

Initial Study / Mitigated Negative Declaration

**City of Huron Sanitary Sewer Collection System and
Wastewater Treatment Plant Improvements**

Prepared for:



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PROJECT INFORMATION

This document is the Initial Study / Mitigated Negative Declaration for the potential environmental effects of the City of Huron's (City) Sanitary Sewer Collection System and Wastewater Treatment Plant Improvements Project (Project). The City of Huron will act as the Lead Agency for this Project pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines. Copies of all materials referenced in this report are available for review in the Project file during regular business hours at 36311 S. Lassen Avenue, Huron, CA 93234

Project Title

City of Huron Sanitary Sewer Collection System and Wastewater Treatment Plant Improvements

Lead agency name and address

City of Huron
36311 S. Lassen Avenue
Huron, CA 93234

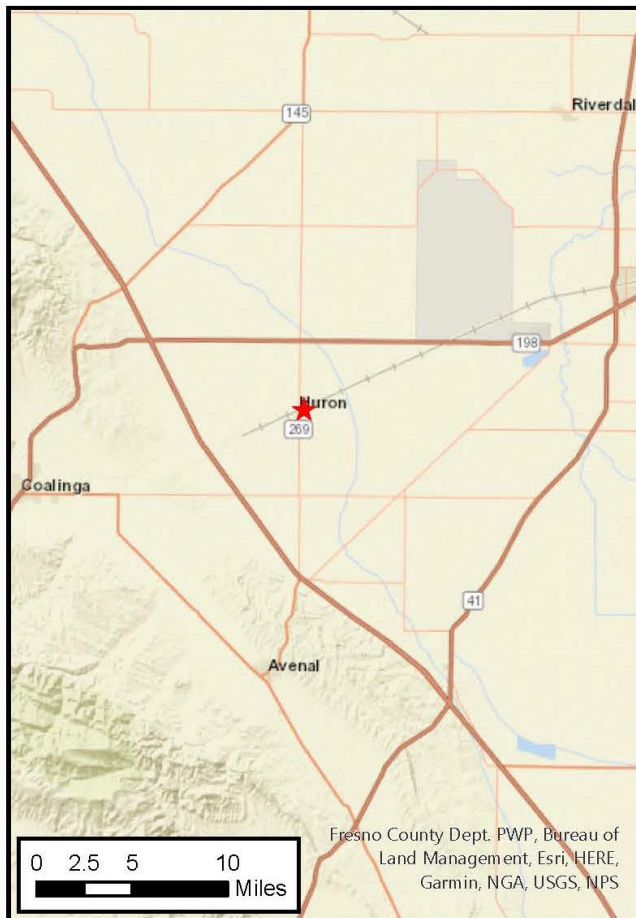
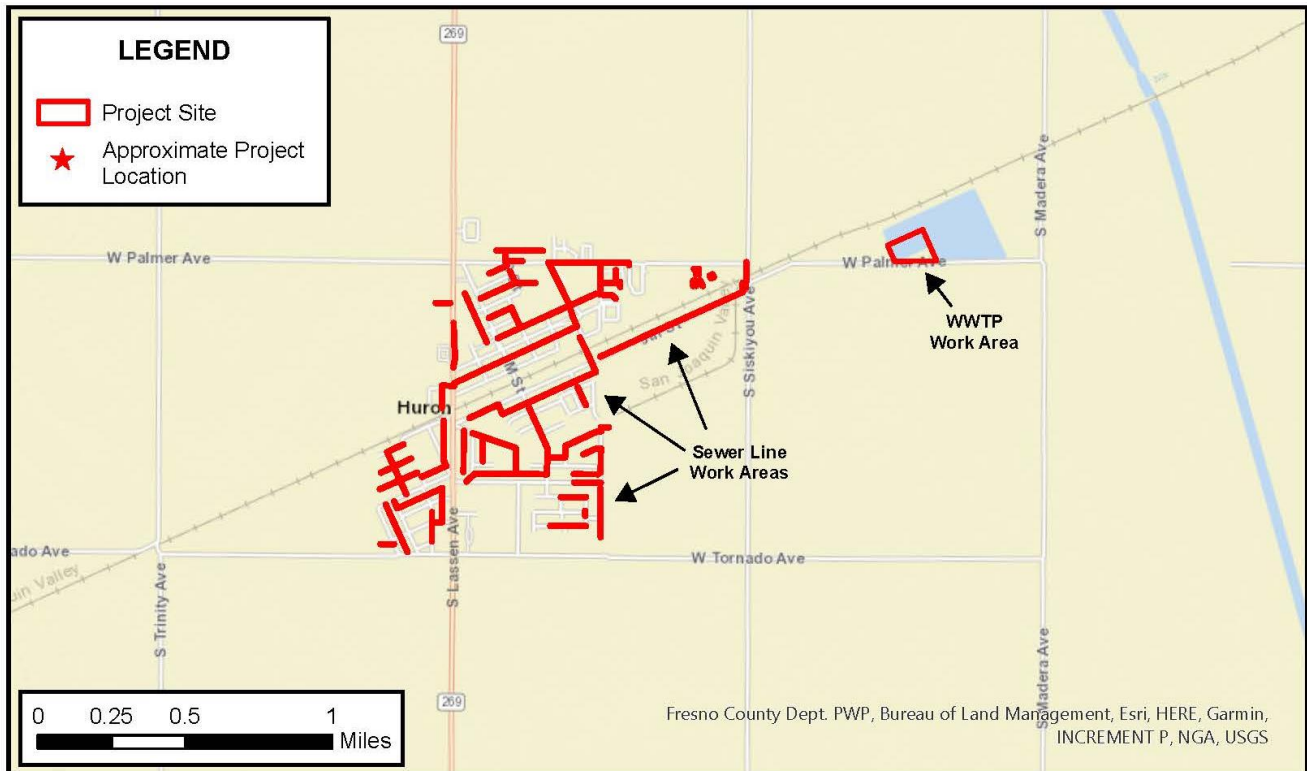
Contact person and phone number

Virginia Penaloza, City Manager: 559.945.2241
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Project location and Surrounding Land Uses

The City of Huron lies in the San Joaquin Valley's west-side region, in the southwest portion of Fresno County. The City is nine miles east of Interstate 5 (I-5) and three miles south of State Route 198 (SR 198). The proposed pipelines improvements will be installed in areas throughout the City (See Figure 1) and will total approximately 22,738 linear feet of rehabilitated or replacement sewer mains within City limit boundaries. The improvements will take place in residential/commercial areas of the City within street right-of-way. In addition, improvements to the City's existing wastewater treatment plant (WWTP) will occur within the existing 7-acre fenced area of the City's WWTP located at 36311 S. Lassen Avenue, Huron, CA 93234. Refer to Figure 1 for the Project location. The WWTP is surrounded by farmland and roadways.

Figure 1 – Project Location Map



Project sponsor's name/address

City of Huron
36311 S. Lassen Avenue
Huron, CA 93234

General plan designation

City right-of-way and Public Facilities

Zoning

City right-of-way and PF- Public Facilities

Project Description

The City of Huron owns and operates a citywide sewer collection system and wastewater treatment plant under Water Discharge Requirements (WDR) No. 87-012. A condition survey of the sewer collection system was recently conducted and revealed that approximately 13,501 linear feet (lf) of gravity sewer mains need rehabilitation and that approximately 9,237 lf of gravity sewer mains need replacing. In addition, improvements are needed at the City's WWTP to provide more efficient and cost-effective sludge management. The proposed project thus consists of rehabilitating or replacing defective lines and constructing improvements at the City's WWTP.

A trenchless construction method, cured-in-place pipe (CIPP), will be utilized to rehabilitate pipelines with cracks, light root intrusion, small sags, small holes with no void, small offset joints, and structurally deficient segments. This method uses a flexible fabric liner coated with a thermosetting resin to form a new pipe inside the existing pipe. The liner will be inserted into the pipes at existing manholes, and will be cured with heat, forming a strong bond between the tube and existing pipe. Pipes that cannot be rehabilitated will be replaced in kind with conventional open trench construction methods. Open trench widths will range from 1 foot to 2.5 feet depending on the diameter of the pipes to be replaced; pipe diameters range from 6 inches to 15 inches. Nearly all sewer line work will be confined to city streets and drives, with no construction activities outside the traveled way. For the approximately 2,300 linear feet of sewer line segments that are located outside of the traveled way, all project-related disturbance will be confined to an approximately 20-foot-wide corridor centered on the pipe alignment.

Proposed improvements at the WWTP include upgrading existing sludge drying beds by incorporating geomembrane or geotextile liners, improving drainage systems, adding covers that can enhance the drying efficiency, replacing and installing new sludge feed pumps. Construction activities at the WWTP will be confined to an approximately 7-acre work area within the fenced boundaries of the facility.

Other Public Agencies Involved

- State of California Native American Heritage Commission
- San Joaquin Valley Air Pollution Control District
- Central Valley Regional Water Quality Control Board
- U.S. Department of Transportation
- Occupation Safety & Health Administration

Tribal Consultation

See Section XVIII – Tribal Cultural Resources.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is a “Potentially Significant Impact” as indicated by the checklist on the following pages.

- | | | |
|---|--|--|
| ☐ Aesthetics | ☐ Agriculture Resources
and Forest Resources | ☐ Air Quality |
| ☐ Biological Resources | ☐ Cultural Resources | ☐ Energy |
| ☐ Geology / Soils | ☐ Greenhouse Gas
Emissions | ☐ Hazards &
Hazardous
Materials |
| ☐ Hydrology / Water
Quality | ☐ Land Use / Planning | ☐ Mineral Resources |
| ☐ Noise | ☐ Population / Housing | ☐ Public Services |
| ☐ Recreation | ☐ Transportation | ☐ Tribal Cultural
Resources |
| ☐ Utilities / Service
Systems | ☐ Wildfire | ☐ Mandatory Findings
of Significance |

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 measures 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.

Name/Title

Date

ENVIRONMENTAL CHECKLIST

I. AESTHETICS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
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 regulations governing scenic quality?	☐	☐	☒	☐
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

RESPONSES

a. Have a substantial adverse effect on a scenic vista?

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The proposed Project involves upgrades to a sewer collection system that will include installing underground sewer main pipelines and constructing minor improvements to the existing WWTP. Views of surrounding areas will not be impacted by the project, since the majority of

the finished work will be below grade. Any replacement of at-grade structures such as those at the WWTP will be similar to existing facilities and will not introduce new features that are not already common to the built environment along the existing sewer collection system. As such, the proposed Project will not impede any scenic vistas.

Construction activities will occur over a 12-month period and will be visible from the adjacent residences, businesses and roadsides; however, the construction activities will be temporary in nature and will not affect a scenic vista. A scenic vista is defined as a viewpoint that provides expansive views of highly valued landscape for the benefit of the general public. Views of foothills to the west are the only potential natural and visual resource in the Project area. The City of Huron and Fresno County General Plans do not identify any scenic vistas within the Project area.

There are no state designated scenic highways within the immediate proximity to the Project site. California Department of Transportation Scenic Highway Mapping System identifies SR 198 east of Interstate 5 as an Eligible State Scenic Highway. This is the closest highway, located approximately ten miles northwest of the Project site; however, the Project site is both physically and visually separated from SR 198 by intervening land uses. In addition, no scenic highways or roadways are listed within the Project area in the City of Huron's General Plan or Fresno County's General Plan. The proposed Project would not damage any trees, rock outcroppings or historic buildings within a State scenic highway corridor. The impact is *less than significant*.

Mitigation Measures: None are required.

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 regulations governing scenic quality?

Less Than Significant Impact. The majority of the work (proposed pipelines) will be installed underground. The pipelines will not be visible once installed and thus would not degrade the existing visual character of the area. Any replacement of at-grade structures such as those at the existing WWTP will be similar to existing facilities and will not introduce new features that are not already common to the built environment along the existing sewer collection system. Construction activities will be seen by the residences and businesses within the immediate vicinity and by vehicles driving in the City; however, construction activities will be temporary.

As such, the proposed Project will not substantially degrade the existing visual character or quality of the area or its surroundings. The impact will be *less than significant*.

Mitigation Measures: None are required.

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

No Impact. Currently the sources of light in the project area are from building lights, the vehicles traveling along surrounding roads, and some security lighting at nearby businesses and some residences. No lighting will be associated with pipeline installation. Accordingly, the proposed Project would not create substantial new sources of light or glare. There is *no impact*.

Mitigation Measures: None are required.

II. AGRICULTURE AND FOREST RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
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))?	☐	☐	☐	☒
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Huron is located in Fresno County in the San Joaquin Valley, California. The proposed Project site is located in an area of the City considered urban, built up land by the State Farmland Mapping and

Monitoring Program (FMMP). No *Prime Farmland, Unique Farmland, or Farmland of Statewide Importance* or land under the Williamson Act contracts occurs in the proposed Project area.

RESPONSES

- 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?
- b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- 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))?
- d. Result in the loss of forest land or conversion of forest land to non-forest use?
- 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?

No Impact. The proposed Project includes the installation of new and replacement sewer mains and associated appurtenances at the WWTP within the City limits of Huron. The pipeline and associated infrastructure will largely occur within the existing right of way and will be installed underground. The purpose of the Project is to improve the existing Huron's sewer infrastructure and does not have the potential to result in the conversion of farmland to non-agricultural uses or forestland uses to non-forestland.

There are no agricultural lands in the City under a Williamson Act Contract. The proposed Project does not include land under a Williamson Act Contract. No conversion of forestland, as defined under Public Resource Code or General Code, as referenced above, would occur as a result of the proposed Project.

No land conversion from farmland or forest land would occur as a result of the proposed Project. The proposed Project includes new sewer mains, largely within the existing right-of-way. All improvements will take place within an area that is built up with rural and urban uses. As such, the proposed Project does not have the potential to result in the conversion of Farmland to non-agricultural uses or forestland uses to non-forestland. Therefore, the Project has *no impact* on agricultural and forest resources.

Mitigation Measures: None are required.

III. AIR QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d. Result in other emissions (such as those leading to odors or adversely affecting a substantial number of people)?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The climate of the City of Huron and the San Joaquin Valley is characterized by long, hot summers and stagnant, foggy winters. Precipitation is low and temperature inversions are common. These characteristics are conducive to the formation and retention of air pollutants and are in part influenced by the surrounding mountains which intercept precipitation and act as a barrier to the passage of cold air and air pollutants.

The proposed Project lies within the San Joaquin Valley Air Basin, which is managed by the San Joaquin Valley Air Pollution Control District (SJVAPCD or Air District). National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O₃), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), particulate matter (PM₁₀ and PM_{2.5}), and lead (Pb). The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Air quality plans or attainment plans are used to bring the applicable air basin into attainment with all state and federal ambient air quality standards designed to protect the health and safety of residents

within that air basin. Areas are classified under the Federal Clean Air Act as either “attainment”, “non-attainment”, or “extreme non-attainment” areas for each criteria pollutant based on whether the NAAQS have been achieved or not. Attainment relative to the State standards is determined by the California Air Resources Board (CARB). The San Joaquin Valley is designated as a State and Federal extreme non-attainment area for O₃, a State and Federal non-attainment area for PM_{2.5}, a State non-attainment area for PM₁₀, and Federal and State attainment area for CO, SO₂, NO₂, and Pb.

Standards and attainment status for listed pollutants in the Air District can be found in Table 1. Note that both state and federal standards are presented.

Table 1 - Standards and Attainment Status for Listed Pollutants in the Air District

	Federal Standard	California Standard
Ozone	0.075 ppm (8-hr avg)	0.07 ppm (8-hr avg) 0.09 ppm (1-hr avg)
Carbon Monoxide	9.0 ppm (8-hr avg) 35.0 ppm (1-hr avg)	9.0 ppm (8-hr avg) 20.0 ppm (1-hr avg)
Nitrogen Dioxide	0.053 ppm (annual avg)	0.30 ppm (annual avg) 0.18 ppm (1-hr avg)
Sulfur Dioxide	0.03 ppm (annual avg) 0.14 ppm (24-hr avg) 0.5 ppm (3-hr avg)	0.04 ppm (24-hr avg) 0.25 ppm (1-hr avg)
Lead	1.5 µg/m ³ (calendar quarter) 0.15 µg/m ³ (rolling 3-month avg)	1.5 µg/m ³ (30-day avg)
Particulate Matter (PM ₁₀)	150 µg/m ³ (24-hr avg)	20 µg/m ³ (annual avg) 50 µg/m ³ (24-hr avg)
Particulate Matter (PM _{2.5})	15 µg/m ³ (annual avg)	35 µg/m ³ (24-hr avg) 12 µg/m ³ (annual avg)

µg/m³ = micrograms per cubic meter

Additional State regulations include:

CARB Portable Equipment Registration Program – This program was designed to allow owners and operators of portable engines and other common construction or farming equipment to register their

equipment under a statewide program so they may operate it statewide without the need to obtain a permit from the local air district.

U.S. EPA/CARB Off-Road Mobile Sources Emission Reduction Program – The California Clean Air Act (CCAA) requires CARB to achieve a maximum degree of emissions reductions from off-road mobile sources to attain State Ambient Air Quality Standards (SAAQS); off-road mobile sources include most construction equipment. Tier 1 standards for large compression-ignition engines used in off-road mobile sources went into effect in California in 1996. These standards, along with ongoing rulemaking, address emissions of nitrogen oxides (NOX) and toxic particulate matter from diesel engines. CARB is currently developing a control measure to reduce diesel PM and NOX emissions from existing off-road diesel equipment throughout the state.

California Global Warming Solutions Act – Established in 2006, Assembly Bill 32 (AB 32) requires that California's GHG emissions be reduced to 1990 levels by the year 2020. This will be implemented through a statewide cap on GHG emissions, which was phased in beginning in 2012. AB 32 requires CARB to develop regulations and a mandatory reporting system to monitor global warming emissions levels.

RESPONSES

- a. Conflict with or obstruct implementation of the applicable air quality plan?
- 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?
- c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The proposed Project lies within the San Joaquin Valley Air Basin (SJVAB). At the Federal level, the SJVAB is designated as extreme nonattainment for the 8-hour ozone standard, attainment for PM₁₀ and CO, and nonattainment for PM_{2.5}. At the State level, the SJVAB is designated as nonattainment for the 8-hour ozone, PM₁₀, and PM_{2.5} standards. Although the Federal 1-hour ozone standard was revoked in 2005, areas must still attain this standard, and the SJVAPCD recently requested an EPA finding that the SJVAB has attained the standard based on 2011-2013 data¹. To meet Federal Clean Air Act (CAA) requirements, the SJVAPCD has multiple air quality attainment plan (AQAP) documents, including:

¹ San Joaquin Valley Air Pollution Control District. Guide to Assessing and Mitigating Air Quality Impacts. March 19, 2015. Page 28. <http://www.valleyair.org/transportation/GAMAQI-2015/GAMAQI-2015/FINAL-DRAFT-GAMAQI.pdf>. Accessed June 2024.

- Extreme Ozone Attainment Demonstration Plan (EOADP) for attainment of the 1-hour ozone standard (2004);
- 2007 Ozone Plan for attainment of the 8-hour ozone standard;
- 2007 PM₁₀ Maintenance Plan and Request for Redesignation; and
- 2008 PM_{2.5} Plan.

Because of the region's non-attainment status for ozone, PM_{2.5}, and PM₁₀, if the project-generated emissions of either of the ozone precursor pollutants (ROG or NO_x), PM₁₀, or PM_{2.5} were to exceed the SJVAPCD's significance thresholds, then the project uses would be considered to conflict with the attainment plans. In addition, if the project uses were to result in a change in land use and corresponding increases in vehicle miles traveled, they may result in an increase in vehicle miles traveled that is unaccounted for in regional emissions inventories contained in regional air quality control plans.

As discussed below, predicted construction and operational emissions would not exceed the SJVAPCD's significance thresholds for ROG, NO_x, PM₁₀, and PM_{2.5}. As a result, the Project uses would not conflict with emissions inventories contained in regional air quality attainment plans, and would not result in a significant contribution to the region's air quality non-attainment status. Additionally, the Project would comply with all applicable rules and regulations.

The nonattainment pollutants for the SJVAPCD are ozone, PM₁₀ and PM_{2.5}. Therefore, the pollutants of concern for this impact are ozone precursors, regional PM₁₀, and PM_{2.5}. Ozone is a regional pollutant formed by chemical reaction in the atmosphere, and the Project's incremental increase in ozone precursor generation is used to determine the potential air quality impacts, as set forth in the GAMAQI.

The annual significance thresholds to be used for the Project emissions are as follows²:

Pollutant/ Precursor	Construction Emissions (tpy)	Operational Emissions (permitted) (tpy)	Operational Emissions (non- permitted) (tpy)
CO	100	100	100
NO_x	10	10	10
ROG	10	10	10
SO_x	27	27	27
PM₁₀	15	15	15
PM_{2.5}	15	15	15

² San Joaquin Valley Air Pollution Control District. March 19, 2015. Guide for Assessing and Mitigating Air Quality Impacts. http://www.valleyair.org/transportation/GAMAQI_3-19-15.pdf. Page 80.

Neither the pipeline nor the improvements at the existing wastewater treatment plant will generate emissions once they are constructed. The estimated annual construction emissions are shown below. Modeling results are provided in Table 1 and the emission output files are provided in Appendix A.

Table 1
Proposed Project Construction Emissions

Pollutant/ Precursor	Construction Emissions (tpy)	Threshold/ Exceed?
CO	2.61	100/ N
NO _x	2.39	10/ N
ROG	0.34	10/ N
SO _x	<0.005	27/ N
PM ₁₀	0.32	15/ N
PM _{2.5}	0.14	15/ N
CO _{2e}	462	n/a

The nearest sensitive receptors to the proposed Project site are the residential houses located along the proposed pipeline alignment, as an objective of the project is to improve the sewer system City-wide.

Construction would take place within the vicinity of sensitive receptors, however, construction emissions would be below SJVAPCD thresholds and be temporary in nature. Therefore, the relatively small amount of emissions generated and the short duration of the construction period would not expose sensitive receptors to substantial pollutant concentrations.

Because the Project will not exceed any established air emission thresholds, does not result in a cumulatively considerable net increase of any criteria pollutant, and does not significantly impact sensitive receptors, the impact is determined to be *less than significant*.

Mitigation Measures: None are required.

d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

Less than Significant Impact. The proposed Project is located throughout the City of Huron and would be adjacent to residential and commercial land uses. During construction, the various diesel-powered vehicles and equipment in use on-site could create localized odors. These odors would be temporary and are not likely to be noticeable for extended periods of time beyond the Project site. The potential for diesel odor impacts is therefore considered less than significant. As such, the proposed Project is not expected to produce any offensive odors that would result in frequent odor complaints. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

IV. BIOLOGICAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☒	☐	☐
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 U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
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?	☐	☒	☐	☐

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? ☐ ☐ ☐ ☒
- 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? ☐ ☐ ☐ ☒

ENVIRONMENTAL SETTING

The proposed Project site is located in a portion of the central San Joaquin Valley that has, for decades, experienced intensive agricultural and urban disturbances. Current agricultural endeavors in the region include dairies, groves, and row crops.

Like most of California, the Central San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures usually exceed 90 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures rarely raise much above 70 degrees Fahrenheit, with daytime highs often below 60 degrees Fahrenheit. Annual precipitation within the proposed Project site is about 10 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain and storm-water readily infiltrates the soils of the surrounding the sites.

Native plant and animal species once abundant in the region have become locally extirpated or have experienced large reductions in their populations due to conversion of upland, riparian, and aquatic habitats to agricultural and urban uses. Remaining native habitats are particularly valuable to native wildlife species including special status species that still persist in the region.

No aquatic or wetland features occur on the proposed Project site; therefore, jurisdictional waters are considered absent from the site.

RESPONSES

- 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?

Less Than Significant Impact With Mitigation. A Biological Resource Evaluation (BRE) was prepared for the proposed Project in April 2024 by Live Oak Associates, Inc. (Live Oak). The BRE is included as Appendix B. As part of the BRE, the California Natural Diversity Data Base (CNDDB), the California Native Plant Society's Inventory of Rare and Endangered Plants, and the USFWS special status species lists were queried for records of special-status plant and animal species in the Project area. In addition, field surveys were conducted. The results of the BRE are summarized as follows:

Direct and Indirect Impacts

The Project could adversely effect, either directly or through habitat modifications, two special-status animals that occur or may occur on or near the Project site. Construction activities such as excavating, trenching, or using other heavy equipment that disturbs or harms a special-status species or substantially modifies its habitat could constitute a significant impact. Therefore, mitigation measures (below) will be included in the conditions of approval to reduce the potential impact to a less than- significant level. There were no special status plant species identified on the sites. The following animal species have potential to occur in the Project work area:

Western Pond Turtle

The western pond turtle (*Actinemys marmorata*) has some potential to occur in the project site's WWTP work area, particularly when the ponds in that area are inundated. At the time of the survey, all ponds within the project site boundaries were drained, but ponds immediately adjacent to the project site were inundated and could serve as "source" habitat for turtles moving onto the site. If the ponds within the project boundaries were to be inundated near the time of construction, they would need to be dewatered before work in the ponds could begin, and it is assumed that any pond turtles occupying these ponds would simply move to another inundated pond on site. However, there is some potential for pond turtles to be injured or killed by construction activities while traveling overland between ponds, or while basking in upland habitats. Construction-related mortality of western pond turtles is a potentially significant impact of the project under CEQA. Therefore, mitigation measure BIO – 1 will be included in the conditions of approval.

Swainson's Hawk

The Swainson's hawk, a California Threatened species, has some potential to forage within the project site. Nesting is not expected on site because the few structurally suitable trees of the sewer main work areas are in municipal Huron, and Swainson's hawks are not known to nest in urban areas outside of a few established populations in the northern Central Valley (Estep 1995). However, Swainson's hawks could potentially nest close enough to the project site's WWTP work area or to outlying sewer main work

areas that they would be at risk of construction-related disturbance leading to nest abandonment or reduced nesting success. Project activities that injure, kill, or reduce the nesting success of Swainson's hawks would violate state and federal laws and be considered a significant impact under CEQA.

Swainson's hawks would not be vulnerable to construction-related injury or mortality while foraging because they are highly mobile during this activity and are expected to avoid active work areas. The project is not expected to significantly impact this species through loss of foraging habitat. Foraging habitat on the project site is marginal at best for this species given its disturbed nature and largely urban setting, and any loss of potential foraging habitat would be extremely small-scale. Considerable habitat of similar or higher quality for this species will remain available in the project vicinity following project development. Therefore, mitigation measure BIO – 2 will be included as a condition of approval.

Mitigation Measures:

BIO – 1 Protect Western Pond Turtle

(Environmental Awareness Training). Prior to the start of construction, construction personnel will be trained on the identification, behavior, and ecology of the western pond turtle, and the project-specific measures adopted for its protection. Attendees will be given a handout that summarizes the training material and provides a photographic key to differentiating between the western pond turtle and the common non-native red-eared slider. Attendance at all training sessions will be documented on sign-in sheets.

(Minimization). If any western pond turtles are found within construction zones, work shall stop in the area around the turtle until it leaves the construction zone on its own volition.

BIO – 2 Protect Swainson's Hawk

(Construction Timing). If feasible, project construction will occur entirely outside the Swainson's hawk nesting season, typically defined as March 1- September 15.

(Preconstruction Surveys). If construction activities must occur between March 1 and September 15, then within 10 days prior to the start of any work within this period, a qualified biologist will conduct preconstruction surveys for Swainson's hawk nests within ¼ mile of the project site.

(Avoidance of Active Nests). Should any active nests be discovered within the survey area, an appropriate disturbance-free buffer will be established based on local conditions and agency guidelines. Disturbance free buffers will be identified on the ground with flagging, fencing, or by

other easily visible means and will be maintained until a qualified biologist has determined that the young have fledged and are capable of foraging independently.

Implementation of these mitigation measures will reduce the impact to a *less than significant* level.

- 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 U.S. Fish and Wildlife Service?
- c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact. There are no natural waterways, sensitive natural communities, or protected wetlands on the subject site. The project site's wastewater treatment ponds may be regulated by the RWQCB but do not meet the definition of a Water of the U.S. Although the treatment ponds will be impacted to some extent through the addition of liners and other improvements, the project is not expected to substantially alter the ecological function and value of these manmade features, and project impacts to Waters of the State are therefore considered less than significant under CEQA. The project will have no impact on Waters of the U.S. As such, there is *no impact*.

