0.023954	0.001505	0.003719

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.0 Energy Detail**

Historical Energy Use: N

**5.1 Mitigation Measures Energy**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

**5.2 Energy by Land Use - NaturalGas**

**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**5.2 Energy by Land Use - NaturalGas**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
<b>Total</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>	<b>0.0000</b>

**6.0 Area Detail**

**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
Unmitigated	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>		<b>1.3300e-003</b>

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**6.2 Area by SubCategory**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.8000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2500e-003	1.2500e-003	0.0000		1.3300e-003
<b>Total</b>	<b>5.0000e-005</b>	<b>1.0000e-005</b>	<b>5.8000e-004</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>0.0000</b>	<b>0.0000</b>		<b>1.2500e-003</b>	<b>1.2500e-003</b>	<b>0.0000</b>		<b>1.3300e-003</b>

**7.0 Water Detail**

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**7.1 Mitigation Measures Water**

Shalane Tank and Transmission Pipeline Project - San Joaquin Valley Air Basin, Winter

**EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied**

**8.0 Waste Detail**

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**8.1 Mitigation Measures Waste**

**9.0 Operational Offroad**

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Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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**10.0 Stationary Equipment**

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**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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**Boilers**

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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**User Defined Equipment**

Equipment Type	Number
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**11.0 Vegetation**

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# **BPR Environmental Consulting**

11625 Jubilee Lane -- Bakersfield, California 93311 -- (661) 444-3239

## **Blunt-Nosed Leopard Lizard Survey Findings**

**Shalane Ave. Project**

**Kern County, CA**

**Prepared By:** Tyler Armstrong - Senior Biologist

Ben Ruiz - Senior Biologist

**Date:** September 21, 2022

**Prepared For:** Bobbette Biddulph

### **Blunt-Nosed Leopard Lizard Protocol Surveys**

Blunt-Nosed Leopard Lizard Protocol Surveys were done to determine the feasibility of the proposed Project. SWCA Environmental Consultants requested that BPR Consulting conduct a presence/absence survey for BNLL in accordance with CDFW protocol (CDFW 2019). All survey methods were acquired and conducted with guidance from the October 2019 revision of the CDFW BNLL protocol.

Typical absence/presence surveys, or disturbances leading to habitat removal included a total of 12 survey days, that were conducted for adult BNLL over a 90-day period between April 15 and July 15, 2020. These surveys were followed by 5 additional survey days between August 1 and September 30, 2020 to detect BNLL hatchlings and subadults.

CDFW survey methodology requires the minimum number of surveys to be conducted within the high activity period for the species. Several environmental parameters must be considered, such as season, air temperature, soil temperature, wind speed, cloud cover, time of day, etc.

All surveys included within the methodology also require qualified biologists (Level I and Level II) to conduct surveys utilizing transects 10 to 30 meters apart; with the use of binoculars (minimum 7×35 magnification) and specific observation techniques to maximize the detecting potential of BNLL, and assessing habitat suitability. Once a BNLL has been observed, consultation with CDFW must begin regarding whether surveys should continue to determine distribution within the project site and to develop avoidance measures (CDFW 2019). Staff are included in Table 1, in addition to the data collected during each survey.

It should also be noted that the constraint of private property boundaries limited the optimal 500-foot buffer area that is typically utilized for this protocol survey. Where necessary, surveyors utilized binoculars to make visual observations beyond the project boundaries.

BPR Consulting has completed all the required 12 adult BNLL surveys and 5 juvenile BNLL surveys within the protocol survey window. Two reference-level surveys were conducted on April 27 and 28, 2022, where BNLL are known to populate off Lokern Road (approximately 5 aerial miles west of Buttonwillow). The purpose of these surveys was to assess BNLL activity levels in the area for the season and allowed the surveying biologists to re-establish a visual search image. BNLL were observed during both surveys indicating that BNLL were active at the time surveys were conducted for proposed Project. Table 1 provides a summary of the survey effort.

