INITIAL STUDY CHECKLIST

1. Project title:	Highline Pipeline Replacement Project
2. Lead agency:	Lindsay-Strathmore Irrigation District 23260 Round Valley Road Lindsay, CA 93247
3. Contact person:	Dennis R. Keller Dennis R. Keller Consulting Civil Engineer, Inc. (559) 732-7938
4. Project location:	Unincorporated area east of Lindsay (Figure 1, Appendix A) North of Avenue 226, in the vicinity of Avenue 230 and Road 238; Tulare County Section 3 and 10, T20S, R27E, Mount Diablo Base and Meridian
5. Latitude, Longitude:	36°12'34" N, 119°02'32" W
6. General plan designation:	N/A
7. Zoning:	Foothill Agricultural Zone (AF): Planned Development/Foothill Combining/Special Mobile Home Zone (PD-F-M)
8. Description of project:	The Lindsay-Strathmore Irrigation District (District) provides water for domestic and agricultural irrigation purposes. The District utilizes imported surface water as their primary water supply. The District has a contract for Class 1 water from the Central Valley Project. The District is also a stockholder in the Wutchumna Water Company. Both supplies of surface water are delivered via the Friant-Kern Canal. The District's primary purpose is serving irrigation water to the landowners within the District. The Project consists of replacing old existing leaking water pipelines used for agricultural deliveries. All of the proposed Project features (pipelines, valves, and connections) will be located underground. The pipeline will be located in the public right-of-way or recorded easements. The total length of pipeline to be installed is about 7,300 linear feet. Pipe sizes will range from 8-inches to 14-inches in diameter. Figure 2 (Appendix A) shows the location of the pipelines. Construction activities include excavation, pipe installation, backfill, compaction and surface restoration.

9. Surrounding land uses and setting:	Rural area on valley floor along the east side of the Central Valley and in the lower foothills. The area surrounding the Proposed Project is extensively farmed, being principally planted to citrus and includes undeveloped grasslands. Surrounding land uses include agricultural rural residential use.
10. Other public agencies whose approval is required	County of Tulare, California Regional Water Quality Control Board; and San Joaquin Valley Air Pollution Control District.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, as indicated by the checklist and subsequent discussion on the following pages.

☐ Aesthetics	☐ Agriculture & Forestry	☐ 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/Traffic	☐ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☒ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

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.

Dennis R. Keller — June 10, 2024

Signature — Date

Dennis R. Keller, Consulting Civil Engineer — Lindsay-Strathmore Irrigation District

Printed name — For

Issues:

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 nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☐	☒
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☒

Discussion

a. **No Impact.** The Proposed Project does not result in a change in the scenic characteristics of the area and its surroundings. The Proposed Project will occur within executed easements and in Tulare County road rights-of-ways. All of the Proposed Project features will be installed underground.

b. **No Impact.** There are no scenic resources on or near the Proposed Project. The Project is not located adjacent to or near a state scenic highway.

c. **No Impact.** The Proposed Project consists of the installation of new underground pipelines. Public views and existing visual character will not be affected.

d. **No Impact.** The Proposed Project would not create a new source of substantial light or glare. New underground facilities will be replacing existing underground facilities resulting in no net change in lighting at the site of the Proposed Project. The Project does not include the installation of any lighting.

II. AGRICULTURE & FORESTRY RESOURCES	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. **Would the project:**

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 in 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?	☐	☐	☐	☒

Discussion

a. **No Impact.** The Proposed Project will be constructed within public rights-of-ways, or executed easements and will not remove any land from agricultural production.

b. **No Impact.** The Proposed Project area is currently zoned Foothill Agricultural (AF), Planned Development/Foothill Combining/Special Mobile Home (PD-F-M) and public rights-of-way or executed easements.

c. **No Impact.** There are no forest lands or timberland within the limits of the Proposed Project.

d. **No Impact.** There are no forest lands within the limits of the Proposed Project.

e. **No Impact.** See previous responses to Items (a) through (d).

III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

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 (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☒
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☒
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	☐	☐	☐	☒

Discussion

The air quality impacts from construction activities and the annual operation and maintenance activities from the operation of the Proposed Project have been evaluated using the California Emissions Estimator Model (CalEEMod). The results have been compared against thresholds established by the San Joaquin Valley Air Pollution Control District and are estimated to be below any threshold. A summary of the emissions estimates is attached for reference. (Appendix B).

a. **No Impact.** The Proposed Project would not conflict with any applicable air quality plan. During construction, however, the District and the selected contractors would be required to comply with the San Joaquin Valley Air Pollution Control District's Regulation VIII.

b. **No Impact.** Air emissions estimates for construction and operations do not indicate a significant increase for any non-attainment pollutant.

c. **No Impact.** See response to Items (a) and (b).

d. **No Impact.** The Proposed Project consists of the installation of water pipelines and appurtenances. The Proposed Project will not result in continuous emissions including objectionable odors. See responses to Items (a) and (b).

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 Wildlife 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 Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
c) Have a substantial adverse effect on federally protected wetlands (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?	☐	☐	☐	☒

IV. BIOLOGICAL RESOURCES (continued)

Discussion

A Biological Evaluation Report was completed in April, 2024, that included a field survey completed in March, 2024. Identification of special status species included a search of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Vascular Plants of California. The Report has been attached for reference.

a. **Less Than Significant with Mitigation Incorporation.** The Report established that the potential exists for construction-related mortality and/or disturbances of nesting raptors and birds. The Report determined that the magnitude of the potential impacts could be reduced to a less than significant level through the incorporation of the following mitigation practices: scheduling of construction during low risk times of year (i.e., construction timing), preconstruction surveys and avoidance of active nests. The Report also recommended the establishment of construction and monitoring of active nests, if necessary, for the Swainson's Hawk. Preventive measures will be incorporated into construction documents to avoid potential impacts.

   The Report also established that two (2) special status plant species (Kaweah brodiaea and San Joaquin adobe sunburst) have some potential to occur at the Project site within the grassland area. The Report determined that the magnitude of potential impacts could be reduced to a less than significant level through the incorporation of the following mitigation practices: preconstruction surveys and avoidance, and seed salvage and compensory mitigation if an incidental take permit (ITP) is required. The preventative measures will be incorporated into the construction documents to avoid potential impacts.

b. **No Impact.** The biological survey did not establish the presence of sensitive natural communities or designated critical habitat. The Project site contains no aquatic features for riparian considerations.

c. **No Impact.** The biological field survey conducted in March, 2024, did not identify any wetlands on the Proposed Project site.

d. **No Impact.** The biological field survey established that the Project site "does not contain or adjoin any geographic features that could function as a wildlife movement corridor." The Proposed Project does not result in features that impedes movement of common native wildlife.

e. **No Impact.** The Proposed Project does conflict with the General Plan Policies of Tulare County (2023). See response to Item (b).

f. **No Impact.** No Habitat Conservation Plan has been identified for, or that includes, the Proposed Project area. Since the Proposed Project does not result in any change to existing land use and associated conditions, it not expected to conflict with any local, regional or state conservation plans.

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?	☐	☐	☐	☒

Discussion

A Class III Inventory/Phase I Survey was completed for the Proposed Project site in April, 2024 that included field surveys, record surveys and tribal contacts. A field survey was conducted on March 13, 2024. No cultural resources were identified within the surveyed area that warranted consideration for the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR). The Report is attached for reference.

a. **No Impact.** The Survey report did not identify the presence of a historical resource within the Proposed Project area. The Proposed Project area consists of actively maintained roadways and agricultural land areas.

b. **No Impact.** The Proposed Project area consists of actively maintained roadways and agricultural land areas. The Survey report did not identify presence of any archaeological resources within or adjacent to the Proposed Project site.

c. **No Impact.** The Proposed Project area consists of actively maintained roadways and agricultural land areas. No formal cemetery is located within the Proposed Project area. Measures shall be implemented during construction to address discovery of human remains or other archaeological resources.

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?	☐	☐	☐	☒

Discussion

a. **No Impact.** The Proposed Project consists of replacing existing pipelines with new pipelines.

b. **No Impact.** The Proposed Project does not include elements that would be associated with state or local energy efficiency plans.

VII. GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Expose people or structures to 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 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?	☐	☐	☐	☒

VII. GEOLOGY AND SOILS (continued)

Discussion

a. **No Impact.** The Proposed Project location is not shown in an area designated to be affected by active earthquake fault zones or landslide and liquefaction zones as reviewed through the California Geological Survey Information Warehouse web-based regulatory mapping tool.

b. **No Impact.** Proposed Project locations include roadways or graded areas and shoulders. The Proposed Project area will be restored to existing conditions following pipeline installation. Construction specifications for the Proposed Project will require compaction of all disturbed areas which will minimize the potential for erosion.

c. **No Impact.** According to the National Resource Conservation Service (Soil Conservation Service), the Proposed Project area includes Cibo Clay, Porterville Clay and Porterville Cobbly Clay. The soil summary does not list any geologic hazards such as soil instability or subsidence. See response to Item (a).

d. **No Impact.** The Proposed Project does not include the construction of permanent dwelling buildings.

e. **No Impact.** Criteria does not apply. The Proposed Project does not include installation of septic tanks or alternative wastewater disposal systems.

VIII. GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

Discussion

a. **Less than Significant Impact.** Estimates of greenhouse gases resulting from the construction activities and the annual operation and maintenance activities from the operation of the Proposed Project have been determined using the California Emissions Estimator Model (CalEEMod). The San Joaquin Valley Air Pollution Control District does not have an annual greenhouse emissions standard. The results are estimated to be below the interim threshold of 10,000 metric tons (MT) established by the California Air Resources Board. A summary of the emissions estimates is attached for reference. (Appendix B).

b. **No Impact.** The Proposed Project would not conflict with any applicable plan, policy or regulation adopted for reducing the emissions of greenhouse gases.

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 for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency 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.	☐	☐	☐	☒

IX. HAZARDS AND HAZARDOUS MATERIALS (continued)

Discussion

a. **No Impact.** Project operation does not require the use, transport or disposal of hazardous materials. Construction of the Proposed Project will require the use of fuel and associated materials equipment operation (lubricants). The quantities will not represent a significant hazard. The transport, use and disposal of such materials will be in accordance with regulatory requirements.

b. **No Impact.** Project operation does not require the storage of hazardous conditions. The Proposed Project does not handle hazardous material that could be released during an accident or upset condition.

c. **No Impact.** The Proposed Project is not located within one-quarter mile of an existing or proposed school.

d. **No Impact.** The Proposed Project will not be constructed on a hazardous materials site. The Proposed Project site is not on the Cortese List.

e. **No Impact.** The Proposed Project site is not located within an airport land use plan. The nearest public airstrip (Exeter) is approximately six (6) miles away.

f. **No Impact.** The Proposed Project site is not located near a private airstrip. The nearest private airstrip (Eckert Field) is approximately three (3) miles away.

g. **No Impact.** There are no emergency response plans which involve the Proposed Project site.

h. **No Impact.** The Proposed Project site consists of leveled residential and agricultural land and roadways. No changes in adjacent land uses are proposed.

X. HYDROLOGY AND WATER QUALITY **Would the project:**	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☐	☒
b) Substantially deplete 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, 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 off-site;	☐	☐	☐	☒
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

IX. HYDROLOGY AND WATER QUALITY (continued)

Discussion

a. **No Impact.** The Proposed Project consists of the installation of new water pipelines, appurtenances and water services. The Proposed Project, whether during construction or following completion, will not degrade water quality. Construction requirements, such as a Storm Water Pollution Prevention Plan (SWPPP), will be utilized to prevent water quality impacts during construction of the improvements.

b. **No Impact.** The agricultural water system uses surface water and will not result in community growth that would increase groundwater use. The Proposed Project does not include any groundwater extraction facilities. The Proposed Project replaces existing water pipelines and services.

c(i). **No Impact.** Elements of the Proposed Project will be constructed at existing grades. No changes to existing grades on or adjacent to the Project site are proposed. The Proposed Project would not substantially alter the existing drainage pattern of the area.

c(ii). **No Impact.** The Proposed Project area consists of undeveloped and paved land areas. The Proposed Project includes surface restoration requirements. The amount of impervious area will not increase and alter the existing drainage quantity from the area.

c(iii). **No Impact.** The Proposed Project area is not served by a stormwater drainage system. The amount of impervious surface resulting from the Proposed Project reflects existing conditions. See response to Item c(ii).

c(iv). **No Impact.** The Proposed Project is located in Zone X – Area of Minimal Flood Hazard. Proposed Project elements consist of buried water pipelines and related appurtenances that will not impede or redirect surface flows. National Flood Hazard Layer Firmette maps are attached in Appendix E for reference.

d. **No Impact.** The Proposed Project consists of water pipelines, related appurtenances and services which do not require chemicals that pose a risk of pollution during a flood event. The Proposed Project is located in Zone X – Area of Minimal Flood Hazard.

The Proposed Project site is located approximately 115 miles from the Pacific Ocean and separated by the coastal mountain ranges (elevation of approximately 3,000 ft). Consequently, the Proposed Project site is not subject to inundation by tsunami. The Proposed Project site is not located adjacent to an enclosed body of water that could be subject to a seiche. The Proposed Project site is not located in an area where mud flows occur.

e. **No Impact.** The Proposed Project does not include any water quality or groundwater management considerations.

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 mitigation an environmental effect?	☐	☐	☐	☒

Discussion

a. **No Impact.** The Proposed Project area does not encompass any established community.

b. **No Impact.** There are no conflicts between the Proposed Project and the Tulare County General Plan. The Proposed Project improvements will occur with existing public rights-of-way and on District acquired easements.

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?	☐	☐	☐	☒

Discussion

a. **No Impact.** The Proposed Project is primarily located within existing public road rights-of-ways and undeveloped agricultural land and will not result in a loss of mineral resources.

b. **No Impact.** The Proposed Project is primarily located within public road rights-of-ways and undeveloped agricultural land and does not impact any resource recovery site.