Mitigation Measures: None are required.

- 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?

Less Than Significant Impact With Mitigation. No marine or estuarine fishery resources or migratory routes to and from anadromous fish spawning grounds were present in the survey area. In addition, no EFH, defined by the Magnuson-Stevens Act as those resources necessary for fish spawning, breeding, feeding, or growth to maturity, were present in the survey area.

The Project could impede the use of nursery sites for native birds protected under the Migratory Bird Treaty Act and California Fish and Game Code. Migratory birds are expected to nest on and near the Project site. The project site has the potential to be used for nesting by a variety of nesting migratory birds protected by state and federal law. If project construction takes place during the nesting season, birds nesting on the site could be injured or killed by construction activities, while birds nesting on or

adjacent to the site could be disturbed such that they would abandon their nests. Construction-related mortality of nesting birds and disturbance leading to nest abandonment would violate state and federal laws and be considered a significant impact of the project under CEQA. Therefore, mitigation measure BIO – 3 will be included as a condition of approval.

Mitigation Measures:

BIO – 3 Protect Nesting Birds

(Construction Timing). If feasible, the project will be implemented outside of the avian nesting season, typically defined as February 1 to August 31.

(Preconstruction Surveys). If construction is to occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days prior to the start of any work within this period. The survey area associated with sewer main rehabilitation and replacement will encompass the work area and surrounding lands within 250 feet. The survey area associated with proposed WWTP improvements will encompass the work area and surrounding lands within 250 feet for nesting migratory birds and 500 feet for raptors (i.e. birds of prey).

(Avoidance of Active Nests). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. The buffer distance will be determined based on species biology, site-specific conditions, and the level of project-related disturbance that is anticipated near the nest(s) in question. Buffers will be identified on the ground with flagging or fencing and will be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.

- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The proposed Project is consistent with the goals and policies of the City of Huron General Plan, and will be consistent with the goals and policies of the Fresno County General Plan. The Project will not conflict with the General Plan’s policies related to “no-net-loss” of wetlands and preservation of riparian habitats because wetlands and riparian habitats are absent from the Project site. The Project will not result in significant loss of habitat for special status animal species and will therefore be consistent with General Plan policies related to wildlife habitat. Therefore, the proposed Project would have *no impact*.

Mitigation Measures: None are required.

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?

No Impact. The proposed Project site is not within an area set aside for the conservation of habitat or sensitive plant or animal species pursuant to a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, there is *no impact*.

Mitigation Measures: None are required.

V. CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c. Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

RESPONSES

- Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact With Mitigation. To meet State and federal requirements, ASM Affiliates, Inc. (ASM) was retained to conduct background research, complete a records search, request a search of the Native American Heritage Commission's Sacred Lands File and reach out to appropriate Native American contacts, conduct a cultural resources survey, and prepare a technical report, dated September 2020 (see Appendix C). The results of the Report are summarized herein and were used to support the determinations made in this CEQA document.

Native American Outreach

As part of the CEQA process, a search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed on February 28, 2024. Based on the NAHC records, the APE is negative for sacred sites or traditional cultural places. Outreach letters were sent on March 6, 2024, to tribal organizations on the NAHC contact list. Follow-up emails were sent on April 16, 2024. At the time of the

report publication no responses have been made. Appendix C provides requests to the NAHC, their results, and information request letters to Native American tribes.

Records Search and Site-Specific Research

To determine whether the Project APE had been previously surveyed for cultural resources, and/or whether any such resources were known to exist within or near to it, staff of the Southern San Joaquin Valley Information Center (SSJVIC) conducted an archival records search on March 4, 2024. The records search was completed to determine: (i) if pre-contact or historic-era cultural resources had previously been recorded within the Project APE; (ii) if the Project APE had been systematically surveyed by archaeologists prior to the initiation of this fieldwork; and/or (iii) whether the area surrounding the proposed Project was known to contain archaeological sites or built environment resources and to thereby be culturally sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest. The records search included the Project APE and a 0.5 mi. buffer.

According to the SSJVIC, 10 previous studies (FR-00135, FR-00253, FR-00418, FR-00433, FR- 01794, FR-01795, FR-01796, FR-02052, FR-02779, and FR-02847) have been conducted within the Project APE, and five previous studies (FR-00549, FR-00627, FR-02027, FR-02133, and FR- 02672) were identified within the 0.5 mi. buffer (Table 3). Based on SSJVIC data, approximately 30 percent of the Project APE has been previously surveyed. Dates for previous studies range from 1995 to 2016 with the majority of studies being greater than 20 years old. The SSJVIC results identified a single previously recorded cultural resource (P-10-003930) within the APE (Table 4 of Appendix C). No resources were identified within the 0.5 mi. buffer. The results of the SSJVIC records search are available in Confidential Appendix A of Appendix C.

Pedestrian Survey

The Class III inventory/Phase I survey of the Project APE was conducted ASM Associate Archaeologist Robert Azpitarte, B.A., conducted the survey with assistance from Assistant Archaeologist Margarita Medina Lemus, B.A. on March 15, 2024. The Class III inventory/Phase I survey included a review of the Project APE for the presence of built environment features. The field methods employed also included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (such as bedrock mortars or historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil or burnt animal bone); the identification and location of any discovered sites, should they be present; tabulation and recording of surface

diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation (OHP) Instructions for Recording Historic Resources using California Department of Parks and Recreation (DPR) 523 forms. Parallel survey transects spaced at maximum intervals of 15 meters (m.) apart were employed for pedestrian survey of the 154.9 ac. Project APE.

Paleontological Resources

Paleontological resources are the fossilized remains of plants and animals and associated deposits. The Society of Vertebrate Paleontology has identified vertebrate fossils, their taphonomic and associated environmental indicators, and fossiliferous deposits as significant nonrenewable paleontological resources. Botanical and invertebrate fossils and assemblages may also be considered significant resources.

CEQA requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature (CEQA Appendix G(v)(c)). If an impact is significant, CEQA requires feasible measures to minimize the impact (CCR Title 14(3) §15126.4 (a)(1)). California Public Resources Code §5097.5 (see above) also applies to paleontological resources.

Direct and Indirect Impacts

As described in the Cultural Resources Report, the records search, background historical research, Native American outreach and a pedestrian survey revealed that no archaeological, cultural or historical resources occur on the Project site or in the Project area.

Unidentified archaeological, cultural or historical resources could be uncovered during proposed Project construction which could result in a potentially significant impact; however, implementation of Mitigation Measure CUL-1 would ensure that significant impacts remain *less than significant with mitigation incorporation*.

Mitigation Measures:

- CUL – 1** In the event that archaeological remains are encountered at any time during development or ground-moving activities within the entire Project area, all work in the vicinity of the find should be halted until a qualified archaeologist can assess the discovery and take appropriate actions as necessary.

c. Disturb any human remains, including those interred outside of formal cemeteries?

Less than Significant Impact. Although unlikely given the highly disturbed nature of the site and the records search did not indicate the presence of such resources, subsurface construction activities associated with the proposed Project could potentially disturb previously undiscovered human burial sites. Accordingly, this is a potentially significant impact. The California Health and Safety Code Section 7050.5 states that if human remains are discovered on-site, no further disturbance shall occur until the Fresno County Coroner has made a determination of origin and disposition. If the Coroner determines that the remains are not subject to his or her 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, he or she shall contact, by telephone within 24 hours, the NAHC. The NAHC shall identify the person or persons it believes to be the “most likely descendant” (MLD) of the deceased Native American. The MLD may make recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resource Code Section 5097.98.

Although considered unlikely subsurface construction activities could cause a potentially significant impact to previously undiscovered human burial sites, however compliance with regulations would reduce this impact to *less than significant*.

Mitigation Measures: None are required.

VI. ENERGY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

California's total energy consumption is second-highest in the nation, but, in 2016, the state's per capita energy consumption ranked 48th, due in part to its mild climate and its energy efficiency programs. In 2017, California ranked second in the nation in conventional hydroelectric generation and first as a producer of electricity from solar, geothermal, and biomass resources while also in 2017, solar PV and solar thermal installations provided about 16% of California's net electricity generation.³

Energy usage is typically quantified using the British thermal unit (BTU). As a point of reference, the approximately amounts of energy contained in common energy sources are as follows:

Energy Source	BTUs ⁴
Gasoline	120,429 per gallon
Natural Gas	1,037 per cubic foot
Electricity	3,412 per kilowatt-hour

³ U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-1>. Accessed June 2020.

⁴ U.S. Energy Information Administration. Energy Units and Calculators Explained. https://www.eia.gov/energyexplained/index.php?page=about_energy_units. Accessed June 2020.

California electrical consumption in 2016 was 7,830.8 trillion BTU⁵, as provided in Table 3, while total electrical consumption by Fresno County in 2018 was 26.109 trillion BTU.⁶

Table 3 – 2016 California Energy Consumption⁷

End User	BTU of energy consumed (in trillions)	Percentage of total consumption
Residential	1,384.4	17.7
Commercial	1,477.2	18.9
Industrial	1,854.3	23.7
Transportation	3,114.9	39.8
Total	7,830.8	--

The California Department of Transportation (Caltrans) reports that approximately 25.1 million automobiles, 5.7 million trucks, and 889,024 motorcycles were registered in the state in 2017, resulting in a total estimated 339.8 billion vehicles miles traveled (VMT).⁸

Applicable Regulations

California Energy Code (Title 24, Part 6, Building Energy Efficiency Standards)

California Code of Regulations Title 24, Part 6 comprises the California Energy Code, which was adopted to ensure that building construction, system design and installation achieve energy efficiency. The California Energy Code was first established in 1978 by the CEC in response to a legislative mandate to reduce California's energy consumption, and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The standards are updated periodically to increase the baseline energy efficiency requirements. The 2013 Building Energy Efficiency Standards focus on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings and include requirements to enable both demand reductions during critical peak periods and future solar electric and thermal system installations. Although it was not originally intended to reduce greenhouse gas (GHG) emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

⁵ U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-1>. Accessed June 2020.

⁶ California Energy Commission. Electricity Consumption by County. <http://ecdms.energy.ca.gov/electbycounty.aspx>. Accessed June 2020.

⁷ U.S. Energy Information Administration. Independent Statistics and Analysis. California Profile Overview. <https://www.eia.gov/state/?sid=CA#tabs-1>. Accessed June 2020.

⁸ Caltrans. 2017. California Transportation Quick Facts. <http://www.dot.ca.gov/drsi/library/qf/qf2017.pdf>. Accessed June 2020.

California Green Building Standards Code (Title 24, Part II, CALGreen)

The California Building Standards Commission adopted the California Green Buildings Standards Code (CALGreen in Part 11 of the Title 24 Building Standards Code) for all new construction statewide on July 17, 2008. Originally a volunteer measure, the code became mandatory in 2010 and the most recent update (2019) will go into effect on January 1, 2020. CALGreen sets targets for energy efficiency, water consumption, dual plumbing systems for potable and recyclable water, diversion of construction waste from landfills, and use of environmentally sensitive materials in construction and design, including eco-friendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels. The 2019 CALGreen Code includes mandatory measures for non-residential development related to site development; water use; weather resistance and moisture management; construction waste reduction, disposal, and recycling; building maintenance and operation; pollutant control; indoor air quality; environmental comfort; and outdoor air quality. Mandatory measures for residential development pertain to green building; planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; environmental quality; and installer and special inspector qualifications.

Clean Energy and Pollution Reduction Act (SB 350)

The Clean Energy and Pollution Reduction Act (SB 350) was passed by California Governor Brown on October 7, 2015, and establishes new clean energy, clean air, and greenhouse gas reduction goals for the year 2030 and beyond. SB 350 establishes a greenhouse gas reduction target of 40 percent below 1990 levels for the State of California, further enhancing the ability for the state to meet the goal of reducing greenhouse gas emissions by 80 percent below 1990 levels by the year 2050.

Renewable Portfolio Standard (SB 1078 and SB 107)

Established in 2002 under SB 1078, the state's Renewables Portfolio Standard (RPS) was amended under SB 107 to require accelerated energy reduction goals by requiring that by the year 2010, 20 percent of electricity sales in the state be served by renewable energy resources. In years following its adoption, Executive Order S-14-08 was signed, requiring electricity retail sellers to provide 33 percent of their service loads with renewable energy by the year 2020. In 2011, SB X1-2 was signed, aligning the RPS target with the 33 percent requirement by the year 2020. This new RPS applied to all state electricity retailers, including publicly owned utilities, investor-owned utilities, electrical service providers, and community choice aggregators. All entities included under the RPS were required to adopt the RPS 20 percent by year 2020 reduction goal by the end of 2013, adopt a reduction goal of 25 percent by the end of 2016, and meet the 33 percent reduction goal by the end of 2020. In addition, the Air Resources Board,

under Executive Order S-21-09, was required to adopt regulations consistent with these 33 percent renewable energy targets.

RESPONSES

- a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?
- b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The proposed Project includes construction of replacement/rehabilitated sewer mains and improvements to the existing WWTP. The Project will consume moderate amounts of energy in the short-term during Project construction; however, Project operations are minor in nature and are expected to consume minimal amounts of energy.

During construction, the Project would consume energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber. Title 24 Building Energy Efficiency Standards provide guidance on construction techniques to maximize energy conservation and it is expected that contractors and owners have a strong financial incentive to use recycled materials and products originating from nearby sources in order to reduce materials costs. As such, it is anticipated that materials used in construction and construction vehicle fuel energy would not involve the wasteful, inefficient, or unnecessary consumption of energy.

Operational Project energy consumption would occur for multiple purposes, including pumps and other vehicle and equipment use. The proposed Project would be required to comply with Title 24 Building Energy Efficiency Standards, which provide minimum efficiency standards related to various building features. Implementation of Title 24 standards significantly increases energy savings, and it is generally assumed that compliance with Title 24 ensures projects will not result in the inefficient, wasteful, or unnecessary consumption of energy.

As discussed in Impact XVII – Transportation/Traffic, at build-out the Project will generate minimal daily trips (for maintenance and operations). The length of these trips and the individual vehicle fuel efficiencies are not known; therefore, the resulting energy consumption cannot be accurately calculated. Adopted federal vehicle fuel standards have continually improved since their original adoption in 1975 and assists in avoiding the inefficient, wasteful, and unnecessary use of energy by vehicles.

As discussed previously, the proposed Project would be required to implement and be consistent with existing energy design standards at the local and state level. The Project would be subject to energy conservation requirements in the California Energy Code and CALGreen. Adherence to state code

requirements would ensure that the Project would not result in wasteful and inefficient use of non-renewable resources due to building operation.

Therefore, any impacts are *less than significant*.

Mitigation Measures: None are required.

VII. GEOLOGY AND SOILS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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.	☐	☐	☒	☐
ii. Strong seismic ground shaking?	☐	☐	☒	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv. Landslides?	☐	☐	☒	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
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?	☐	☐	☒	☐
d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating	☐	☐	☒	☐

substantial direct or indirect risks to life or property?

- | | | | | |
|--|--------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 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? | ☐ | ☐ | ☐ | ☒ |
| f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | ☐ | ☒ | ☐ | ☐ |

ENVIRONMENTAL SETTING

Huron is located near the western edge of the Central Valley, which is a nearly flat northwest-southeast trending basin approximately 450 miles long and approximately 75 miles wide. The City of Huron, along with the majority of the western portion of Fresno County, is located on soils derived from quaternary alluvial materials. There are no known active earthquake faults in Huron. The Nunez Fault is located approximately 21 miles northwest of the proposed Project site and is designated as an Earthquake Hazard Zone under the Alquist-Priolo Earthquake Fault Zoning Act of 1994. The City of Huron is located in a Seismic Zone 3, as defined by the California Uniform Building Code.⁹

RESPONSES

- a-i. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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.
- a-ii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
- a-iii. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

⁹ Fresno County Background Report for the General Plan Update. Adopted 2000. Page 9-6.
<https://www.co.fresno.ca.us/home/showdocument?id=8398> Accessed June 2024.

a-iv. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Less Than Significant Impact. The proposed Project site is not located in an earthquake fault zone as delineated by the 1972 Alquist-Priolo Earthquake Fault Zoning Map Act. The nearest known potentially active fault is the Nunez Fault, located approximately 21 miles northwest of the site. No active faults have been mapped within the Project boundaries, so there is no potential for fault rupture. It is anticipated that the proposed Project site could be subject to some ground acceleration and ground shaking associated with seismic activity during its design life. The Project would be engineered and constructed in strict accordance with the earthquake resistant design requirements contained in the latest edition of the California Building Code (CBC) for seismic zone II, as well as Title 24 of the California Administrative Code, and therefore would avoid potential seismically induced hazards on planned structures. The Project site has a generally flat topography, and is not at risk of landslide. The impact of seismic hazards on the Project would be *less than significant*.

Mitigation Measures: None are required.

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

Less than Significant Impact. The proposed Project site has a varied topography, but does not include any Project features that would result in substantial soil erosion or loss of topsoil. Most of the project components will be located below grade. Once construction is completed, the pipeline trenches will be returned to pre-construction conditions and will not result in soil erosion greater than existing conditions.

During construction, nuisance flow caused by minor rain could flow off-site. The City and/or contractor would be required to employ appropriate sediment and erosion control BMPs as part of a Stormwater Pollution Prevention Plan (SWPPP) that would be required by the California National Pollution Discharge Elimination System (NPDES). In addition, soil erosion and loss of topsoil would be minimized through implementation of the SVJAPCD fugitive dust control measures (See Section III). Once construction is complete, the Project would not result in soil erosion or loss of topsoil. Compliance with state regulations will ensure that impacts remain *less than significant*.

Mitigation Measures: None required.

- 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?
- d. Be located on expansive soil, as defined in Table 18-1-B of the most recently adopted Uniform Building Code creating substantial risks to life or property?

Less Than Significant Impact. See Section VI a. above. The site is not at significant risk from ground shaking, liquefaction, or landslide and is otherwise considered geologically stable. The City of Huron sits on top of the alluvial soils of the Quaternary period,¹⁰ with the predominant soils near the proposed Project site being Westhaven loam and Excelsior, sandy substratum-Westhaven association. These soils are characterized as moderately deep, well-drained, and with low shrink/swell potential, which are generally not conducive to liquification. Additionally, liquefaction typically occurs when there is shallow groundwater, low-density non-plastic soils, and high-intensity ground motion. Groundwater depths just outside the the City of Huron have been mapped at between 325 and 450 feet below the land surface in 2018.¹¹

The City of Huron is relatively flat which precludes the occurrence of landslides. Subsidence is typically related to over-extraction of groundwater from certain types of geologic formations where the water is partly responsible for supporting the ground surface. The City of Huron is recognized by the U.S. Geological Service as being in an area of subsidence.¹² However, ongoing potential impacts of groundwater depletion and subsidence are constantly being monitored by USGS through a system of extensometers positioned throughout the San Joaquin valley. Continuous measurements and aquifer-system response analysis enables appropriate governing of parameters set to mitigate subsidence impacts in the region. Impacts are considered *less than significant*.

Mitigation Measures: None required.

- 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?

¹⁰ Natural Resources Conservation Service. Soil Survey of Fresno County California, Western Part. Page 13. https://www.nrcs.usda.gov/Internet/FSE_MANUSCRIPTS/california/CA653/0/fresno.pdf Accessed June 2020.

¹¹ United States Geological Survey, National Water Information System, Hydrologic Unit Code 18030012. https://nwis.waterdata.usgs.gov/usa/nwis/gwlevels/?site_no=361334120035101 Accessed June 2024.

¹² U.S. Geological Service. Areas of Land Subsidence in California. https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html. Accessed June 2024.

No Impact. The Project itself is a sewer collection system project. The proposed Project would not generate wastewater requiring disposal. No septic tanks or alternative waste water disposal systems are included in the proposed Project. The project has been designed to work with the soil types in the City. Therefore, there would be a *less than significant impact*.

Mitigation Measures: None are required.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact with Mitigation. There are no unique geologic features in the Project vicinity. Although there are no known paleontological resources located in the Project area, site development does have the potential to directly or indirectly destroy an unknown paleontological resource. Mitigation measures CUL-1 and CUL-2 are included to reduce any impacts to a less than significant level.

Mitigation Measures: CUL-1 and CUL-2

VIII. GREENHOUSE GAS EMISSIONS

Would the project:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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☐	☐	☒	☐
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b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

☐	☐	☒	☐
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ENVIRONMENTAL SETTING

Various gases in the earth's atmosphere play an important role in moderating the earth's surface temperature. Solar radiation enters earth's atmosphere from space and a portion of the radiation is absorbed by the earth's surface. The earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation. GHGs are transparent to solar radiation but are effective in absorbing infrared radiation. Consequently, radiation that would otherwise escape back into space is retained, resulting in a warming of the earth's atmosphere. This phenomenon is known as the greenhouse effect. Scientific research to date indicates that some of the observed climate change is a result of increased GHG emissions associated with human activity. Among the GHGs contributing to the greenhouse effect are water vapor, carbon dioxide (CO₂), methane (CH₄), ozone, Nitrous Oxide (NO_x), and chlorofluorocarbons. Human-caused emissions of these GHGs in excess of natural ambient concentrations are considered responsible for enhancing the greenhouse effect. GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Global climate change is, indeed, a global issue. GHGs are global pollutants, unlike criteria pollutants and TACs (which are pollutants of regional and/or local concern). Global climate change, if it occurs, could potentially affect water resources in California. Rising temperatures could be anticipated to result in sea-level rise (as polar ice caps melt) and possibly change the timing and amount of precipitation, which could alter water quality. According to some, climate change could result in more extreme weather patterns; both heavier precipitation that could lead to flooding, as well as more extended drought periods. There is uncertainty regarding the timing, magnitude, and nature of the potential changes to water resources as a result of climate change; however, several trends are evident.

Snowpack and snowmelt may also be affected by climate change. Much of California's precipitation falls as snow in the Sierra Nevada and southern Cascades, and snowpack represents approximately 35 percent of the state's useable annual water supply. The snowmelt typically occurs from April through July; it provides natural water flow to streams and reservoirs after the annual rainy season has ended. As air temperatures increase due to climate change, the water stored in California's snowpack could be affected by increasing temperatures resulting in: (1) decreased snowfall, and (2) earlier snowmelt.

RESPONSES

- a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. Emissions from construction are temporary in nature. The San Joaquin Valley Air Pollution Control District has implemented a guidance policy for development projects within their jurisdiction. This policy, "Guidance for Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA," approved by the Board on December 17, 2009, does not address temporary GHG emissions from construction, nor does this policy establish numeric thresholds for ongoing GHG emissions. Therefore, construction-generated GHGs are less than significant. Once constructed, the Project does not include any significant long-term emissions (usually associated with vehicle trips). As such, the Project will not conflict with any applicable GHG plans/regulations and operational GHG emissions are considered *less than significant*.

Mitigation Measures: None are required.

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
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?	☐	☐	☒	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒
f. Impair implementation of or physically interfere with an adopted emergency	☐	☐	☐	☒

IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

response plan or emergency evacuation plan?

g. Expose people or structures either directly or indirectly to a significant risk of loss, injury or death involving wildland fires?

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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☐
☐
☐
☒

ENVIRONMENTAL SETTING

The proposed Project site is located throughout the City and within the existing WWTP. The proposed Project site is approximately 12 miles southeast of the New Coalinga Municipal Airport while the Fresno-Yosemite International Airport is the closest regional airport, approximately 43 miles northwest.

RESPONSES

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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 Impact. This impact is associated with hazards caused by the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Proposed Project construction activities may involve the use and transport of hazardous materials. These materials may include fuels, oils, mechanical fluids, and other chemicals used during construction. Transportation, storage, use, and disposal of hazardous materials during construction activities would be required to comply with applicable federal, state, and local statutes and regulations. Compliance would ensure that human health and the environment are not exposed to hazardous materials. In addition, the Project would be required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program through the submission and implementation of a Stormwater Pollution Prevention Plan during construction activities to prevent contaminated runoff from leaving the Project site. Therefore, no significant impacts would occur during construction activities.

In 1980, the Metropolitan Water District of Southern California detected levels of asbestos waters in the upper Arroyo Pasajero Watershed along White Creek. Asbestos is found in soils of the Arroyo Pasajero alluvial fan, which historically spanned an area of 450 square miles, including the City of Huron and the surrounding agricultural lands. Human exposure to airborne asbestos fibers originating in the soils of the alluvial fan occurs when soils become dry and are disturbed by wind or mechanical actions. Based on a previous review of available geologic maps for California, it does not appear that the area is situated within a region known to contain Naturally Occurring Asbestos.¹³ The Bureau of Reclamation is aware of the issue near the Project site and around the surrounding larger areas. The Bureau of Reclamation was contacted previously regarding the WWTP expansion project of 2017 and they indicated that they do not see the need for any further testing regarding asbestos in this area (Email correspondence with Chuck Halstead, U.S. Bureau of Reclamation 12/5/16). Although impacts are anticipated to be less than significant with regard to asbestos, the Project will be required to implement SJVAPCD Regulation VIII Control Measures (See Section 3.3 Air Quality). This regulation, a series of eight regulations, is designed to reduce PM₁₀ emissions by reducing fugitive dust, however, it will also serve to reduce potential impacts from asbestos. Regulation VIII requires implementation of control measures to ensure that visible dust emissions are substantially reduced.

By incorporating the aforementioned regulations into the proposed Project design, the Project would not create a significant hazard through the routine transport, use, or disposal of hazardous materials, nor would a significant hazard to the public or to the environment through the reasonably foreseeable upset and accidental conditions involving the likely release of hazardous materials into the environment occur.

Therefore, the proposed Project will not create a significant hazard to the public or the environment and any impacts would be *less than significant*.

Mitigation Measures: None are required.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. Huron Elementary School and Huron Middle School are located within ¼ mile of the proposed Project. However, as identified in the response above, no hazardous materials will be routinely transported as a result of the Project. The Project consists of a City-wide sewer

¹³ San Luis Canal/Arroyo Pasajero Flood Control Improvement Project IS/MND. US Bureau of Reclamation (2004) pgs. 64-65.

improvement project and will not result in hazardous materials or emissions beyond existing conditions. As such, the impact is *less than significant*.

Mitigation Measures: None are required.

- 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?

No Impact. The proposed Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.¹⁴ The only site within City limits in the database is a location near Huron Middle School. However, the site investigation has been closed and no further action is necessary. The Project is not impacted by the site and as such, there is *no impact*.

Mitigation Measures: None are required.

- 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 proposed Project site is approximately 12 miles southeast of the New Coalinga Municipal Airport and the airport's safety zones do not extend into the City of Huron. There is *no impact*.

Mitigation Measures: None are required.

- f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The Project will not interfere with any adopted emergency response or evacuation plan. There is *no impact*.

Mitigation Measures: None are required.

¹⁴ California Department of Toxic Substance Control. EnviroStor. <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Huron+City>. Accessed June 2024.

g. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact. There are no wildlands on or near the Project site. There is *no impact*.

Mitigation Measures: None are required.

X. HYDROLOGY AND WATER QUALITY

Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
substantially degrade surface or ground water quality?				
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
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;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
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	☐	☐	☒	☐
iv. impede or redirect flood flows?	☐	☐	☒	☐

X. HYDROLOGY AND WATER QUALITY

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The City of Huron has a dry climate with evaporation rates that exceed rainfall. Annual precipitation in the vicinity of the project sites is about 8 inches, about 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain.

RESPONSES

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact.

Construction

Although the proposed with construction activities could temporarily increase runoff, erosion, and sedimentation. Construction activities also could result in soil compaction and wind erosion effects that could adversely affect soils and reduce the revegetation potential at construction sites and staging areas.

Three general sources of potential short-term construction-related stormwater pollution associated with the proposed Project are: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion and transportation, via storm runoff or mechanical equipment. Generally, routine safety precautions for handling and storing construction materials may effectively mitigate the potential pollution of stormwater by these materials. These same types of

common sense, “good housekeeping” procedures can be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze, or other fluids on the construction site are also common sources of stormwater pollution and soil contamination. In addition, grading activities can greatly increase erosion processes. Two general strategies are recommended to prevent construction silt from entering local storm drains. First, erosion control procedures should be implemented for those areas that must be exposed. Secondly, the area should be secured to control offsite migration of pollutants. These Best Management Practices (BMPs) would be required in the Stormwater Pollution Prevention Plan (SWPPP) to be prepared prior to commencement of Project construction. When properly designed and implemented, these “good-housekeeping” practices are expected to reduce short-term construction-related impacts to less than significant.