**James Groundwater Banking and Conveyance Improvement Project 2020**  
**Table 1. BNLL Survey: Dates, Temp, Person-Hours, Distance Covered**

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**SURVEYORS:** Eric Ollinger Lvl. 2, Michelle Ollinger Lvl. 2, Kaleb Ward Lvl. 1, Tyler Armstrong Lvl. 1, Ben Ollinger Lvl. 1

DATE	START TIME	END TIME	START AIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE (IN TENTHS OF A
5/4/2022	9:01 am	10:32 am	79.3°	84.1°	0/0	7.5	15.6
5/6/2022	11:58 am	1:30 pm	80.2	82.5°	0/0	7.5	15.6
5/26/2022	8:00 am	9:29 am	84.1°	91.5°	0/0	7.5	15.6
5/27/2022	8:02 am	9:28 am	83.5°	90.9°	0/0	7.5	15.6

5/28/2022	9:46 am	11:16 am	78.7°	80.4°	0/0	7.5	15.6
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DATE	START TIME	END TIME	START AIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE (IN TENTHS OF A
5/29/2022	12:04 pm	1:35 pm	77.8°	80.0°	0/0	7.5	15.6
6/4/2022	10:30 am	12:03 pm	79.4°	83.8°	0/0	7.5	15.6
6/6/2022	11:03 am	12:31 pm	78.3°	84.3°	0/0	7.5	15.6
6/11/2022	8:06 am	9:32 am	78.8°	89.2°	0/0	7.5	15.6
6/12/2022	8:05 am	9:31 am	80.7°	86.1°	0/0	7.5	15.6
6/20/2022	10:01am	11:36 am	78.9°	82.8°	0/0	7.5	15.6
6/21/2022	9:05 am	10:41m	80.1°	84.5°	0/0	7.5	15.6
8/15/2022	8:00 am	9:29 am	78.5°	84.3°	0/0	7.5	15.6
8/16/2022	8:03 am	9:35 am	82.8°	88.7°	0/0	7.5	15.6
8/18/2022	8:01am	9:31 am	84.4°	89.3°	0/0	7.5	15.6
9/16/2022	12:10 pm	1:41 pm	78.1°	80.5°	0/0	7.5	15.6
6/17/2022	11:02 am	12:34 pm	80.3°	83.7°	0/0	7.5	15.6

As shown in the above table, BNLL were not observed during any of the protocol-level surveys conducted within the Action Area. Therefore, BNLL are not likely to occur in the project's footprint.