XIII. NOISE **Would the project in:**	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?	☐	☐	☐	☒

XII. NOISE (continued)

Discussion

a. **Less than Significant Impact.** During construction, the potential exists for noise to occur in excess of the Tulare County's General Plan standards. The Project's construction specifications will require construction activities to follow all applicable laws and limit noise generation. Due to the rural location and agricultural nature of the Proposed Project area, any noise created by construction would be consistent with agricultural equipment and would not adversely impact adjacent residents. Upon completion, the Proposed Project will not cause an increase in existing noise levels.

b. **Less than Significant Impact.** The potential for construction-related vibrations exists. Due to the rural location and agricultural nature of the Proposed Project area, vibration resulting from construction would be consistent with that from agricultural equipment and would not adversely impact adjacent residents. Upon completion, the Proposed Project will not cause an increase in existing vibration levels.

c. **No Impact.** The Proposed Project site is not located within an airport land use plan. The nearest airstrip is approximately 3 miles south of the Proposed Project.

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 unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b) Displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a. **No Impact.** The purpose of the Proposed Project is to replace agricultural existing water pipelines to improve delivery capabilities of the water distribution system.

b. **No Impact.** The Proposed Project is primarily located within public road rights-of-ways and on agricultural land. Proposed pipeline alignments accommodate existing rural housing.

XV. PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporation	Less than Significant Impact	No Impact
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

No Impact. The Proposed Project will not require, nor facilitate the need for, additional governmental services. No changes to service ratios, service times or other public service performance objectives will occur. Construction sequencing of the improvements will be used to minimize any potential impacts during construction.

XVI. RECREATION	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?	☐	☐	☐	☒

Discussion

a. **No Impact.** See response to Item XIII(a) – Population and Housing.

b. **No Impact.** The Proposed Project does not include or require expansion of any recreational facilities.

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) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) (Criteria for Analyzing Transportation Impacts).	☐	☐	☐	☒
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?	☐	☐	☐	☒

Discussion

a(i) **No Impact.** The Proposed Project elements are located underground with the exception of valve boxes which are to be installed at finish grade elevations. All construction activities will be performed within County rights-of-ways or executed easements. A County encroachment permit will establish requirements to maintain traffic flow on streets at locations of pipeline installations.

a(ii) **No Impact.** The Proposed Project does not conflict with CEQA Guidelines § 15064.3 (b). The Proposed Project does not represent a Land Use or Transportation Project. The construction of the Proposed Project can be accomplished by local contractors which will minimize the vehicle miles traveled.

a(iii) **No Impact.** The Proposed Project elements are located underground, with the exception of valve boxes which are to be installed at finish grade elevations.

a(iv) **No Impact.** The Proposed Project will not result in the alteration of the present access to the Proposed Project site. Therefore, existing emergency access would be maintained.

XVIII. TRIBAL 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 tribal cultural resource, defined in Public Resources Code § 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 Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☐	☒

Discussion

a(i). **No Impact.** The cultural resources survey completed for the Proposed Project (Item V) did not identify a listed or eligible for listing tribal cultural resource within the Project area.

a(ii). **No Impact.** The cultural resources survey completed for the Proposed Project (Item V) did not identify any tribal cultural resource having significance with the Project area.

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 forseeable 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 to solid waste?	☐	☐	☐	☒

XIX. UTILITIES AND SERVICE SYSTEMS (continued)

Discussion

a. **Less than Significant Impact.** The Proposed Project consists of replacing existing agricultural water distribution pipelines within existing roadway rights-of-ways that are maintained for traffic and residential access purposes and replacing an existing pipeline with a new water distribution pipeline along the same alignment in order to minimize the disturbance to undeveloped agricultural lands. The Proposed Project will not change the conditions of the Project area.

b. **No Impact.** The elements of the Proposed Project replace existing agricultural water distribution pipelines and appurtenances that will use existing agricultural water supplies. The Proposed Project does not require new water supplies.

c. **No Impact.** The Proposed Project addresses agricultural water delivery capabilities. The Proposed Project does not result in additional wastewater flows (demands).

d. **No Impact.** The Proposed Project does not result in a change in the solid waste generation or disposal of the existing facilities. The construction phase of the Proposed Project will generate a minor amount of solid waste on a temporary basis. Specifications will require proper handling and disposal of construction-related materials. In general, the construction-related materials (i.e., concrete, soil, etc.) can be recycled as erosion control material or in existing landfill facilities as daily cover.

e. **No Impact.** Specifications will require proper handling and disposal of construction-related materials.

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, powerlines 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?	☐	☐	☐	☒

Discussion

The Proposed Project lies within a Moderate Fire Hazard Severity Zone of a State Responsibility Area. The Project also includes Local Responsibility Areas.

a. **No Impact.** Construction requirements will maintain open roadways and access routes. Consequently, evacuation routes and emergency response routes would not be impacted.

b. **No Impact.** The operation of the Proposed Project will not exacerbate wildfire risks. The Proposed Project is not located within a high fire hazard severity zone. Construction activities do not present an increase in wildfire risks.

c. **No Impact.** The Proposed Project consists of replacing existing infrastructure. No new infrastructure is required. No new roads or fuel breaks will be required.

d. **No Impact.** The Proposed Project is not located within a high fire hazard severity zone. The topography slopes mildly and impacts a relatively small drainage area that does not present significant risks associated with landslides or downstream flooding.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:

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

Discussion

a. **Less Than Significant Impact.** As described in the previous sections, the Proposed Project will not result in any significant adverse impacts. Short-term related impacts that might occur during construction will be mitigated to a less than significant level based on Proposed Project design and/or construction specification requirements.

b. **No Impact.** The Proposed Project is not part of a past or future project. No projects or associated elements have been identified that rely on the completion of the Proposed Project. Therefore, the individual considerations of the Proposed Project and their described potential impacts do not have related impacts that need to be collectively analyzed as part of other projects.

c. **No Impact.** No direct or indirect adverse effects on the human population have been identified through the completion of this Initial Study.

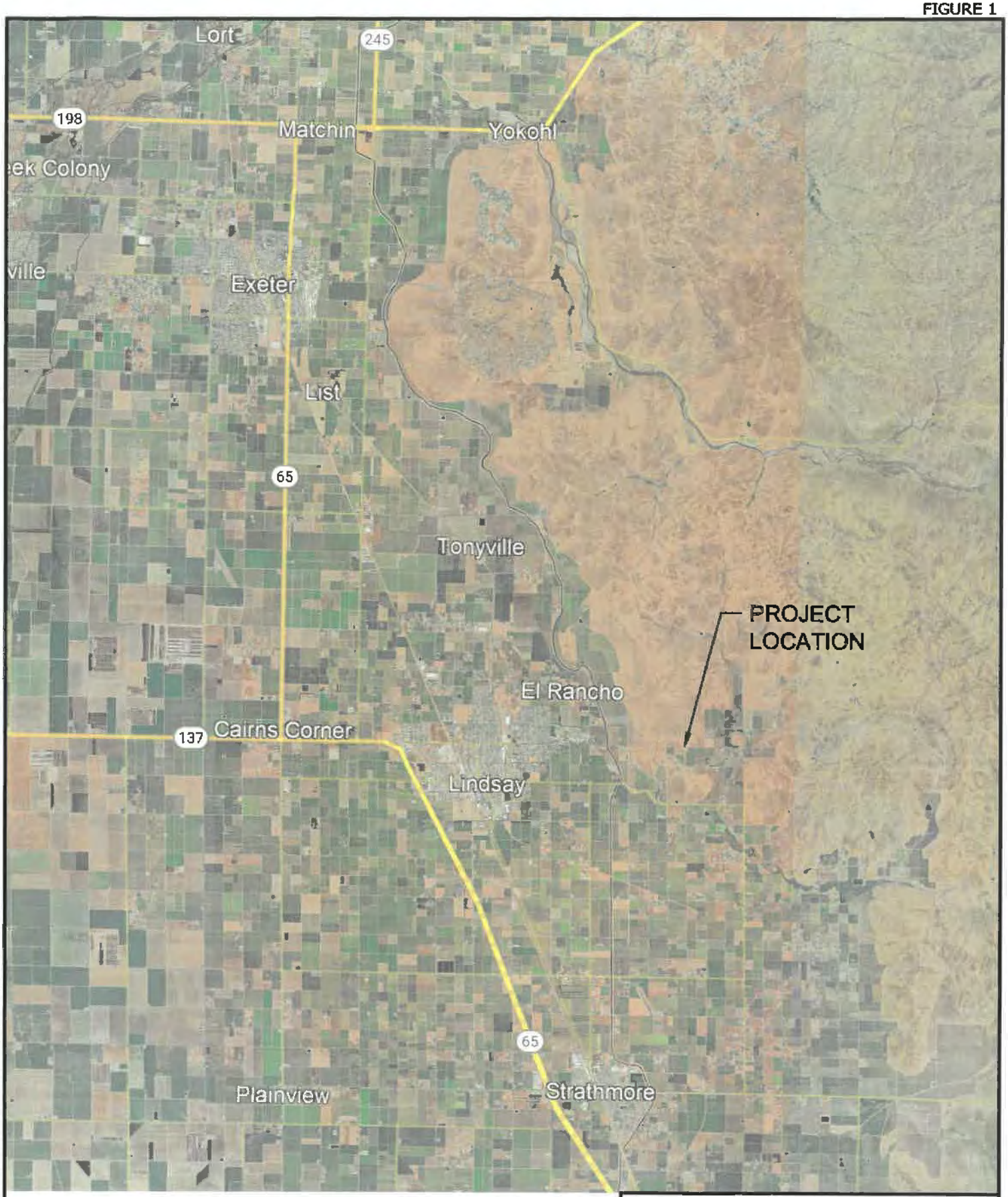
APPENDIX A

PROPOSED PROJECT LOCATION MAPS

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

FIGURE 1



PLAN SCALE: 1"=1000'

PROJECT VICINITY

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

DENNIS R. KELLER CCE, INC.

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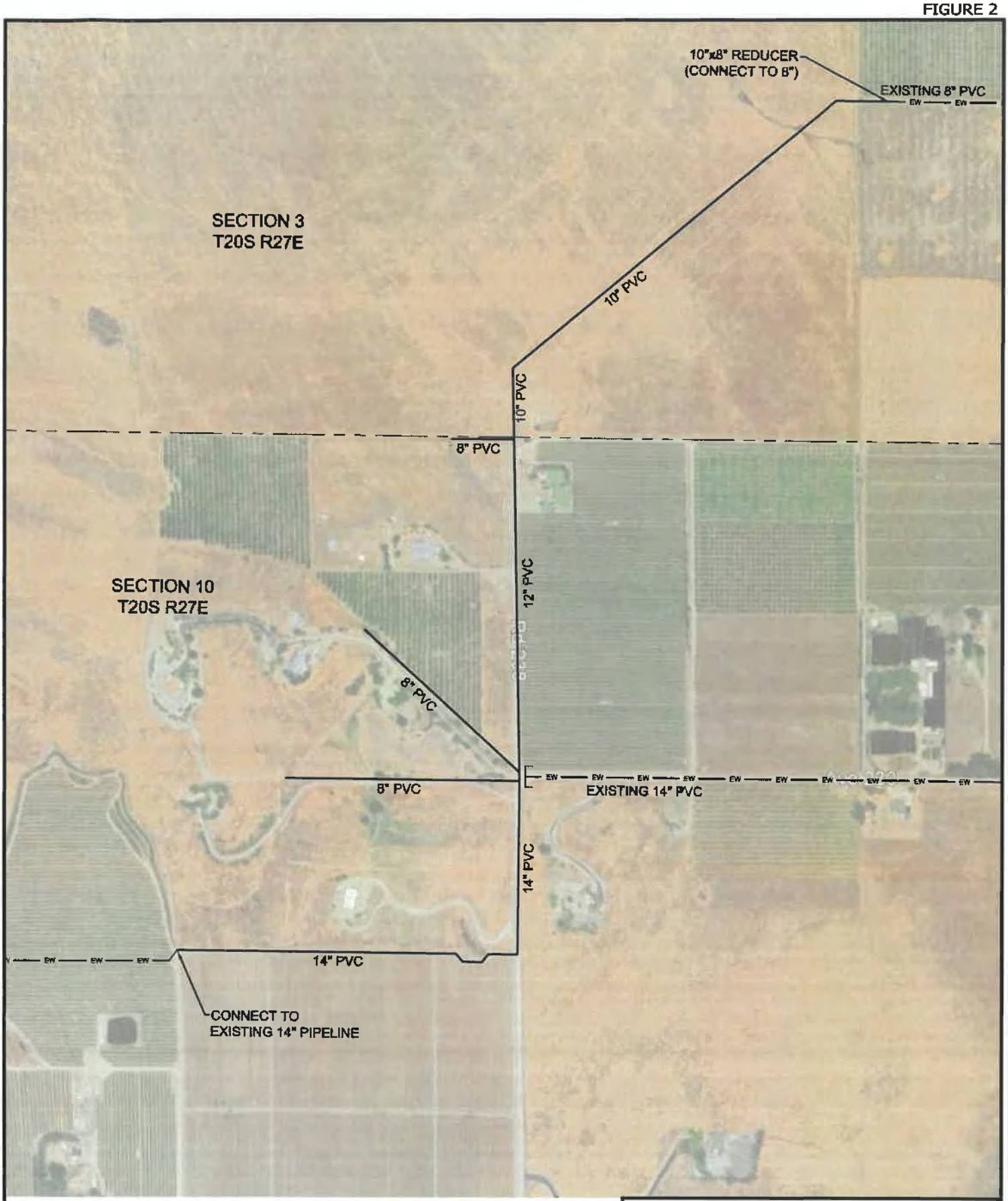
FIGURE 2



LEGEND

NEW PIPELINE

EW EW EXISTING PIPELINE

PLAN SCALE: 1"=300'

PROJECT LOCATION

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

DENNIS R. KELLER CCE, INC.

L:\LSID\HIGHLINE PIPELINE REPLACEMENT PROJECT\Fig 2 - Project Location.dwg

APPENDIX B

AIR EMISSIONS/GREENHOUSE GASES ESTIMATES

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

ESTIMATED EMISSIONS
HIGHLINE PIPELINE REPLACEMENT PROJECT
LINDSAY-STRATHMORE IRRIGATION DISTRICT

The estimated Project construction and operational air emissions are summarized below. The emission estimates were generated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. based upon the installation of 7,300 linear feet 8-inch, 12-inch and 14-inch diameter water main, gate valves and connections over a 140 day construction schedule. The full CalEEMod emissions estimate report is available for review at the District office.