In accordance with the National Pollution Discharge Elimination System (NPDES) Stormwater Program, the Project will be required to comply with existing regulatory requirements to prepare a SWPPP designed to control erosion and the loss of topsoil to the extent practicable using BMPs that the Regional Water Quality Control Board (RWQCB) has deemed effective in controlling erosion, sedimentation, runoff during construction activities. The specific controls are subject to the review and approval by the RWQCB and are an existing regulatory requirement.

Operation

The proposed Project includes improvements to the sewer infrastructure system and some minor upgrades to the existing WWTP. The Project does not include any expansion of wastewater treatment facilities or processes that would result in the production of chemicals or substances that would adversely impact local water quality beyond existing conditions. The Project is intended to rehabilitate/replace a deteriorating sewer collection system and to upgrade the existing WWTP. The Project will not result in any additional water releases that could potentially impact groundwater or water quality. The State Water Resources Control Board will have ultimate review and approval of the upgraded system, thereby ensuring adequate water quality standards. There are no aspects of the Project that would result in changes to waste discharge requirements. Any impacts would be *less than significant*.

Mitigation Measures: None are required.

b. 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 Impact. The Project is an upgrade to the existing sewer collection system and will not use additional groundwater beyond what is already being used by the City. Additionally, the proposed Project will not significantly interfere with groundwater recharge as it will not introduce new impermeable surfaces. As such, any impacts to groundwater supplies will be *less than significant*.

Mitigation Measures: None are required.

- 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 offsite;
 - ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;
 - 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
 - iv. impede or redirect flood flows?

Less Than Significant Impact. The proposed improvements to the existing community sewer system will introduce no new non-permeable surfaces. The pipelines and other improvements will be installed within the existing road right-of-way, or other easements and will not alter any existing drainage patterns. There are no waterways in the immediate vicinity of the proposed Project. Standard construction practices and compliance with state and federal regulations, City ordinances and regulations, the Uniform Building Code, and adherence to professional engineering design approved by the City of Huron will reduce or eliminate potential drainage impacts from the Project. Any impacts related to this analysis area are *less than significant*.

Mitigation Measures: None required.

- d. In flood hazard, tsunami or seiche zones, risk release of pollutants due to project inundation?
- e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. While portions of the proposed Project site are within a 100-year flood zone (as identified by current FEMA Flood Insurance Rate Map); there is no housing associated with this proposed Project. There are no bodies of water near the site that would create a potential risk of hazards from seiche, tsunami or mudflow. The Project will not conflict with any water quality control plans or sustainable groundwater management plan. There will be *a less than significant impact* associated with Project implementation.

Mitigation Measures: None are required.

XI. LAND USE AND PLANNING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☒	☐
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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The Project would be located throughout the City of Huron and at the City's existing WWTP.

RESPONSES

- a. Physically divide an established community? OR
- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the General Plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The proposed Project is located largely within the existing streetscape within the City of Huron as presented in Figure 1. The construction of the sewer lines and appurtenances would not cause any land use changes in the surrounding vicinity nor would it divide an established community. Once construction is completed, disturbed ground will be restored. The proposed Project involves improvements to the existing sewer infrastructure system and WWTP and does not conflict with any land use plans, policies or regulations. *No impacts* would occur as a result of Project implementation.

Mitigation Measures: None are required.

XII. MINERAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Fresno County has been a leading producer of minerals because of the abundance and wide variety of mineral resources that are present in the County. Extracted resources include aggregate products (sand and gravel), fossil fuels (oil and coal), metals (chromite, copper, gold, mercury, and tungsten), and other minerals used in construction or industrial applications (asbestos, high-grade clay, diatomite, granite, gypsum, and limestone). Aggregate and petroleum are considered the County's most significant extractive mineral resources. No mineral resource locations are within the vicinity of the City of Huron.¹⁵

RESPONSES

- 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?
- 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 in the proposed Project area and the site is not included in a State classified mineral resource zones. Therefore, there is *no impact*.

Mitigation Measures: None are required.

¹⁵ Fresno County General Plan Background Report. Adopted 2000. Page 7-66.

XIII. NOISE

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

Noise is most often described as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. The City of Huron is impacted by a multitude of noise sources. Mobile sources of noise, especially cars and trucks, are the most common and significant sources of noise in most communities, and they are predominant sources of noise in the City. Commercial, industrial, and institutional land uses throughout the City (i.e., schools, fire stations, utilities) also generate stationary-source noise. The Project is located in an area with a mix of uses. The predominant noise sources in the Project area include traffic on local roadways and noise associated with residential and commercial land uses. Sensitive receptors are located adjacent to the Project sites.

RESPONSES

- 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?
- b. Generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant Impact.

Short-term (Construction) Noise Impacts

Proposed Project construction related activities will involve temporary noise sources. Typical construction related equipment include trenchers, small tractors and excavators. During the proposed Project construction, noise from construction related activities will contribute to the noise environment in the immediate vicinity. Activities involved in construction will generate maximum noise levels, as indicated in Table 5, ranging from 79 to 91 dBA at a distance of 50 feet, without feasible noise control (e.g., mufflers) and ranging from 75 to 80 dBA at a distance of 50 feet, with feasible noise controls.

Table 5
Typical Construction Noise Levels

Type of Equipment	dBA at 50 ft	
	Without Feasible Noise Control	With Feasible Noise Control
Dozer or Tractor	80	75
Excavator	88	80
Scraper	88	80
Front End Loader	79	75
Backhoe	85	75
Grader	85	75
Truck	91	75

The distinction between short-term construction noise impacts and long-term operational noise impacts is a typical one in both CEQA documents and local noise ordinances, which generally recognize the reality that short-term noise from construction is inevitable and cannot be mitigated beyond a certain level. Thus, local agencies frequently tolerate short-term noise at levels that they would not accept for permanent noise sources. A more severe approach would be impractical and might preclude the kind of construction activities that are to be expected from time to time in urban environments. Most residents of urban areas recognize this reality and expect to hear construction activities on occasion.

Operational Noise Impacts

Operations-related noise would be similar to existing conditions. The pipelines themselves do not emit noise, nor do the related improvements such as those to the manholes. As such, any impacts to sensitive receptors would be less than significant.

Mitigation Measures: None are required.

- 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 is not located within an airport land use plan, nor is it within two miles of a public airport or public use airport. Therefore, there is *no impact*.

Mitigation Measures: None are required.

XIV. POPULATION AND HOUSING

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Induce substantial 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)?	☐	☐	☐	☒
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

RESPONSES

- a. Induce substantial 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)?
- b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. There are no new homes or businesses associated with the proposed Project and there are no residential or commercial structures currently on-site. The proposed Project would be a public facility operation that would temporarily provide jobs in the Huron area, which could be readily filled by the existing employment base, given the City's existing unemployment rates. The proposed Project will not affect any regional population, housing, or employment projections anticipated by City policy documents. There is *no impact*.

Mitigation Measures: None are required.

XV. PUBLIC SERVICES

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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- 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?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The existing Project area is protected by the City of Huron Police Department, which is located at 36389 Lassen Avenue, on the western edge of the City. The Fresno County Fire Protection District provides fire protection to the City of Huron, along with the majority of Fresno County. The City of Huron is overseen by Battalion 14 with a fire station within the City at 36421 S. Lassen Avenue.

RESPONSES

- 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?

No Impact. The proposed Project is an improvement to the City's sewer system. The proposed Project would not directly or indirectly induce population growth and no impact would occur. There is *no impact*.

Police Protection?

No Impact. The proposed Project will continue to be served by the City of Huron police department. No additional police personnel or equipment is anticipated. There is *no impact*.

Schools?

No Impact. The direct increase in demand for schools is normally associated with new residential projects that bring new families with school-aged children to a region. The proposed Project does not contain any residential uses. The proposed Project, therefore, would not result in an influx of new students in the Project area and is not expected to result in an increased demand upon District resources and would not require the construction of new facilities. There is *no impact*.

Parks?

No Impact. The Project would not result in an increase in demand for parks and recreation facilities because it would not result in an increase in population. Accordingly, the proposed Project would have *no impacts* on parks.

Other public facilities?

No Impact. The proposed Project is within the land use and growth projections identified in the City's General Plan and other infrastructure studies. The Project, therefore, would not result in increased demand for, or impacts on, other public facilities such as library services. Accordingly, *no impact* would occur.

Mitigation Measures: None are required.

XVI. RECREATION

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

There are three parks within the City of Huron; Chestnut Park, Huron Community Park and Keenan Park. These parks are managed by the Coalinga-Huron Recreation and Park District. The Coalinga-Huron Recreational District also operates and maintains a community center (Keenan Community Center) and a community recreational pool in the City.

RESPONSES

- 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?
- 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 proposed Project does not include the construction of residential uses and would not directly or indirectly induce population growth. Therefore, the proposed Project would not cause physical deterioration of existing recreational facilities from increased usage or result in the need for new or expanded recreational facilities. The Project would have *no impact* to existing parks.

Mitigation Measures: None are required.

XVII. TRANSPORTATION/ TRAFFIC

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	☒
b. Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☒
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
d. Result in inadequate emergency access?	☐	☐	☐	☒

ENVIRONMENTAL SETTING

The City of Huron is nine miles east of Interstate 5 (I-5) and three miles south of Highway 198. Lassen Avenue (Highway 269) runs north and south through the City providing easy access for local produce to reach major markets.

The proposed Project site is approximately 12 miles southeast of the New Coalinga Municipal Airport while the Fresno-Yosemite International Airport is the closest regional airport, approximately 43 miles northwest. The Railroad bisects the City and rail service is provided by the San Joaquin Valley Rail Road Company, who leases the rail line from the Union Pacific Railroad Company.

RESPONSES

- Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?
- Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

- c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- d. Result in inadequate emergency access?

Less Than Significant Impact. The proposed Project would not cause a substantial increase in traffic, reduce the existing level of service, create any additional congestion at any intersections, or be inconsistent with CEQA Guidelines Section 15064.3. The construction of pipelines and appurtenances will not generate any additional traffic (beyond construction-related traffic trips) and as such, level of service standards would not be exceeded. There are no components of the proposed Project that would increase hazards due to a geometric design feature. As traffic due to construction activities would be temporary in nature, the proposed Project would not cause a substantial increase in traffic or result in inadequate emergency access. Construction schedules pertaining to pipelines within roadways will be coordinated with police/fire/emergency services. Adequate emergency access will be maintained at all times.

Once installed, the new pipelines would not generate significant additional traffic trips per day, other than as needed for periodic maintenance. The Project would not conflict with a program plan, ordinance, or policy addressing the circulation system and as such, impacts would be *less than significant*.

Mitigation Measures: None are required.

XVIII. TRIBAL CULTURAL RESOURCES

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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- a. 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
 - 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 the Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

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RESPONSES

- 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
 - 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 Impact. In accordance with Assembly Bill (AB) 52, potentially affected Tribes were formally notified of this Project and were given the opportunity to request consultation on the Project.

A Sacred Lands File (SLF) request was submitted to the Native American Heritage Commission (NAHC) on February 28, 2024. The NAHC responded with a negative result to the SLF search. Additionally, the NAHC provided a list of Native American tribes who have knowledge of the Project APE. ASM wrote to contacts provided by NAHC for additional information pertaining to the APE. Follow-up emails and phone calls were made to the NAHC provided contacts. At the time of the report publication no responses have been made. Appendix C provides requests to the NAHC, their results, and information request letters to Native American tribes.

Therefore, there is a *less than significant impact*.

Mitigation Measures: None are required.

XIX. UTILITIES AND SERVICE SYSTEMS

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☒	☐
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The proponent for the proposed Project is the City of Huron that has responsibility for providing water and wastewater services for the community. The proposed Project would not involve any construction or changes to water facilities, stormwater drainage or solid waste management.

RESPONSES

- 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?

Less Than Significant Impact. The proposed Project includes improvements to the City's existing sewer collection system and minor upgrades to the existing WWTP, the results of which would not exceed any wastewater treatment requirements set by the Regional Water Quality Control Board. The Project does not include any expansion of wastewater treatment facilities or processes. The Project is intended to rehabilitate/replace a deteriorating sewer collection system. The environmental impacts of the proposed project are discussed within this document.

Mitigation Measures: The Project will require multiple mitigation measures as identified throughout this document.

- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

No Impact. The proposed Project includes improving the existing sewer collection system. No new water supplies would be required as a result of this Project. There is *no impact*.

Mitigation Measures: None are required.

- 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?

Less Than Significant Impact. The proposed Project includes improvements to the City's existing sewer collection system and minor upgrades to the existing WWTP, the results of which would not require additional wastewater treatment capacity. The Project does not include any expansion of wastewater treatment facilities or processes. The Project is intended to rehabilitate/replace a deteriorating sewer collection system.

Mitigation Measures: None are required.

- 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?
- e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Proposed Project construction and operation will generate minimal amounts of solid waste. The proposed Project will not generate waste on an on-going basis and will comply with all federal, state and local statutes and regulations related to solid waste. Any impacts will be *less than significant*.

Mitigation Measures: None are required.

XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐

ENVIRONMENTAL SETTING

The City of Huron's planning area is composed of urbanized portions of land and the surrounding agricultural fields. The City of Huron is overseen by Battalion 14 with a fire station within the City at 36421 S. Lassen Avenue. Given the location of the nearest fire station, response time is expected to be extremely quick in the rare event of a fire event.

RESPONSES

- Substantially impair an adopted emergency response plan or emergency evacuation plan?
- 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?

- 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?
- 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?

Less Than Significant Impact. The proposed Project is located in areas that have been developed with urban uses. The proposed Project includes improvements to the City's existing sewer collection system, which will include underground pipelines and minor upgrades to the existing WWTP. There is no increased risk or on-going risk of wildfire beyond existing conditions associated with the Project.

As such, any wildfire risk to the project structures or people would be *less than significant*.

Mitigation Measures: None are required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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- a. Does the project have the potential to 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, 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?
- 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)?
- c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

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RESPONSES

- a. Does the project have the potential to 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, 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. The analyses of environmental issues contained in this Initial Study indicate that the proposed Project is not expected to have substantial impact on the environment or on any resources identified in the Initial Study. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

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. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of the project are cumulatively considerable. The assessment of the significance of the cumulative effects of a project must, therefore, be conducted in connection with the effects of past projects, other current projects, and probable future projects. Due to the nature of the Project and consistency with environmental policies, incremental contributions to impacts are considered less than cumulatively considerable. The proposed Project would not contribute substantially to adverse cumulative conditions, or create any substantial indirect impacts (i.e., increase in population could lead to an increase need for housing, increase in traffic, air pollutants, etc.). The impact is *less than significant*.

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

Less than Significant Impact With Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the Project is not expected to have substantial impact on human beings, either directly or indirectly. Mitigation measures have been incorporated in the Project to reduce all potentially significant impacts to *less than significant*.

LIST OF PREPARERS

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Appendices

Appendix A

CalEEMod Output Files

Huron Sanitary Sewer Collection System and Wastewater Treatment Plant Improvements Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Huron Sanitary Sewer Collection System and Wastewater Treatment Plant Improvements
Construction Start Date	8/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.50
Precipitation (days)	20.0
Location	36.20436535009392, -120.10516198389612
County	Fresno
City	Huron
Air District	San Joaquin Valley APCD
Air Basin	San Joaquin Valley
TAZ	2530
EDFZ	5
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.25

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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General Heavy Industry	43.6	1000sqft	1.00	43,600	—	—	—	—
Road Widening	4.30	Mile	2.00	0.00	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	21.6	21.4	55.5	59.7	0.10	22.3	11.9	11,110
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Unmit.	6.59	5.56	48.7	53.6	0.09	6.37	2.54	10,613
Average Daily (Max)	—	—	—	—	—	—	—	—
Unmit.	2.13	1.88	13.1	14.3	0.03	1.78	0.76	2,788
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	0.39	0.34	2.39	2.61	< 0.005	0.32	0.14	462

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—
2024	7.42	6.28	55.5	59.7	0.10	22.3	11.9	11,110
2025	21.6	21.4	27.9	35.4	0.06	3.08	1.29	6,999

Daily - Winter (Max)	—	—	—	—	—	—	—	—
2024	6.59	5.56	48.7	53.6	0.09	6.37	2.54	10,613
2025	6.06	5.11	43.4	52.3	0.09	6.05	2.25	10,604
Average Daily	—	—	—	—	—	—	—	—
2024	1.77	1.49	13.1	14.2	0.02	1.78	0.76	2,721
2025	2.13	1.88	11.3	14.3	0.03	1.31	0.54	2,788
Annual	—	—	—	—	—	—	—	—
2024	0.32	0.27	2.39	2.58	< 0.005	0.32	0.14	450
2025	0.39	0.34	2.06	2.61	< 0.005	0.24	0.10	462

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	1.27	1.24	0.02	1.90	< 0.005	< 0.005	< 0.005	7.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Unmit.	0.93	0.93	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—
Unmit.	1.10	1.09	0.01	0.94	< 0.005	< 0.005	< 0.005	3.86
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	0.20	0.20	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.64

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Area	1.27	1.24	0.02	1.90	< 0.005	< 0.005	< 0.005	7.83

Total	1.27	1.24	0.02	1.90	< 0.005	< 0.005	< 0.005	7.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Area	0.93	0.93	—	—	—	—	—	—
Total	0.93	0.93	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Area	1.10	1.09	0.01	0.94	< 0.005	< 0.005	< 0.005	3.86
Total	1.10	1.09	0.01	0.94	< 0.005	< 0.005	< 0.005	3.86
Annual	—	—	—	—	—	—	—	—
Area	0.20	0.20	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.64
Total	0.20	0.20	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.64

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	0.98	3,437
Demolition	—	—	—	—	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	1.36	1.19	< 0.005	0.06	0.05	188
Demolition	—	—	—	—	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.03	0.25	0.22	< 0.005	0.01	0.01	31.2
Demolition	—	—	—	—	—	0.00	0.00	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.61	0.00	0.08	0.02	94.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	< 0.005	< 0.005	4.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.79
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	1.47	5,314
Dust From Material Movement	—	—	—	—	—	19.7	10.1	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.20	0.18	< 0.005	0.01	0.01	29.1
Dust From Material Movement	—	—	—	—	—	0.11	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	< 0.005	4.82
Dust From Material Movement	—	—	—	—	—	0.02	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.04	0.71	0.00	0.10	0.02	110
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

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Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	0.77	2,969
Dust From Material Movement	—	—	—	—	—	7.08	3.42	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.20	0.21	< 0.005	0.01	0.01	32.5
Dust From Material Movement	—	—	—	—	—	0.08	0.04	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	5.39
Dust From Material Movement	—	—	—	—	—	0.01	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.04	0.61	0.00	0.08	0.02	94.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	0.95
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	0.46	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	0.46	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.53	2.95	0.01	0.11	0.10	541
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.46	0.54	< 0.005	0.02	0.02	89.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.05	0.74	0.00	0.10	0.02	115
Vendor	0.01	0.01	0.16	0.07	< 0.005	0.03	0.01	100
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Worker	0.08	0.07	0.06	0.60	0.00	0.10	0.02	102
Vendor	0.01	< 0.005	0.17	0.07	< 0.005	0.03	0.01	100
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.14	0.00	0.02	0.01	23.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005	22.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	< 0.005	< 0.005	3.95
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	3.73
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	0.40	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.44	0.37	3.39	4.24	0.01	0.14	0.13	782
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.62	0.77	< 0.005	0.03	0.02	129

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Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.08	0.08	0.04	0.68	0.00	0.10	0.02	113
Vendor	0.01	0.01	0.15	0.07	< 0.005	0.03	0.01	98.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.05	0.55	0.00	0.10	0.02	100
Vendor	0.01	< 0.005	0.16	0.07	< 0.005	0.03	0.01	98.4
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.18	0.00	0.03	0.01	33.7
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	0.01	< 0.005	32.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	5.58
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	5.29
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.52	8.84	0.01	0.29	0.26	1,355
Paving	0.00	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.18	0.24	< 0.005	0.01	0.01	37.1
Paving	0.00	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	6.15
Paving	0.00	0.00	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.09	0.09	0.05	0.74	0.00	0.11	0.03	123
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	3.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.51
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
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Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	0.03	134
Architectural Coatings	20.2	20.2	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005	3.67
Architectural Coatings	0.55	0.55	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.61
Architectural Coatings	0.10	0.10	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.14	0.00	0.02	< 0.005	22.6
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.57
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.09

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Grubbing & Land Clearing (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.63	0.53	4.53	4.54	0.01	0.27	0.25	634
Dust From Material Movement	—	—	—	—	—	0.53	0.06	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.04	0.32	0.32	< 0.005	0.02	0.02	45.2
Dust From Material Movement	—	—	—	—	—	0.04	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.06	< 0.005	< 0.005	< 0.005	7.48
Dust From Material Movement	—	—	—	—	—	0.01	< 0.005	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.13	0.13	0.07	1.12	0.00	0.15	0.04	173
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.01	< 0.005	11.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.88
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	4.81	4.05	37.0	37.9	0.07	1.71	1.58	7,670
Dust From Material Movement	—	—	—	—	—	3.71	0.40	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	4.81	4.05	37.0	37.9	0.07	1.71	1.58	7,670
Dust From Material Movement	—	—	—	—	—	3.71	0.40	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	1.09	0.92	8.41	8.61	0.02	0.39	0.36	1,741
Dust From Material Movement	—	—	—	—	—	0.84	0.09	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	0.17	1.53	1.57	< 0.005	0.07	0.07	288
Dust From Material Movement	—	—	—	—	—	0.15	0.02	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.28	0.26	0.14	2.33	0.00	0.31	0.07	363
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	14.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.25	0.23	0.18	1.89	0.00	0.31	0.07	321
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	14.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.04	0.44	0.00	0.07	0.02	75.6
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	3.18
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.01	< 0.005	12.5
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.53
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Grading & Excavation (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
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Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	4.39	3.69	32.6	36.9	0.07	1.46	1.35	7,671
Dust From Material Movement	—	—	—	—	—	3.71	0.40	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.41	0.35	3.06	3.46	0.01	0.14	0.13	721
Dust From Material Movement	—	—	—	—	—	0.35	0.04	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.06	0.56	0.63	< 0.005	0.03	0.02	119
Dust From Material Movement	—	—	—	—	—	0.06	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.23	0.22	0.16	1.73	0.00	0.31	0.07	314
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	13.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.17	0.00	0.03	0.01	30.6
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.29
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	5.07

Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.21
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Drainage, Utilities, & Sub-Grade (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	1.88	17.2	19.9	0.04	0.69	0.64	4,104
Dust From Material Movement	—	—	—	—	—	1.59	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	2.25	1.88	17.2	19.9	0.04	0.69	0.64	4,104
Dust From Material Movement	—	—	—	—	—	1.59	0.17	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.48	0.40	3.67	4.25	0.01	0.15	0.14	877
Dust From Material Movement	—	—	—	—	—	0.34	0.04	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.07	0.67	0.78	< 0.005	0.03	0.02	145
Dust From Material Movement	—	—	—	—	—	0.06	0.01	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—

Worker	0.20	0.19	0.10	1.67	0.00	0.24	0.06	277
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.36	0.00	0.24	0.06	246
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.02	0.29	0.00	0.05	0.01	54.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.01	0.01	< 0.005	0.05	0.00	0.01	< 0.005	9.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Linear, Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.02	0.86	7.92	11.7	0.02	0.34	0.31	1,775
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.85	1.25	< 0.005	0.04	0.03	190
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.15	0.23	< 0.005	0.01	0.01	31.4
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.09	1.40	0.00	0.20	0.05	231
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.01	0.12	0.00	0.02	0.01	22.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	3.76
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Consumer Products	0.93	0.93	—	—	—	—	—	—
Landscape Equipment	0.34	0.31	0.02	1.90	< 0.005	< 0.005	< 0.005	7.83
Total	1.27	1.24	0.02	1.90	< 0.005	< 0.005	< 0.005	7.83
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Consumer Products	0.93	0.93	—	—	—	—	—	—
Total	0.93	0.93	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Consumer Products	0.17	0.17	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.64
Total	0.20	0.20	< 0.005	0.17	< 0.005	< 0.005	< 0.005	0.64

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/1/2024	8/29/2024	5.00	20.0	—
Site Preparation	Site Preparation	8/30/2024	9/1/2024	5.00	2.00	—
Grading	Grading	9/2/2024	9/7/2024	5.00	4.00	—
Building Construction	Building Construction	9/8/2024	6/15/2025	5.00	200	—
Paving	Paving	6/16/2025	6/30/2025	5.00	10.0	—
Architectural Coating	Architectural Coating	7/1/2025	7/15/2025	5.00	10.0	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	8/1/2024	9/6/2024	5.00	26.0	—
Linear, Grading & Excavation	Linear, Grading & Excavation	9/7/2024	2/17/2025	5.00	117	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	2/18/2025	6/7/2025	5.00	78.0	—
Linear, Paving	Linear, Paving	6/8/2025	8/1/2025	5.00	39.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40

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Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	8.00	8.00	6.00	0.82
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

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Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Graders	Diesel	Average	2.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Signal Boards	Electric	Average	8.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	1.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	8.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Linear, Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Linear, Paving	Signal Boards	Electric	Average	8.00	8.00	6.00	0.82

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	7.70	LDA,LDT1,LDT2
Demolition	Vendor	—	4.00	HHDT,MHDT
Demolition	Hauling	0.00	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	7.70	LDA,LDT1,LDT2
Site Preparation	Vendor	—	4.00	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	7.70	LDA,LDT1,LDT2
Grading	Vendor	—	4.00	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	18.3	7.70	LDA,LDT1,LDT2

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Building Construction	Vendor	7.15	4.00	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	7.70	LDA,LDT1,LDT2
Paving	Vendor	—	4.00	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	3.66	7.70	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	4.00	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	27.5	7.70	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	0.00	4.00	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	57.5	7.70	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	4.00	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	45.0	7.70	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	0.00	4.00	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT

Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	37.5	7.70	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	4.00	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	65,400	21,800	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	—	—
Site Preparation	—	—	3.00	0.00	—
Grading	—	—	4.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00
Linear, Grubbing & Land Clearing	—	—	2.00	0.00	—
Linear, Grading & Excavation	—	—	2.00	0.00	—

Linear, Drainage, Utilities, & Sub-Grade	—	—	2.00	0.00	—
--	---	---	------	------	---

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
General Heavy Industry	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	470	204	0.03	< 0.005
2025	704	204	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
---------------	---------------	----------------	--------------	------------	-------------	--------------	------------	----------

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
—	—	—	—	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
----------	----------------------	-----	-----	-----	-----------------------

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
----------	-------------------------	--------------------------

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
----------	------------------	-------------------------

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
---------------	----------------	-------------	-----	---------------	----------------------	-------------------	----------------

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
----------------	-----------	-------------	----------------	---------------	------------	-------------

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
----------------	-----------	----------------	---------------	----------------	------------	-------------

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
----------------	-----------	--------	--------------------------	------------------------------	------------------------------

5.17. User Defined

Equipment Type	Fuel Type
----------------	-----------

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
--------------------------	----------------------	---------------	-------------

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
--------------------	---------------	-------------

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
-----------	--------	------------------------------	------------------------------

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	29.3	annual days of extreme heat
Extreme Precipitation	0.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	0	0	0	N/A
Drought	0	0	0	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	1	1	1	2
Drought	1	1	1	2
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	75.4
AQ-PM	50.8
AQ-DPM	19.7
Drinking Water	63.4
Lead Risk Housing	62.2
Pesticides	96.7
Toxic Releases	29.9
Traffic	2.85
Effect Indicators	—
CleanUp Sites	61.4
Groundwater	77.0
Haz Waste Facilities/Generators	61.6
Impaired Water Bodies	0.00
Solid Waste	42.3
Sensitive Population	—
Asthma	57.8
Cardio-vascular	88.7

Low Birth Weights	16.8
Socioeconomic Factor Indicators	—
Education	99.9
Housing	85.8
Linguistic	99.2
Poverty	99.5
Unemployment	96.3

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	0.153984345
Employed	9.046580264
Median HI	1.437187219
Education	—
Bachelor's or higher	0.295136661
High school enrollment	16.64314128
Preschool enrollment	45.01475683
Transportation	—
Auto Access	15.73206724
Active commuting	82.52277685
Social	—
2-parent households	16.51482099
Voting	2.977030669
Neighborhood	—
Alcohol availability	38.89387912

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Park access	40.60053895
Retail density	0.975234185
Supermarket access	51.18696266
Tree canopy	4.067753112
Housing	—
Homeownership	6.723983062
Housing habitability	13.0373412
Low-inc homeowner severe housing cost burden	71.74387271
Low-inc renter severe housing cost burden	51.23829077
Uncrowded housing	10.70191197
Health Outcomes	—
Insured adults	2.55357372
Arthritis	0.0
Asthma ER Admissions	29.8
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	99.6
Cognitively Disabled	95.5
Physically Disabled	87.9
Heart Attack ER Admissions	7.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0

Pedestrian Injuries	43.1
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	3.3
Elderly	98.2
English Speaking	0.7
Foreign-born	92.6
Outdoor Workers	0.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	80.4
Traffic Density	3.6
Traffic Access	0.0
Other Indices	—
Hardship	98.7
Other Decision Support	—
2016 Voting	15.6

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	85.0

Healthy Places Index Score for Project Location (b)	2.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Appendix B

Biological Evaluation Report



**SANITARY SEWER COLLECTION SYSTEM AND
WASTEWATER TREATMENT PLANT IMPROVEMENTS
BIOLOGICAL EVALUATION
CITY OF HURON, CALIFORNIA**

Prepared by

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April 4, 2024

PN 2848-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc. (LOA) conducted an investigation of the biological resources of lands that may be affected by the City of Huron's proposed Sanitary Sewer Collection System and Wastewater Treatment Plant Improvements Project ("project"), evaluated impacts to those resources pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), and made preliminary effect determinations for federally listed species pursuant to Section 7 of the federal Endangered Species Act. The project site encompasses 22,738 linear feet of existing pipeline alignments and approximately 7 acres of an existing wastewater treatment plant (WWTP), both located within Huron city limits, in Fresno County, California.