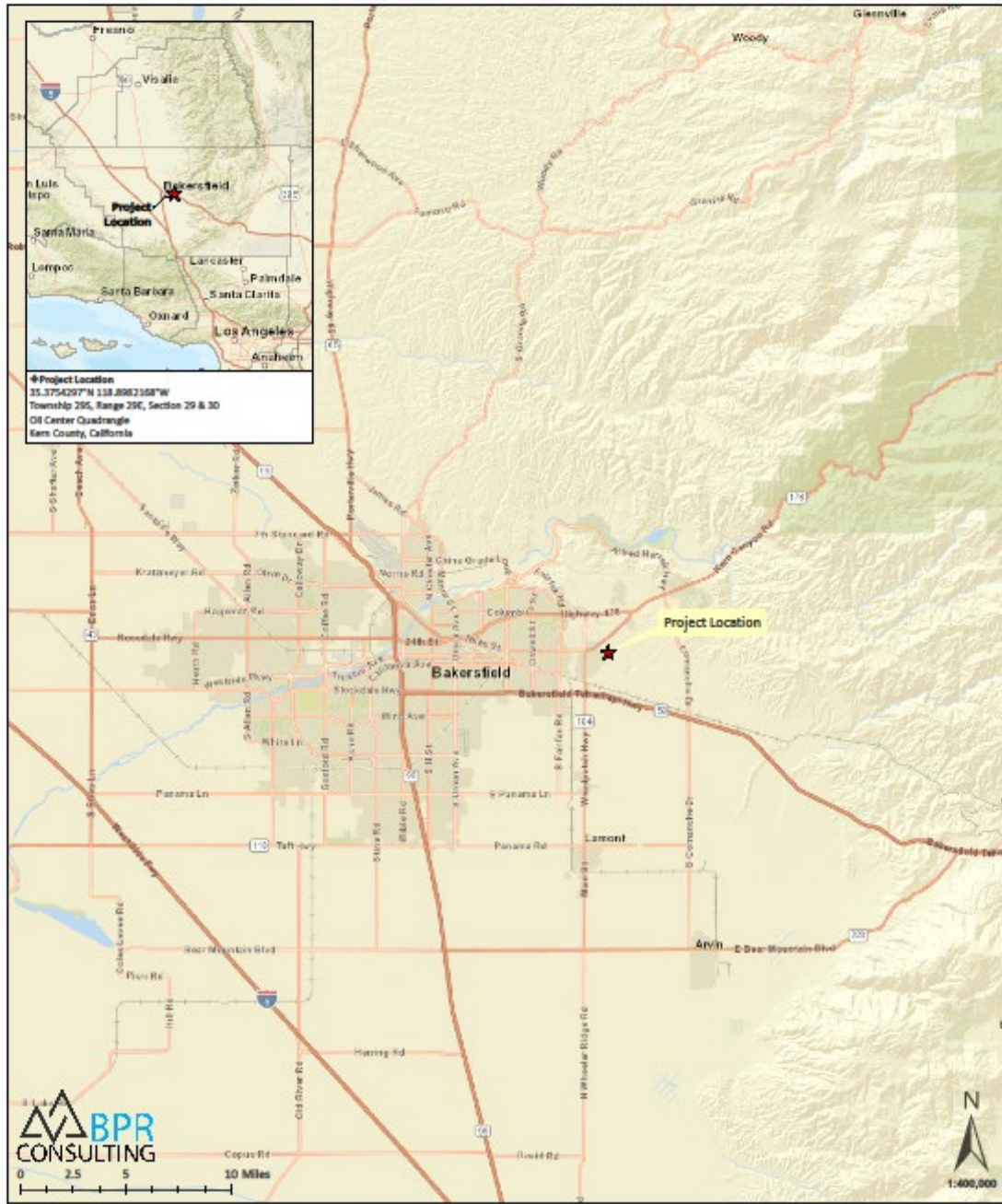


Senior Biologist

Benjamin Ruiz

Attachment – A  
Project Maps

Map 1. Project Vicinity Map



Base map by CSRI, 2022.

**Legend**  
★ Project Location

**Project Vicinity Map**  
Shalane Ave

Date: 8/20/2022

Map 2. Project Location Map



Base map by ESRI, 2022.

- Legend**
- Project Area
  - Survey Area (500-ft Buffer)

**Project Location Map**  
Shalane Ave  
Date: 8/25/2022

Map 3. Project Transect Map



- Legend**
- Project Area
  - Survey Area (500-ft Buffer)
  - 10-Meter Transects

**Project Transects Map**

Shalane Ave

Date: 8/20/2022

Attachment – B  
Photo Documentation



Figure 1. Survey Area



Figure 2. Survey Area



Figure 3. Survey Area



Figure 4. Survey Area



# Blunt-Nosed Leopard Lizard Survey Reporting Form

**SURVEY DATE(S)** (up to 5 days of surveys from a single site can be reported on this form):

May 4, 6, 26, 27 & 28

**SURVEYORS:** Eric Ollinger Lvl. 2, Michelle Ollinger Lvl. 2, Kaleb Ward Lvl. 1, Tyler Armstrong Lvl. 1, Ben Ollinger Lvl. 1

**SITE NAME [Please also attach or sketch a map on back]:** Shalane Ave. Project

**County:** Kern County      **Landowner/Mgr:** MKN

**Quad Name:** Oil Center Quadrangle      **Elevation:** 630 ft

**T** 29S    **R** 29E    **SW**  $\frac{1}{4}$  of Section 30

**UTM Zone (10,11):** 11    **Datum:** NAD83    (NAD83, NAD27, WGS84, other)

**Source (GPS, map & type, other):** GIS      **Point Accuracy** 1 meters

**COORDINATES:** 3,916,362m Northing, 327,603m Easting

## SURVEY RESULTS

DATE	START TIME	END TIME	START AIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE (IN TENTHS OF A
5/4/2022	9:01 am	10:32 am	79.3°	84.1°	0/0	7.5	15.6
5/6/2022	11:58 am	1:30 pm	80.2	82.5°	0/0	7.5	15.6
5/26/2022	8:00 am	9:29 am	84.1°	91.5°	0/0	7.5	15.6
5/27/2022	8:02 am	9:28 am	83.5°	90.9°	0/0	7.5	15.6
5/28/2022	9:46 am	11:16 am	78.7°	80.4°	0/0	7.5	15.6

**TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):**

*Uta stansburiana*

Species Side-Blotched Lizard      Number Observed: 37

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

**HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc:** Primarily non-native annual grass. Lack of burrow density.  
There is a possibilty of the presence of BNLL, but it is unlikely.

**HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:**

% Shrub:	<b>0-10%</b>	10-25%	25-50%	50-75%	>75%
% Forb:	<b>0-10%</b>	10-25%	25-50%	50-75%	>75%
% Grass:	0-10%	<b>10-25%</b>	25-50%	50-75%	>75%
% Bare Ground:	0-10%	10-25%	25-50%	<b>50-75%</b>	>75%

**NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:**

No BNLL were observed during these (5) protocol surveys.

**PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:**

California Department of Fish and Wildlife  
Central Region  
ATTN: Habitat Conservation Planning Supervisor  
1234 East Shaw Avenue  
Fresno, CA 93710

OR

California Department of Fish and Wildlife  
South Coast Region  
ATTN: Habitat Conservation Planning Supervisor  
3883 Ruffin Road  
San Diego, CA 92123

**\*\*\*ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS MAINTAINED BY THE BIOGEOGRAPHIC DATA BRANCH OF CDFW. PLEASE SEE THE SURVEY PROTOCOL FOR DIRECTIONS ON REPORTING TO CNDDDB.**

# Blunt-Nosed Leopard Lizard Survey Reporting Form

**SURVEY DATE(S) (up to 5 days of surveys from a single site can be reported on this form):**

May 29, June 4, 6, 11 & 12

**SURVEYORS:** Eric Ollinger Lvl. 2, Michelle Ollinger Lvl. 2, Kaleb Ward Lvl. 1, Tyler Armstrong Lvl. 1, Ben Ollinger Lvl. 1

**SITE NAME [Please also attach or sketch a map on back]:** Shalane Ave. Project

**County:** Kern County      **Landowner/Mgr:** MKN

**Quad Name:** Oil Center Quadrangle      **Elevation:** 630 ft

**T** 29S    **R** 29E    **SW**  $\frac{1}{4}$  of Section 30

**UTM Zone (10,11):** 11    **Datum:** NAD83    (NAD83, NAD27, WGS84, other)

**Source (GPS, map & type, other):** GIS      **Point Accuracy** 1 meters

**COORDINATES:** 3,916,362m Northing, 327,603m Easting

## SURVEY RESULTS

DATE	START TIME	END TIME	START AIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE (IN TENTHS OF A
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6/4/2022	10:30 am	12:03 pm	79.4°	83.8°	0/0	7.5	15.6
6/6/2022	11:03 am	12:31 pm	78.3°	84.3°	0/0	7.5	15.6
6/11/2022	8:06 am	9:32 am	78.8°	89.2°	0/0	7.5	15.6
6/12/2022	8:05 am	9:31 am	80.7°	86.1°	0/0	7.5	15.6

**TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):**

Uta stansburiana

Species Side-Blotched Lizard      Number Observed: 41

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

**HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc:** Primarily non-native annual grass. Lack of burrow density.  
There is a possibilty of the presence of BNLL, but it is unlikely.

**HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:**

% Shrub:	<b>0-10%</b>	10-25%	25-50%	50-75%	>75%
% Forb:	<b>0-10%</b>	10-25%	25-50%	50-75%	>75%
% Grass:	0-10%	<b>10-25%</b>	25-50%	50-75%	>75%
% Bare Ground:	0-10%	10-25%	25-50%	<b>50-75%</b>	>75%

**NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:**

No BNLL were observed during these (5) protocol surveys.

**PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:**

California Department of Fish and Wildlife  
Central Region  
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OR

California Department of Fish and Wildlife  
South Coast Region  
ATTN: Habitat Conservation Planning Supervisor  
3883 Ruffin Road  
San Diego, CA 92123

**\*\*\*ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS MAINTAINED BY THE BIOGEOGRAPHIC DATA BRANCH OF CDFW. PLEASE SEE THE SURVEY PROTOCOL FOR DIRECTIONS ON REPORTING TO CNDDDB.**

# Blunt-Nosed Leopard Lizard Survey Reporting Form

**SURVEY DATE(S) (up to 5 days of surveys from a single site can be reported on this form):**

June 20, 21 August 15, 16, 18

**SURVEYORS:** Eric Ollinger Lvl. 2, Michelle Ollinger Lvl. 2, Kaleb Ward Lvl. 1, Tyler Armstrong Lvl. 1, Ben Ollinger Lvl. 1