Pollutant	Federal Status (Attainment, Nonattainment or Unclassified)	Nonattainment Rates (Marginal, Moderate, Serious, Severe or Extreme)	Threshold of Significance for the Area (if applicable (Tons/Year) (1)	Construction Emissions (Tons/Year)	Operations Emissions (Tons/Year) (2)
Carbon Monoxide (CO)	Attainment	NA	100	1.5	0.08
Ozone (O_3)	Nonattainment	Extreme	10 (EPA De Minimis)	Unknown (Note 3)	Unknown (Note 3)
Oxides of Nitrogen (NO_x)	Unknown	-	10	1.3	0.07
Particulate Matter (PM_{10})	Attainment	NA	15	0.19	0.03
Reactive Organic Gases (ROG)	Unknown	-	10	0.15	0.02
Sulfur Dioxide (SO_2)	Attainment	NA	100 (EPA De Minimis)	0.003	0.0004
Volatile Organic Compounds (VOC)	Unknown	-	50 (EPA De Minimis)	Unknown (Note 3)	Unknown (Note 3)
Particulate Matter ($PM_{2.5}$)	Nonattainment	Serious	15	0.10	0.009
CO2e (Greenhouse Effect)	Does not apply	-	10,000 Metric Tons (California Air Resources Board)	304	46
Lead (Pb)	Attainment	NA	25 (EPA De Minimis)	Unknown (Note 3)	Unknown (Note 3)

Notes:

1. San Joaquin Valley Air Pollution Control District adopted thresholds, unless otherwise noted.
2. Results reflect CalEEMod recreationall land use. The Project consists of water pipelines, and manually operated gate valves and will not result in significant changes to existing operations.
3. Not calculated by CalEEMod.

APPENDIX C

BIOLOGICAL RESOURCES REPORT

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

LIVE OAK
ASSOCIATES, INC.

BIOLOGICAL EVALUATION
HIGHLINE PIPELINE REPLACEMENT PROJECT
TULARE COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.
Austin Pearson, Vice President
Jeff Gurule, Senior Project Manager

Prepared for:

Craig Wallace
Lindsay-Strathmore Irrigation District
23260 Round Valley Road
Lindsay, CA 93247

April 12, 2024 PN 2858-01

EXECUTIVE SUMMARY

The Lindsay-Strathmore Irrigation District proposes to replace approximately 7,300 feet of existing water pipeline near the unincorporated community of Lindsay in Tulare County. The work will require a 30-foot-wide project disturbance corridor. Live Oak Associates, Inc. (LOA) conducted an investigation of the biotic resources of an approximate 60-foot-wide alignment corridor, accounting for uncertainty of the actual pipe placement, and assessed potential impacts to those resources pursuant to the California Environmental Quality Act (CEQA). The project site was surveyed on March 22, 2024 for its biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

Three biotic habitats/land uses were found on site: Non-native grassland, ruderal/developed and orchard. The grassland is used as pasture for cattle. Project areas outside of the grassland are regularly disturbed by vehicle traffic, road and residential maintenance, agricultural activity, and vegetation management.

The project has the potential to adversely impact two special status plant species, the Kaweah brodiaea and San Joaquin adobe sunburst, protected under the State and/or Federal Endangered Species Acts. Avoidance of any populations of these species identified during protocol surveys or, if avoidance is not feasible, consultation with CDFW and potential compliance with an Incidental Take Permit would be required. The project has the potential to result in construction-related mortality of nesting migratory birds protected under the federal Migratory Bird Treaty Act and related state laws. Mortality of protected avian species would be considered a significant impact of the project under CEQA. By either implementing the project outside of the nesting seasons or by avoiding aetive nests identified during preconstruction surveys, the project applicant can reduce the magnitude of this potential impact to a less than significant level.

The project will either have no impact or a less than significant impact, as defined by CEQA, on the following biotic resources: 15 special status plant species that would not be found on site; special status animal species that would not likely use the site (i.e., the project site is outside their typical range or habitats of the site are not suitable for them); special status animal species that may occasionally use habitats of the project site for cover and foraging but not for sensitive activities such as breeding, nesting, or communal roosting; wildlife movement corridors; sensitive natural communities and designated critical habitat; and waters of the State or U.S. The project is not in conflict with any habitat conservation plans or local policies.

TABLE OF CONTENTS

1.0 INTRODUCTION

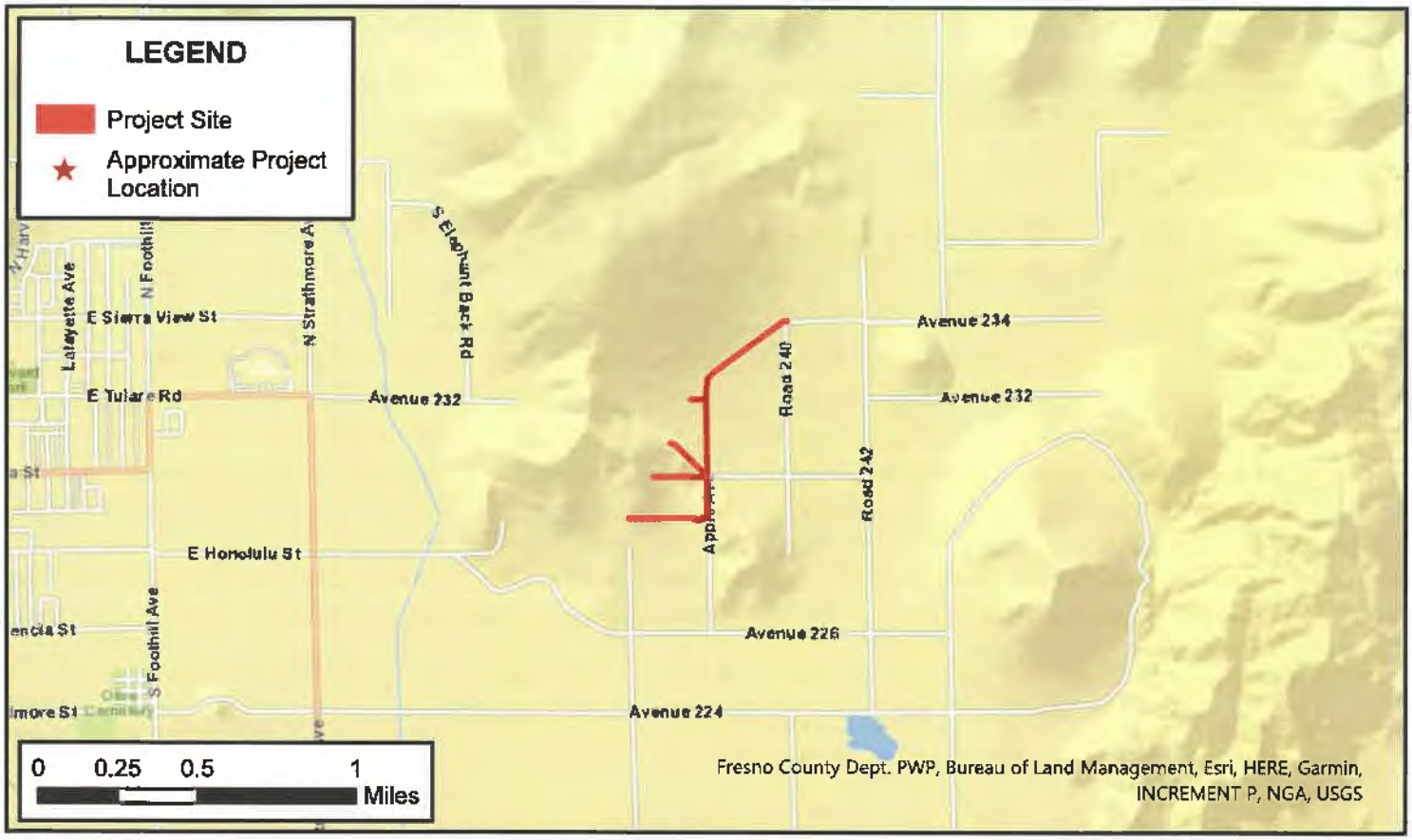
This report, prepared by Live Oak Associates, Inc. (LOA), describes the biological resources of an approximately 60-foot-wide, 7,300-foot-long alignment ("project site" or "site") in which existing water pipelines will be replaced ("project"), and assesses potential project-related impacts to those resources. Specifically, this report describes the biotic habitats of the project site, evaluates habitat suitability for special status plant and animal species, identifies potentially significant impacts to sensitive or protected biological resources from the project, and proposes measures that, if implemented, would mitigate those impacts to a less than significant level as defined by the California Environmental Quality Act (CEQA).

1.1 PROJECT LOCATION

The project site is located approximately 1.0 mile east of Lindsay in Tulare County, California (Figure 1). The project site is located in the vicinity of the intersection of Road 238 and Avenue 230 within and/or along existing paved and dirt roads. The site can be found on the Lindsay U.S. Geological Survey (USGS) 7.5-minute quadrangle, Sections 3 and 10, Township 20 South, Range 27 East; Mount Diablo Base and Meridian (Figure 2).

1.2 PROJECT DESCRIPTION

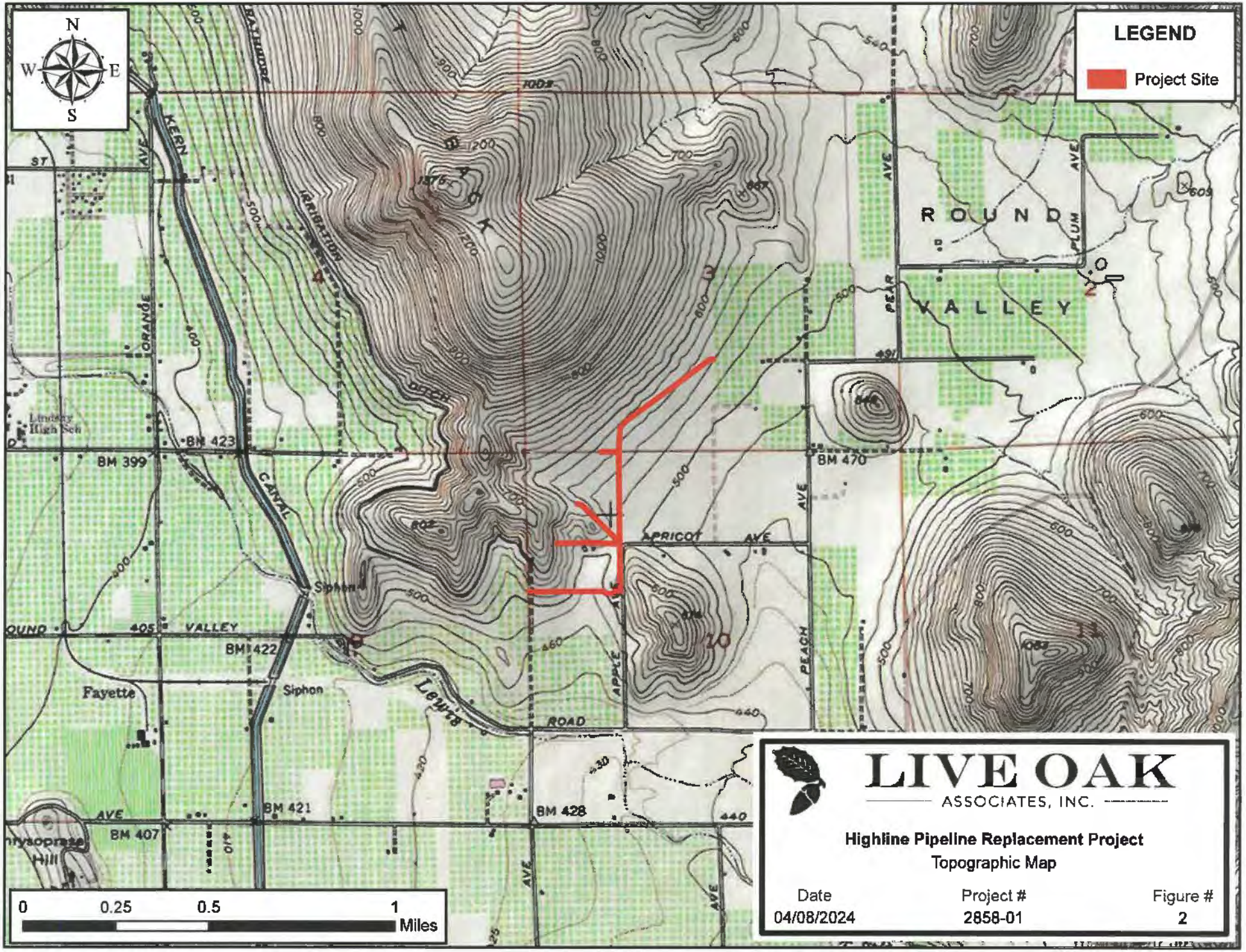
The Lindsay-Strathmore Irrigation District (District) provides water for both domestic and agricultural irrigation purposes. Their proposed work for this project will consist of replacing existing 8- and 10-inch water pipelines within their existing alignments, most of which follow existing road rights-of-ways or along or adjacent to unpaved roads. Within the 60-foot-wide area of potential effect, a 30 feet wide corridor of direct disturbance will be required to facilitate construction. Several trees and shrubs are likely to be removed or trimmed by the project.



LIVE OAK ASSOCIATES, INC.

Highline Pipeline Replacement Project
Vicinity Map

Date	Project #	Figure #
04/08/2024	2858-01	1



LIVE OAK ASSOCIATES, INC.

Highline Pipeline Replacement Project

Topographic Map

Date	Project #	Figure #
04/08/2024	2858-01	2

1.3 REPORT OBJECTIVES

This report summarizes a biological study conducted by LOA to facilitate environmental review pursuant to CEQA. 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 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 and species-specific guidelines.