The project site consists entirely of lands modified or disturbed by human use including municipal roadways and dirt alleyways, parking lots, vegetated vacant lots, barren dirt patches, and wastewater treatment ponds and adjacent lands. The project site is expected to support primarily common and/or disturbance-tolerant plant and animal species; however, two special status animals known from the vicinity have some potential to occur on site and be significantly impacted by project development. These include the western pond turtle and Swainson's hawk. Project-related impacts are also considered potentially significant for nesting birds and raptors. Impacts to the western pond turtle will be reduced by holding an environmental awareness training and allowing turtles to move out of harm's way during construction activities. Impacts to the Swainson's hawk and other nesting birds and raptors will be reduced by either constructing the project outside of the nesting season or, if construction must occur during the nesting season, by conducting preconstruction surveys and avoiding active nests.

Impacts would be less than significant for all six locally occurring special status plant species, 20 locally occurring special status animal species that would not be expected to occur on the project site, and four special status animal species (monarch butterfly, loggerhead shrike, tricolored blackbird and western mastiff bat) expected to utilize the site for non-sensitive activities only. Potential project impacts to jurisdictional waters are also considered less than significant under CEQA and NEPA. The project would not affect wildlife movement corridors, sensitive habitats, or designated critical habitat because all such resources are absent. The project appears to be in compliance with local policies and no habitat conservation plans are in effect for the project area.



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1.0 INTRODUCTION

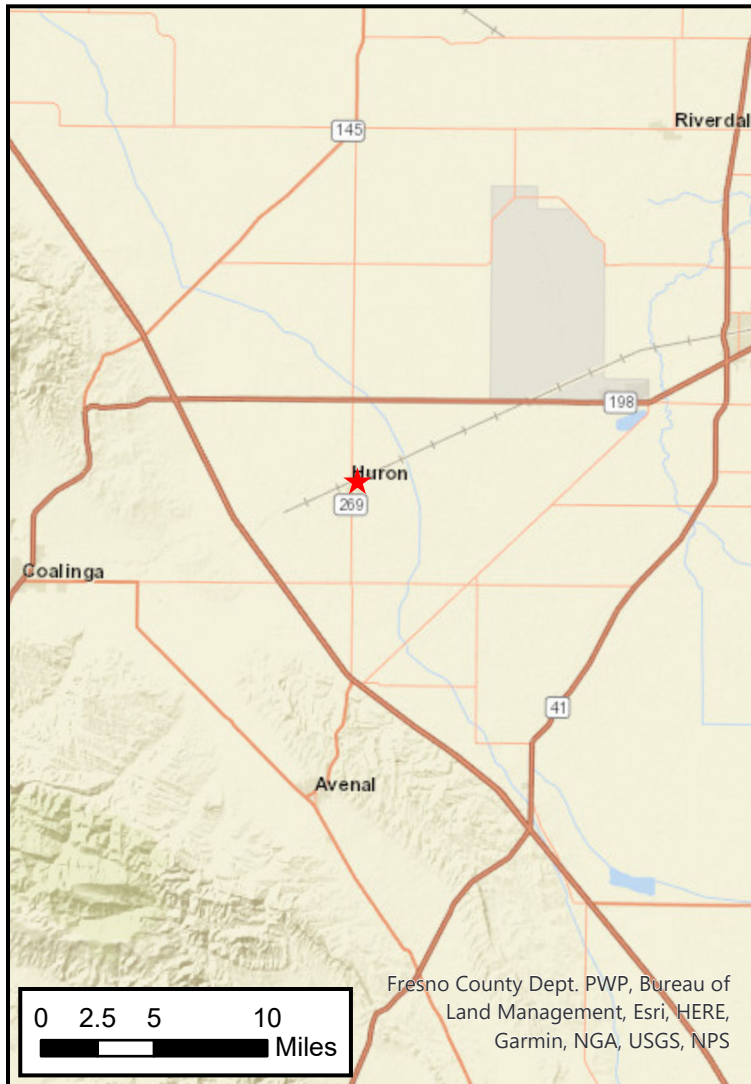
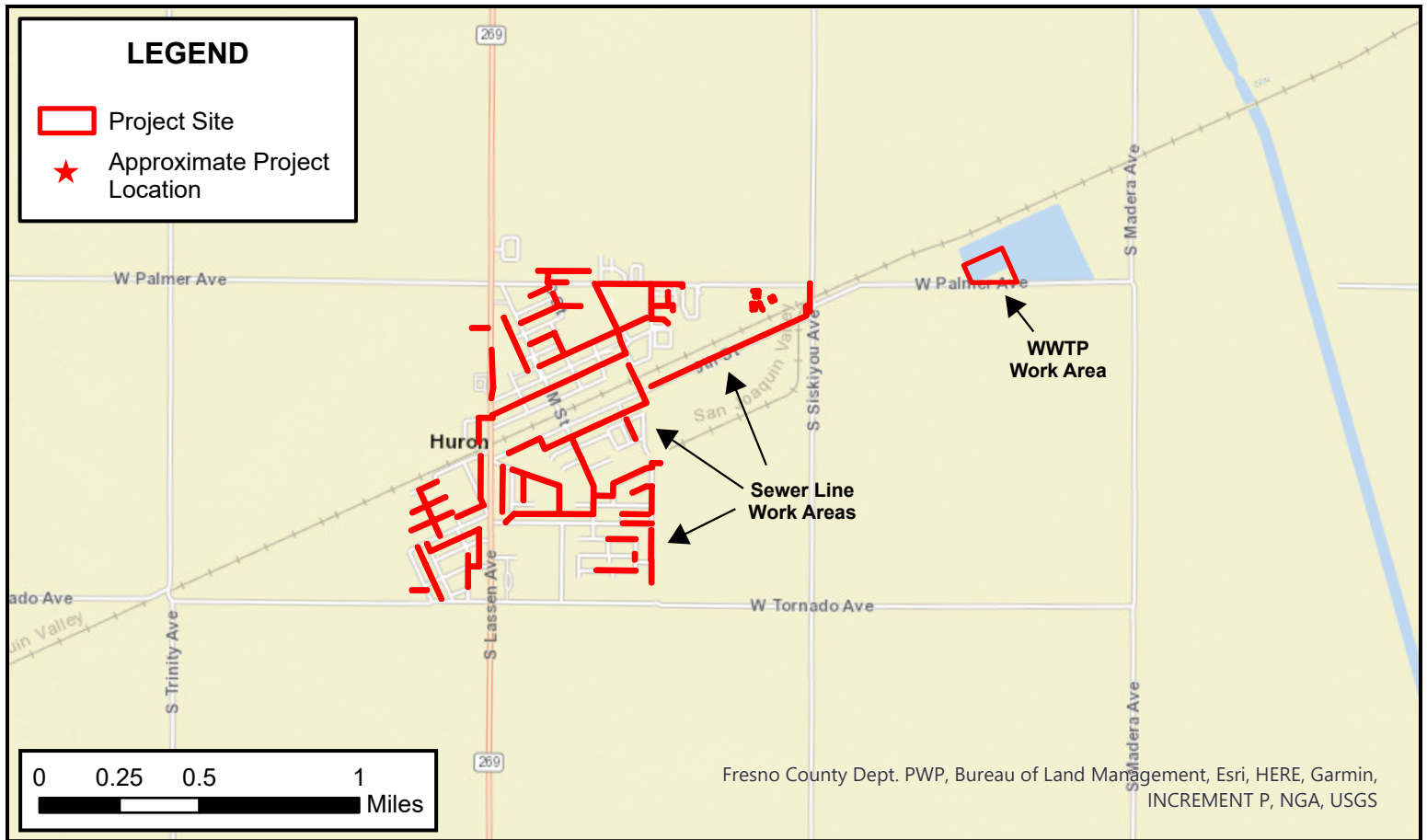
This technical report, prepared by Live Oak Associates, Inc. (LOA) to facilitate compliance with the California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Section 7 of the federal Endangered Species Act, describes the biotic resources of lands that may be affected by the City of Huron's proposed Sanitary Sewer Collection System and Wastewater Treatment Plant Improvements Project ("project"), and evaluates potential impacts to those resources that could result from the project. The project's area of potential effect, or "project site," consists of a discontinuous, 22,738-linear-foot alignment along which existing sewer mains will be rehabilitated or replaced ("sewer main work areas"), and an approximately 7-acre portion of the City's wastewater treatment plant (WWTP) proposed for various improvements ("WWTP work area").

The project site is located within the City of Huron in Fresno County, California (Figure 1). It may be found on the *Huron* U.S. Geological Survey (USGS) 7.5-minute quadrangle in Section 1, 2, 10, and 11 in Township 20 South, Range 17 East, Mount Diablo Base and Meridian (Figure 2).

1.1 PROJECT DESCRIPTION

The City of Huron owns and operates a citywide sewer collection system and wastewater treatment plant under Water Discharge Requirements (WDR) No. 87-012. A condition survey of the sewer collection system was recently conducted and revealed that approximately 13,501 linear feet (lf) of gravity sewer mains need rehabilitation and that approximately 9,237 lf of gravity sewer mains need replacing. In addition, improvements are needed at the City's WWTP to provide more efficient and cost-effective sludge management. The proposed project thus consists of rehabilitating or replacing defective lines and constructing improvements at the City's WWTP.

A trenchless construction method, cured-in-place pipe (CIPP), will be utilized to rehabilitate pipelines with cracks, light root intrusion, small sags, small holes with no void, small offset joints, and structurally deficient segments. This method uses a flexible fabric liner coated with a





LIVE OAK

ASSOCIATES, INC.

Sanitary Sewer Collection System and WWTP Improvements

Vicinity Map

Date	Project #	Figure #
03/19/2024	2848-01	1



thermosetting resin to form a new pipe inside the existing pipe. The liner will be inserted into the pipes at existing manholes, and will be cured with heat, forming a strong bond between the tube and existing pipe. Pipes that cannot be rehabilitated will be replaced in kind with conventional open trench construction methods. Open trench widths will range from 1 foot to 2.5 feet depending on the diameter of the pipes to be replaced; pipe diameters range from 6 inches to 15 inches. Nearly all sewer line work will be confined to city streets and drives, with no construction activities outside the traveled way. For the approximately 2,300 linear feet of sewer line segments that are located outside of the traveled way, all project-related disturbance will be confined to an approximately 20-foot-wide corridor centered on the pipe alignment.

Proposed improvements at the WWTP include upgrading existing sludge drying beds by incorporating geomembrane or geotextile liners, improving drainage systems, adding covers that can enhance the drying efficiency, replacing and installing new sludge feed pumps. Construction activities at the WWTP will be confined to an approximately 7-acre work area within the fenced boundaries of the facility.

1.2 REPORT OBJECTIVES

This report summarizes a biological study conducted by LOA to facilitate environmental review pursuant to CEQA and NEPA, and to facilitate compliance with Section 7 of the federal Endangered Species Act. As such, the report's objectives are to:

- Characterize the project site's existing biological resources, including biotic habitats, flora and fauna, soils, and aquatic resources.
- Evaluate the project site's potential to support sensitive resources such as special status species, sensitive natural communities, and jurisdictional waters and wetlands.
- Summarize all state and federal natural resource protection laws that may be relevant to project implementation.
- Identify and discuss potential project-related impacts to biological resources within the context of CEQA, NEPA, and other state and federal laws.
- Identify avoidance and mitigation measures that would reduce the magnitude of project-related impacts in a manner consistent with CEQA, NEPA, and species-specific guidelines.



- Make preliminary effect determinations pursuant to Section 7 of the federal Endangered Species Act for listed species with the potential to occur in the project vicinity.

1.3 STUDY METHODOLOGY

A reconnaissance-level field survey of the project site was conducted on February 15, 2024 by LOA biologist Natalie Neff. The survey consisted of a meandering walk and drive through the project site while identifying its principal land uses and the constituent plants and animals of each land use. The field survey conducted for this study was sufficient to assess the significance of possible biological impacts associated with the development plans for the project site.

LOA conducted an analysis of potential project impacts based on the known and potential biotic resources of the project site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) results of the February 2024 reconnaissance-level survey, (2) the *California Natural Diversity Data Base* (CDFW 2024), (3) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2024), and (4) manuals, reports, and references related to plants and animals of the San Joaquin Valley region.

LOA's field investigation did not include an aquatic resources delineation or focused surveys for special status species. The field survey was sufficient to generally describe those features of the project site that could be subject to the jurisdiction of the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), and/or the Regional Water Quality Control Board (RWQCB), and to assess the significance of possible biological impacts associated with development of the project site.



2.0 EXISTING CONDITIONS

2.1 REGIONAL SETTING

The project site is located in the southern San Joaquin Valley of California. The valley is a large, nearly flat alluvial plain bordered by the Sierra Nevada to the east, the Tehachapi Mountains to the south, the California coast ranges to the west, and the Sacramento-San Joaquin Delta to the north.

Like most of California, the San Joaquin Valley experiences a Mediterranean climate. Warm dry summers are followed by cool moist winters. Summer temperatures commonly exceed 100 degrees Fahrenheit, and the relative humidity is generally very low. Winter temperatures range from 30 to 75 degrees Fahrenheit. Annual precipitation in the vicinity of the project is about 8 inches, almost 85% of which falls between the months of October and March. Nearly all precipitation falls in the form of rain.

The principal drainage of the project vicinity is Los Gatos Creek (Arroyo Pasajero), the historic channel of which travels in an easterly direction approximately 1.5 mile north of the project site. Los Gatos Creek initiates in the Diablo Range, some 30 miles west of the site, at an elevation of approximately 3,000 feet. It originally terminated in a delta in the trough of the San Joaquin Valley, and together with the Kings River delta, formed a sill that marked the northern boundary of the historic Tulare Lake in very wet years. With the construction of the local segment of the California Aqueduct in 1967, Los Gatos Creek was intercepted, and floodwater spilled through agricultural land along the aqueduct's western embankment. The BOR began buying the affected agricultural properties, and in the mid-2000s constructed the Arroyo Pasajero Westside Detention Basin, which constrains the Los Gatos Creek floodwaters to an approximate 3,800-acre area extending along the west side of the aqueduct from Highway 198 to Gale Avenue. At Gale Avenue, a set of gates allow overflow to be pumped into the aqueduct, as needed.

2.2 PROJECT SITE

The project site is situated within Huron city limits, and consists entirely of lands modified for anthropogenic use. While centered primarily on municipal roads and the WWTTP, it also contains



portions of vacant lots, a public park, and residential green areas. The topography of the project site is relatively flat with elevations averaging 330 feet National Geodetic Vertical Datum (NGVD) at the WWTP and ranging from 340 to 370 feet NGVD in municipal Huron.

The project site contains three soil mapping units (NRCS 2024). These soils are summarized in Table 1 below.

TABLE 1: SOILS OF THE PROJECT SITE

Soil Mapping Unit	Parent Material	Drainage Class	Hydric Rating
474: Westhaven loam, 0 to 2 percent slopes	Alluvium from calcareous sedimentary rock	Well drained	No
477: Westhaven clay loam, 0 to 2 percent slopes	Alluvium from calcareous sedimentary rock	Well drained	No
981: Sewage Disposal Pond	-	-	No

None of the site’s soil mapping units are considered hydric, meaning none have the propensity to pond water and support hydrophytic (water-loving) vegetation. Soils within the project site and surrounding lands have been subjected to decades of soil-disturbing activities associated with agricultural use, road and canal construction, and urban and rural development, and are not expected to exhibit their native soil characteristics or be particularly relevant to biological resource issues.

A list of vascular plants identified on the site is presented in Appendix A. A list of terrestrial vertebrates using or potentially using the project site is presented in Appendix B. Representative photos of the site are presented in Appendix C.

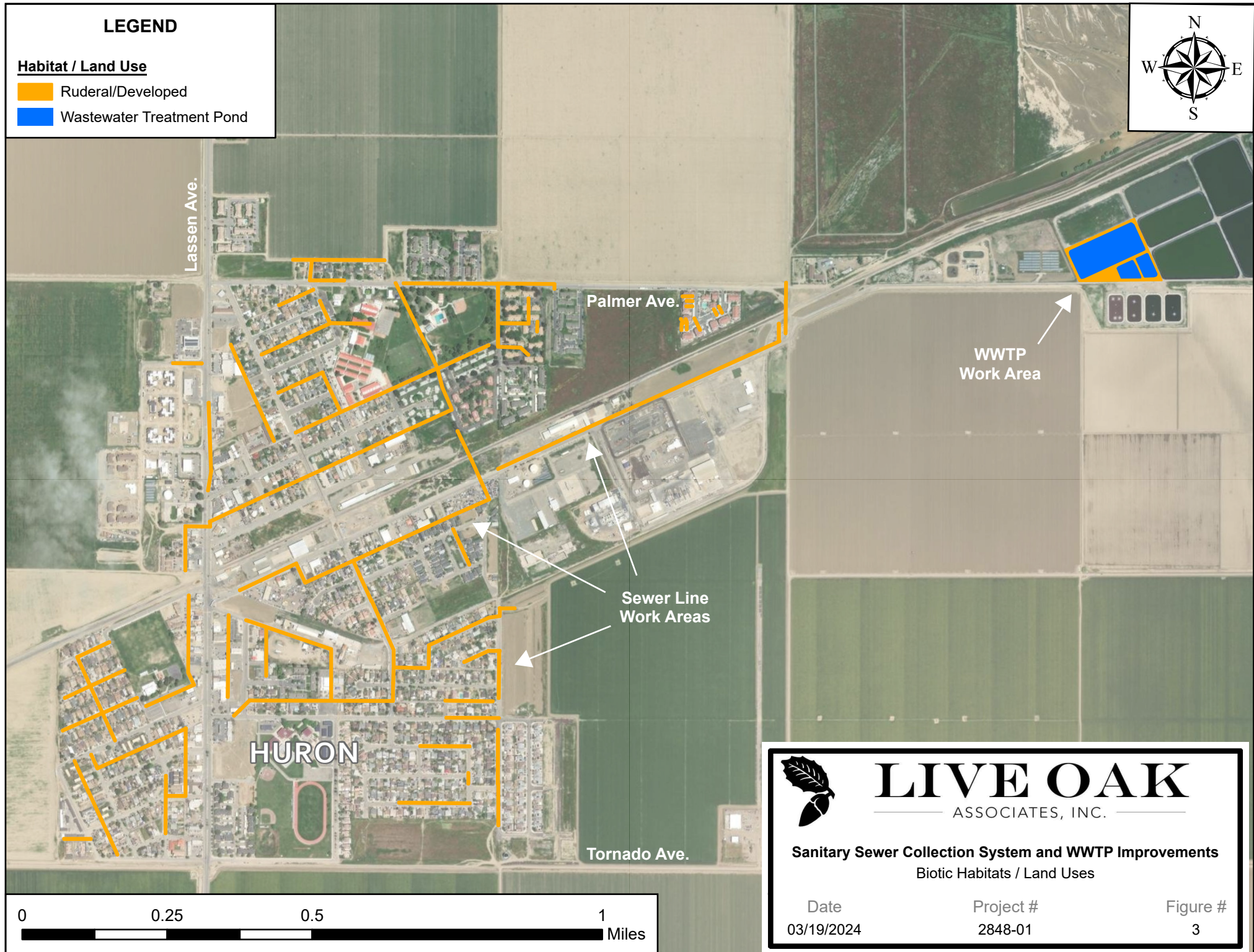
2.3 BIOTIC HABITATS / LAND USES

LOA identified two biotic habitats / land uses within the project site: ruderal/developed and wastewater treatment pond (Figure 3). These habitats / land uses are described in more detail in the following sections.

LEGEND

Habitat / Land Use

-  Ruderal/Developed
-  Wastewater Treatment Pond





2.3.1 Ruderal/Developed

At the time of LOA's survey, the project site consisted primarily of ruderal/developed lands; most notably, the municipal streets and drives that constituted almost all of the proposed sewer main work areas, and upland areas surrounding the site's wastewater treatment ponds. Six sewer main segments totaling approximately 2,300 linear feet were located outside of municipal roadways; these areas were also ruderal/developed in nature, but were characterized by residential green areas, portions of parking lots, vacant lots, and a city park. Vegetative conditions varied across these locations. Roads, parking lots, and the WWTP uplands were generally barren of vegetation. Vacant lots appeared infrequently maintained to unmaintained and supported common weedy species. Maintained green spaces were dominated by ornamental species.

Weedy species observed in the less-maintained areas included foxtail barley (*Hordeum murinum*), banyard grass (*Echinochloa crus-galli*), red-stemmed filaree (*Erodium cicutarium*) and cheeseweed (*Malva parviflora*). Maintained green spaces contained common lawn grass (*Poa annua*), common dandelion (*Taraxacum officinale*), and several tree species including interior live oak (*Quercus wislizenii*), foothill pine (*Pinus sabiniana*), and tamarisk (*Tamarix aphylla*).

The project site's ruderal/developed areas are of low habitat value for most native wildlife, given high levels of ambient disturbance and, in most areas, a lack of vegetative cover. Wildlife species expected to be found here would be those that are attracted to urban areas and/or tolerate disturbance, and those that are associated with adjacent lands and use or pass through the site's ruderal/developed areas incidentally.

Reptiles that could be found in the site's ruderal/developed areas include the side-blotched lizard (*Uta stansburiana*), western fence lizard (*Sceloporus occidentalis*), California alligator lizard (*Elgaria multicarinata multicarinata*), and gopher snake (*Pituophis melanoleucus*). These species could forage or bask on the site's unpaved roads, in both maintained and unmaintained green spaces, and in the WWTP uplands.



Several disturbance-tolerant avian species are likely to forage and nest in the site's ruderal/developed areas. Trees and shrubs located within the few sewer main work areas outside of municipal streets could support nesting by American robins (*Turdus migratorius*), Anna's hummingbirds (*Calypte anna*), and mourning doves (*Zenaida macroura*), among others. The disturbance-tolerant killdeer (*Charadrius vociferus*) nests on the ground in barren areas and may utilize the site's vacant lots or WWTP uplands for this purpose.

The project site's ruderal/developed areas may be used for foraging by all of the aforementioned birds, in addition to avian species that migrate to the San Joaquin Valley for the winter. The latter include the American pipit (*Anthus rubescens*), Say's phoebe (*Sayornis sayi*), savannah sparrow (*Passerculus sandwichensis*), and yellow-rumped warbler (*Dendroica coronata*).

Small mammal species likely to occur in the site's ruderal/developed areas include the deer mouse (*Peromyscus maniculatus*), house mouse (*Mus musculus*), and Norway rat (*Rattus norvegicus*), among others. Burrowing rodent activity is expected to be limited due to the preponderance of pavement in this land use type, as well as regular maintenance practices in many of the unpaved areas. Less-maintained areas could support California ground squirrels (*Otospermophilus beecheyi*) and Botta's pocket gophers (*Thomomys bottae*).

Disturbance-tolerant mammalian predators such as raccoons (*Procyon lotor*), striped skunks (*Mephitis mephitis*), and coyotes (*Canis latrans*) are expected to occasionally forage on or pass through the project site's ruderal/developed areas. Various bat species may roost in trees within this habitat type and may forage on or over these areas.

2.3.2 Wastewater Treatment Pond

At the time of LOA's field survey, the proposed work area within the WWTP contained three existing wastewater treatment ponds. Two of the three ponds were completely dry at the time of the survey, and the third pond contained some standing water and saturated soils. Weedy plant species had established themselves on the bed and banks of the ponds and included Russian thistle (*Salvia tragus*), ribwort plantain (*Plantago lanceolata*), flax-leaved horseweed (*Erigeron bonariensis*) and Johnson grass (*Sorghum halepense*).



Wildlife that would utilize the ponds would be largely determined by whether or not the ponds are inundated. When inundated, the ponds could be used by amphibians such as western toad (*Anaxyrus boreas*), Pacific chorus frog (*Pseudacris regilla*), and American bullfrog (*Lithobates catesbeianus*) for breeding. The ponds could potentially support aquatic turtles, as is the case at other WWTP facilities in the San Joaquin Valley. The red-eared slider (*Trachemys scripta elegans*) is a non-native turtle that has some potential to occur here, along with the native western pond turtle (*Actinemys marmorata*).

Several species of waterfowl and wading birds are likely to make use of the ponds when inundated. Several full ponds adjacent to the project site were being utilized by mallards (*Anas platyrhynchos*), American coots (*Fulica americana*), buffleheads (*Bucephala albeola*), and black-necked stilts (*Himantopus mexicanus*). Black phoebes (*Sayornis nigricans*) and cliff swallows (*Petrochelidon pyrrhonata*) may visit the ponds to glean mud for their nests, and the killdeer may forage on drying mud flats. When dry, the ponds could be utilized by avian species adapted to disturbed, open environments such as killdeer, mourning dove, and American pipit.

Small mammal use of the ponds would be limited due to regular ground disturbance practices and the resulting lack of vegetative cover and forage. However, deer mice and California voles (*Microtus californicus*) may occur in the ponds when dry. Although no rodent burrows were observed in or around the ponds or elsewhere within the WWTP work area at the time of the survey, California ground squirrels and Botta's pocket gophers have some potential to establish burrows on the upper banks of the ponds, as has been observed by LOA during past surveys at the WWTP.

When dry, disturbance tolerant mammalian predators may occasionally forage or pass through the ponds; however, perimeter fencing around the WWTP facility is expected to somewhat limit this use. Various bat species could forage over the ponds regardless of their inundation status.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Many species of plants and animals within the state of California have low populations, limited distributions, or both. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to



agricultural and urban uses. As described more fully in Section 3.0, state and federal laws have provided CDFW and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as threatened or endangered under state and federal endangered species legislation. Others have been designated as “candidates” for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists (i.e., California Rare Plant Ranks, or CRPR) of native plants considered rare, threatened, or endangered (CNPS 2024). Collectively, these plants and animals are referred to as “special status species.”