**SITE NAME [Please also attach or sketch a map on back]:** Shalane Ave. Project

**County:** Kern County      **Landowner/Mgr:** MKN

**Quad Name:** Oil Center Quadrangle      **Elevation:** 630 ft

**T** 29S    **R** 29E    **SW**  $\frac{1}{4}$  of Section 30

**UTM Zone (10,11):** 11    **Datum:** NAD83    (NAD83, NAD27, WGS84, other)

**Source (GPS, map & type, other):** GIS      **Point Accuracy** 1 meters

**COORDINATES:** 3,916,362m Northing, 327,603m Easting

## SURVEY RESULTS

DATE	START TIME	END TIME	START AIR TEMP	END AIR TEMP	# BNLL OBSERVED Adults/Hatchlings	PERSON-HOURS (# Surveyors) X (# Hours Walked)	APPROXIMATE DISTANCE (IN TENTHS OF A
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8/16/2022	8:03 am	9:35 am	82.8°	88.7°	0/0	7.5	15.6
8/18/2022	8:01am	9:31 am	84.4°	89.3°	0/0	7.5	15.6

**TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):**

Uta stansburiana

Species Side-Blotched Lizard      Number Observed: 39

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

**HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc:** Primarily non-native annual grass. Lack of burrow density.  
There is a possibility of the presence of BNLL, but it is unlikely.

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**HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:**

% Shrub:	<b>0-10%</b>	10-25%	25-50%	50-75%	>75%
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% Bare Ground:	0-10%	10-25%	25-50%	<b>50-75%</b>	>75%

**NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:**

No BNLL were observed during these (5) protocol surveys.

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**PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:**

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Central Region  
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# Blunt-Nosed Leopard Lizard Survey Reporting Form

**SURVEY DATE(S)** (up to 5 days of surveys from a single site can be reported on this form):

September 16 & 17

**SURVEYORS:** Eric Ollinger Lvl. 2, Michelle Ollinger Lvl. 2, Kaleb Ward Lvl. 1, Tyler Armstrong Lvl. 1, Ben Ollinger Lvl. 1

**SITE NAME [Please also attach or sketch a map on back]:** Shalane Ave. Project

**County:** Kern County      **Landowner/Mgr:** MKN

**Quad Name:** Oil Center Quadrangle      **Elevation:** 630 ft

**T** 29S    **R** 29E    **SW**  $\frac{1}{4}$  of Section 30

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**Source (GPS, map & type, other):** GIS      **Point Accuracy** 1 meters

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## SURVEY RESULTS

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6/17/2022	11:02 am	12:34 pm	80.3°	83.7°	0/0	7.5	15.6

**TOTAL NUMBER OF OBSERVATIONS FOR THE THREE MOST COMMON LIZARD SPECIES ENCOUNTERED (combined numbers for all survey days):**

*Uta stansburiana*

Species Side-Blotched Lizard      Number Observed: 12

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

Species \_\_\_\_\_      Number Observed: \_\_\_\_\_

**HABITAT DESCRIPTION: General description of vegetation community, overall habitat quality, surrounding land use, threats, etc:** Primarily non-native annual grass. Lack of burrow density.  
There is a possibilty of the presence of BNLL, but it is unlikely.

**HABITAT DESCRIPTION: Estimation of Average Vegetative Cover on the Site [circle the correct value]:**

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% Grass:	0-10%	<b>10-25%</b>	25-50%	50-75%	>75%
% Bare Ground:	0-10%	10-25%	25-50%	<b>50-75%</b>	>75%

**NOTES ABOUT THE SURVEY/HABITAT/SPECIAL-STATUS SPECIES/ETC:**

No BNLL were observed during these (5) protocol surveys.

**PLEASE RETURN THIS SURVEY REPORTING FORM TO THE APPROPRIATE CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE REGION AT THE FOLLOWING ADDRESS:**

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Central Region  
ATTN: Habitat Conservation Planning Supervisor  
1234 East Shaw Avenue  
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OR

California Department of Fish and Wildlife  
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**\*\*\*ALL OBSERVATIONS OF BLUNT-NOSED LEOPARD LIZARDS AND OTHER SPECIAL STATUS SPECIES SHOULD BE PROMPTLY REPORTED TO THE CALIFORNIA NATURAL DIVERSITY DATABASE (CNDDDB). SUBMISSION OF THIS FORM DOES NOT ENTAIL REPORTING TO THE DATABASE, WHICH IS MAINTAINED BY THE BIOGEOGRAPHIC DATA BRANCH OF CDFW. PLEASE SEE THE SURVEY PROTOCOL FOR DIRECTIONS ON REPORTING TO CNDDDB.**