1.4 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is 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 include: (1) the *California Natural Diversity Data Base* (CDFW 2024); (2) the *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2024); (3) manuals, reports, and references related to plants and animals of the region; and (4) other available planning documents and biological studies from the general project vicinity. A field survey of the project site was conducted on March 22, 2024, by LOA biologist Jeff Gurule. The survey entailed a walk along the project alignment, while noting principal land uses and associated plant and animal species and mapping habitat suitable for special status species and other sensitive or protected biological resources. Plant and animal species observed were recorded on a field datasheet and photographs of the site were taken.

2.0 EXISTING CONDITIONS

2.1 REGIONAL SETTING

The project site is located at the interface of the San Joaquin Valley and Sierra Nevada foothills. Agricultural development dominates the San Joaquin Valley in the region and the steep foothills in the region consist of undeveloped rangeland. The principal drainage in the project vicinity is Lewis Creek, located approximately 0.4 mile south of the project site at its closest point.

Average annual precipitation in the general vicinity is approximately 12 inches, 85% of which falls between the months of October and March. Storm-water runoff is expected to readily infiltrate into onsite soils.

2.2 PROJECT SITE

The project site consists primarily of paved and dirt roads surrounded by open fields, residential development, and orchards and vineyards. The site is sloped with elevations ranging from approximately 527 to 575 feet National Geodetic Vertical Datum (NGVD) (Figure 2).

Soils of the site comprise the following soil mapping units:

- 150: Porterville cobbly clay, 2 to 15 percent slopes (463615)
- 148: Porterville clay, 2 to 9 percent slopes (463613)
- 113: Cibo clay, lithic bedrock, 15 to 30 percent slopes, MLRA 18 (463578)

These soil mapping units are not generally considered hydric, meaning they don't have the propensity to form wetlands. However, clay soils are known to sometimes support rare plant species adapted to clay soils. Most of the soils on the project site have been altered through agriculture and residential development, diminishing their capacity to support sensitive biological resources.

2.3 BIOTIC HABITATS

The project site contained three biotic habitats/land uses, characterized as non-native grassland, ruderal/developed, and orchard (Figure 3). 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.

2.3.1 Non-Native Grassland

Non-native grassland on the site consists of an undeveloped pasture area at the north end of the project alignment. Vegetation in these areas consisted primarily of non-native grasses and forbs such as foxtail barley (*Hordeum murinum*), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), common cheeseweed (*Malva parviflora*), black mustard (*Brassica nigra*), California burclover (*Medicago polymorpha*), and whitestem filaree (*Erodium moschatum*). The dominant native species in this area was small flowered fiddleneck (*Amsinckia menziesii*).

A number of wildlife species would utilize the grassland areas of the site. Reptiles expected to occur in this habitat include the side-blotched lizard (*Uta stansburiana*), common kingsnake (*Lampropeltis californiae*), and Pacific gopher snake (*Pituophis catenifer catenifer*). Amphibians are expected to be absent from the grasslands due to the lack of suitable breeding habitat in the near vicinity.

Avian species expected to occur in the grasslands include the western kingbird (*Tyrannus verticalis*) in the summer, the Say's phoebe (*Sayornis saya*) and savannah sparrow (*Passerculus sandwichensis*) in the winter, and the western meadowlark (*Sturnella neglecta*), mourning dove (*Zenaida macroura*), killdeer (*Charadrius vociferus*), Brewer's blackbird (*Euphagus cyanocephalus*), American kestrel (*Falco sparverius*) and red-tailed hawk (*Buteo jamaicensis*) year-round.

Small mammal use of the grassland is expected to include the deer mouse (*Peromyscus maniculatus*), California vole (*Microtus californicus*), and Botta's pocket gopher (*Thomomys bottae*). At the time of LOA's field survey, burrowing rodent activity was not observed in the grasslands of the site.


LEGEND
Project Site Boundaries
Habitat / Land Use
Ruderal/Developed
Non-native Grassland
Orchard
N
W
E
S
0
250
500
1,000
Feet
LIVE OAK
ASSOCIATES, INC.
Highline Pipeline Replacement Project
Biotic Habitats / Land Uses
Date
04/08/2024
Project #
2858-01
Figure #
3

Mammalian predators expected to use the site's ruderal grassland include the coyote (*Canis latrans*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*). Due to the proximity of residences, domestic dogs (*Canis familiaris*) and cats (*Felis catus*) may also occur here from time to time.

2.3.2 Ruderal/Developed

Most of the project site consists of ruderal/developed areas that include dirt roads and roadsides along county roads and residential neighborhoods, as well as landscaped areas along these roads. Much of this area experiences regular disturbance from vehicle traffic, road and residential maintenance, and vegetation management. At the time of LOA's survey, the ruderal/developed areas were either unvegetated or vegetated with ornamental shrubs and trees, and common disturbance tolerant weedy species such as foxtail barley, red brome (*Bromus rubens*), dwarf nettle (*Urtica urens*), red-stemmed filaree (*Erodium cicutarium*), common sowthistle (*Sonchus oleraceus*), prickly lettuce (*Lactuca serriola*), and shining peppergrass (*Lepidium nitidum*), among others.

Ruderal/developed habitats of the project site offer suitable nesting habitat to disturbance tolerant birds. For example, mourning doves and northern mockingbirds (*Mimus polyglottos*) could nest in the ornamental trees or shrubs within or immediately adjacent to the project site. Ground nesting birds like killdeer are highly disturbance tolerant and could nest in barren areas of this habitat.

The site's ruderal/disturbed areas provide habitat for mammals associated with human altered environments such as Audubon cottontails (*Sylvilagus audubonii*), raccoons, coyotes, and striped skunks. Such species would be expected to utilize and pass through these areas. Small mammals expected to occur in this habitat type include Botta's pocket gopher and deer mice.

2.3.3 Orchard

The project site contains orchard habitat in the form of citrus orchards. The orchard areas were highly maintained with little to no understory vegetation. Due to intensive agricultural disturbance and the lack of understory vegetation, wildlife use of the orchards would be primarily limited to avian and mammal use.

Orchards provide foraging habitat and cover for a number of avian species, and mature orchards may also be used for nesting. Resident birds that may be expected to forage and possibly nest in the orchards include the mourning dove, American robin (*Turdus migratorius*), and western scrub jay (*Aphelocoma californica*). Winter migrants such as the white-crowned sparrow (*Zonotrichia leucophrys*) and yellow-rumped warbler (*Setophaga coronata*) would also occur in this habitat. The western kingbird is a common summer migrant that may nest in mature orchard trees adjacent to open habitat.

A few small mammal species would be expected to occur within the orchards of the project area. These include deer mice, California voles, house mice (*Mus musculus*), and Botta's pocket gophers. Various species of bat may forage over orchard habitat for flying insects or glean insects from the leaves of orchard trees.

Foraging raptors and mammalian predators may occur in on-site orchards from time to time. Raptors adapted to hunt within the tree canopy such as Cooper's hawks (*Accipiter cooperii*) and sharp-shinned hawks (*Accipiter striatus*) may forage for small birds in mature orchards of the project area. Mammalian predators potentially occurring in orchards of the project area include the raccoon, striped skunk, and coyote.

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 residential uses. As described more fully in Section 3.2, state and federal laws have provided the 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 2023). Collectively, these plants and animals are referred to as "special status species."

The California Natural Diversity Data Base (CNDDB) was queried for special status plant and animal occurrences in the nine USGS 7.5-minute quadrangles containing and surrounding the project site: *Lindsay, Exeter, Rocky Hill, Chickencoop Canyon, Cairns Corner, Frazier Valley, Woodville, Porterville,* and *Success Dam.* A number of special status plants and animals were returned in the query and are listed below in Table 1. 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), the *California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2024), *Calflora.org,* and *eBird.org.*

TABLE 1. 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
Kaweah Brodiaea (*Brodiaea insignis*)	CE, CRPR 1B.2	Occurs in granitic or clay soils in cismontane woodlands, meadows, seeps, valley, and foothill grasslands at elevations of 490- 4,500 feet. Blooms April-June.	**Possible:** Grassland habitat at the north end of the project site provides potentially suitable habitat for this species. The nearest documented occurrence is approximately 3.0 miles to the northeast (iNaturalist 2024).
Springville Clarkia (*Clarkia springvillensis*)	FT, CE, CRPR 1B.2	Occurs in chaparral, cismontane woodland, valley, and foothill grasslands with granitic soil between 985 and 2,430 ft. in elevation. Blooms May-July.	**Absent:** The project site lies outside of the elevation range of this species and suitable soils are absent.
Striped Adobe-Lily (*Fritillaria striata*)	CT, CRPR 1B.1	Occurs in heavy clay soils in grassy areas of oak woodland between 442 and 4,790 ft. in elevation. Blooms February-April.	**Absent:** Suitable oak woodland habitat for this species is absent.
San Joaquin Woollythreads (*Monolopia congdonii*)	FE, CRPR 1B.2	Occurs in sandy soils in shadscale scrub and valley grassland, between 195 and 2,600 ft. in elevation. Blooms February-May.	**Absent.** The project site lies outside of the known range for this species and suitable habitat is absent.
San Joaquin Adobe Sunburst (*Pseudobahia peirsonii*)	FT, CE, CRPR 1B.1	Occurs in foothill grasslands in heavy clay soils of the Porterville and Centerville series, between 300 and 2,625 ft. in elevation. Blooms March-April.	**Possible.** Porterville clay soils in which this species grows are present in the undisturbed grassland areas at the north end of the site. The species has been historically documented in the Lindsay area (CDFW 2024).
Keck's Checkerbloom (*Sidalcea keckii*)	FE, CRPR 1B.1	Occurs in cismontane woodland and valley and foothill grassland habitat with serpentine and/or clay soils between 525 and 2,230 ft. in elevation. Blooms April-May.	**Unlikely.** This species is not known to occur in this portion of Tulare County. The nearest documentation of this species is an historic collection approximately 11 miles to the southeast (CDFW 2024).

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

PLANTS

CNPS-listed Species

Species	Status	Habitat/Range	*Occurrence within the Project Site
Earlimart Orache (*Atriplex cordulata* var. *erecticaulis*)	CRPR 1B.2	Occurs in alkaline soils of valley and foothill grasslands between 230 and 395 ft. in elevation. Blooms August-September.	**Absent.** Suitable habitat and soils for this species are absent from the project site. The project site is above the elevational range of the species.
Lesser Saltscale (*Atriplex minuscula*)	CRPR 1B.1	Occurs in cismontane woodland and valley and foothill grasslands of the San Joaquin Valley; alkaline/sandy soils; blooms May-October; elevation 50-660 ft.	**Absent.** Suitable habitat and soils for this species are absent from the project site.
Subtle Orache (*Atriplex subtilis*)	CRPR 1B.2	Occurs in alkaline soils in valley and foothill grasslands of the San Joaquin Valley; blooms August-October; elevation 130-330 ft.	**Absent:** The project site lies outside of the elevation range of this species and suitable soils are absent from the site.
Recurved Larkspur (*Delphinium recurvatum*)	CRPR 1B.2	Occurs in alkaline soils of cismontane woodland and valley and foothill grasslands in elevations 100 – 2,000 feet. Blooms March-June.	**Absent.** Alkaline soils required by this species are absent from the project site.
Calico Monkeyflower (*Diplacus pictus*)	CRPR 1B.2	Occurs around granitic outcrops or gooseberry shrubs in broadleaf upland forest and cismontane woodland in granitic soils between 330 and 4270 ft. in elevation. May occur in disturbed areas. Blooms March-May.	**Absent.** Granite outcrops required by this species are absent from the project site.
Spiny-sepaled Button Celery (*Eryngium spinosepalum*)	CRPR 1B.2	Found in vernal pools, swales and valley and foothill grasslands at the eastern edge of the San Joaquin Valley and in the Tulare basin; elevation between 330 and 840 ft. Blooms April to May.	**Absent.** Suitable habitat for this species is absent from the project site.
Alkali-Sink Goldfields (*Lasthenia chrysantha*)	CRPR 1B.1	Occurs in valley grassland, alkali sink, wetland riparian areas less than 328 ft. in elevation in the southern Sacramento Valley and San Joaquin Valley. Blooms February – June.	**Absent.** Suitable habitat and soils are absent from the project site. Furthermore, the site is above the elevational range of the species.
Madera Leptosiphon (*Leptosiphon serrulatus*)	CRPR 1B.2	Occurs in openings in cismontane woodland between 980 and 1,400 ft. in elevation. Blooms April-May.	**Absent.** Suitable habitat for this species is absent from the project site. Moreover, the project site is situated outside of this species' elevational range.
Shining Navarretia (*Navarretia nigelliformis ssp. radians*)	CRPR 1B.2	Occurs in cismontane woodland, vernal pools, and valley and foothill woodland. Blooms May to July.	**Unlikely.** This species is not known to occur in this portion of Tulare County. The only known population in Tulare County is near Lake Success approximately 11 miles to the southeast (CDFW 2024).
California Alkali Grass (*Puccinellia simplex*)	CRPR 1B.2	Occurs in alkali sinks and flats within grassland and chenopod scrub habitats of the Central Valley, San Francisco Bay area and western Mojave Desert; elevations below 3,000 feet. Blooms March-May.	**Absent.** Suitable habitat and soils for this species are absent from the project site.
Chaparral Ragwort (*Senecio aphanactis*)	CRPR 2B	Drying alkaline flats in coastal scrub, chaparral, and cismontane woodland habitats at elevations between 20 and 855 meters. Blooms Jan. – April.	**Absent.** Suitable habitat and soils for this species are absent from the project site.