The *California Natural Diversity Data Base* (CNDDB) (CDFW 2024) was queried for special status species occurrences in nine USGS 7.5-minute quadrangles on and surrounding the project site (*Harris Ranch, Califax, Vanguard, Guajarral Hills, Huron, Westhaven, Arenal, La Cima, and Kettleman City*). An official species list was obtained using the USFWS Information for Planning and Consultation (IPaC) system for federally listed species with the potential to be affected by the project (USFWS 2024) (Appendix D). These species, and their potential to occur on the project site, are listed in Table 2 on the following pages. Sources of information for this table included *California's Wildlife, Volumes I, II, and III* (Zeiner et. al 1988-1990), *California Natural Diversity Data Base* (CDFW 2024), *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al 2012), and *The California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2024), Calflora.org, iNaturalist.org, and eBird.org.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

PLANTS

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat/Range	*Occurrence within the Project Site
California Jewelflower (<i>Caulanthus californicus</i>)	FE, CE, CRPR 1B.1	Found in a few locations in Fresno, Kern, Kings, San Luis Obispo, and Santa Barbara counties and is presumed extirpated from Tulare County. Occurs in chenopod scrub, pinyon and juniper woodland, and sandy valley and foothill grassland; blooms February–May; elevation 250-3,300 ft.	Absent: Urban development and ongoing disturbance of the project site has eliminated any habitat for this species that may have once been present. A CNDDB occurrence of this species is generally mapped to Huron based on an 1893 collection. The species is now presumed extirpated from the area due to development and habitat loss.
Kern Mallow (<i>Erenalche parryi</i> spp. <i>kernensis</i>)	FE, CRPR 1B.2	Found on alkali flats, eroded hillsides, grasslands, and saltbrush scrub in southern San Joaquin Valley and adjacent areas in California between 230 and 4,200 feet in elevation. Blooms March – May.	Absent: Suitable habitat is absent from the project site.
San Joaquin Woollythreads (<i>Monolopia congdonii</i>)	FE, CRPR 1B.2	Historically found in San Benito, Fresno, Kings, Tulare, Kern, San Luis Obispo, and Santa Barbara Counties. Currently extirpated from Tulare County. Found in grasslands of hills and plateaus west of the San Joaquin Valley and is associated with salt brush scrub habitat. Occurs between 200 and 2,600 feet in elevation. Blooms February–May.	Absent: Urban development and ongoing disturbance of the project site has eliminated any habitat for this species that may have once been present. A CNDDB occurrence of this species is generally mapped to Huron based on an 1893 collection. A follow-up survey in 1989 found no habitat remaining in the vicinity of Huron (CDFW 2024).

CNPS-listed Species

Brittlescale (<i>Atriplex depressa</i>)	CRPR 1B.2	Occurs in chenopod scrub, valley and foothill grassland, and wetland habitats; blooms April–October; elevations below 1,050 ft.	Absent. Suitable habitat is absent from the project site.
Lemmon's Jewelflower (<i>Caulanthus lemmonii</i>)	CRPR 1B.2	Occurs in pinyon-juniper woodland and valley and foothill grassland between 260 and 4,000 feet in elevation. Blooms March–May.	Absent. Suitable habitat is absent from the project site.
Alkali-Sink Goldfields (<i>Lashenia chrysantha</i>)	CRPR 1B.1	Occurs in valley grassland, alkali sink, wetland riparian areas less than 650 ft. in elevation in the southern Sacramento Valley and San Joaquin Valley. Blooms February – June.	Absent. Suitable habitat is absent from the project site.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence within the Project Site
Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	FT	Primarily found in vernal pools of California's Central Valley.	Absent. Suitable habitat in the form of vernal pools is absent from the site and immediately surrounding lands.
Crotch Bumble Bee (<i>Bombus crotchii</i>)	CCE	Once common in the Central Valley, this species is now largely absent from this portion of its historic range (CDFW 2019). Where present, it is associated with open grassland and scrub habitats, where it relies on food plants of the <i>Asclepias</i> , <i>Chaenactis</i> , <i>Lupinus</i> , <i>Medicago</i> , <i>Phacelia</i> , and <i>Salvia</i> genera (Williams et al. 2014).	Unlikely. A CNDDB occurrence is generally mapped to Huron based on a 1971 collection; however, any habitat that may have once been present within the project site itself would have been lost to urban development and other anthropogenic uses. There are no recent observations of this species in the vicinity, based on the CNDDB and iNaturalist.
Monarch Butterfly (<i>Danaus plexippus</i>)	FC	Overwinterers in coastal California and Baja California and breeds throughout California in the spring and summer along its annual migration north and east. The adult monarch lays its eggs on obligate milkweed (<i>Asclepias</i> spp.) host plants, which the resultant larvae feed on before pupating and emerging as adults. In addition to milkweed, this species requires abundant nectar resources to nourish migrating adults, and trees for roosting during migratory stopovers.	Present. An individual was spotted flying through the project site during LOA's February survey. The few sewer main work areas located outside of the roadway could potentially provide foraging and roosting opportunities for this species. Because LOA's survey was conducted before the seasonal emergence of most native milkweed plants, the potential for these work areas to support monarch reproduction could not be definitively addressed. However, the work areas in question are in a mix of degraded (e.g. parking lot) and intensively maintained (e.g. city park turf) lands that are generally not conducive to milkweed growth, and monarch reproduction is not expected in these areas. The remainder of the project site may occasionally be visited by monarchs passing through, but foraging, roosting, and reproductive habitat is absent.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd) <i>Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act</i>			
Species	Status	Habitat	*Occurrence within the Project Site
Western Pond Turtle (<i>Actinemys marmorata</i>)	FPT, CSC	Found in ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires partially submerged rocks or logs or sandy banks for basking sites. Nesting takes place in open areas, on a variety of soil types, and up to ¼ mile away from water.	Possible. The western pond turtle appears to be locally uncommon; the only known record of this species in the Huron area is from a 1984 collection, as reported by McKeown and Holland (1985). The closest iNaturalist record is over 14 miles away, and the closest CNDDB record is over 40 miles away. However, for several reasons, this species has some potential to occur within the project site's WWTP work area. First, ponded areas within the Arroyo Pasajero Westside Detention Basin north of the WWTP facility could potentially harbor turtles introduced through the regular flooding of Los Gatos Creek. The closest such pond is located just 600 feet north of the WWTP work area. Second, staff at the WWTP have reported seeing an unidentified species of turtle at their facility. Third, western pond turtles are known to use wastewater treatment ponds elsewhere in the San Joaquin Valley. Western pond turtle use of the WWTP work area could include occupation of inundated ponds and basking on the banks and possibly other upland areas; nesting is not expected. This species would not occur in municipal Huron, where the remainder of the project site is located.
Western Spadefoot (<i>Spea hammondi</i>)	FPT, CSC	Occurs in grasslands of San Joaquin Valley, where it breeds in vernal pools or other seasonal wetlands and aestivates in underground refugia such as rodent burrows. Baumberger et al. (2019) recorded a mean maximum distance of around 230 feet between breeding and aestivation sites, with an overall maximum of 890 feet.	Unlikely. Suitable breeding habitat for the western spadefoot is absent from the project site itself, but is found in ponded areas in the nearby Arroyo Pasajero Westside Detention Basin. The closest such pond is located approximately 600 feet north of the project site's WWTP work area, opposite the Southern Pacific Railroad. Even if this pond supports spadefoot reproduction, it is highly unlikely that individuals of this species would cross the railroad tracks to attempt aestivation in the highly maintained, frequently disturbed habitats of the WWTP, rather than aestivate in suitable habitats immediately adjacent to the pond. The WWTP work area is more than twice the mean maximum distance between breeding and aestivation sites observed in Baumberger et al. (2019)'s study population, and lacks essentially all variables that significantly predicted spadefoot aestivation in that study; namely, grassland habitat, duff, and other animal burrows. Although there are five breeding records of the spadefoot in the Arroyo Pasajero Westside Detention Basin, distributed between 1 and 3 miles northwest of the project site's WWTP work area, all are from over 20 years ago.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence within the Project Site
Tembloer Legless Lizard (<i>Anniella alexanderae</i>)	CCE, CSC	Current known populations of this species only exist in Kern and Fresno Counties. Found in moist, warm, loose soil with plant cover, in a range of habitats including desert scrub, sandy washes, stream terraces, pine-oak woodlands, and chaparral.	Absent. Suitable habitat is absent from the project site.
Blunt-nosed Leopard Lizard (<i>Gambelia sila</i>)	FE, CE, CFP	Occurs at elevations from 100 to 2400 feet on alkali flats, large washes, arroyos, canyons, and low foothills with sparse vegetation in the San Joaquin Valley floor and surrounding foothills. Historically ranged from Stanislaus County to Tehachapi Mountains as well as in the Carrizo Plain and Cuyama Valley. Currently found on scattered, small parcels of undeveloped land from Merced to Santa Barbara and Ventura Counties.	Absent. Suitable habitat is absent from the project site and there are no CNDDB or iNaturalist occurrences within the project vicinity.
California Condor (<i>Gymnogyps californianus</i>)	FE, CE, CFP	Scavenge for carrion in habitats ranging from Pacific beaches to mountain forests and meadows. Primarily a cavity-nesting species, condors lay their eggs in rock crevices, on overhung cliff ledges, and in burned-out hollows of old-growth conifers.. Their size makes take-off difficult, leading them to use high perches for easier take-offs.	Absent. Suitable habitat is absent from the project site.
Swainson's Hawk (<i>Buteo swainsoni</i>)	CT	This breeding migrant to California nests in mature trees in riparian areas and oak savannah, and occasionally in lone trees at the margins of agricultural fields. Requires adjacent suitable foraging areas such as grasslands or alfalfa fields supporting rodent populations.	Likely. This species is well-documented in the project vicinity. There are 10 CNDDB nesting occurrences within 3 miles of the project site, two recent iNaturalist sightings within 5 miles of the project site, and numerous eBird sightings within 10 miles of the project site, including a documented nest approximately ½ mile northeast of the project site's WWTP work area, reported to eBird in 2020. This species is not expected to nest on site because all of the site's trees are located in municipal Huron. However, it could nest in trees adjacent to the WWTP or outlying sewer main work areas, and forage on site from time to time.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence within the Project Site
Tricolored Blackbird (<i>Agelaius tricolor</i>)	CT, CSC	Breeds colonially near fresh water in dense bulrush, cattails, or thickets of willows or shrubs, and increasingly in grain fields. Forages in grassland and cropland areas.	Possible. Although there is no suitable nesting habitat on the project site, this species could forage or fly over the project site from time to time. Its potential for occurrence on site would be limited to the WWTP work area. It is not expected to utilize the sewer main work areas given their urban setting and the fact that most of the work areas are confined to roadways. The closest eBird sightings are approximately 7 miles from project boundaries, the closest CNDDB occurrence approximately 8 miles away, and the closest iNaturalist records more than 40 miles away.
Buena Vista Lake Omate Shrew (<i>Sorex ornatus relictus</i>)	FE, CE	Occurs in marshes and sloughs around the perimeter of Buena Vista Lake in Kern County; may also occur in the Tulare Basin and at Kern and Pixley National Wildlife Refuges. Requires dense ground clover to protect it from predators and moist soil that supports the diverse invertebrate prey population it needs for sustenance. Most of its original habitat was drained for agriculture or is no longer suitable due to changes in vegetation.	Absent. Suitable habitat is absent from the project site.
Nelson's (=San Joaquin) Antelope Squirrel (<i>Ammospermophilus nelsoni</i>)	CT	Occurs in western San Joaquin Valley from southern Merced County to Kern, Kings, and Tulare Counties as well as portions of eastern San Luis Obispo and Santa Barbara Counties up to 1200 feet in elevation. Prefers dry, loamy soils that are sparsely vegetated. Suitable habitats include widely spaced alkali scrub, gullies and washes, and annual grassland.	Unlikely. A CNDDB occurrence of this species is generally mapped to Huron based on an 1893 collection. However, urban development and ongoing disturbance of the project site and surrounding lands has eliminated any habitat that may have once been present
Giant Kangaroo Rat (<i>Dipodomys ingens</i>)	FE	Historically occurred from Merced County to Kern County and Carrizo Plain and Cuyana Valley in San Luis Obispo County, but has been reduced to fragmented populations encompassing only 5 percent of its historic range (USFWS 2010). Prefers annual grassland and shrubland communities where vegetation is sparse and soils are well drained fine, sandy loams. Does not inhabit areas where slopes exceed 10 percent or where water may pool.	Absent. Suitable habitat is absent from the project site and the site is located far from any known extant population.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

Species Listed as Threatened or Endangered under the State and/or Federal Endangered Species Act

Species	Status	Habitat	*Occurrence within the Project Site
Fresno Kangaroo Rat (<i>Dipodomys nitratoides exilis</i>)	FE, CE	Historically occurred in grassland and scrub communities on the San Joaquin Valley floor in Fresno, Madera, Merced, and Kings Counties. No known extant populations remain in Fresno, Madera, or Merced Counties. Several populations may persist in the vicinity of the Lemoore Naval Air Station in Kings County.	Absent. Suitable habitat is absent from the project site. No known extant populations currently exist in Fresno County.
Tipiton Kangaroo Rat (<i>Dipodomys nitratoides nitratoides</i>)	FE, CE	Once widely distributed on the floor of the southern San Joaquin Valley from the Kings River to Buena Vista Lake, this species persists in isolated patches of scrub and grassland habitat south of the historic Tulare Lake and east of the California Aqueduct (Cypher et al. 2021, USFWS 2020).	Absent. Suitable habitat is absent from the project site, and the site is situated outside of the known distribution of this species.
San Joaquin Kit Fox (<i>Vulpes macrotis mutica</i>)	FE, CT	Frequents desert alkali scrub and annual grasslands and may forage in adjacent agricultural habitats. Utilizes enlarged ground squirrel burrows as denning habitat. May become adapted to urban environments, as has occurred in the cities of Bakersfield, Taft, and Coalinga.	Unlikely. The San Joaquin kit fox was historically well-documented in the project vicinity. The CNDDB lists 17 occurrences of this species within 10 miles of the project site, the closest having been recorded along the California Aqueduct, approximately 1 mile southeast of the site, in 1981. However, all of these occurrences are from 25 or more years ago. iNaturalist lists a single kit fox sighting within 10 miles; that record describes a road-killed individual observed near Turk, some 9 miles southwest of the project site, in 2015. Given the lack of recent sightings in the greater Huron area, the project's disturbed nature and largely municipal setting, and the fact that urban-adapted kit foxes are not known from Huron, this species is not expected to occur on site.



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

<i>State Species of Special Concern</i>			
Species	Status	Habitat	*Occurrence within the Project Site
California Glossy Snake (<i>Arizona elegans occidentalis</i>)	CSC	Occurs from eastern San Francisco Bay Area south to northwestern Baja California and is absent along the central coast. Most common in desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grasslands. Elevations from below sea level to 6,000 feet. Primarily nocturnal and will reside in mammal burrows and rocky outcrops or occasionally in loose soils.	Absent. Suitable habitat needed to support this species is absent from the project site. Furthermore, there are no CNDDB or iNaturalist occurrences of this species within the vicinity of the project site.
San Joaquin Coachwhip (<i>Masticophis flagellum ruddocki</i>)	CSC	Occurs in open, dry areas including grassland and saltbush scrub. Takes refuge in rodent burrows and under shaded vegetation. Avoids dense vegetation including mixed oak chaparral woodland.	Unlikely. There are two CNDDB documented occurrences of this species within 2.5 miles north of the project site in the Arroyo Pasajero Westside Detention Basin; however, suitable habitat is absent from the site itself.
Long-eared Owl (<i>Asio otus</i>)	CSC	Typically nests in dense tall shrubs or trees, and forages in adjacent open habitats such as grassland or shrubland. Occurs year-round in California; breeds February through July.	Unlikely. Suitable nesting and foraging habitat is absent to marginal on the project site. Furthermore, there are no recent CNDDB or eBird occurrences within the vicinity of the project site.
Burrowing Owl (<i>Athene cunicularia</i>)	CSC	Frequents open, dry annual or perennial grasslands, deserts, and scrublands characterized by low- growing vegetation. Dependent upon burrowing mammals, most notably the California ground squirrel, for nest burrows.	Unlikely. This species has been documented in the near vicinity. The closest known sightings are (1) a 2001 occurrence immediately north of several of the sewer main segments along Palmer Avenue, in what was then grassland habitat (CDFW 2024), and (2) five burrowing owls observed by LOA in 2016 in the Arroyo Pasajero Westside Detention Basin, between 800 feet and ½ mile north of project boundaries. Notwithstanding these detections, burrowing owls are not expected to occur on the site itself. Individuals of this species are unlikely to utilize the sewer main work areas given their urban setting and the fact that most of the work areas are confined to roadways. The WWTP work area is intensively maintained, subjected to high levels of ambient disturbance, and did not contain any rodent burrows at the time of LOA's survey; as such, it is also unlikely to attract or support individuals of this species.
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	CSC	Frequents open habitats with sparse shrubs and trees, other suitable perches, bare ground, and low herbaceous cover. Can often be found in cropland.	Possible. This bird of the open country is unlikely to nest in the site's trees and shrubs, all of which are located in municipal Huron. It does have some potential to forage on site from time to time. This species is known to breed in the nearby Arroyo Pasajero Westside Detention Basin (eBird 2024).



TABLE 2. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS (cont'd)

State Species of Special Concern

Species	Status	Habitat	*Occurrence within the Project Site
Yellow-headed Blackbird (<i>Xanthocephalus xanthocephalus</i>)	CSC	Occurs primarily as a migrant and summer resident from April to early October; breeds mid-April to late July. Small numbers winter in southern Central Valley and the Imperial and Colorado River valleys. Requires deepwater marshes and wetlands with tall emergent vegetation such as tules or cattails for breeding.	Unlikely. The project site does not contain suitable nesting or foraging habitat for this species.
Western Mastiff Bat (<i>Eumops perotis californicus</i>)	SSC	Frequents open, semi-arid to arid habitats, including conifer, and deciduous woodlands, coastal scrub, grasslands, palm oasis, chaparral and urban. Roosts in cliff faces, high buildings, and tunnels.	Possible. A CNDDB occurrence from 1995 is documented approximately 1.5 miles northwest of the project site. This species could potentially forage over the site, but roosting habitat is absent.
Short-nosed Kangaroo Rat (<i>Dipodomys nitratoides brevinasus</i>)	CSC	Historically occurred on the western, southern, and extreme southeastern sides of the San Joaquin Valley typically above the valley floor. Currently, fragmented populations exist near Los Banos, Panoche and San Joaquin Valleys, Kettleman Hills, Antelope and Carrizo Plains, and Cuyama Valley. Prefer friable soils on flat or gently rolling terrain in grassland and desert-scrub vegetation.	Absent. Suitable habitat is absent from the project site and no known extant populations exist within the vicinity of the project site. Furthermore, there are no documented occurrences within the vicinity of the project site.
Tulare Grasshopper Mouse (<i>Onychomys torridus tularensis</i>)	CSC	Occurs in hot, arid grassland and scrub desert associations in the southern San Joaquin Valley from western Merced and eastern San Benito Counties, east to Madera County and south to the foothills of Tehachapi and San Emigdio mountains and in San Luis Obispo County.	Unlikely. Despite a historical CNDDB occurrence from 1893 that was generally mapped to Huron, urban development and decades of ongoing disturbance have created unsuitable habitat for this species.
American Badger (<i>Taxidea taxus</i>)	CSC	This species inhabits open and dry sections of grasslands, shrub, and forest habitats with friable soil.	Unlikely. Despite a documented CNDDB occurrence from an unspecified year in the 1900s that was generally mapped to Huron, the American badger is not expected to occur on site. Individuals of this species are unlikely to utilize the sewer main work areas given their urban setting and the fact that most of the work areas are confined to roadways. The WWTP work area is intensively maintained and subjected to high levels of ambient disturbance; as such, it is also unlikely to attract or support individuals of this species.

* Explanation of Occurrence, Designations, and Status Codes

Present: Species observed on the site at time of field surveys or during recent past.

Likely: Species not observed on the site, but it may reasonably be expected to occur there on a regular basis.

Possible: Species not observed on the site, but it could occur there from time to time.

Unlikely: Species not observed on the site, and would not be expected to occur there except, perhaps, as a transient



Absent: Species not observed on the Site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPT	Federally Proposed Threatened	CSC	California Species of Special Concern
FC	Federal Candidate	CRPR	California Rare Plant Ranking
FPD	Federally (Proposed) Delisted	CFP	California Fully Protected
		CCE	California Candidate Endangered

2.5 JURISDICTIONAL WATERS

Jurisdictional waters are those rivers, creeks, drainages, lakes, ponds, reservoirs, and wetlands that are subject to the authority of the USACE, CDFW, and/or the RWQCB. In general, the USACE regulates navigable waters, tributaries to navigable waters, and wetlands with a continuous surface connection to these waters, where wetlands are defined by the presence of hydric soils, hydrophytic vegetation, and wetland hydrology. All waters under USACE jurisdiction are also regulated by the RWQCB as waters of the State. Additionally, the RWQCB asserts jurisdiction over certain isolated features disclaimed by the USACE. The CDFW has jurisdiction over waters that have a defined bed and bank. The regulation of jurisdictional waters is discussed in more detail in Section 3.8.

Waters subject to the jurisdiction of the USACE and CDFW are absent from the project site; however, the RWQBC may regulate activities within the wastewater treatment ponds of the project site.

2.6 DESIGNATED CRITICAL HABITAT

As will be discussed further in Section 3.0, the USFWS often designates areas of “critical habitat” when it lists species as threatened or endangered. Critical habitat is a specific geographic area(s) that contains features essential for the conservation of a threatened or endangered species and that may require special management and protection.

Designated critical habitat is absent from the project site and immediately surrounding lands.



2.7 SENSITIVE NATURAL COMMUNITIES

California contains a wide range of natural communities, or unique assemblages of plants and animals. These communities have largely been classified and mapped by CDFW as part of their Vegetation Classification and Mapping Program (VegCAMP). Natural communities are assigned state and global ranks according to their rarity and the magnitude and trend of the threats they face. Any natural community with a state rank of 3 or lower (on a 1 to 5 scale) is considered “sensitive” and must be considered in CEQA review.

Sensitive natural communities are absent from the project site.

2.8 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are routes that animals regularly and predictably follow during seasonal migration, dispersal from native ranges, daily travel within home ranges, and inter-population movements. Movement corridors in California are typically associated with valleys, ridgelines, and rivers and creeks supporting riparian vegetation. Certain features of the project area have the potential to function as movement corridors for resident and migratory fish and wildlife species.

Wildlife movement corridors are absent from the project site.



3.0 RELEVANT GOALS, POLICIES, AND LAWS

3.1 GENERAL PLAN POLICIES OF THE CITY OF HURON

In compliance with CEQA, the lead agency must consider conformance with applicable goals and policies of the General Plan of the City of Huron. The City of Huron General Plan was adopted in 2007 and has a planning horizon through 2025. It presents the City’s vision for long-term growth and development and establishes goals and policies to accomplish this vision. The current policies relevant to the project site’s biological resources are as follows: a general objective to protect natural resources, a policy to promote biological diversity and the use of plant species compatible with the bioregion, a policy to preserve areas with unusually high value for fish and wildlife, and a policy to support State and Federal programs to acquire significant fish and wildlife habitat areas for permanent protection and/or public recreation use.

3.2 THREATENED AND ENDANGERED SPECIES

In California, imperiled plants and animals may be afforded special legal protections under the California Endangered Species Act (CESA) and/or Federal Endangered Species Act (FESA). Species may be listed as “threatened” or “endangered” under one or both Acts, and/or as “rare” under CESA. Under both Acts, “endangered” means a species is in danger of extinction throughout all or a significant portion of its range, and “threatened” means a species is likely to become endangered within the foreseeable future. Under CESA, “rare” means a species may become endangered if their present environment worsens. Both Acts prohibit “take” of listed species, defined under CESA as “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” (California Fish and Game Code, Section 86), and more broadly defined under FESA to include “harm” (16 USC, Section 1532(19), 50 CFR, Section 17.3). The USFWS commonly interprets “take” to include the loss of habitat utilized by a listed species.

When state and federally listed species have the potential to be impacted by a project, the USFWS and CDFW must be included in the CEQA process. These agencies review the environmental document to determine the adequacy of its treatment of endangered species issues and to make project-specific recommendations for the protection of listed species. Projects that may result in the “take” of listed species must generally enter into consultation with the USFWS



and/or CDFW pursuant to FESA and CESA, respectively. In some cases, incidental take authorization(s) from these agencies may be required before the project can be implemented.

3.3 MIGRATORY BIRDS

The Federal Migratory Bird Treaty Act (FMBTA: 16 USC 703-712) prohibits killing, possessing, or trading in any bird species covered in one of four international conventions to which the United States is a party, except in accordance with regulations prescribed by the Secretary of the Interior. The name of the act is misleading, as it actually covers almost all birds native to the United States, even those that are non-migratory. The FMBTA encompasses whole birds, parts of birds, and bird nests and eggs.

Native birds are also protected under California state law. The California Fish and Game Code makes it unlawful to take or possess any non-game bird covered by the FMBTA (Section 3513), as well as any other native non-game bird (Section 3800), even if incidental to lawful activities.

3.4 BIRDS OF PREY

Birds of prey are also protected in California under provisions of the State Fish and Game Code, Section 3503.5, 1992), which states that it is “unlawful to take, possess, or destroy any birds in the order *Falconiformes* or *Strigiformes* (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered “taking” by the CDFW.

3.5 NESTING BIRDS

In California, protection is afforded to the nests and eggs of all birds. California Fish and Game Code (Section 3503) states that 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 adopted pursuant thereto.” Breeding-season disturbance that causes nest abandonment and/or loss of reproductive effort is considered a form of “take” by the CDFW.



3.6 HABITAT CONSERVATION PLANS AND NATURAL COMMUNITY CONSERVATION PLANS

Section 10 of the federal Endangered Species Act establishes a process by which non-federal projects can obtain authorization to incidentally take listed species, provided take is minimized and thoroughly mitigated. A Habitat Conservation Plan (HCP), developed by the project applicant in collaboration with the USFWS and/or NMFS, ensures that such minimization and mitigation will occur, and is a prerequisite to the issuance of a federal incidental take permit. Similarly, a Natural Community Conservation Plan (NCCP), developed by the project applicant in collaboration with CDFW, provides for the conservation of biodiversity within a project area, and permits limited incidental take of state-listed species.

3.7 WETLANDS AND OTHER JURISDICTIONAL WATERS

Section 404 of the federal Clean Water Act (CWA) regulates the discharge of dredged or fill material into “navigable waters” (33 U.S.C. §1344), defined in the CWA as “the waters of the United States, including the territorial seas” (33 U.S.C. §1362(7)). The CWA does not supply a definition for waters of the U.S., and that has been the subject of considerable debate since the CWA’s passage in 1972. A variety of regulatory definitions have been promulgated by the two federal agencies responsible for implementing the CWA, the Environmental Protection Agency (EPA) and USACE. These definitions have been interpreted, and in some cases, invalidated, by federal courts.

Waters of the U.S. are presently defined by the EPA and USACE’s joint 2023 Revised Definition of ‘Waters of the U.S.’ Rule (2023 WOTUS Rule), issued in January 2023 and amended in August 2023. Generally speaking, waters of the U.S. include:

- Waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide
- The territorial seas
- Interstate waters
- Impoundments of waters otherwise defined as waters of the United States



- Tributaries to other waters of the U.S. that are relatively permanent, standing or continuously flowing bodies of water
- Wetlands adjacent to other waters of the U.S. that have a continuous surface connection to those waters

The 2023 WOTUS Rule also defines a number of exclusions from the definition of waters of the U.S., many of which are longstanding exclusions from earlier regulatory regimes. These generally include:

- Waste treatment systems
- Prior converted cropland
- Ditches excavated wholly in and draining only dry land that do not carry a relatively permanent flow of water
- Certain artificial features, e.g. irrigation basins, swimming pools, borrow pits, and artificially irrigated areas
- Swales and erosional features characterized by low volume, infrequent, or short duration flow

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values.

Under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board (SWRCB) has regulatory authority to protect the water quality of all surface water and groundwater in the State of California (“waters of the State”). Nine RWQCBs oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining a Section 404 Clean Water Act permit. Discharges into waters of the State that are not also waters of the U.S. require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.



The SWRCB and RWQCBs also administer the federal National Pollution Discharge Elimination System (NPDES) program, which is concerned with the discharge of stormwater and other pollutants into water bodies. Projects that disturb one or more acres of soil must obtain coverage under the SWRCB's current NPDES Construction Stormwater General Permit. A prerequisite for permit coverage is the development of a Storm Water Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Other types of pollutant discharges into waters of the U.S., such as wastewater, may require coverage under a different NPDES general permit, and in some cases an individual permit.

CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.



4.0 IMPACTS AND MITIGATIONS

This impact assessment assumes that: (1) all but approximately 2,300 linear feet of the sewer mains to be rehabilitated or replaced are located in roadways, (2) all project-related disturbance associated with sewer mains in roadways will be confined to the traveled way, (3) all project-related disturbance associated with sewer mains outside of roadways will be confined to a 20-foot-wide corridor centered on the pipe segment, (4) the entirety of the project site's WWTP work area may be permanently or temporarily impacted by proposed activities at that location, and (5) no tree removal will be required for any project component.