TABLE 1. 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 (*Branchinecta lynchi*)	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 (*Bombus crotchii*)	CCE	This bee is found in Coastal California east to the Sierra-Cascade crest and south into Mexico, where it occupies open grassland and scrub habitats. Constructs nests underground in animal burrows. Overwintering sites are likely in soft soils or in debris or leaf litter. Its food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	**Unlikely.** Nectar resources in natural areas of the site are sparse and underground burrows are absent from natural areas of the site. Nectar resources are primarily limited to ornamental plants. Rudent burrows were limited to developed/ruderal areas of the site that would be marginally suitable for nesting due to the disturbed nature of these areas.
Valley Elderberry Longhorn Beetle (*Desmocerus californicus dimorphus*)	FT	Lives in mature elderberry shrubs of California's Central Valley and Sierra foothills.	**Absent.** The USFWS has revised its understanding of VELB distribution to exclude the San Joaquin Valley south of Merced County Furthermore, blue elderberry shrubs required by this species are absent from the site.
Western Spadefoot (*Spea hammondii*)	FPT CSC	Primarily occurs in grasslands, but also occurs in valley and foothill hardwood woodlands. Requires vernal pools or other temporary pools for breeding.	**Absent.** Suitable breeding habitat in the form of vernal pools or other temporary bodies of water are absent from the site and surrounding lands.
Western Pond Turtle (*Emys marmorata*)	FPT CSC	Associated with permanent bodies of water for breeding. Requires partially submerged rocks or logs for basking sites. Eggs are deposited in a variety of soil types near water's edge. Seasonal hibernation/estivation includes use of upland habitat from water sources including ground squirrel burrows and loose substrate for burying themselves.	**Absent.** Suitable aquatic habitat is absent from the project site and adjacent lands.
Foothill Yellow-Legged Frog- South Sierra DPS (*Rana boylii pop. 5)*	FPE, CE	Found in or near rocky streams in a variety of habitats. Use submerged rocks and debris for cover. Requires gravel or rocks in moving water near stream margins for reproduction.	**Absent.** Aquatic habitat needed to support this species is absent from project site and adjacent lands.
California Condor (*Gymnogyps californianus*)	FE, CE, CFP	This obligate scavenger hunts for carrion over vast expanses of savannah, grassland, and chaparral habitats. 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. Coudors in the project vicinity are from the southern California flock, currently estimated at 89 individuals (NPS 2023).	**Unlikely.** Although condors have occasionally been spotted soaring near the project site (iNaturalist 2024), the site itself does not offer foraging or nesting habitat for this species, and condors are unlikely to venture into the matrix of urban and intensive agricultural uses that characterizes the immediate project vicinity. At most, a transient condor may occasionally fly overhead.

TABLE 1. 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
Swainson's Hawk (*Buteo swainsoni*)	CT	Summer migrant in the Central Valley. Forages in grasslands and fields close to riparian areas.	**Possible.** Swainson's hawks are only occasionally observed in this portion of Tulare County. This species may occasionally forage over the site. The few trees within the project site are unsuitable for Swainson's hawk nesting due to their small size, sparse foliage, and/or their proximity to residential and agricultural development. Suitable nesting habitat is also absent on lands within ¼ mile of the project site.
Golden Eagle (*Aquila chrysaetos*)	CFP	Found a wide range of habitats throughout California's mountains, foothills, sage-juniper flats, and deserts. Primarily nests on cliffs, but may also use large trees in open areas.	**Present.** A golden eagle was observed soaring over the open grasslands at the north of the site. Nesting habitat is absent from the site, but the grasslands in the northern portion of the site provide suitable foraging habitat.
Tipton Kangaroo Rat (*Dipodomys nitratoides nitratoides*)	FE, CE	Inhabits valley saltbrush scrub, valley sink scrub, and grassland habitats located from the Valley floor to 300 ft. in elevation.	**Absent.** The site is above the elevational range of the species. Furthermore, the heavy clay soils within grassland habitats of the site are unsuitable for this species.
San Joaquin Kit Fox (*Vulpes macrotis mutica*)	FE, CT	Desert alkali scrub, annual grasslands of California's San Joaquin Valley and Tulare Basin, extending west into San Luis Obispo County. This species may forage in adjacent agricultural habitats.	**Absent.** This species has not been observed in this portion of Tulare County for decades. There are no currently known populations kit fox in Tulare County.

State Species of Special Concern

Northern California Legless Lizard (*Anniella pulchra*)	SSC	Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Requires moist soils.	**Absent.** Suitable habitat is absent from the project site.
Pallid Bat (*Antrozous pallidus*)	SSC	Occurs in deserts, grasslands, shrublands, woodlands and forests. most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Possible.** Foraging habitat is available on the site. Roosting habitat is marginal to absent from the project site.
Western Mastiff Bat (*Eumops perotis californicus*)	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.** Foraging habitat is available on the site. Suitable roosting habitat is absent.

TABLE 1. LIST OF SPECIAL STATUS SPECIES POTENTIALLY OCCURRING IN THE PROJECT VICINITY

ANIMALS

State Species of Special Concern

Species	Status	Habitat	*Occurrence within the Project Site
Townsend's Big-eared bat (*Corynorhinus townsendii*)	SSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Extremely sensitive to human disturbance.	**Possible.** Foraging habitat is available on the site. Roosting habitat is marginal to absent from the project site.
American Badger (*Taxidea taxus*)	CSC	This species inhabits open and dry sections of grasslands, shrub, and forest habitats with friable soil for digging.	**Unlikely.** No evidence of this species utilizing the site was observed during LOA's field survey and badgers are rarely observed in the region. The only area of the site that has the potential to support badgers is the open grassland to the north. However, the heavy clay soils in this area are not conducive to badger burrowing and the lack of evidence of other burrowing mammals indicate poor foraging habitat for 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
FT	Federally Threatened
FPT	Federally Proposed Threatened
FC	Federal Candidate
FPD	Federally (Proposed) Delisted
CE	California Endangered
CT	California Threatened
CSC	California Species of Special Concern
CRPR	California Rare Plant Ranking
CFP	California Fully Protected
CCE	California Candidate Endangered

2.5 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the USACE, the CDFW, and the Regional Water Quality Control Board (RWQCB). See Section 3.2.8 of this report for additional information.

Jurisdictional waters are absent from the site.

2.6 CALIFORNIA SENSITIVE NATURAL COMMUNITIES

California Sensitive Natural Communities are natural communities designated by CDFW as those that are of limited distribution, distinguished by significant biological diversity, home to special status plant and animal species, of importance in maintaining water quality or sustaining flows, etc.

No habitats designated as a Sensitive Natural Community by CDFW or any other sensitive habitats are present on the site or surrounding lands.

2.7 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, rivers and creeks supporting riparian vegetation, and ridgelines.

Wildlife movement corridors are absent from the project site.

2.8 DESIGNATED CRITICAL HABITAT

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 surrounding lands.

3.0 RELEVANT GOALS, POLICIES, AND LAWS

3.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT

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.

3.2 OTHER RELEVANT LAWS AND POLICIES

3.2.1 General Plan Policies of Tulare County

In compliance with CEQA, the lead agency must consider conformance with applicable goals and policies of the General Plan of the County of Tulare. The Tulare County General Plan released an update in 2003 that is valid through 2030. Implementation of goals in this plan is accomplished via a set of policies specific to each goal.

Relevant biological resource goals of the Tulare County General Plan include:

- protecting rare and endangered species;
- limiting development in environmentally sensitive areas;
- protecting riparian areas though habitat preservation, designation as open space or recreational land uses, bank stabilization and development controls;
- supporting the preservation and management of wetland and riparian plant communities for passive recreation, groundwater recharge, and wildlife habitats;
- encouraging the planting of native trees, shrubs, and grasslands preserve;
- requiring open space buffers between development projects and significant watercourse, riparian vegetation, wetlands, and other sensitive habitats and natural communities;

- coordinating with other government land management agencies to preserve and protect biological resources;
- supporting the conservation and management of oak woodland communities and their habitats;
- implementing pesticide controls to limit effects on natural resources; and
- supporting the establishment and administration of a mitigation banking program.

3.2.2 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.

3.2.3 California Fully Protected Species

The classification of certain animal species as "fully protected" was the State of Califomia's initial effort in the 1960s, prior to the passage of the California Endangered Species Act (CESA), to

identify and provide additional protection to those species that were rare or faced possible extinction. Following CESA enactment in 1970, many fully protected species were also listed as California threatened or endangered. The list of fully protected species are identified, and their protections stipulated, in California Fish and Game Code Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and fish (5515). Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take, except in conjunction with necessary scientific research and protection of livestock.

3.2.4 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.

3.2.5 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.

3.2.6 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.

3.2.7 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.

3.2.8 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 under the definition
- 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

The project considered in this evaluation of impacts to biological resources is the construction of approximately 7,300 feet of water pipelines. This analysis assumes that the site will primarily experience temporary disturbance and that some trimming and/or removal of non-native ornamental trees would be required.

4.1 POTENTIALLY SIGNIFICANT PROJECT IMPACTS

4.1.1 Potential Project Impacts to Special Status Plants

Potential Impacts. Of the 17 special status plant species known from the region, two species have some potential to occur on the project site: Kaweah brodiaea and San Joaquin adobe sunburst. Both of these species are listed as California Endangered, and the San Joaquin adobe sunburst is federally threatened. Their potential to occur on site is limited to the grassland area near the northern end of the alignment. If these plants are found in areas that are proposed for impact, individuals and populations could be damaged or destroyed. Project impacts to these special status plant species are considered potentially significant under CEQA.

The remaining 15 special status plant species are considered absent from or unlikely to occur on the project site due to an absence of suitable habitat and/or soils, the site's being situated outside of the species' distribution, or a combination thereof (see Table 1). The project is not expected to adversely affect these species, either directly or indirectly, and impacts are considered less than significant under CEQA.

Mitigation. The following measures will be implemented to reduce the magnitude of potential project impacts to the Kaweah brodiaea and San Joaquin adobe sunburst.

> ***Mitigation Measure 4.1.1a (Preconstruction Survey).*** Prior to the start of construction, a qualified biologist will conduct protocol-level rare plant surveys following CDFW's 2018 *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*, or most current agency guidance. Surveys will target the project site's grassland habitat, and will be conducted during appropriate times of year, when local populations of the target species are in bloom and readily identifiable.

Mitigation Measure 4.1.1b (Avoidance). If individuals or populations of the target species are identified in proposed impact areas, project design will be modified, if at all feasible, to avoid the plants. A qualified biologist will identify an appropriate buffer around the plants, and no developments or other project-related activities will be permitted within.

Mitigation Measure 4.1.1c (CDFW Consultation and ITP Compliance). If it is not feasible to avoid individuals or populations of special status plants that are found on site CDFW will be consulted to determine if an Incidental Take Permit (ITP) will be required. If so, all terms and conditions of the CDFW ITP will be adhered to; such provisions will likely include seed salvage and compensatory mitigation.

Implementation of the above mitigation measures would reduce impacts to special status plants to a less than significant level under CEQA.

4.1.2 Potential Project Impacts to Nesting Birds

Potential Impacts. The project site has the potential to be used for nesting by a variety of 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 or disturbed such that they would abandon their nests. Significant construction-related disturbance is also a possibility for birds nesting adjacent to the project site. Construction-related mortality of nesting birds and disturbance leading to nest abandonment would violate state and federal laws and constitute significant impacts of the project.

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

Measure 4.1.2a (Construction Timing). If feasible, the project will be implemented outside of the avian nesting season, typically defined as February 1 to August 31.

Measure 4.1.2b (Preconstruction Surveys). If construction must 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 construction. The survey area will encompass the site and accessible surrounding lands within 250 feet for nesting migratory birds and 500 feet for raptors (i.e., birds of prey).

Measure 4.1.2c (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. This buffer 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 ensure that the project does not significantly impact nesting birds, and will facilitate compliance with state and federal laws.

4.2 LESS THAN SIGNIFICANT PROJECT IMPACTS

4.2.1 Potential Project Impacts to Special Status Animal Species Absent from or Unlikely to Occur Within the Project Site

Potential Impacts. Of the 17 special status animal species that potentially occur in the region, 11 are considered absent from 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 1). These include the vernal pool fairy shrimp, Crotch bumble bee, valley elderberry longhorn beetle, foothill yellow legged frog, western spadefoot, western pond turtle, northern California legless lizard, California condor, Tipton kangaroo rat, San Joaquin kit fox, and American badger. (see Table 1). The project is expected to have an insignificant effect or no effect on these species through construction mortality/disturbance or loss of habitat because there is little or no likelihood that they are present.

Mitigation. Mitigation is not warranted.

4.2.2 Potential Project Impacts to Special Status Animal Species that May Occur on the Project Site as Occasional or Regular Foragers but Breed Elsewhere

Potential Impacts. Four (4) special status animal, the tricolored blackbird, western mastiff bat, Swainson's hawk, and golden eagle have the potential to forage or pass over the site but would not breed on site or near enough to the site that they could be substantially disturbed by construction activities (see Table 1). Foraging individuals of these species would not be vulnerable to construction-related injury or mortality because they are highly mobile and would be expected to simply avoid active work areas.

The project site does not offer any unique foraging habitat, with many square miles of similar to higher quality foraging habitat abundant in the region. Therefore, the project is not expected to adversely affect these species through loss of foraging habitat. Potential project impacts to the

tricolored blackbird, western mastiff bat, Swainson's hawk, and golden eagle are therefore considered less than significant.

Mitigation. Mitigation is not warranted.

4.2.3 Project Impacts to Roosting Bats

Potential Impact. A small wooden structure immediately adjacent to the project site provides unsuitable to marginal roosting habitat for the pallid bat and Townsend's big-eared bat due to the intolerance of these species to human disturbance and the expected high summer temperatures in potential roosting areas of the shed. Furthermore, project activities will not disturb this structure. While a few trees may be removed or trimmed, these trees have no cavities or crevices that could support roosting bats. Therefore, impacts to the pallid bat and Townsend's big-eared bat are considered less than significant under CEQA.

Mitigation. Mitigation is not warranted.

4.2.4 Potential Project Impacts to Waters of the United States and California

Potential Impacts. As noted in Section 2.5 of this report, the project site contains no jurisdictional waters. The project would have no impact on waters of the State or U.S.

Mitigation. Mitigation is not warranted.

4.2.5 Potential 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.

4.2.6 Project Impacts to Sensitive Natural Communities and Designated Critical Habitat

Potential Impacts. Sensitive Natural Communities and Designated Critical Habitat are absent from the project site and surrounding lands. Project development would have no impact on Sensitive Natural Communities or Designated Critical Habitat.

Mitigation. No mitigation is warranted.

4.2.7 Consistency with Local Policies and Habitat Conservation Plans

Potential Impacts. No Habitat Conservation Plans are in place in the project vicinity that would cover activities on the project site. The project area is outside sensitive biological resource areas identified in the Tulare County General Plan. As such, the project appears to be in compliance with the General Plan policies pertaining to biological resources and is not subject to any local policies dealing with biological resource issues.