4.1 SIGNIFICANCE CRITERIA

NEPA

Projects that are proposed, funded, or authorized by federal agencies are generally subject to the provisions of NEPA. Signed into law in 1970, NEPA requires federal agencies to evaluate the environmental effects of their proposed actions prior to making decisions, and to provide opportunities for public review and comment during this process.

The Council on Environmental Quality Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 CFR Parts 1500-1508; “CEQ regulations”) define effects as “changes to the human environment from the proposed action or alternatives that are reasonably foreseeable.” Examples include “ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health.” Agencies are explicitly instructed to consider direct, indirect, and cumulative effects; the latter denotes those effects that “result from the incremental effects of the action when added to the effects of other past, present, and reasonably foreseeable actions” by any agency or entity.”

The level of NEPA review that is required is related to the project’s potential to cause “significant” environmental effects. “Significant” is not explicitly defined under NEPA; however, CEQ regulations offer several guidelines for determining, and discounting, significance. Federal agencies are instructed to base their significance determinations on an



analysis “of the potentially affected environment and degree of the effects of the action.” *Potentially affected environment* refers both to the geographic area of the action, and to the resources found within this area; examples of the latter from the statute are listed species and designated critical habitat. Effects need not be far-reaching to be considered significant; for site-specific actions, a determination of significance usually depends only on the effects in the local area.

In considering the *degree* of an action’s effects, federal agencies are instructed to consider the following:

- Both short- and long-term effects
- Both beneficial and adverse effects
- Effects on public health and safety
- Effects that would violate federal, state, tribal, or local law protecting the environment

NEPA requires that federal agencies consider mitigating for the environmental effects of their actions. Suitable measures include the following:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

CEQA

In California, any project carried out or approved by a public agency that will result in a direct or reasonably foreseeable indirect physical change in the environment must comply with CEQA. The purpose of CEQA is to ensure that a project’s potential impacts on the environment are evaluated and methods for avoiding or reducing these impacts are considered before the project is allowed to move forward. A secondary aim of CEQA is to provide justification to the public for the approval of any projects involving significant impacts on the environment.



According to Section 15382 of the CEQA Guidelines, a significant effect on the environment means a “substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest.” Although the lead agency may set its own CEQA significance thresholds, project impacts to biological resources are generally considered to be significant if they would meet any of the following criteria established in Appendix G of the CEQA Guidelines:

- 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 CDFW or USFWS.
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.
- 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.
- 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.
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Furthermore, CEQA Guidelines Section 15065(a) requires the lead agency to make “mandatory findings of significance” if there is substantial evidence that a project may:

- 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, or substantially reduce the number or restrict the range of an endangered, rare or threatened species.
- Achieve short-term environmental goals to the detriment of long-term environmental goals.



- Produce environmental effects that are individually limited but cumulatively considerable, meaning that the incremental effects of the project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects.

4.2 POTENTIALLY SIGNIFICANT PROJECT IMPACTS

4.2.1 Construction-Related Injury/Mortality of the Western Pond Turtle

Potential Impacts. As discussed, the western pond turtle (*Actinemys marmorata*) has some potential to occur in the project site's WWTP work area, particularly when the ponds in that area are inundated. At the time of the survey, all ponds within the project site boundaries were drained, but ponds immediately adjacent to the project site were inundated and could serve as “source” habitat for turtles moving onto the site. If the ponds within the project boundaries were to be inundated near the time of construction, they would need to be dewatered before work in the ponds could begin, and it is assumed that any pond turtles occupying these ponds would simply move to another inundated pond on site. However, there is some potential for pond turtles to be injured or killed by construction activities while traveling overland between ponds, or while basking in upland habitats. Construction-related mortality of western pond turtles is a potentially significant impact of the project under CEQA and NEPA.

Mitigation. The following measures will be implemented to avoid construction-related mortality of the western pond turtle.

Mitigation Measure 4.2.1a (Environmental Awareness Training). Prior to the start of construction, construction personnel will be trained on the identification, behavior, and ecology of the western pond turtle, and the project-specific measures adopted for its protection. Attendees will be given a handout that summarizes the training material and provides a photographic key to differentiating between the western pond turtle and the common non-native red-eared slider. Attendance at all training sessions will be documented on sign-in sheets.

Mitigation Measure 4.2.1b (Minimization). If any western pond turtles are found within construction zones, work shall stop in the area around the turtle until it leaves the construction zone on its own volition.



Implementation of the above measures will reduce potential project impacts to the western pond turtle to a less than significant level under CEQA and NEPA.

4.2.2 Constructed-Related Mortality/Disturbance of Nesting Swainson's Hawks

Potential Impacts. The Swainson's hawk, a California Threatened species, has some potential to forage within the project site. Nesting is not expected on site because the few structurally suitable trees of the sewer main work areas are in municipal Huron, and Swainson's hawks are not known to nest in urban areas outside of a few established populations in the northern Central Valley (Estep 1995). However, Swainson's hawks could potentially nest close enough to the project site's WWTP work area or to outlying sewer main work areas that they would be at risk of construction-related disturbance leading to nest abandonment or reduced nesting success. Project activities that injure, kill, or reduce the nesting success of Swainson's hawks would violate state and federal laws and be considered a significant impact under CEQA and NEPA.

Swainson's hawks would not be vulnerable to construction-related injury or mortality while foraging because they are highly mobile during this activity and are expected to avoid active work areas. The project is not expected to significantly impact this species through loss of foraging habitat. Foraging habitat on the project site is marginal at best for this species given its disturbed nature and largely urban setting, and any loss of potential foraging habitat would be extremely small-scale. Considerable habitat of similar or higher quality for this species will remain available in the project vicinity following project development.

Mitigation. The applicant will implement the following measures to avoid and minimize the potential for construction-related mortality and disturbance of nesting Swainson's hawks.

Mitigation Measure 4.2.2a (Construction Timing). If feasible, project construction will occur entirely outside the Swainson's hawk nesting season, typically defined as March 1 - September 15.

Mitigation Measure 4.2.2b (Preconstruction Surveys). If construction activities must occur between March 1 and September 15, then within 10 days prior to the start of any work within this period, a qualified biologist will conduct preconstruction surveys for Swainson's hawk nests within ¼ mile of the project site.



Mitigation Measure 4.2.2c (Avoidance of Active Nests). Should any active nests be discovered within the survey area, an appropriate disturbance-free buffer will be established based on local conditions and agency guidelines. Disturbance free buffers will be identified on the ground with flagging, fencing, or by other easily visible means and will be maintained until a qualified biologist has determined that the young have fledged and are capable of foraging independently.

Implementation of these measures will reduce project-related impacts to the Swainson's hawk to a less than significant level under CEQA and NEPA and facilitate compliance with state and federal laws protecting this species.

4.2.3 Construction-Related Mortality/Disturbance of Other Nesting Birds

Potential Impacts. The project site has the potential to be used for nesting by a variety of nesting migratory birds protected by state and federal law. If project construction takes place during the nesting season, birds nesting on the site could be injured or killed by construction activities, while birds nesting on or adjacent to the site could be disturbed such that they would abandon their nests. Construction-related mortality of nesting birds and disturbance leading to nest abandonment would violate state and federal laws and be considered a significant impact of the project under CEQA and NEPA.

Mitigation. To avoid and minimize the potential for construction-related mortality/disturbance of nesting birds, the following measures will be implemented:

Measure 4.2.3a (Construction Timing). If feasible, the project will be implemented outside of the avian nesting season, typically defined as February 1 to August 31.

Measure 4.2.3b (Preconstruction Surveys). If construction is to occur between February 1 and August 31, a qualified biologist will conduct pre-construction surveys for active bird nests within 10 days prior to the start of any work within this period. The survey area associated with sewer main rehabilitation and replacement will encompass the work area and surrounding lands within 250 feet. The survey area associated with proposed WWTP improvements will encompass the work area and surrounding lands within 250 feet for nesting migratory birds and 500 feet for raptors (i.e. birds of prey).

Measure 4.2.3c (Avoidance of Active Nests). Should any active nests be discovered in or near proposed construction zones, the biologist will identify a suitable construction-free buffer around the nest. The buffer distance will be determined based on species biology, site-specific conditions, and the level of project-related disturbance that is anticipated near the nest(s) in question. Buffers will be identified on the ground with flagging or



fencing and will be maintained until the biologist has determined that the young have fledged and are capable of foraging independently.

Implementation of the above measures will reduce project impacts to nesting birds to a less than significant level under CEQA and NEPA and facilitate compliance with state and federal laws.

4.3 LESS THAN SIGNIFICANT PROJECT IMPACTS

4.3.1 Project Impacts to Special Status Plant Species

Potential Impacts. Six (6) special status plant species have been documented in the regional vicinity of the project site (see Table 2). All are considered absent from the project site due to the absence of suitable habitat and/or the site's location outside the species range. The project is not expected to affect individuals or regional populations of these six species because they have no appreciable potential to occur on site.

Mitigation. Mitigation measures are not warranted.

4.3.2 Project Impacts to Special Status Animal Species that Would Use the Site for Non-sensitive Activities Only

Potential Impacts. Of the six special status animal species potentially occurring on site, four are not expected to use the site for sensitive activities such as breeding, nesting, or communal roosting; nor are they likely to breed, nest, or communally roost close enough to the site that they would be vulnerable to construction-related disturbance during these activities (see Table 2). These species are the monarch butterfly (*Danaus plexippus*), loggerhead shrike (*Lanius ludovicianus*), tricolored blackbird (*Agelaius tricolor*), and western mastiff bat (*Eumops perotis californicus*). The few sewer main work areas located outside of roadways contain trees within which monarch adults could potentially rest during seasonal migration, and may also offer some nectar resources for foraging. Monarch resting and foraging in such areas is expected to be infrequent and ephemeral if it occurs at all. Moreover, monarch adults are volant and would presumably depart the work area if disturbed, such that they would not be at risk of construction-related injury or mortality. No trees will be removed, further decreasing the likelihood of direct impacts to this species. Similarly, loggerhead shrikes, tricolored blackbirds, and western mastiff



bats all have the potential to forage on site from time to time but are highly mobile during this activity and would be expected to simply avoid active work areas.

The project would not adversely affect any of these species through loss of habitat. The site does not offer unique habitat for any of these species, nor is it likely to represent an important part of any individual home range, given its disturbed nature and urban setting. Similar and higher quality habitats are regionally abundant. For these reasons, impacts to the monarch butterfly, loggerhead shrike, tricolored blackbird, and western mastiff bat are considered less than significant under CEQA and NEPA.

Mitigation. Mitigation is not warranted.

4.3.3 Project Impacts to Special Status Animal Species Absent from, or Unlikely to Occur within, the Project Site

Potential Impacts. Of the 26 special status animal species that potentially occur in the general vicinity of the site, 20 are considered absent or unlikely to occur within the project site due to the absence of suitable habitat, and/or the project site's being situated outside of the species' known distribution (see Table 2). These are the vernal pool fairy shrimp (*Branchinecta lynchi*), Crotch bumble bee (*Bombus crotchii*), western spadefoot (*Spea hammondi*), Temblor legless lizard (*Anniella alexanderae*), blunt-nosed leopard lizard (*Gambelia sila*), California glossy snake (*Arizona elegans occidentalis*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), long-eared owl (*Asio otus*), California condor (*Gymnogyps californianus*), yellow-headed blackbird (*Xanthocephalus xanthocephalus*), Buena Vista Lake ornate shrew (*Sorex ornatus relictus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), giant kangaroo rat (*Dipodomys ingens*), short nosed kangaroo rat (*Dipodomys nitratoides brevinsus*), Fresno kangaroo rat (*Dipodomys nitratoides exilis*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), Nelson's (=San Joaquin) antelope squirrel (*Ammospermophilus nelsoni*), San Joaquin kit fox (*Vulpes macrotis mutica*), burrowing owl (*Athene cucularia*) and American badger (*Taxidea taxus*). The project is not expected to affect these species through construction mortality/disturbance or loss of habitat because there is little or no likelihood that they utilize the site.



Mitigation. Mitigation is not warranted.

4.3.4 Project Impacts to Riparian Habitat and Sensitive Natural Communities

Potential Impacts. The project does not contain riparian habitat or any sensitive natural communities. There will be no impact to such resources.

Mitigation. Mitigation measures are not warranted.

4.3.5 Potential Project Impacts to Waters of the State and U.S.

Potential Impacts. The project site's wastewater treatment ponds may be regulated by the RWQCB but do not meet the definition of a Water of the U.S. Although the treatment ponds will be impacted to some extent through the addition of liners and other improvements, the project is not expected to substantially alter the ecological function and value of these manmade features, and project impacts to Waters of the State are therefore considered less than significant under CEQA and NEPA. The project will have no impact on Waters of the U.S.

Mitigation. Mitigation is not warranted.

4.3.6 Project Impacts to Wildlife Movement Corridors

Potential Impacts. The project site does not contain or adjoin any geographic features that could function as a wildlife movement corridor. Therefore, the project will have no impact on wildlife movement corridors.

Mitigation. Mitigation is not warranted.

4.3.7 Project Impacts to Designated Critical Habitat

Potential Impacts. The project will have no effect on designated critical habitat because critical habitat is absent from the project site and adjacent lands.

Mitigation. Mitigation is not warranted.



4.3.8 Local Policies or Habitat Conservation Plans

Potential Impacts. It is assumed that the project will be implemented in a manner consistent with City of Huron General Plan policies related to biological resources. No habitat conservation plans are known to pertain to the area containing the project site.

Mitigation. No mitigation is required.

4.4 SECTION 7 DETERMINATIONS FOR FEDERALLY LISTED SPECIES

Table 3 below presents LOA’s preliminary FESA Section 7 effect determinations for federally listed and proposed species found on the USFWS IPaC list and CNDDB list generated for the project, based on currently available information and a level of analysis appropriate for a CEQA Mitigated Negative Declaration and/or NEPA Environmental Assessment. Candidate species are not included in Table 3 because they do not require Section 7 consultation.

Table 3: Section 7 Effect Determinations for Federally Listed Species

Species	ESA Status	Determination	Rationale for the Determination
California Jewelflower (<i>Caulanthus californicus</i>)	Endangered	No effect	Species is absent (no suitable habitat)
Kern Mallow (<i>Erenolche parryi</i> spp. <i>kernensis</i>)	Endangered	No effect	Species is absent (no suitable habitat)
San Joaquin Woollythreads (<i>Monolopia congdonii</i>)	Endangered	No effect	Species is absent (no suitable habitat)
Vernal Pool Fairy Shrimp (<i>Branchinecta lynchi</i>)	Threatened	No effect	Species is absent (no suitable habitat)
Western Pond Turtle (<i>Actinemys marmorata</i>)	Proposed Threatened	No jeopardy	This species has some potential to occur in the project site’s WWTP work area; conservation measures will be implemented to avoid take.
Western Spadefoot (<i>Speot hammondi</i>)	Proposed Threatened	No jeopardy	No appreciable potential to occur on site (landscape-level factors, no suitable habitat)
Blunt-nosed Leopard Lizard (<i>Gambelia sila</i>)	Endangered	No effect	Species is absent (no suitable habitat)
California Condor (<i>Gymnogyps californianus</i>)	Endangered	No effect	Species is absent (no suitable habitat)



Table 3 (cont'd)

Species	ESA Status	Determination	Rationale for the Determination
Buena Vista Lake Ornate Shrew (<i>Sorex ornatus relictus</i>)	Endangered	<i>No effect</i>	Species is absent (no suitable habitat)
Giant Kangaroo Rat (<i>Dipodomys ingens</i>)	Endangered	<i>No effect</i>	Species is absent (no suitable habitat)
Tipton kangaroo rat (<i>Dipodomys nitratoides nitratoides</i>)	Endangered	<i>No effect</i>	Species is absent (no suitable habitat and site located outside of species' distribution)
Fresno Kangaroo Rat (<i>Dipodomys nitratoides exilis</i>)	Endangered	<i>No effect</i>	Species is absent (no suitable habitat and no known populations remaining in Fresno County)
San Joaquin Kit Fox (SJKE) (<i>Vulpes macrotis mutica</i>)	Endangered	<i>No effect</i>	No appreciable potential for species to occur on site (landscape-level factors, marginal to unsuitable habitat, no known occurrences in vicinity for 25+ years)



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APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE



APPENDIX A: VASCULAR PLANTS OF THE PROJECT SITE

The plant species listed below were observed on the project site during surveys conducted by Live Oak Associates, Inc. on February 15, 2024. The U.S. Fish and Wildlife Service Arid West wetland indicator status of each plant has been shown following its common name.

	OBL - Obligate
	FACW - Facultative Wetland
	FAC - Facultative
	FACU - Facultative Upland
	UPL - Upland
	NR - No review
	NA - No agreement
	NI - No investigation
AMARANTHACEAE – Amaranth Family	
<i>Amaranthus retroflexus</i>	Redroot Amaranth
ANACARDIACEAE – Sumac Family	
<i>Pistacia vera</i>	Pistachio
APOCYNACEAE – Dogbane Family	
<i>Nerium oleander</i>	Oleander
ARECACEAE – Palm Family	
<i>Washingtonia filifera</i>	California Fan Palm
<i>Washingtonia robusta</i>	Mexican Fan Palm
ASTERACEAE – Sunflower Family	
<i>Erigeron bonariensis</i>	Flax-leaved Horseweed
<i>Helianthus annuus</i>	Sunflower
<i>Lactuca serriola</i>	Prickly Lettuce
<i>Senecio vulgaris</i>	Common Groundsel
<i>Sonchus oleraceus</i>	Sowthistle
<i>Taraxacum officinale</i>	Common Dandelion
BRASSICACEAE – Mustard Family	
<i>Brassica nigra</i>	Black Mustard
CACTACEAE – Cactus Family	
<i>Opuntia spp.</i>	Prickly Pear
CHENOPODIACEAE – Cypress Family	
<i>Salsola tragus</i>	Russian Thistle
EUPHORBIACEAE – Spurge Family	
<i>Ricinus communis</i>	Castor Bean
FABACEAE – Bean Family	
<i>Cercis occidentalis</i>	California Redbud
<i>Medicago polymorpha</i>	Bur Clover
<i>Trifolium repens</i>	White Clover
FAGACEAE – Oak Family	
<i>Quercus ilex</i>	Holm Oak
<i>Quercus lobata</i>	Valley Oak



<i>Quercus wislizeni</i>	Interior Live Oak	UPL
GERANIACEAE – Geranium Family		
<i>Erodium cicutarium</i>	Redstem Filaree	UPL
MALVACEAE – Mallow Family		
<i>Malva parviflora</i>	Cheeseweed	UPL
ONAGRACEAE – Willowherb Family		
<i>Epilobium brachycarpum</i>	Panicle Willowherb	FAC
OXALIDACEAE – Wood Sorrel Family		
<i>Oxalis</i> sp.	Non-native Wood Sorrel	FACU
PINACEAE – Pine Family		
<i>Cedrus deodara</i>	Deodar Cedar	UPL
<i>Pinus sabiniana</i>	Foothill Pine	UPL
<i>Pinus</i> spp.	Pine	UPL
PLANTAGINACEAE – Plantain Family		
<i>Plantago lanceolata</i>	Ribwort Plantain	FAC
POACEAE – Grass Family		
<i>Cynodon dactylon</i>	Bermuda Grass	FAC
<i>Digitaria sanguinalis</i>	Large Crabgrass	FACU
<i>Echinochloa crus-galli</i>	Barnyard Grass	FACW
<i>Hordeum jubatum</i>	Foxtail Barley	FAC
<i>Poa annua</i>	Lawn Grass	FAC
<i>Sorghum halapense</i>	Johnson Grass	FACU
ROSACEAE – Rose Family		
<i>Prunus</i> sp.	Stone Fruit	UPL
<i>Rhaphiolepis indica</i>	Indian Hawthorn	UPL
RUTACEAE – Citrus Family		
<i>Citrus x sinensis</i>	Orange	UPL
TAMARICACEAE – Tamarisk Family		
<i>Tamarix aphylla</i>	Tamarisk Aphylla	UPL



APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE



APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES THAT POTENTIALLY OCCUR ON THE PROJECT SITE

The species listed below are those that may be expected to routinely and predictably use or pass through the project site during some or all of the year. The list was not intended to include birds that are vagrants or occasional transients. Terrestrial vertebrate species observed on or adjacent to the project site during surveys conducted by Live Oak Associates, Inc. on February 15, 2024 have been noted with an asterisk.

CLASS: AMPHIBIA (Amphibians)

ORDER: SALIENTIA (Frogs and Toads)

FAMILY: BUFONIDAE (True Toads)

Western Toad (*Bufo boreas*)

FAMILY: HYLIDAE (Treefrogs and relatives)

Sierran Treefrog (*Pseudacris sierra*)

FAMILY: RANIDAE (True Frogs)

Bullfrog (*Lithobates catesbeianus*)

CLASS: REPTILIA (Reptiles)

ORDER: SQUAMATA (Lizards and Snakes)

SUBORDER: SAURIA (Lizards)

FAMILY: PHRYNOSOMATIDAE

Western Fence Lizard (*Sceloporus occidentalis*)

Side-blotched Lizard (*Uta stansburiana*)

SUBORDER: SERPENTES (Snakes)

FAMILY: COLUBRIDAE (Colubrids)

Pacific Gopher Snake (*Pituophis catenifer catenifer*)

Common Kingsnake (*Lampropeltis getulus*)

Common Garter Snake (*Thamnophis sirtalis*)

FAMILY: VIPERIDAE (Vipers)

Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES

ORDER: ANSERIFORMES (Ducks, Geese, and Swans)

FAMILY: ANATIDAE (Ducks, Geese, and Swans)

*Mallard (*Anas platyrhynchos*)

Cinnamon Teal (*Anas cyanoptera*)

Gadwall (*Anas strepera*)

Northern Shoveler (*Anas clypeata*)

*Bufflehead (*Bucephala albeola*)

Ruddy Duck (*Oxyura jamaicensis*)

Lesser Scaup (*Aythya affinis*)

Ring-necked Duck (*Aythya collaris*)

ORDER: CICONIIFORMES (Hérons, Storks, Ibises and Relatives)



FAMIL Y: CATHARTIDAE (New World Vultures)

Turkey Vulture (*Cathartes aura*)

ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)

FAMIL Y: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)

Cooper's Hawk (*Accipiter cooperi*)

*Red-tailed Hawk (*Buteo jamaicensis*)

Red-shouldered Hawk (*Buteo lineatus*)

Swainson's Hawk (*Buteo swainsoni*)

FAMIL Y: FALCONIDAE (Caracaras and Falcons)

*Merlin (*Falco columbarius*)

American Kestrel (*Falco sparverius*)

ORDER: GALLIFORMES (Megapodes, Curassows, Pheasants, and Relatives)

FAMIL Y: ODONTOPHORIDAE (New World Quails)

California Quail (*Callipepla californica*)

FAMIL Y: PHASIANIDAE (Pheasants, Chickens, Turkeys and Allies)

Domestic Chicken (*Gallus gallus domesticus*)

ORDER: GRUIFORMES (Cranes and Rails)

FAMIL Y: RALLIDAE (Rails, Gallinules, and Coots)

*American Coot (*Fulica americana*)

ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)

FAMIL Y: CHARADRIIDAE (Plovers and relatives)

*Killdeer (*Charadrius vociferus*)

FAMIL Y: RECURVIROSTRIDAE (Stilts and Avocets)

*Black-necked Stilt (*Himantopus mexicanus*)

American Avocet (*Recurvirostra americana*)

FAMIL Y: SCOLOPACIDAE (Sandpipers and Allies)

Wilson's Snipe (*Gallinago delicata*)

*Greater Yellowlegs (*Tringa melanoleuca*)

ORDER: COLUMBIFORMES (Pigeons and Doves)

FAMIL Y: COLUMBIDAE (Pigeons and Doves)

*Rock Pigeon (*Columba livia*)

*Mourning Dove (*Zenaida macroura*)

*Eurasian Collared Dove (*Streptopelia decaocto*)

ORDER: STRIGIFORMES (Owls)

FAMIL Y: TYTONIDAE (Barn Owls)

Barn Owl (*Tyto alba*)

ORDER: APODIFORMES (Swifts and Hummingbirds)

FAMIL Y: TROCHILIDAE (Hummingbirds)

Black-chinned Hummingbird (*Archilochus alexandri*)

Anna's Hummingbird (*Calypte anna*)

ORDER: PASSERIFORMES (Perching Birds)

FAMIL Y: TYRANNIDAE (Tyrant Flycatchers)

Black Phoebe (*Sayornis nigricans*)

Say's Phoebe (*Sayornis saya*)

*Western Kingbird (*Tyrannus verticalis*)

FAMIL Y: CORVIDAE (Jays, Magpies, and Crows)



California Scrub Jay (*Aphelocoma coerulescens*)

*American Crow (*Corvus brachyrhynchos*)
Common Raven (*Corvus corax*)

FAMILY: ALAUDIDAE (Larks)
Horned Lark (*Eremophila alpestris*)

FAMILY: HIRUNDINIDAE (Swallows)
Cliff Swallow (*Petrochelidon pyrrhonota*)
Barn Swallow (*Hirundo rustica*)

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)

FAMILY: AEGITHALIDAE (Bushitts)
Bushitt (*Psaltiriparus minimus*)

FAMILY: TURDIDAE (Thrushes)
Western Bluebird (*Sialia mexicana*)

*American Robin (*Turdus migratorius*)
FAMILY: MIMIDAE (Mockingbirds and Thrashers)
Northern Mockingbird (*Mimus polyglottos*)

FAMILY: PARULIDAE (Wood Warblers and Relatives)
*Yellow-rumped Warbler (*Dendroica coronata*)

FAMILY: STURNIDAE (Starlings and Allies)
European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)
American Pipit (*Anthus rubescens*)

FAMILY: EMBERIZIDAE (Sparrows)
Savannah Sparrow (*Passerculus sandwichensis*)

*White-crowned Sparrow (*Zonotrichia leucophrys*)
Golden-crowned Sparrow (*Zonotrichia atricapilla*)
California Towhee (*Pipilo crissalis*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)
*Western Meadowlark (*Sturnella neglecta*)

*Red-winged Blackbird (*Agelaius phoeniceus*)
Great-tailed Grackle (*Quiscalus mexicanus*)

*Brewer's Blackbird (*Euphagus cyanocephalus*)
Brown-headed Cowbird (*Molothrus ater*)
Bullock's Oriole (*Icterus bullockii*)

FAMILY: FRINGILLIDAE (Finches)
*House Finch (*Haemorhous mexicanus*)
Lesser Goldfinch (*Carduelis psaltria*)

FAMILY: PASSERIDAE (Old World Sparrows)
*House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA

ORDER: DIDELPHIMORPHIA (Marsupials)

FAMILY: DIDELPHIDAE (Opossums)
Virginia Opossum (*Didelphis virginiana*)

ORDER: INSECTIVORA (Shrews and Moles)

FAMILY: TALPIDAE (Moles)



Broad-footed Mole (*Scapanus latimanus*)

ORDER: CHIROPTERA (Bats)

FAMIL Y: VESPERTILIONIDAE (Vesperilionid Bats)

Pale Big-eared Bat (*Corynorhinus townsendii pallescens*)

Big Brown Bat (*Eptesicus fuscus*)

Yuma Myotis (*Myotis yumanensis*)

California Myotis (*Myotis californicus*)

Western Pipistrelle (*Pipistrellus hesperus*)

FAMIL Y: MOLOSSIDAE (Free-tailed Bat)

Western Mastiff Bat (*Eumops perotis californicus*)

Brazilian Free-tailed Bat (*Tadarida brasiliensis*)

ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)

FAMIL Y: LEPORIDAE (Rabbits and Hares)

Audubon's Cottontail (*Sylvilagus audubonii*)

Black-tailed Jackrabbit (*Lepus californicus*)

ORDER: RODENTIA (Rodents)

FAMIL Y: SCIURIDAE (Squirrels, Chipmunks, and Marmots)

California Ground Squirrel (*Otospermophilus beecheyi*)

FAMIL Y: GEOMYIDAE (Pocket Gophers)

Botta's Pocket Gopher (*Thomomys bottae*)

FAMIL Y: MURIDAE (Mice, Rats and Voles)

Western Harvest Mouse (*Reithrodontomys megalotis*)

Deer Mouse (*Peromyscus maniculatus*)

*Norway Rat (*Rattus norvegicus*)

House Mouse (*Mus musculus*)

California Vole (*Microtus californicus*)

FAMIL Y: HETEROMYIDAE (Kangaroo Rats)

Heermann's Kangaroo Rat (*Dipodomys heermanni*)

ORDER: CARNIVORA (Carnivores)

FAMIL Y: CANIDAE (Foxes, Wolves, and Relatives)

Red Fox (*Vulpes vulpes*)

Coyote (*Canis latrans*)

*Domestic Dog (*Canis familiaris*)

FAMIL Y: PROCYONIDAE (Raccoons and Relatives)

Raccoon (*Procyon lotor*)

FAMIL Y: MUSTELIDAE (Weasels and Relatives)

Striped Skunk (*Mephitis mephitis*)

FAMIL Y: FELIDAE (Cats)

*Feral Cat (*Felis catus*)



APPENDIX C: SELECTED SITE PHOTOGRAPHS



Photo 1: Representative photo of a paved street within one of the sewer main work areas. Trees and a green space are immediately outside work area boundaries.



Photo 2: Another representative photo of a paved street within one of the sewer main work areas.



Photo 3: Example of a barren dirt road within one of the sewer main work areas. Trees are outside the boundaries of the work area.



Photo 4: Second example of a dirt road with some disturbance tolerant vegetation.



Photo 5: Representative photo of unmaintained green space within one of the few sewer main work areas located outside of roadways.



Photo 6: Maintained green space within one of the few sewer main work areas located outside of roadways. Location of monarch butterfly sighting.



Photo 7: Representative photo of the project site's WWTP work area and adjacent land use. Work area is to the left of the full treatment pond.



Photo 8: Dry wastewater treatment pond with some established vegetation.



**APPENDIX D: USFWS INFORMATION FOR PLANNING AND CONSULTATION
OFFICIAL SPECIES LIST**



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sacramento Fish And Wildlife Office

Federal Building

2800 Cottage Way, Room W-2605

Sacramento, CA 95825-1846

Phone: (916) 414-6600 Fax: (916) 414-6713



In Reply Refer To:

January 30, 2024

Project Code: 2024-0042935

Project Name: Huron Pipes 2848

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Sacramento Fish And Wildlife Office

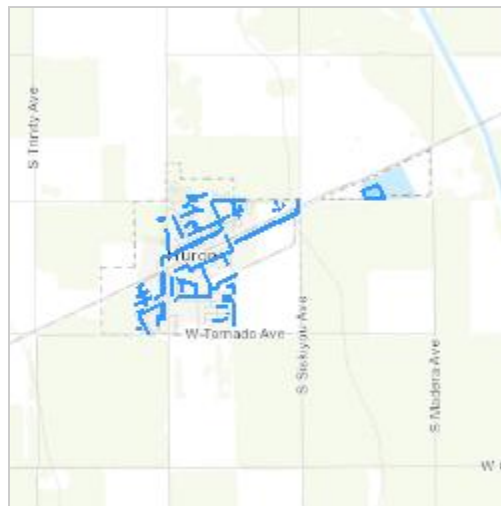
Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846
(916) 414-6600

PROJECT SUMMARY

Project Code: 2024-0042935
Project Name: Huron Pipes 2848
Project Type: Wastewater Pipeline - Maintenance / Modification - Below Ground
Project Description: Rehabbing and replacing of pipes in Huron and improvements to wastewater treatment plant.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@36.19742565,-120.09640095,14z>



Counties: Fresno County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 12 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

NAME	STATUS
Buena Vista Lake Ornate Shrew <i>Sorex ornatus relictus</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1610	Endangered
Giant Kangaroo Rat <i>Dipodomys ingens</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat <i>Dipodomys nitratoide nitratoide</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7247	Endangered

BIRDS

NAME	STATUS
California Condor <i>Gymnogyps californianus</i> Population: U.S.A. only, except where listed as an experimental population There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8193	Endangered

REPTILES

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/625	Endangered
Northwestern Pond Turtle <i>Actinemys marmorata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/1111	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Western Spadefoot <i>Spea hammondi</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5425	Proposed Threatened

INSECTS

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743	Candidate

CRUSTACEANS

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
California Jewelflower <i>Caulanthus californicus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4599	Endangered
San Joaquin Woolly-threads <i>Monolopia (=Lembertia) congdonii</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3746	Endangered

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

IPAC USER CONTACT INFORMATION

Agency: Madera city
Name: Natalie Neff
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LEAD AGENCY CONTACT INFORMATION

Lead Agency: Huron city

Appendix C

Cultural Resources Report

Draft

**CLASS III INVENTORY/PHASE I SURVEY,
CITY OF HURON WASTEWATER IMPROVEMENT
PROJECT FRESNO COUNTY, CALIFORNIA**

Prepared for:

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September 2024
PN 36790.18

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MANAGEMENT SUMMARY

This report documents the results of an intensive Class III inventory/Phase I survey for the Huron Wastewater Improvement Project (Project), Fresno County, California. The Project is within the city of Huron, approximately 18.5 miles (mi.) southwest of the city of Lemoore. This places the Project on the open flats of the San Joaquin Valley. Specifically, the Project is within Sections 2, 10, 11, and 12, Township 20 South, Range 17 East (T20S/R17E), Mount Diablo Base and Meridian (MDBM), as illustrated on the Huron USGS 7.5-minute topographic quadrangle. The proposed Project site consists of a park, a modern water treatment facility, and unpaved and paved roads throughout the city of Huron. Elevations within the Project area, which is mostly flat, range from 320 feet (ft.) above mean sea level (amsl) to 370 ft. amsl. The Area of Potential Effect (APE) for the Project was defined as the area of potential ground surface disturbance. The horizontal APE for the Project totals approximately 154.9 acres (ac.) and contains all construction areas, staging and laydown areas, and access roads. The vertical APE, defined as the maximum depth of excavation of the Project, is not expected to exceed 10 ft. below ground surface.

ASM Affiliates (ASM) conducted this study, with Director Peter A. Carey, MA, RPA, serving as principal investigator. Senior Archaeologist Dustin Merrick, MA, RPA, was a contributing author of this report. The study was undertaken to assist with compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the California Environmental Quality Act (CEQA).

To determine whether the Project APE had been previously surveyed for cultural resources, and/or whether any such resources were known to exist within or near to it, staff at the Southern San Joaquin Valley Information Center (SSJVIC) conducted an archival records search on March 4, 2024. The SSJVIC results identified a single previously recorded cultural resource (P-10-003930) within the APE. According to the SSJVIC, 10 previous studies (FR-00135, FR-00253, FR-00418, FR-00433, FR-01794, FR-01795, FR-01796, FR-02052, FR-02779, and FR-02847) have been conducted within the Project APE, and five previous studies (FR-00549, FR-00627, FR-02027, FR-02133, and FR-02672) were identified within the 0.5 mi. buffer. Based on SSJVIC data, approximately 30 percent of the Project APE has been previously surveyed. Dates for previous studies range from 1995 to 2016 with the majority of studies being greater than 20 years old.

Geoarchaeological review of the project APE indicates that the APE is unlikely to contain buried deposits. Historic aerial and topographic map review shows the Project APE has been heavily disturbed by agricultural activities and industrial development as far back as 1955.

As part of the CEQA process, a search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed on February 28, 2024. Based on the NAHC records, the APE is negative for sacred sites or traditional cultural places. Outreach letters were sent on March 6, 2024, to tribal organizations on the NAHC contact list. Follow-up emails were sent on April 16, 2024. No responses were received as a result of this outreach.

The Class III inventory/Phase I survey of the Project APE was conducted on March 15, 2024. Parallel survey transects spaced at maximum intervals of 15 meters (m.) apart were employed for

pedestrian survey of the 154.9 ac. Project APE. The proposed Project APE consists of improvements to a water treatment facility, constructed in the 1980s, and its associated pipelines. The Project APE outside of the water treatment facility consists largely of paved roads. As such, the vast majority of the APE has been hardscaped over. Approximately 1,700 ft. of the APE, along both O Street and 16th Street, is undeveloped. Visibility within undeveloped areas was good (approximately 75 percent). Within the water treatment facility, the majority of the APE was developed. The ground visibility within the water treatment facility was excellent (approximately 90 percent) outside of developed areas. Diffuse modern refuse was observed throughout the APE. Non-native vegetation inhibited visibility in undeveloped areas. A single previously recorded cultural resource (P-10-003930) was observed within the Project APE and is described below. The Project proposes trenchless drilling under P-10-003930. As such, the resource will not be affected by the current Project. No other cultural resources were observed within the Project APE.

Based on the above analyses and findings, the proposed City of Huron Wastewater Improvement Project will not result in adverse impacts or effects to historic properties or historical resources, and a determination of ***no adverse effect*** under Section 106 and ***no significant impact*** under CEQA is recommended. It is further recommended that, in the unlikely event that previously unrecorded cultural resources are identified during Project construction, work be halted within a 100 ft. radius of the find and a qualified archaeologist be contacted to evaluate the newly discovered resource.

1. INTRODUCTION AND REGULATORY CONTEXT

ASM Affiliates (ASM) was retained by Crawford & Bowen Planning, Inc. to conduct an intensive Class III inventory/Phase I survey for the City of Huron Wastewater Improvement Project (Project) Fresno County, California (Figure 1). The study was undertaken to assist with compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and the California Environmental Quality Act (CEQA). The investigation was conducted, specifically, to ensure that significant impacts or adverse effects to historic properties or historical resources do not occur as a result of Project construction.

This current study included:

- A background records search and literature review to determine if any known cultural resources were present in the project zone and/or whether the area had been previously and systematically studied by archaeologists;
- An on-foot, intensive inventory of the Project site to identify and record previously undiscovered cultural resources and to examine known sites; and
- A preliminary assessment of any such resources found within the subject property.

Director Peter A. Carey, MA, RPA, served as principal investigator. Senior Archaeologist Dustin Merrick, MA, RPA, was a contributing author of this report. Associate Archaeologist Robert Azpitarte, BA, and Assistant Archaeologist Margarita Medina Lemus, BA, conducted the fieldwork.

This document constitutes a report on the Class III inventory/Phase I survey. Subsequent chapters provide background to the investigation, including historic context studies; the findings of the archival records search; a summary of the field surveying techniques employed and the results of the fieldwork. We conclude with management recommendations for the Project.

1.1 PROJECT LOCATION

The Project is within the city of Huron in Fresno County, approximately 18.5 miles (mi.) southwest of the city of Lemoore. This places the Project on the open flats of the San Joaquin Valley. Specifically, the Project is within Sections 2, 10, 11, and 12, Township 20 South, Range 17 East (T20S/R17E), Mount Diablo Base and Meridian (MDBM), as illustrated on the Huron USGS 7.5-minute topographic quadrangle. The proposed Project site consists of a park, a modern water treatment facility, and unpaved and paved roads throughout the city of Huron. Elevations within the Project area, which is mostly flat, range from 320 feet (ft.) above mean sea level (amsl) to 370 ft. amsl.

1.2 PROJECT DESCRIPTION AND AREA OF POTENTIAL EFFECTS

1.2.1 Project Background and Purpose

The purpose of this proposed sanitary sewer collection system and wastewater treatment plant (WWTP) improvements project is to replace or rehabilitate deteriorated gravity sewer mains throughout the City of Huron (City) to prevent sewer system overflows (SSOs) and provide adequate sewer services to all customers within the City's service area. This section provides a more detailed description of the proposed project, which consists of rehabilitating approximately 13,501 linear feet (LF) of gravity sewer mains using trenchless construction methods, replacing approximately 9,237 LF of gravity sewer mains using conventional construction methods, and miscellaneous repairs to the City's Wastewater Treatment Plant (WWTP). The following sections describe the proposed improvements and upgrades to the existing sewer collection system and WWTP.

1.2.2 Proposed Improvements to Sewer Collection System

Based on the condition assessment conducted, the recommended improvements for the City's sewer collection system are summarized in the following paragraphs. Table 1 displays the proposed improvements to the sewer collection system.

Sewer Main Replacement

Inspection conducted on 56,160 LF of the City's sewer collection system revealed severe defects in portions of the collection system. Defects found in the sewer mains included root intrusion, fractured and broken pipe, cracked pipe, sags greater than 60 percent, defective and intruding laterals, joint displacements, and attached deposits (grease and concrete). The segments of the sewer collection system recommended for replacement have been selected based on sorted National Association of Sewer Service Companies ratings and the condition of the existing sewer mains. For this proposed project, it is recommended that approximately 9,140 LF of gravity sewer mains be replaced with new sewer pipes before failure occurs. Table 1 provides a summary of the sewer mains that will be replaced using the conventional construction method of dig and replace.

Table 1. Proposed Sewer Main Replacement

Parameter	Total Length (ft.)
6" PVC Pipe	1,747
8" PVC Pipe	5,948
10" PVC Pipe	57
12" PVC Pipe	1,347
15" PVC Pipe	138
Total	9,237

Sewer Main Rehabilitation

Trenchless sewer rehabilitation is recommended where applicable to reduce surface disturbance over traditional dig and replace methods, reduce the number of traffic and pedestrian detours, spare tree removal, decrease construction noise, and reduce air pollution from construction equipment. Table 2 provides a summary of the sewer mains that will be rehabilitated using the trenchless construction method known as cured-in-place (CIPP).

Table 2. Proposed Sewer Main Rehabilitation

Parameter	Total Length (ft.)
6" PVC Pipe	1,482
8" PVC Pipe	8,073
10" PVC Pipe	2,310
12" PVC Pipe	1,526
15" PVC Pipe	100
Total	13,501

1.2.3 Proposed Improvements to Wastewater Treatment Plant

In addition to the sewer collection system, other improvements are needed at the City's WWTP to improve treatment operations. Improving sludge drying processes in a WWTP can lead to more efficient and cost-effective sludge management.

- Upgrading existing drying beds by incorporating geomembrane or geotextile liners, improved drainage systems, and covers can enhance the drying efficiency. This helps in reducing the moisture content and accelerating the drying process.
- Replace and install new sludge feed pumps.

1.2.2 Area of Potential Effect

The Area of Potential Effect (APE) for the Project was defined as the area of potential ground surface disturbance. The horizontal APE for the Project totals approximately 154.9 ac. and contains all construction areas, staging and laydown areas, and access roads. The vertical APE, defined as the maximum depth of trenchless excavation of the Project, is not expected to exceed 10 ft. below ground surface.

1.3 REGULATORY CONTEXT

1.3.1 National Historic Preservation Act Section 106

NHPA Section 106 is applicable to federal undertakings, including projects financed or permitted by federal agencies regardless of whether the activities occur on federally managed or privately owned land. Its purpose is to determine whether adverse effects will occur to significant cultural resources, defined as "historical properties" that are listed in or determined eligible for listing in

the National Register of Historic Places (NRHP). The criteria for NRHP eligibility are defined at 36 CFR § 60.4 as follows:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and that:

- (A) are associated with events that have made a significant contribution to the broad patterns of our history; or
- (B) are associated with the lives of persons significant in our past; or
- (C) embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (D) have yielded or may be likely to yield, information important in prehistory or history.

There are, however, restrictions on the kinds of historical properties that can be NRHP listed. These have been identified by the Advisory Council on Historic Preservation (ACHP), as follows:

Ordinarily cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- (a) A religious property deriving primary significance from architectural or artistic distinction or historical importance; or
- (b) A building or structure removed from its original location, but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event; or
- (c) A birthplace or grave of a historical figure of outstanding importance if there is no appropriate site or building directly associated with his productive life.
- (d) A cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events; or
- (e) A reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived; or
- (f) A property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own exceptional significance; or

- (g) A property achieving significance within the past 50 years if it is of exceptional importance. (ACHP n.d.)

1.3.2 National Register Criteria for Evaluation

A district, site, building, structure, or object must generally be at least 50 years old to be eligible for consideration as a historic property. That district, site, building, structure, or object must retain integrity of location, design, setting, materials, workmanship, feelings, and association as well as meet one of the four criteria of eligibility defined above to demonstrate its historic associations in order to convey its significance. A property must be associated with one or more events important in history or prehistory to be considered for listing under Criterion A. Additionally, the specific association of the property itself must also be considered significant. Criterion B applies to properties associated with individuals whose specific contributions to history can be identified and documented. Properties significant for their physical design or construction under Criterion C must have features with characteristics that exemplify such elements as architecture, landscape architecture, engineering, and artwork. Criterion D most commonly applies to properties that have the potential to answer, in whole or in part, important research questions about human history that can be answered only by the actual physical materials of cultural resources. A property eligible under Criterion D must demonstrate the potential to contain information relevant to the prehistory and history (*National Register Bulletin 15*).

A district, site, building, structure, or object may also be eligible for consideration as a historic property if that property meets the criteria considerations for properties generally less than 50 years old, in addition to possessing integrity and meeting the criteria for evaluation.

Integrity

In addition to meeting one or several of the above Evaluation Criteria and Criteria Considerations, a property must retain integrity to be considered eligible for listing on the NRHP. According to the *National Register Bulletin 15* (1997:44), “Integrity is the ability of a property to convey its significance. To be listed in the National Register of Historic Places, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity.”

Seven aspects or qualities of cultural resources, in various combinations, define integrity. Significant cultural resources possess several, usually most, of these seven qualities. The seven qualities of integrity are location, design, setting, materials, workmanship, feeling, and/or association (ibid). Which aspects of integrity are pertinent to the significance-determination of a specific resource depends on the criterion under which it may be eligible. For example, location would not be an important quality of integrity for a historic ship.

Bulletin 15 then further specifies that:

Archeological sites eligible under Criteria A and B must be in overall good condition with excellent preservation of features, artifacts, and spatial relationships to the extent that these remains are able to convey important associations with events or persons...Archeological sites eligible under Criterion C ...[must have]

remains [that] are able to illustrate a site type, time period, method of construction, or work of a master...under Criterion D, integrity is based upon the property's potential to yield specific data that addresses important research questions (1997:46).

Note that, for archaeological sites, under Criterion D “only the *potential* to yield information is required,” whereas for Criteria A, B and C, “the site must have demonstrated its ability to convey its significance” (ibid:48; emphasis in original).

1.3.3 California Environmental Quality Act

CEQA is applicable to discretionary actions by state or local lead agencies. Under CEQA, lead agencies must analyze impacts to cultural resources. Significant impacts under CEQA occur when “historically significant” or “unique” cultural resources are adversely affected, which occurs when such resources could be altered or destroyed through project implementation. Historically significant cultural resources are defined by eligibility for or by listing in the California Register of Historical Resources (CRHR). In practice, the federal NRHP criteria (below) for significance applied under Section 106 are generally (although not entirely) consistent with CRHR criteria (see PRC § 5024.1, Title 14 CCR, Section 4852 and § 15064.5(a)(3)).

Significant cultural resources are those archaeological resources and historical properties that:

- (1) Are associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (2) Are associated with the lives of persons important in our past;
- (3) Embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possess high artistic values; or
- (4) Have yielded, or may be likely to yield, information important in prehistory or history.

Unique resources under CEQA, in slight contrast, are those that represent:

An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- (1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- (2) Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- (3) Is directly associated with a scientifically recognized important prehistoric or historic event or person (PRC § 21083.2(g)).

Preservation in place is the preferred approach under CEQA to mitigating adverse impacts to significant or unique cultural resources.

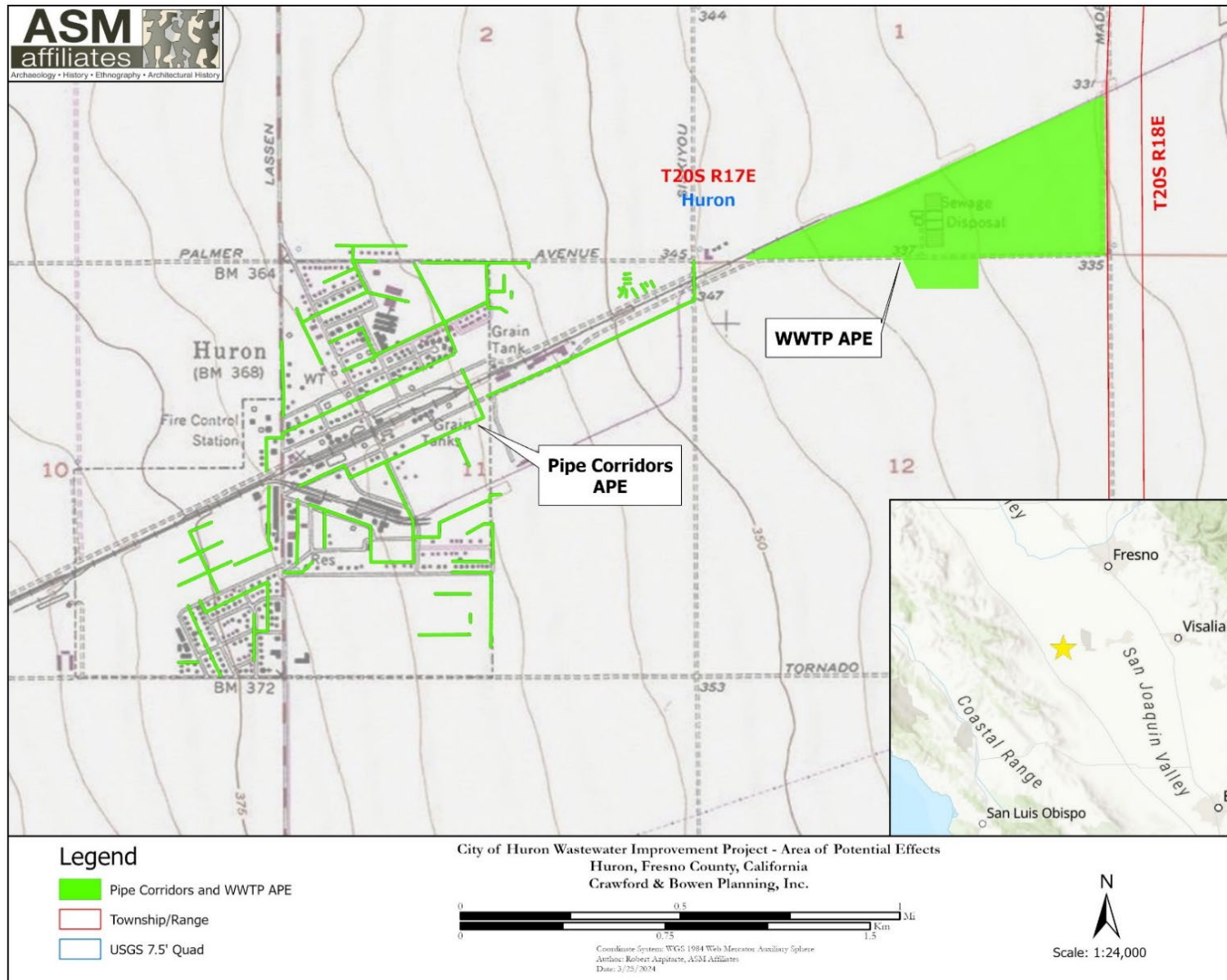


Figure 1. City of Huron Wastewater Improvement Project, Fresno County, California.

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2. ENVIRONMENTAL AND CULTURAL BACKGROUND

2.1 GEOARCHAEOLOGICAL SENSITIVITY AND ENVIRONMENTAL BACKGROUND

As noted above, the 154.9 ac. APE is within the city of Huron in Fresno County, approximately 18.5 mi. southwest of the city of Lemoore with elevations ranging from 320 ft. amsl to 370 ft. amsl. Prior to the appearance of agriculture, starting in the nineteenth century, this location would have been prairie grasslands with riparian woodlands near drainages and near Los Gatos Creek (Preston 1981; Schoenherr 1992). The APE and immediate surroundings have been farmed and grazed for many years and little to no native vegetation is present. Perennial bunchgrasses such as purple needlegrass and nodding needlegrass most likely would have been the dominant plant cover in the Project APE prior to cultivation.

The Project APE is within the southern extent of the San Joaquin Valley. A Caltrans geoarchaeological study (Meyer et al. 2010) that included the APE was consulted in order to identify the potential for buried archaeological sites in the vicinity of the Project area. This study involved first determining the location and ages of late Pleistocene (>25,000 years old) landforms in the southern San Joaquin Valley. These were identified by combining a synthesis of 2,400 published paleontological, soils and archaeological chronometric dates with geoarchaeological field testing. The ages of surface landforms were then mapped to provide an assessment for the potential for buried archaeological deposits. These ages were derived primarily from the Soil Survey Geographic Database (SSURGO) and the State Soils Geographic (STATSGO) database. A series of maps were created from this information that ranked locations in seven ordinal classes for sensitivity for buried soils, from Very Low to Very High.

According to the geoarchaeological model developed by Meyer et al. (2010), the general vicinity of the Project APE has a Moderate potential for buried archaeological deposits. Based on the observable data, there is a potential for buried archaeological deposits within the Project APE. Since the proposed Project will occur entirely within previously disturbed roadways, along existing pipeline routes, and within an existing WWTP, the APE is considered entirely disturbed and the likelihood that intact buried archaeological deposits will be encountered during project construction is low.

2.2 ETHNOGRAPHIC BACKGROUND

Penutian-speaking Yokuts tribal groups occupied the southern San Joaquin Valley region and much of the nearby Sierra Nevada. Ethnographic information about the Yokuts was collected primarily by Powers (1971, 1976 [originally 1877]), Kroeber (1925), Gayton (1930, 1948), Driver (1937), Latta (1977) and Harrington (n.d.). For a variety of historical reasons, existing research information emphasizes the central Yokuts tribes who occupied both the valley and particularly the foothills of the Sierra. The northernmost tribes suffered from the influx of Euro Americans during the Gold Rush and their populations were in substantial decline by the time ethnographic

studies began in the early twentieth century. In contrast, the southernmost tribes were partially removed by the Spanish to missions and eventually absorbed into multi-tribal communities on the Sebastian Indian Reservation (on Tejon Ranch), and later the Tule River Reservation and Santa Rosa Rancheria to the northeast. The result is a scarcity of ethnographic detail on southern Valley tribes, especially in relation to the rich information collected from the central foothills tribes where native speakers of the Yokuts dialects are still found. Regardless, the general details of indigenous lifeways were similar across the broad expanse of Yokuts territory, particularly in terms of environmentally influenced subsistence and adaptation and with regard to religion and belief, which were similar everywhere.

Following Kroeber (1925: Plate 47), the Project APE most likely lies in *Tachi* territory. The closest village to the APE for this group was *Golon*, approximately two mi. south of the APE.

The Yokuts settlement pattern was largely consistent, regardless of the specific tribe involved. Winter villages were typically located along lakeshores and major stream courses (as these existed circa 150 years before present [YBP]), with dispersal phase family camps located at elevated spots on the valley floor and near gathering areas in the foothills.

Most Yokuts groups, again regardless of specific tribal affiliation, were organized as a recognized and distinct tribelet, a circumstance that almost certainly pertained to the tribal groups noted above. Tribelets were land-owning groups organized around a central village and linked by shared territory and descent from a common ancestor. The population of most tribelets ranged from about 150 to 500 peoples (Kroeber 1925).

Each tribelet was headed by a chief who was assisted by a variety of assistants, the most important of whom was the *winatum*, a herald or messenger and assistant chief. A shaman also served as religious officer. While shamans did not have any direct political authority, as Gayton (1930) has illustrated, they maintained substantial influence within their tribelet.

Shamanism is a religious system common to many Native American tribes. It involves a direct and personal relationship between the individual and the supernatural world enacted by entering a trance or hallucinatory state (usually through the ingestion of psychotropic plants, such as jimsonweed or more typically native tobacco). Shamans were considered individuals with an unusual degree of supernatural power, serving as healers or curers, diviners, and controllers of natural phenomena (such as rain or thunder). Shamans also produced the rock art of this region, depicting the visions they experienced in vision quests believed to represent their spirit helpers and events in the supernatural realm (Whitley 1992, 2000).

The centrality of shamanism to the religious and spiritual life of the Yokuts was demonstrated by the role of shamans in the yearly ceremonial round. The ritual round, performed in the same manner each year, started in the spring with the jimsonweed ceremony, followed by rattlesnake dance and (where appropriate) first salmon ceremony. After returning from seed camps, fall rituals began in the late summer with the mourning ceremony, followed by first seed and acorn rites, and then bear dance (Gayton 1930:379). In each case, shamans served as ceremonial officials responsible for specific dances involving a display of their supernatural powers (Kroeber 1925).