Mitigation. Mitigation is not warranted.

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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 have been observed within or adjacent to the project site during site surveys conducted by Live Oak Associates, Inc., on March 22, 2024. The Arid West U.S. Fish and Wildlife Service wetland indicator status for each plant has been shown following the common name of the plant species.

OBL - Obligate
FACW - Facultative Wetland
FAC - Facultative
FACU - Facultative Upland
UPL - Upland
+/- - Higher/lower end of category
NR - No review
NA - No agreement
NI - No investigation

APOCYNACEAE- Dogbane Family		
Nerium oleander	Oleander	UPL
ASTERACEAE - Sunflower Family		
Centaurea melitensis	Tocalote	UPL
Helianthus annuus	Annual Sunflower	FACU
Lactuca serriola	Prickly Lettuce	FACU
Silybum marianum	Blessed Milkthistle	UPL
Sonchus oleraceus	Common Sow Thistle	UPL
BRASSICACEAE - Mustard Family		
Brassica nigra	Black Mustard	UPL
Capsella bursa-pastoris	Shepherd's Purse	FACU
Lepidium nitidum	Shinning Peppergrass	FAC
Sisymbrium irio	London Rocket	UPL
BORAGINACEAE- Borage Family		
Amsinckia eastwoodiae	Eastwood's Fiddleneck	UPL
Amsinckia menziezii	Small Flowered Fiddleneck	UPL
CONVOLVULACEAE – Morning Glory Family		
Convolvulus arvensis	Field Bindweed	UPL
CUPRESSACEAE – Conifer Family		
Sequoia sempervirens	Coast Redwood	UPL
FABACEAE – Legume Family		
Medicago polymorpha	Burclover	FACU
GERANIACEAE - Geranium Family		
Erodium cicutarium	Red-stemmed Filaree	UPL
Erodium moschatum	Whitestem Filaree	UPL
HYDROPHYLLACEAE—Waterleaf Family		
Phacelia cicutaria	Caterpillar Phacelia	UPL

LAURACEAE – Laural Family		
Persea americana	Avocado	UPL
MALVACEAE – Mallow Family		
Malva parviflora	Cheeseweed	UPL
MELIACEAE – Mahogany Family		
Melia azedarach	Chinaberry Tree	UPL
MONTIACEAE - Purselane Family		
Calandrinia menziesii	Red Maids	UPL
MYRTACEAE — Myrtle Family		
Eucalyptus camaldulensis	River Redgum	UPL
PHRYMACEAE—Figwort Family		
Erythranthe guttata	Seep Monkeyflower	OBL
PINACEAE- Pine Family		
Pinus sp.	Pine	UPL
POACEAE - Grass Family		
Avena sp.	Wild Oat	UPL
Bromus diandrus	Ripgut	UPL
Bromus rubens	Red Brome	UPL
Festuca perennis	Italian Rye Grass	FAC
Hordeum murinum	Barley	FACU
Senecio vulgaris	Common Groundsel	FACU
POLYGONACEAE - Buckwheat Family		
Rumex Crispus	Curly Dock	FAC
ROSACEAE—Rose Family		
Prunus sp.	Ornamental Fruit Tree	UPL
RUTACEAE—Rue Family		
Citrus sp.	Citrus	UPL
SOLANACEAE – Nightshade Family		
Datura wrightii	Jimson Weed	UPL
URTICACEAE – Nettle Family		
Urtica urens	Dwarf Nettle	UPL

APPENDIX B: TERRESTRIAL VERTEBRATE SPECIES POTENTIALLY OCCURRING ON THE PROJECT SITE

APPENDIX B
TERRESTRIAL VERTEBRATE SPECIES POTENTIALLY OCCURRING ON THE PROJECT SITE

The species listed below are those that may reasonably be expected to use the habitats of the project site. The list was not intended to include birds that are vagrants or occasional transients. Its purpose was rather to include those species that may be expected to routinely and predictably use the project site during some or all of the year. An asterisk denotes a species observed within or adjacent to the site during surveys conducted on March 22, 2024.

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)
Gopher Snake (*Pituophis melanoleucus*)
Common Kingsnake (*Lampropeltis getulus*)
Common Garter Snake (*Thamnophis sirtalis*)
FAMILY: VIPERIDAE (Vipers)
Western Rattlesnake (*Crotalus viridis*)

CLASS: AVES (Birds)
ORDER: CICONIIFORMES (Herons, Storks, Ibises and Relatives)
FAMILY: CATHARTIDAE (American Vultures)
Turkey Vulture (*Cathartes aura*)
ORDER: FALCONIFORMES (Vultures, Hawks, and Falcons)
FAMILY: ACCIPITRIDAE (Hawks, Old World Vultures, and Harriers)
*Red-tailed Hawk (*Buteo jamaicensis*)
Sharp-Shinned Hawk (*Accipiter striatus*)
Cooper's Hawk (*Accipiter cooperii*)
Red-Shouldered Hawk (*Buteo lineatus*)
Swainson's Hawk (*Buteo swainsoni*)
FAMILY: FALCONIDAE (Caracaras and Falcons)
American Kestrel (*Falco sparverius*)
ORDER: CHARADRIIFORMES (Shorebirds, Gulls, and relatives)
FAMILY: CHARADRIIDAE (Plovers and relatives)
Killdeer (*Charadrius vociferus*)
ORDER: COLUMBIFORMES (Pigeons and Doves)
FAMILY: COLUMBIDAE (Pigeons and Doves)
*Eurasian Collared Dove (*Streptopelia decaocto*)
*Mourning Dove (*Zenaida macroura*)
ORDER: CUCULIFORMES (Cuckoos and Relatives)
FAMILY: CUCULIDAE (Roadrunners and Allies)

*Greater Roadrunner (*Geococcyx californianus*)

ORDER: STRIGIFORMES (Owls)

FAMILY: TYTONIDAE (Barn Owls)

Common Barn Owl (*Tyto alba*)

FAMILY: STRIGIDAE (Typical Owls)

Great Horned Owl (*Bubo virginianus*)

ORDER: APODIFORMES (Swifts and Hummingbirds)

FAMILY: TROCHILIDAE (Hummingbirds)

Anna's Hummingbird (*Calypte anna*)

Rufous Hummingbird (*Selasphorus rufus*)

Black-chinned Hummingbird (*Archilochus alexandri*)

ORDER: PICIFORMES (Woodpeckers and relatives)

FAMILY: PICIDAE (Woodpecker and Wrynecks)

Northern Flicker (*Colaptes chrysoides*)

ORDER: PASSERIFORMES (Perching Birds)

FAMILY: TYRANNIDAE (Tyrant Flycatchers)

*Black Phoebe (*Sayornis nigricans*)

Say's Phoebe (*Sayornis saya*)

Western Kingbird (*Tyrannus verticalis*)

FAMILY: CORVIDAE (Jays, Magpies, and Crows)

*California Scrub Jay (*Aphelocoma californica*)

American Crow (*Corvus brachyrhynchos*)

*Common Raven (*Corvus corax*)

FAMILY: ALAUDIDAE (Larks)

Horned Lark (*Eremophila alpestris*)

FAMILY: HIRUNDINIDAE (Swallows)

Barn Swallow (*Hirundo rustica*)

FAMILY: AEGITHALIDAE (Bushtit)

*Bushtit (*Psaltriparus minimus*)

FAMILY: TROGLODYTIDAE (Wrens)

House Wren (*Troglodytes aedon*)

FAMILY: TURDIDAE (Thrushes)

American Robin (*Turdus migratorius*)

FAMILY: MIMIDAE (Mockingbirds and Thrashers)

*Northern Mockingbird (*Mimus polyglottos*)

FAMILY: STURNIDAE (Starlings)

European Starling (*Sturnus vulgaris*)

FAMILY: MOTACILLIDAE (Wagtails and Pipits)

American Pipit (*Anthus rubescens*)

FAMILY: PARULIDAE (Wood Warblers and Relatives)

*Yellow-Rumped Warbler (*Dendroica coronata*)

FAMILY: EMBERIZIDAE (Emberizines)

White-Crowned Sparrow (*Zonotrichia leucophrys*)

Dark-Eyed Junco (*Junco hyemalis*)

FAMILY: ICTERIDAE (Blackbirds, Orioles and Allies)

Western Meadowlark (*Sturnella neglecta*)

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

FAMILY: EMBERIZIDAE (Emberizines)

Vesper Sparrow (*Pooecetes gramineus*)
Savannah Sparrow (*Passerculus sandwichensis*)
White-Crowned Sparrow (*Zonotrichia leucophrys*)
Dark-Eyed Junco (*Junco hyemalis*)

FAMILY: FRINGILLIDAE (Finches)

*House Finch (*Carpodacus mexicanus*)
*Lesser Goldfinch (*Carduelis psaltria*)
American Goldfinch (*Spinus tristis*)

FAMILY: PASSERIDAE (Old World Sparrows)

*House Sparrow (*Passer domesticus*)

CLASS: MAMMALIA (Mammals)

ORDER: DIDELPHIMORPHIA (Marsupials)

FAMILY: DIDELPHIDAE (Opossums)

Virginia Opossum (*Didelphis virginiana*)

FAMILY: TALPIDAE (Moles)

Broad-Footed Mole (*Scapanus latimanus*)

ORDER: CHIROPTERA (Bats)

FAMILY: PHYLLOSTOMIDAE (Leaf-nosed Bats)

Southern Long-nosed Bat (*Leptonycteris curasoae*)

FAMILY: VESPERTILIONIDAE (Evening Bats)

Yuma Myotis (*Myotis yumanensis*)
California Myotis (*Myotis californicus*)
Western Pipistrelle (*Pipistrellus hesperus*)
Big Brown Bat (*Eptesicus fuscus*)

FAMILY: MOLOSSIDAE (Free-tailed Bat)

Brazilian Free-tailed Bat (*Tadarida brasiliensis*)

ORDER: LAGOMORPHA (Rabbits, Hares, and Pikas)

FAMILY: LEPORIDAE (Rabbits and Hares)

*Audubon Cottontail Rabbit (*Sylvilagus audubonii*)

ORDER: RODENTIA (Rodents)

FAMILY: SCIURIDAE (Squirrels, Chipmunks, and Marmots)

*California Ground Squirrel (*Otospermophilus beecheyi*)

FAMILY: GEOMYIDAE (Pocket Gophers)

*Botta's Pocket Gopher (*Thomomys bottae*)

FAMILY: HETEROMYIDAE (Pocket Mice and Kangaroo Rats)

San Joaquin Pocket Mouse (*Perognathus inornatus*)

FAMILY: MURIDAE (Old World Rats and Mice)

Western Harvest Mouse (*Reithrodontomys megalotis*)
Deer Mouse (*Peromyscus maniculatus*)
Norway Rat (*Rattus norvegicus*)
House Mouse (*Mus musculus*)

ORDER: CARNIVORA (Carnivores)

FAMILY: CANIDAE (Foxes, Wolves, and relatives)

Coyote (*Canis latrans*)

*Domestic Dog (*Canis lupus familiaris*)

Gray fox (*Urocyon cinereoargenteus*)

FAMILY: PROCYONIDAE (Raccoons and relatives)

Raccoon (*Procyon lotor*)

FAMILY: MEPHITIDAE (Skunks)

Striped Skunk (*Mephitis mephitis*)

FAMILY: FELIDAE (Cats)

Feral Cat (*Felis domesticus*)

APPENDIX C:
SELECT PHOTOGRAPHS OF THE PROJECT SITE

Photo 1: Open grassland pasture at north end of project site. Pipeline alignment approximating the alignment of the faintly visible dirt road.

Photo 2: Northern terminus of the proposed pipeline located on the other side of the fence.

Photo 3: View of area of grassland pasture where the pipeline will exit and continue down the road or road shoulder in the upper left of photo.

Photo 4: Pipeline spur down road to citrus trees.

Photo 5: Proposed pipeline spur between residential road and citrus orchard. Trees in the distance may require removal or trimming.

Photo 6: Proposed pipeline spur along a residential perimeter road leading to an area in the distance just at the foot of the steep dirt road leading up to the distant ridge.

Photo 7: Proposed pipeline alignment along Road 238, just north of the southernmost spur. Alignment follows the road to the grassland pasture in the distance.

Photo 8: Southernmost pipeline spur that will skirt around large rock outcrop at right, follow the road alignment, and end where the road runs into the orchard in the distance.

APPENDIX D

CULTURAL RESOURCES REPORT

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

Corporate Headquarters
1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

Phase I Cultural Resources Assessment
Lindsay-Strathmore Irrigation District
Highline Pipeline Replacement Project, Lindsay, CA 93247
Assessor Parcel Numbers
210-010-046, -047, -048, -049, -050, -051, & 210-110-011
Tulare County, California

Prepared for
Lindsay-Strathmore Irrigation District
23260 Round Valley Road,
Lindsay, CA 93247

Prepared by

1322 E Shaw Ave.
Fresno, CA 93710

Heather Froshour, M.A., R.P.A
Senior Archaeologist
&
Kevin R Rowland, M.A.
Archaeologist/Historian

May 8, 2024

EXECUTIVE SUMMARY

Soar Environmental Consulting, Inc. (Soar Environmental) has been retained by tbe Lindsay-Strathmore Irrigation District to prepare a Phase 1 Cultural Resources Assessment (Phase 1 CRA) for a Highline Pipeline Replacement Project (Project) located east of the city of Lindsay (City), in accordance with the California Environmental Quality Act (CEQA) prior to implementation of the proposed Project. Tbe proposed Project is to replace pipelines crossing approximately 66.3 acres on Assessor Parcel Numbers (APNs) 210-010-046, 210-010-047, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-11-011. The purpose of the Phase 1 CRA is to provide an inventory of the known and potentially significant cultural resources within the Project area through a California Historical Records Information search (CHRIS) using the Eastern Information Center (EIC), as well as a Sacred Lands File & Native American Contacts List Request through the Native American Heritage Commission (NAHC).

The results of the records search indicate one (1) cultural resource recorded within 0.50-mile of the Project area. The records searches indicate no recorded resources within the Project area. The pedestrian survey identified no existing resources within the Project area. No site testing or mitigation measures are required unless previously undiscovered cultural resources are detected during construction.

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1.0 Introduction

This report details the results of a Phase 1 Cultural Resources Assessment in support of the proposed highline pipeline replacement crossing approximately 66.3-acres east of the city of Lindsay, California, on or adjacent to Assessor Parcel Numbers (APNs) 210-010-046, 210-010-047, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-11-011 (Figures 1 through 4). This Phase 1 report is prepared pursuant to the California Environmental Quality Act (CEQA), PRC Sections 21082, 21083.2, and 21084.1, and California Code of Regulations 15064.5.

Heather Froshour and Kevin Rowland completed the archival review, the Native American consultation, the field survey, and prepared this Phase 1 report. Ms. Froshour is Soar Environmental's Senior Archaeologist who meets the professional standards of the U.S. Secretary of the Interior for Archaeology (36 CFR 61) and is certified by the Register of Professional Archaeologists. Mr. Rowland is Soar Environmental's historian and archaeologist who meets the professional standards of the U.S. Secretary of the Interior for Archaeology (36 CFR 61).

Soar Environmental requested a records search from the Southern San Joaquin Valley Information Center (SSJVIC) for the Project area as well as a 0.50-mile buffer. The archival research for this Phase 1 report was negative for archaeological sites or historical resources within the Project area. The archival record search one (1) recorded resource within 0.5-mile radius of the Project area. The records search revealed no previous cultural resources surveys had been conducted in the Project area. A total of three (3) additional cultural resource survey reports have been completed within a 0.50-mile radius of the Project area.

As part of the background research, Soar Environmental also requested a search of the Sacred Lands File (SLF) from the Native American Heritage Commission (NAHC). The results of the records review and SLF search were negative. The NAHC suggested contacting four (4) individuals representing three (3) Native American tribal groups to find out if they have additional information about the Project area. Soar Environmental sent outreach letters to all four (4) recommended tribal individuals. No response was received.

Soar Environmental conducted an intensive pedestrian survey of the Project on March 13, 2024. This field survey was negative for surface archaeological resources within the Project area. As currently designed, the proposed Project will not impact any known in situ archaeological sites or historical resources.

It is recommended, however, if cultural resources are encountered during construction activities associated with the Project, a qualified archaeologist shall be obtained to assess the significance of the find in accordance with the criteria set forth in CEQA Guidelines 15064.5(f). In addition, Health and Safety Code 7050.5, CEQA 15064.5(e), and Public Resources Code 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

1.1 Project Description

The Project proposes the replacement of the existing 8 through 14 inch pipelines east of Lindsay, California, near Road 238 and Road 230 (Figures 1 through 4). The proposed Project will replace approximately 7,300 feet (about 2.23 km) of pipeline on or adjacent to Assessor Parcel Numbers (APNs) 210-010-046, 210-010-047, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-11-011.

The pipelines will be constructed within existing road rights-of-ways and unpaved access roads. The majority of the pipelines are located adjacent to agricultural land and within grazing fields or drainage ditches (Figures 5 through 15). The anticipated width of the construction easement trench will be no greater than 41 feet, which will be required to facilitate construction.

1.2 Existing Condition

The Project area is located in the San Joaquin Valley on 66.3-acres situated approximately 6.72 meters east of CA 65, at Assessor Parcel Numbers (APNs) 210-010-046, 210-010-047, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-11-011 (Figure 1 through 4). The Project area is approximately 2.4-kilometers east of the Friant-Kern Canal. The Project area is located in Tulare County within Sections 3 & 10, Township 20S, Range 27E, Base Meridian, as depicted on the Lindsay, CA 7.5' U.S. Geological Survey (USGS) topographical quadrangle (Figures 1 and 2).

The Project area is comprised predominantly of currant drainage ditches along dirt access roads and cattle grazing fields on the outskirts of the city. Four (4) residential homes and associated outbuildings, and of agricultural lands adjacent to the Project area.

1.0 REGULATORY SETTING

Federal, State and local governments have developed laws and regulations designed to protect significant cultural resources that may be affected by actions that they undertake or regulate. The National Historic Preservation Act (NHPA) and the California Environmental Quality Act (CEQA) are the basic federal and state laws governing preservation of historic and archaeological resources of national, regional, State and local significance.

2.1 Federal

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act (NHPA) of 1966. Section 106 of NHPA requires Federal agencies to consider the effects of their undertakings on historic properties and affords the Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties", are found in 36 Code of Federal Regulations (CFR) Part 800. The goal of the Section 106 review process is to offer a measure of protection to sites which are determined eligible for listing on the National Register

of Historic Places. The criteria for determining National Register eligibility are found in 36 CFR Part 60. Amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal money.

2.2 State

California Register of Historical Resources

In California, the term "historical resource" includes "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California PRC § 5020.1[j])(State of California, 2021). In 1992, the California legislature established the California Register of Historical Resources (CRHR) "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California PRC § 5024.1(a)). The criteria for listing resources on the CRHR, enumerated in the following text, were developed to be in accordance with previously established criteria developed for listing in the NRHP. According to California PRC § 5024.1(c) (1– 4), a resource is considered historically significant if it (i) retains "substantial integrity," and (ii) meets at least one of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.

2) Is associated with the lives of persons important in our past.

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.

4) Has yielded, or may be likely to yield, information important in prehistory or history

To understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (14 CCR 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the National Register of Historic Places (NRHP), and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are state landmarks and points of

interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

California Health and Safety Code, §7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code, §7050.5, requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains can occur until the County Coroner has examined the remains (California Health and Safety Code, §7050.5b). California PRC §5097.98, also outlines the process to be followed in the event that remains are discovered. If the County Coroner determines or has reason to believe the remains are those of a Native American, the County Coroner must contact the California NAHC within 24 hours (California Health and Safety Code, §7050.5c)(State of California, 2021). The NAHC will notify the most likely descendant. With the permission of the landowner, the most likely descendant may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the most likely descendant by the NAHC. The most likely descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains, and items associated with Native Americans.

California State Assembly Bill 52

Assembly Bill (AB) 52 of 2014 amended California PRC § 5097.94, and added California PRC §21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that tribal cultural resources must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. California PRC §21074, defines tribal cultural resources as follows:

(a) Section 21074 of the Public Resources Code states that "tribal cultural resources" are either of the following:

> (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
>
> > (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
> >
> > (B) Included in a local register of historical resources as defined in subdivision (k) of §5020.1.
>
> (2) 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 §5024.1. In applying the criteria set forth in subdivision (c) of §5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a

California Native American tribe. A cultural landscape that meets the criteria of subdivision:

> (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
>
> (b) A historical resource described in §21084.1, a unique archaeological resource as defined in subdivision (g) of §21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of §21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American tribes located on the contact list maintained by the Native American Heritage Commission (NAHC). This includes California Native American groups that are traditionally and culturally affiliated with the Project, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report (EIR).

Section 9 of AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." Section 6 of AB 52 added §21080.3.2 to the California PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding Project alternatives, mitigation measures, or significant effects to tribal cultural resources, the consultation shall include those topics (California PRC §21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (California PRC, §21082.3[a]).

Native American Human Remains

State law (California PRC, §5097 et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and established the NAHC.

In the event that Native American human remains, or related cultural material are encountered, §15064.5(e) of the CEQA Guidelines (as incorporated from PRC, §5097.98) and California Health and Safety Code, §7050.5, defines the subsequent protocol. In the event of the accidental discovery or recognition of any human remains, excavation or other disturbances shall be suspended on the site, or any nearby area reasonably suspected to overlie adjacent human remains or related material. Protocol requires that the County Coroner or County-approved Coroner represented be contacted in order to determine if the remains are of Native

American origin. Should the coroner determine the remains to be Native American, the coroner must contact the NAHC within 24 hours. The most likely descendant may make recommendations to the landowner or the person responsible for the excavation work for means of treating, with appropriate dignity, the human remains, and any associated grave goods as provided in California PRC §5097.98 (14 CCR 15064.5(e)) (State of California, 2021).

2.3 Local

Tulare County

Chapter 8.6 of the Tulare County General Plan of 2012 promotes the preservation of cultural and historic resources through managing and protecting sites of cultural and archeological importance for the benefit of present and future generations (County of Tulare, 2012). Some of the measures implemented by the County are:

ERM-6.1 Evaluation of Cultural and Archaeological Resources
The County shall participate in and support efforts to identify its significant cultural and archaeological resources using appropriate State and Federal standards.

ERM-6.2 Protection of Resources with Potential State or Federal Designations
The County shall protect cultural and archaeological sites with demonstrated potential for placement on the National Register of Historic Places and/or inclusion in the California State Office of Historic Preservation's California Points of Interest and California Inventory of Historic Resources. Such sites may be of Statewide or local significance and have anthropological, cultural, military, political, architectural, economic, scientific, religious, or other values as determined by a qualified archaeological professional.

ERM-6.3 Alteration of Sites with Identified Cultural Resources
When planning any development or alteration of a site with identified cultural or archaeological resources, consideration should be given to ways of protecting the resources. Development can be permitted in these areas only after a site specific investigation has been conducted pursuant to CEQA to define the extent and value of resource, and mitigation measures proposed for any impacts the development may have on the resource.

ERM-6.4 Mitigation
If preservation of cultural resources is not feasible, every effort shall be made to mitigate impacts, including relocation of structures, adaptive reuse, preservation of facades, and thorough documentation and archival of records.

ERM-6.5 Cultural Resources Education Programs
The County should support local, State, and national education programs on cultural and archaeological resources.

ERM-6.6 Historic Structures and Sites
The County shall support public and private efforts to preserve, rehabilitate, and continue the use of historic structures, sites, and parks. Where applicable, preservation efforts shall conform to the current Secretary of the Interior's Standards for the Treatment of Historic Properties and Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings.

ERM-6.7 Cooperation of Property Owners
The County should encourage the cooperation of property owners to treat cultural resources as assets rather than liabilities, and encourage public support for the preservation of these resources.

ERM-6.8 Solicit Input from Local Native Americans
The County shall continue to solicit input from the local Native American communities in cases where development may result in disturbance to sites containing evidence of Native American activity and/or to sites of cultural importance.

ERM-6.9 Confidentiality of Archaeological Sites
The County shall, within its power, maintain confidentiality regarding the locations of archaeological sites in order to preserve and protect these resources from vandalism and the unauthorized removal of artifacts.

ERM-6.10 Grading Cultural Resources Sites
The County shall ensure all grading activities conform to the County's Grading Ordinance and California Code of Regulations, Title 20, § 2501 et. seq..

City of Lindsay

Under Section D, Environmental Impacts and Mitigation Measures, of the Comprehensive General Plan of the City of Lindsay, "cultural resources" states:

> No archaeological or cultural resources of significance are known at this time to exist within the planning area. Any evidence of cultural resources that might be unearthed in the process of construction becomes immediate grounds for halting all construction until the extent and significance of any find is properly cataloged and evaluated by archaeological and cultural resource authorities recognized as having competence by the State of California (City of Lindsay, 1989).

3.0 SETTING

This section of the report summarizes information regarding the physical and cultural setting of the Project area, including prehistoric, ethnographic, and historic contents of the general area. Several factors; including topography, biological resources, and available water sources; affect the nature and distribution of the cultural periods of activity of an area. This background provides a context for understanding the nature of the cultural resources that may be identified

within the region of the Project.

3.1 Environmental Setting

The Project area is located at an elevation of 387 feet in the northeastern region of Tulare County, approximately 14 miles east of the city of Tulare, California within the San Joaquin Valley.

The area consists of mostly flat farming land nestled between large rolling hills and rocky outcrops. The Project area is at the western edge of the Sierra Nevada mountains, a 400-mile-long mountain range that runs North and South. The Project area is at the eastern edge of the San Joaquin Valley (California Geological Survey, 2002).

Surface soils consist of 33.4% Cibo clay with lithic bedrock in the south-central region, the Porterville clay soil series at 32.72% predominantly in the central region with small pockets to the far northeast and south, the Cibo rock outcrop complex at 19.8% within the west area, and Porterville cobbly clay to the north-northeast area of the Project (Figure 3). The Cibo soil series consists of moderately deep, well-drained soils that form in material weathered from basic igneous rocks. Cibo soils are on foothills and mountainous uplands and have slopes of 2 to 75 percent. The mean precipitation is about 16 inches and the mean annual air temperature is about 61 degrees F. This soil is made up of dark brown cobbly clay at surface with dark brown clay to brown very cobbly clay below. The Porterville soil series consists of deep, well drained soils that formed in fine textured alluvial material from basic and metabasic igneous rock. Porterville soils are on fans and foothills and have slopes of 0 to 15 percent. The mean annual precipitation is about 13 inches and the mean annual air temperature is about 62 degrees F. This soil is made up of dark reddish brown clay at surface with dark reddish gray clay to dark brown clay below (United States Department of Agriculture, 1980).

The average annual precipitation in the Sonoran Life Zone is 0 to 10 inches. The climate is a dry desert climate. The mean annual temperature is 77.91to 80 degrees F with an average annual winter temperature of 66.16 degrees and an average summer temperature of 85 degrees. The frost-free season averages 260 to 300 days

At about 387 to 420 ft elevation, the Project is within the Lower Sonoran Life Zone of California (Schoenherr, 1992), which ranges from 100 feet to 4,000 feet. The Project area consists of a mix of native plants. The vegetation of this life zone corresponds with the hot deserts of the southwestern United States and northwest Mexico (the Mojave, Sonoran, and Chihuahuan deserts). Creosote bush (*Larrea tridentata*) and other desert shrubs and succulents occur from 100 ft to 3,500-4,000 ft above sea level. Total annual precipitation averages 10 inches or less..