Subsistence practices varied from tribelet to tribelet based on the environment of residence. Throughout Native California, and Yokuts territory in general, the acorn was a primary dietary component, along with a variety of gathered seeds. Valley tribes augmented this resource with lacustrine and riverine foods, especially fish and wildfowl. As with many Native California tribes, the settlement and subsistence rounds included the winter aggregation into a few large villages, where stored resources (like acorns) served as staples, followed by dispersal into smaller camps, often occupied by extended families, where seasonally available resources would be gathered and consumed.

Although population estimates vary and population size was greatly affected by the introduction of Euro American diseases and social disruption, the Yokuts were one of the largest, most successful groups in Native California. Cook (1978) estimates that the Yokuts region contained 27 percent of the aboriginal population in the state at the time of contact; other estimates are even higher. Many Yokuts people continue to reside in the southern San Joaquin Valley today.

2.3 PRE-CONTACT ARCHAEOLOGICAL BACKGROUND

The southern San Joaquin Valley region has received minimal archaeological attention compared to other areas of the state. In part, this is because the majority of California archaeological work has been concentrated in the Sacramento Delta, Santa Barbara Channel, and central Mojave Desert areas (see Moratto 1984). Although knowledge of the region's prehistory is limited, enough is known to determine that the archaeological record is broadly similar to south-central California as a whole (see Gifford and Schenk 1926; Hewes 1941; Wedel 1941; Fenenga 1952; Elsasser 1962; Fredrickson and Grossman 1977; Schiffman and Garfinkel 1981). Based on these sources, the general prehistory of the region can be outlined as follows.

Initial occupation of the region occurred at least as early as the *Paleoindian Period*, or prior to about 10,000 YBP. Evidence of early use of the region is indicated by characteristic fluted and stemmed points found around the margin of Tulare Lake, in the foothills of the Sierra, and in the Mojave Desert proper.

Both fluted and stemmed points are particularly common around lake margins, suggesting a terminal Pleistocene/early Holocene lakeshore adaptation similar to that found throughout the far west at the same time; little else is known about these earliest peoples. More than 250 fluted points have been recovered from the Witt Site (CA-KIN-32), located along the western shoreline of ancient Tulare Lake south of the APE, demonstrating the importance of this early occupation in the San Joaquin Valley specifically (see Fenenga 1993). Additional finds consist of a Clovis-like projectile point discovered in a flashflood cut-bank near White Oak Lodge in 1953 on Tejon Ranch (Glennan 1987a, 1987b). More recently, a similar fluted point was found near Bakersfield (Zimmerman et al. 1989), and a number are known from the Edwards Air Force Base and Boron area of the western Mojave Desert. Although human occupation of the state is well-established during the Late Pleistocene, relatively little can be inferred about the nature and distribution of this occupation with a few exceptions. First, little evidence exists to support the idea that people at that time were big-game hunters, similar to those found on the Great Plains. Second, the western Mojave Desert evidence suggests small, very mobile populations that left a minimal archaeological signature. The evidence from the ancient Tulare Lake shore, in contrast, suggests much more

substantial population and settlements which, instead of relying on big game hunting, were tied to the lacustrine lake edge. Variability in subsistence and settlement patterns is thus apparent in California, in contrast to the Great Plains.

Substantial evidence for human occupation across California, however, first occurs during the middle Holocene, roughly 7,500 to 4,000 YBP. This period is known as the *Early Horizon*, or alternatively as the Early Millingstone along the Santa Barbara Channel. In the south, populations concentrated along the coast with minimal visible use of inland areas. Adaptation emphasized hard seeds and nuts with tool-kits dominated by mullers and grindstones (manos and metates). Additionally, little evidence for Early Horizon occupation exists in most inland portions of the state, partly due to a severe cold and dry paleoclimatic period occurring at this time, although a site deposit dating to this age has been identified along the ancient Buena Vista shoreline in Kern County to the south (Rosenthal et al. 2007). Regardless of specifics, Early Horizon population density was low with a subsistence adaptation more likely tied to plant food gathering than hunting.

Environmental conditions improved dramatically after about 4,000 YBP during the *Middle Horizon* (or Intermediate Period). This period is known climatically as the Holocene Maximum (circa 3,800 YBP) and was characterized by significantly warmer and wetter conditions than previously experienced. It was marked archaeologically by large population increase and radiation into new environments along coastal and interior south-central California and the Mojave Desert (Whitley 2000). In the Delta region to the north, this same period of favorable environmental conditions was characterized by the appearance of the Windmill culture which exhibited a high degree of ritual elaboration (especially in burial practices) and perhaps even a rudimentary mound-building tradition (Meighan, personal communication, 1985). Along with ritual elaboration, Middle Horizon times experienced increasing subsistence specialization, perhaps correlating with the appearance of acorn processing technology. Penutian speaking peoples (including the Yokuts) are also posited to have entered the state roughly at the beginning of this period and, perhaps to have brought this technology with them (cf. Moratto 1984). Likewise, it appears the so-called “Shoshonean Wedge” in southern California, the Takic speaking groups that include the Gabrielino/Fernandeño, Tataviam and Kitanemuk, may have moved into the region at that time (Sutton 2009), rather than at about 1,500 YBP as first suggested by Kroeber (1925).

Evidence for Middle Horizon occupation of interior south-central California is substantial. For example, in northern Los Angeles County along the upper Santa Clara River, to the south of the San Joaquin Valley, the Agua Dulce village complex indicates occupation extending back to the Intermediate Period, when the population of the village may have been 50 or more people (King et al n.d.). Similarly, inhabitation of the Hathaway Ranch region near Lake Piru, and the Newhall Ranch near Valencia, appears to date to the Intermediate Period (W&S Consultants 1994). To the west, little or no evidence exists for pre-Middle Horizon occupation in the upper Sisquoc and Cuyama River drainages; populations first appear there at roughly 3,500 YBP (Horne 1981). The Carrizo Plain, the valley immediately west of the San Joaquin, experienced a major population expansion during the Middle Horizon (W&S Consultants 2004; Whitley et al. 2007), and recently collected data indicates the Tehachapi Mountains region was first significantly occupied during the Middle Horizon (W&S Consultants 2006). A parallel can be drawn to the inland Ventura County region where a similar pattern has been identified (Whitley and Beaudry 1991), as well as the western Mojave Desert (Sutton 1988a, 1988b), the southern Sierra Nevada (W&S Consultants

1999), and the Coso Range region (Whitley et al. 1988). In all of these areas a major expansion in settlement, the establishment of large site complexes, and an increase in the range of environments exploited appear to have occurred sometime roughly around 4,000 years ago. Although most efforts to explain this expansion have focused on local circumstances and events, it is increasingly apparent this was a major southern California-wide occurrence and any explanation must be sought at a larger level of analysis (Whitley 2000). Additionally, evidence from the Carrizo Plain suggests the origins of the tribelet level of political organization developed during this period (W&S Consultants 2004; Whitley et al. 2007). Whether this same demographic process holds for the southern San Joaquin Valley, including the Project APE, is yet to be determined.

The beginning of the *Late Horizon* is set variously at 1,500 and 800 YBP, with a growing archaeological consensus for the shorter chronology. Increasing evidence suggests the importance of the Middle-Late Horizons transition (AD 800 to 1200) in the understanding of south-central California prehistory. This corresponds to the so-called Medieval Climatic Anomaly, followed by the Little Ice Age, and this general period of climatic instability extended to about A.D. 1860. It included major droughts matched by intermittent “mega-floods,” and resulted in demographic disturbances across much of the west (Jones et al. 1999). It is believed to have resulted in major population decline and abandonments across south-central California, involving as much as 90 percent of the interior populations in some regions, including the Carrizo Plain (Whitley et al. 2007). It is not clear whether site abandonment was accompanied by a true reduction in population or an agglomeration of the same numbers of peoples into fewer but larger villages in more favorable locations. Population along the Santa Barbara coast appears to have spiked at about the same time that it collapsed on the Carrizo Plain (ibid). Along Buena Vista Lake, in Kern County, population appears to have been increasingly concentrated toward the later end of the Medieval Climatic Anomaly (Culleton 2006), and population intensification also appears to have occurred in the well-watered Tehachapi Mountains during this same period (W&S Consultants 2006).

What is then clear is that Middle Period villages and settlements were widely dispersed across the south-central California landscape, including in the Sierras and the Mojave Desert. Many of these sites are found at locations that lack existing or known historical fresh water sources. Late Horizon sites, in contrast, are typically concentrated in areas where fresh water was available during the historical period, if not currently.

One extensively studied site that shows evidence of intensive occupation during the Middle-Late Horizons transition (~1,500 – 500 YBP) is the Redtfeldt Mound (CA-KIN-66/H), located south of the current APE, near the north shore of ancient Tulare Lake. There, Siefkin (1999) reported on human burials and a host of artifacts and ecofacts excavated from a modest-sized mound. He found that both Middle Horizon and Middle-Late Horizons transition occupations were more intensive than Late Horizon occupations, which were sporadic and less intensive (Siefkin 1999:110-111).

The Late Horizon can then be understood as a period of recovery from a major demographic collapse. One result is the development of regional archaeological cultures as the precursors to ethnographic Native California; suggesting that ethnographic lifeways recorded by anthropologists extend roughly 800 years into the past.

The position of southern San Joaquin Valley prehistory relative to patterns seen in surrounding areas is still somewhat unknown. The presence of large lake systems in the valley bottoms appears to have mediated some of the desiccation seen elsewhere. But, as the reconstruction of Soda Lake in the nearby Carrizo Plain demonstrates (see Whitley et al. 2007) environmental perturbations had serious impacts on lake systems too. Identifying certain of the prehistoric demographic trends for the southern San Joaquin Valley, and determining how these trends (if present) correlate with those seen elsewhere, is a current important research objective.

2.4 HISTORICAL BACKGROUND

Spanish explorers first visited the San Joaquin Valley in 1772, but its lengthy distance from the missions and presidios along the Pacific Coast delayed permanent settlement for many years, including during the Mexican period of control over the Californian region. In the 1840s, Mexican rancho owners along the Pacific Coast allowed their cattle to wander and graze in the San Joaquin Valley (JRP Historical Consulting 2009). The Mexican government granted the first ranchos in the southern part of the San Joaquin Valley in the early 1840s, but these did not result in permanent settlement. It was not until the annexation of California in 1848 that the exploitation of the southern San Joaquin Valley began (Pacific Legacy 2006).

In the 1840s, Mexican rancho owners along the Pacific Coast allowed their cattle to wander and graze in the San Joaquin Valley (JRP Historical Consulting 2009). The Mexican government did not grant ranchos in the San Joaquin Valley until the early 1840s, and even then these did not result in significant permanent settlement. The *Laguna de Tache Rancho* was granted by Governor Pio Pico in 1846 to Manuel de Jesus Castro, a former captain in the Mexican army. The rancho extended for 26 mi. down the north bank of the Kings River from modern Kingsburg to approximately Riverdale. It was sometimes called the “River Ranch.” Castro’s ownership of the Laguna de Tache Rancho grant was confirmed by the U.S. Public Land Commission in 1866, at which point it was sold to Jeremiah Clark.

The discovery of gold in northern California in 1848 resulted in a dramatic increase of population, consisting in good part of fortune seekers and gold miners, who began to scour other parts of the state. After 1851, when gold was discovered in the Sierra Nevada Mountains in eastern Kern County, the population of the area grew rapidly. Some new immigrants began ranching in the San Joaquin Valley to supply the miners and mining towns. Ranchers grazed cattle and sheep, and farmers dry-farmed or used limited irrigation to grow grain crops, leading to the creation of small agricultural communities throughout the valley (JRP Historical Consulting 2009).

After the American annexation of California, the southern San Joaquin Valley became significant as a center of food production for this new influx of people in California. The expansive unfenced and principally public foothill spaces were well suited for grazing both sheep and cattle (Boyd 1997). As the Sierra Nevada gold rush presented extensive financial opportunities, ranchers introduced new breeds of livestock, consisting of cattle, sheep and pig (Boyd 1997).

With the increase of ranching in the southern San Joaquin came the dramatic change in the landscape, as non-native grasses more beneficial for grazing and pasture replaced native flora (Preston 1981). After passage of the Arkansas Act in 1850, efforts were made to reclaim small

tracts of land in order to create more usable spaces for ranching. Eventually, as farming supplanted ranching as a more profitable enterprise, large tracts of land began to be reclaimed for agricultural use, aided in part by the extension of the railroad in the 1870s (Pacific Legacy 2006).

Following the passage of state-wide “No-Fence” laws in 1874, ranching practices began to decline, while farming expanded in the San Joaquin Valley in both large land holdings and smaller, subdivided properties. As the farming population grew, so did the demand for irrigation. Settlers began reclamation of swampland in 1866 and built small dams across the Kern River to divert water into the fields. By 1880, 86 different groups were taking water from the Kern River. Ten years later, 15 major canals provided water to thousands of acres in Kern County.

During the period of reclaiming unproductive land in the southern San Joaquin Valley, grants were given to individuals who had both the resources and the finances to undertake the operation alone. One small agricultural settlement, founded by Colonel Thomas Baker in 1861 after procuring one such grant, took advantage of reclaimed swampland along the Kern River. This settlement became the City of Bakersfield in 1869, and quickly became the center of activity in the southern San Joaquin Valley, and in the newly formed Kern County. Located on the main stage road through the San Joaquin Valley, the town became a primary market and transportation hub for stock and crops, as well as a popular stopping point for travelers on the Los Angeles and Stockton Road. The Southern Pacific Railroad reached the Bakersfield area in 1873, connecting it with important market towns elsewhere in the state, dramatically impacting both agriculture and oil production (Pacific Legacy 2006).

Three competing partnerships developed during this period which had a great impact on control of water, land reclamation, and ultimately agricultural development in the San Joaquin Valley: Livermore and Chester, Haggin and Carr, and Miller and Lux, perhaps the most famous of the enterprises. Livermore and Chester were responsible, among other things, for developing the large Hollister plow (three ft. wide by two ft. deep), pulled by a 40-mule team, which was used for ditch digging. Haggin and Carr were largely responsible for reclaiming the beds of the Buena Vista and Kern lakes, and for creating the Calloway Canal, which drained through the Rosedale area in Bakersfield to Goose Lake (Morgan 1914). Miller and Lux ultimately became one of the biggest private property holders in the country, controlling the rights to more than 22,000 square mi. Miller and Lux’s impact extended beyond Kern County, however. They recognized early on that control of water would have important economic implications, and they played a major role in the water development of the state. They controlled, for example, more than 100 mi. of the San Joaquin River with the San Joaquin and Kings River Canal and Irrigation System. They were also embroiled for many years in litigation against Haggin and Carr over control of the water rights to the Kern River. Descendants of Henry Miller continue to play a major role in California water rights, with his great-grandson, George Nickel, Jr., the first to develop the concept of water banking, thus creating a system to buy and sell water (Levine 2011).

The San Joaquin Valley was dominated by agricultural pursuits until the oil boom of the early 1900s, which saw a shift in the region, as some reclaimed lands previously used for farming were leased to oil companies. Nonetheless, the shift of the San Joaquin Valley toward oil production did not halt the continued growth of agriculture (Pacific Legacy 2006). The Great Depression of the 1930s brought with it the arrival of a great number of migrants from the drought-affected Dust

Bowl region, looking for agricultural labor. These migrants established temporary camps in the valley, staying on long past the end of the drought and the Great Depression, eventually settling in towns such as Bakersfield where their descendants live today (Boyd 1997).

The City of Huron was founded as a water stop along the Southern Pacific Railroad in 1888. A post-office predates the founding of the city, and operated from 1877 to 1883, then from 1886 to the present. In the early twentieth century, Huron was one of the largest producers of wool in the United States. Currently, the economy of Huron is largely focused on agriculture with over 40 percent of residents employed in agriculture (City Data 2024).

3. RECORDS AND SACRED LANDS FILE SEARCHES

3.1 RECORDS SEARCH

To determine whether the Project APE had been previously surveyed for cultural resources, and/or whether any such resources were known to exist within or near to it, staff of the Southern San Joaquin Valley Information Center (SSJVIC) conducted an archival records search on March 4, 2024. The records search was completed to determine: (i) if pre-contact or historic-era cultural resources had previously been recorded within the Project APE; (ii) if the Project APE had been systematically surveyed by archaeologists prior to the initiation of this fieldwork; and/or (iii) whether the area surrounding the proposed Project was known to contain archaeological sites or built environment resources and to thereby be culturally sensitive. Records examined included archaeological site files and maps, the NRHP, Historic Property Data File, California Inventory of Historic Resources, and the California Points of Historic Interest. The records search included the Project APE and a 0.5 mi. buffer.

According to the SSJVIC, 10 previous studies (FR-00135, FR-00253, FR-00418, FR-00433, FR-01794, FR-01795, FR-01796, FR-02052, FR-02779, and FR-02847) have been conducted within the Project APE, and five previous studies (FR-00549, FR-00627, FR-02027, FR-02133, and FR-02672) were identified within the 0.5 mi. buffer (Table 3). Based on SSJVIC data, approximately 30 percent of the Project APE has been previously surveyed. Dates for previous studies range from 1995 to 2016 with the majority of studies being greater than 20 years old.

The SSJVIC results identified a single previously recorded cultural resource (P-10-003930) within the APE (Table 4). No resources were identified within the 0.5 mi. buffer. The results of the SSJVIC records search are available in Confidential Appendix A.

Table 3. Previous Reports

Report #	Year	Author/Affiliation	Title	APE Relationship
FR-00135	1995	Hatoff, Brian, Voss, Barb, Waechter, Sharon, Benté, Vance, and Wee, Stephen	Cultural Resources Inventory Report for the Proposed Mojave Northward Expansion Project.	Within
FR-00253	1998	Binning, Jeanne Day	Negative Archaeological Survey Report for the Project to Rehabilitate, Widen, and Upgrade FRE-269 from Kilometer Post 0.0 to Kilometer Post 20.5	Within
FR-00418	1980	Crist, Michael and Peck, Billy J.	Archaeological Reconnaissance for APN 75140-25, 43-64, and 75-210-35-38, Fresno County, California	Within
FR-00433	1977	Davis, Alan, Dick, Linda, and Varner, Dudley	An Archaeological Reconnaissance of the Gates Substation to the Proposed Gregg Substation 500 KV Transmission Line, Fresno and Madera Counties	Within
FR-00549	1993	Miller, Jeff	Cultural Resource Assessment of APN 075294-02 for a Proposed Apartment Complex in Huron, Fresno County, California	Outside

3. Records and Sacred Lands File Searches

Report #	Year	Author/Affiliation	Title	APE Relationship
FR-00627	1991	Parr, Robert E.	An Archaeological Assessment of a Proposed Senior Citizen Housing Complex in the City of Huron, Fresno County, California	Outside
FR-01794	2002	Love, Bruce and Tang, Bai "Tom"	Historic Property Survey Report: Cross Valley Rail Corridor Project Between the Cities of Visalia and Huron Tulare, Kings, and Fresno Counties, California	Within
FR-01795	2002	Love, Bruce and Tang, Bai "Tom"	Archaeological Survey Report: Cross Valley Rail Corridor Project Between the Cities of Visalia and Huron Tulare, Kings, and Fresno Counties, California	Within
FR-01796	2002	Love, Bruce and Tang, Bai "Tom"	Historic Study Report/Historical Resources Evaluation Report: Cross Valley Rail Corridor Project Between the Cities of Visalia and Huron Tulare, Kings, and Fresno Counties, California.	Within
FR-02027	2003	Offermann, Janis and Orlins, Robert	Negative Archaeological Survey Report for Improvements to the Arroyo Pasajero Westside Detention Basin - Survey of Borrow Areas, Fresno County, California	Outside
FR-02052	2003	Offermann, Janis	Historic Property Survey Negative Findings for Improvements to the Arroyo Pasajero Westside Detention Basin, Fresno and Kings County, California	Within
FR-02133	2005	Billat, Lorna	Report for Huron/ CA-1670H Cellular Facility Installation for Nextel	Outside
FR-02672	2014	Miller, Michelle	Historic Property Survey Report for the State Route 269 Bridge Project 06-FRE-269, Fresno County, California	Outside
FR-02672A	2014	Scher, Naomi	Extended Phase I Geoarchaeological Studies for the State Route 269 Bridge Project near Huron, Fresno County, California	Outside
FR-02672B	2014	Miller, Michelle	Archaeological Survey Report for the SR 269 Bridge Project 06-FRE-269, Fresno County, California	Outside
FR-02779	2016	Baloian, Randy and Lloyd, Jay	Cultural Resources Survey for the City of Huron Water Treatment Plant Project, Fresno County, California	Within
FR-02847	2016	Asselin, Katie and Baloian, Randy	Cultural Resources Inventory for the City of Huron Recycled Wastewater Project, Fresno County, California	Within

Table 4. Previously Recorded Resources

Primary #	Type	Description	Eligibility Status	APE Relationship
P-10-003930	Historic-era structure	Segment of the Southern Pacific Railroad.	Determined not eligible by consensus through Section 106 process	Within

3.2 TRIBAL OUTREACH

As part of the CEQA process, a search of the Native American Heritage Commission (NAHC) Sacred Lands File was completed on February 28, 2024. Based on the NAHC records, the APE is negative for sacred sites or traditional cultural places. Outreach letters were sent on March 6, 2024, to tribal organizations on the NAHC contact list. Follow-up emails were sent on April 16, 2024.

No responses were received as a result of this outreach. NAHC request, NAHC results, Tribal outreach letters, and Tribal responses can be found in Confidential Appendix B.

3.3 HISTORIC AERIAL AND TOPOGRAPHIC MAPS

Historical topographical maps and aerial imagery that included the Project APE were consulted to identify potential historic-era structures or resources. According to USGS topographic quadrangles, historical aeriels, Google Earth imagery, and Nationwide Environmental Title Research, the WWTP portion of the APE has undergone significant development since at least the mid-twentieth century. The 1933 and 1937 USGS Huron 1:31,680 quadrangle depicts the APE as largely undeveloped with the Southern Pacific Railroad running northeast-southwest to the north of the WWTP, Siskiyou Avenue to the east of the WWTP, and a San Joaquin Light and Power Corporation transmission line running northeast-southwest to the south of the WWTP. An unnamed road runs through the southern portion of the APE along the same alignment as what is now Palmer Avenue. The 1956 USGS Huron 1:24,000 quadrangle depicts the WWTP as being largely in the same condition as the earlier topographic maps with the exception of an unnamed access road associated with four buildings that are labeled “Sewage Disposal”. None of these buildings are extant and were demolished between 1971 and 1981, according to aerial imagery.

Aerial imagery depicts the majority of the WWTP APE as agricultural lands as far back as 1955, with a sewage facility built before 1955. The 1971 aerial depicts the WWTP as largely the same as before with additional structures for the sewage facility. Between 1971 to 1981, the APE changes significantly with all of the previously constructed structures being demolished and additional development throughout the WWTP portion of the APE. From 1981 to 2009, additional structures are developed within the WWTP. From 2009 to 2024, the APE appears in its current form, according to aerial imagery.

According to historical topographic maps, the portions of the APE in the city of Huron and outside of the WWTP have had significant development since at least the mid-twentieth century. The 1933 and 1937 USGS Huron 1:31,680 quadrangle depicts the APE as largely undeveloped with the Southern Pacific Railroad running northeast-southwest bisecting this portion of the APE. Lassen Road runs north-south through the eastern portion of the APE. The 1956 USGS Huron 1:24,000 quadrangle depicts significant development for what is now the city of Huron and multiple buildings are depicted adjacent to the Project APE.

Aerial imagery depicts the majority of the city of Huron as developed as far back as 1955. From 1955 to 1981, aerial imagery depicts the WWTP as largely the same as before with additional structures for the sewage facility. Between 1971 to 1981, the APE changes very little with an airfield being constructed southeast of the APE along with the realignment of roads east and south of the APE and industrial development in the eastern portion of the city. From 1981 to 2024, the city appears largely in its current form, according to aerial imagery.

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4. METHODS AND RESULTS

4.1 FIELD METHODS

The Class III inventory/Phase I survey of the Project APE was conducted ASM Associate Archaeologist Robert Azpitarte, B.A., conducted the survey with assistance from Assistant Archaeologist Margarita Medina Lemus, B.A. on March 15, 2024. The Class III inventory/Phase I survey included a review of the Project APE for the presence of built environment features. The field methods employed also included intensive pedestrian examination of the ground surface for evidence of archaeological sites in the form of artifacts, surface features (such as bedrock mortars or historical mining equipment), and archaeological indicators (e.g., organically enriched midden soil or burnt animal bone); the identification and location of any discovered sites, should they be present; tabulation and recording of surface diagnostic artifacts; site sketch mapping; preliminary evaluation of site integrity; and site recording, following the California Office of Historic Preservation (OHP) Instructions for Recording Historic Resources using California Department of Parks and Recreation (DPR) 523 forms. Parallel survey transects spaced at maximum intervals of 15 meters (m.) apart were employed for pedestrian survey of the 154.9 ac. Project APE.

4.2 SURVEY RESULTS

The proposed Project APE consists of improvements to a water treatment facility, constructed by 1981, and its associated pipelines. The Project APE outside of the water treatment facility consists largely of paved roads (Figure 2 and Figure 3). As such, the vast majority of the APE has been hardscaped over. Approximately 1,700 ft. of the APE, along O Street, N Street, and 16th Street, is currently undeveloped (Figure 4 and Figure 5). Visibility within undeveloped areas was good (approximately 75 percent). Within the water treatment facility, the majority of the APE was developed over. The visibility within the water treatment facility was excellent (approximately 90 percent) outside of developed areas. Diffuse modern refuse was observed throughout the APE. Non-native vegetation inhibited visibility in undeveloped areas. A single previously recorded cultural resource (P-10-003930) was observed within the Project APE and is described below. As such, the resource will not be affected by the current Project. No other cultural resources were observed within the Project APE.

P-10-003930 (Southern Pacific Railroad)

The proposed corridor will bisect the Southern Pacific Railroad at two locations (Figure 6 and Figure 7). This includes two small segments within the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 11, and the SE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 11 in T20S/R17E of the Huron 7.5' Quadrangle (see Figure 1). The existing rail grade is in use and is as described in previous records. As stated in Table 4, P-10-003930 has been determined ineligible by consensus through Section 106 process; however, it has not been evaluated by the California Office of Historic Preservation. Previous studies (Asselin and Baloian 2016; Jones et al. 2018; Schultz and Vanderslice 2007) have evaluated P-10-003930 and recommended the resource ineligible for listing on the CRHR or NRHP. The Project proposes trenchless drilling under P-10-003930 and the resource will therefore be avoided by the Project. It is not considered further in this report and no update was conducted on the resource.



Figure 2. Project APE overview along Orange Street, facing south.



Figure 3. Project APE overview along Crocker Avenue, facing northeast.



Figure 4. Project APE Overview along O Street, facing northwest.



Figure 5. Project APE Overview along O Street, facing north.



Figure 6. P-10-003930, facing west.



Figure 7. P-10-003930, facing northeast.

5. SUMMARY AND RECOMMENDATIONS

5.1 SUMMARY

A Class III inventory/Phase I survey was conducted for the City of Huron Wastewater Improvement Project, Fresno County, California. A records search was conducted at the SSJVIC. This search indicated that the portions of the Project APE had been previously surveyed, and a single previously recorded cultural resource (P-10-003930) was observed within the Project APE; however, the resource will not be affected by the current Project. An NAHC SLF search was conducted for the Project APE and the NAHC responded with negative SLF results. Geoarchaeological review of the Project APE indicated buried archaeological deposits are possible within the APE; however, historic aerial and topographic map review indicates the project APE has been heavily disturbed by agricultural activities and industrial development as far back as 1955. Therefore, intact buried archaeological deposits are considered unlikely within the APE.

A Class III inventory/Phase I survey fieldwork of the Project APE was conducted on March 21, 2024, with parallel transects spaced at 15 m. intervals. No cultural resources of any kind were identified within the Project APE.

5.2 RECOMMENDATIONS

Based on the above analyses and findings, the proposed City of Huron Wastewater Improvement Project will not result in adverse impacts or effects to historic properties or historical resources, and a determination of *no adverse effect* under Section 106 and *no significant impact* under CEQA is recommended. It is further recommended that, in the unlikely event that previously unrecorded cultural resources are identified during Project construction, work be halted within a 100 ft. radius of the find and a qualified archaeologist be contacted to evaluate the newly discovered resource.

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