3.2 Cultural Setting

Cultural resources include prehistoric-era archaeological sites, historic-era archaeological sites, Native American traditional cultural properties, sites of religious and cultural significance, and historical buildings, structures, objects, and sites. The importance of any single cultural resource

is defined by the context in which it was first created, current public opinion and modern yet evolving analysis. From the analytical perspective, temporal and geographic considerations help to define the historical context of the Project area. The importance or significance of a cultural resource is in part described by the context in which it originated or developed. National Park Service Bulletin 16a (1997) describes a historic context as "information about historic trends and properties grouped by an important theme in prehistory or history of a community, state, or the nation during a particular period of time." A context links an existing property to important historic trends, and this allows a framework for determining the significance of a property. Given this, a major goal of the historian is to determine accurate themes of analysis, a task that can only be undertaken by a thorough review of previous researchers' thoughts and ideas, as well as reviewing the literature of the resources.

In California, historians have divided the past into broad categories based on climate models, archaeological dating and written histories. Paleontologists divide time into much larger segments, with defined and named periods of time shortening in timespan as the modern era is reached. For the purposes of this analysis, these periods in history have been summarized below.

3.2.1 Prehistoric Setting

Present day Lindsay, CA is in Central California which was home to many Native American tribes for thousands of years prior to the arrival of Spanish explorers and the installation of the Mission System. Among the numerous tribes that once lived in the area are the Bear River, Mattale, Lassick, Nogatl, Wintun, Yana, Yahi, Maidu, Wintun, Sinkyone, Wailaki, Kato, Yuki, Pomo, Lake Miwok, Wappo, Coast Miwok, Interior Miwok, Wappo, Coast Miwok, Interior Miwok, Monache, Yokuts, Costanoan, Esselen, Salinan and Tubatulabal tribes. (Native American Heritage Commission, 2024).

The Native tribes that populated the central valley were gifted craftsmen whose art of basket weaving survives to today. "In this region basketry reached the height of greatest variety. Perhaps the Pomo basket makers created the most elaborate versions of this art. Both coiled and twine type baskets were produced throughout the region. Fortunately, basket making survived the years of suppression of native arts and culture to become once again one of the most important culturally defining element for Indians in this region." (Native American Heritage Commission, 2024).

3.2.2 Ethnographic Setting

For thousands of years, Native Americans lived in what is present day Tulare County California. Among the many tribes that once inhabited the area were the Southern Valley Yokuts and the Foothills Yokuts. Each named for the geographic area they inhabited.

The Indians of the San Joaquin Valley were known as Yokuts. The word "Yokuts" means people. The Yokuts were unique among the California natives in that they were divided into actual tribes. Each had a name, a language, and a territory. The Yokuts were friendly, peaceful, and loving people. They were tall, strong, and well built. The Yokuts lived a simple life,

depending on the land for food, clothing, and shelter. The Yokuts are believed to be one of the first groups that settled in California. They are called the seed-gatherers because they did no farming at all in the days before Columbus. Their main food gathered food source was acorns. The Yokuts also ate wild plants, roots, and berries. They hunted deer, rabbits, prairie dogs, and other small mammals and birds. They made simple clothing out of bark and grass. Their jewelry and headbands were made of seeds and feathers. The Yokuts found life in the California valleys to be pleasant and peaceful for many centuries. (Tachi Yokuts Tribe, 2024).

3.2.3 Historic Setting

In California, the historic era is divided into three general periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present). The mission system, which ultimately established 21 missions between 1796 and 1822, consisted of missions, presidios, and pueblos, and was designed to convert the indigenous peoples of California to Christianity and assimilate them under Spanish rule (Gudde, 1998).

The Spanish Period saw exploration and the establishment of the San Diego Presidio and missions at San Diego (1769) and San Luis Rey (1798), and asistencias (chapels) to the San Diego Mission at Santa Ysabel (1818) and to the San Luis Rey Mission at Pala (1816). Horses, cattle, agricultural foods and weed seeds, and a new architectural style and method of building construction were also introduced. Spanish influence continued after 1821 when California became a part of Mexico, yet the missions continued to operate for a short time longer and laws governing the distribution of land were retained.

In 1821, Mexico won independence and control of the Spanish American colonies from Spain. The land was redistributed, and redistrihuted lands were freed from church jurisdiction due to the Secularization Act 1833.33. of 1833. During this secularization period, the Mexican authorities in Alta, California, made numerous large landlords mission properties in the area; many became private ranches or ranchos; the vast majority were the result of land grants from the Mexican government (Robinson, 1979). The Mexican Period ended in 1848 because of the Mexican-American War.

The American period began when the Treaty of Guadalupe Hidalgo was signed between Mexico and the United States in 1848. As a result of the treaty, the former Mexican province of Alta California became part of the United States as the territory of California. Rapid population increase occasioned by the Gold Rush of 1849 allowed California to become a state in 1850. Most Mexican land grants were confirmed to the grantees by U.S. courts, but usually with more restricted boundaries which were surveyed by the U.S. Surveyor General's office.

When California became a state, the government divided California into counties. One of the largest was named Mariposa County, covering the whole state. 1852, Mariposa County was divided, and the southern part was named Tulare County. Later, Tulare County was again divided, creating Fresno, Kern, Kings, and Inyo counties.

Tulare County has an interesting history that dates to 1770. The first settlers to visit what is now the San Joaquin Valley came after 1800. The first settlement in Tulare County was where the old Indian trail crossed the Kaweah River, about ten miles east of Visalia.

The county is named for Tulare Lake, once the largest freshwater lake west of the Great Lakes. Drained for agricultural development, the site is now in Kings County, which was created in 1893 from the western portion of the formerly larger Tulare County.

The name Tulare is derived from the giant sedge plant called tule (too-lee), schoenoplectus acutus, in the plant family Cyperaceae, native to freshwater marshes that once lined the shores of Tulare Lake. These native grasses are ecologically important as they help buffer against weather forces and help reduce erosion along with allowing for the propagation of other plant species.

There were many marsh areas in Tulare County before land speculators drained Tulare Lake in the 20th century and settlers began cultivating the land. What was formerly Tulare Lake is dry and the agriculturally rich soil is used for farming, the total gross production value of which in 2019 was $7,505,352,100 (County of Tulare California, 2024).

4.0 ARCHIVAL RECORDS SEARCH

4.1 Eastern Information Center

The Project area is located in the USGS Lindsay, CA 7.5' Series Quadrangle (USGS 2021). On March 1, 2024, Soar submitted a records search request to the Southern San Joaquin Valley Information Center (SSJVIC) located at the California State University, Bakersfield (Appendix A). The records search included a 0.5-mile buffer around the Project area. The results from the records search received on March 12, 2024, indicate no cultural resource studies have been conducted within the Project area. According to the information on file, there is no resources within the Project area.

There is one (1) recorded resource within the 0.5-mile record search radius (Table 1). There were three (3) reports identified within a 0.5-mile radius of the Project area (Table 2).

Table 1. Survey Reports within 0.5 Mile of the Project area

Report No.	Year	Author(s)/ Affiliation	Title
TU-01576	2011	Schmidt, James J.; Compass Rose Archaeological, Inc.	Archaeological Letter Report: Round Valley, Paige, and Iona 12kV Deteriorated Pole Replacement Project (WO 6051-4800; R- 4895 TD502579; T-4803TD510206; T-4806 TD510213; T-4823 TD510591), Tulare and Kings Counties, California

TU-01583	2010	Orfila, Rebecca S.; RSO Consulting, Archaeological and Historical Resource Management	Archaeological Survey for the Southern California Edison Company: Replacement of Eighteen Deteriorated Power Poles on the Booster 12 kV, Bowen 12 kV, Cattle 12 kV, El Mirador 12 kV, Isabella 12 kV, Nickerson 12 kV, Roeding 12 kV, Round Valley 12 kV, and Zante 12 kV Circuits in Kern and Tulare Counties in California
TU-01889	2019	Whitley, David S. and Carey, Peter A.; ASM Affiliates, Inc.	Class III Inventory/Phase I Survey, Lindsay-Strathmore Irrigation District Pipeline Replacement Project, Tulare County, California

Table 2. Resources within 0.5 Mile of the Project area

Primary #	Type	Description
P-54-005249	Structure, Site	Lewis Creek at Friant-Kern Canal, early twentieth century

There are no recorded cultural resources within the Project area or radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, California Inventory of Historic Resources, or the California State Historic Landmarks.

4.2 Sacred Lands File & Native American Contacts List Request

The California Native American Heritage Commission (NAHC) was contacted on March 1, 2024, to conduct a Sacred Lands File (SLF) search, and to obtain a list of tribes culturally and geographically affiliated with the Project area (Appendix B). On March 11, 2024, the NAHC indicated there are no Native American traditional cultural places or sacred sites within or near the Project area. The NAHC provided a list of four (4) Tulare County Native American groups and individuals affiliated with the local tribes. On March 12, 2024, Ms. Froshour sent letters to all individuals describing the location, and the nature of the Project. In each letter, Ms. Froshour included a request for information regarding prehistoric, historic, ethnographic land use, as well as contemporary Native American values.

Soar Environmental did not receive comments from the Tulare County Native American groups or affiliated individuals regarding the proposed development at the Project location.

4.3 HISTORIC AERIAL IMAGE REVIEW

The historical aerial images review was extensive, with reviews of the Project area encompassing nearly seventy years of aerial images. A review of the historical aerial imagery reveals that as far back as 1956 the Project area has been used for intensive farming and agricultural use. The access roads in the north-northeast section and the main dirt roads in the Project area are also

visible at this time in aerials, with the Roads 230 and 238 appearing on topographic maps as early as 1928. Houses began appearing in the surrounding area by 1956 with additional dwellings being built in the following decades between 1984 and 2014 (Nationwide Environmental Title Research, LLC 2020).

5.0 PREVIOUS DISTURBANCES IN THE PROJECT AREA

The Project area is located within an area used for industrial farming for decades. Likewise, the surface of the Project area has undergone heavy surface and subsurface disturbances. Canals have been built for irrigation purposes in the area. In some cases, the agricultural disturbances could exceed 20 inches (50.8 centimeters). This disturbance could exceed 10 feet (3.05 meters) in some areas.

In summary, the following previous disturbances have occurred within or immediately adjacent to the Project area:

- Surface grading and maintenance of current and historic roads
- Surface grading and subsurface disturbance for rural residences (main building and outbuilding construction)
- Irrigation Pumping Stations
- Drainage ditch trenching
- Agricultural activities

6.0 FIELD SURVEY METHODS AND RESULTS

The primary criteria for determining the presence of prehistoric and historic cultural resources in local urban and rural settings generally includes:

- Presence of flaking debris derived from stone tool manufacturing
- Presence of marine shell and/or other faunal remains
- Occurrence of material culture artifacts
- Surface expressions of cultural features
- Bedrock mortars and related milling features/components
- Soil discolorations or atypical soil manifestations
- Stone/adobe features associated with structural remains

- Diagnostic ceramics derived from Spanish, Mexican, or later periods
- Historic iron and glassware, cans, privy pits, domestic occupational debris

This investigation included the following tasks:

- Review of regional history and previous cultural resource sites and studies within the Project area and the vicinity.
- Examination of archival topographic maps and aerial photographs for the Project area and the general vicinity.
- Request of a California Historical Resources Information System data request of the Project area and 0.50-mile radius through the Southern San Joaquin Valley Information Center (SSJVIC).
- Request of a NAHC Sacred Lands File Search for the Project area and 0.50-mile radius. Contact with Tribal groups and individuals as named by the NAHC.
- Evaluate the potential for the proposed Project to result in significant impacts to cultural resources including the potential to impact buried cultural resources with no surface expression.
- Intensive Phase 1 pedestrian survey with transect intervals of 10 feet (3 meters) of the Project area.
- Develop recommendations associated with impacts to cultural resources following the guidelines as outlined in the Regulatory Setting.

Heather Froshour and Kevin Rowland conducted the field survey of the Project area on March 13, 2024. The Project area was examined by systematic pedestrian inspection of the ground surface. Transect intervals varied from 10 feet (3 meters). Disturbances immediately adjacent to the Project area were also examined for primary and secondary surface archaeological indicators.

The approximately 66.3-acre Project area consists mostly of undeveloped cattle grazing fields and overgrown drainage ditches (Figures 5 through 15). The surface visibility of the Project area, defined as the approximate percentage of native soil visible during field survey of a given project component, was estimated at 0-10% within the Project area. The ground surface was covered by about cattle grazing grass and overgrown drainages ditches with fruit-bearing trees adjacent to in central and southern locations of the Project area.

In summary, no *in situ* cultural resources, or isolated materials potentially derived from primary or secondary archaeological contexts, were observed on the surface of the Project area.

7.0 RECOMMENDED ACTIONS AND MITIGATION MEASURES

There appears to be a low possibility for subsurface cultural resources in the Project area, based on the archival research results and the fact that no known resource has been detected during previous disturbances within the Project area. There are no recorded cultural resources within the 0.5-mile buffer radius that are listed in the National Register of Historic Places, the California Register of Historical Resources, the California Points of Historical Interest, the California Inventory of Historic Resources, or the California State Historic Landmarks. No site testing or mitigation measures are recommended or required unless previously undiscovered cultural resources are detected during construction.

A potential always exists to encounter previously undetected cultural resources. If cultural materials (prehistoric and/or historic artifacts) are detected during the course of ground disturbances associated with this Project, all work in the immediate area of the find shall be halted until a qualified archaeologist can inventory and assess the significance of the find(s). At that point, the resources shall be evaluated in accordance with the procedures set forth in the California Environmental Quality Act (CEQA) 21083.2, sections 15064.5 and 15126.4, and the criteria regarding resource eligibility to the California Register of Historic Resources (CRHR).

If a resource cannot be avoided, then the resource must be examined vis-à-vis the provisions in the County Guidelines, and CEQA Sections 15064.5 and 15126.4 and the eligibility criteria as an "important" or "unique archaeological resource", as appropriate. In many cases, determination of a resource's eligibility can only be made through extensive research and archaeological testing.

Human remains are addressed by State of California Health and Safety Code Section 7050.5. This code section states that no further disturbance shall occur until the County Coroner has made a determination of the origin and disposition of the remains, pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the human remains are determined to be prehistoric/ethnohistoric Native American remains, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendent (MLD). The MLD shall complete the inspection of the site within 24 hours of notification, and may potentially recommend scientific removal, reburial, nondestructive analysis of human remains, and/or specific treatment of associated burial goods.

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FIGURES

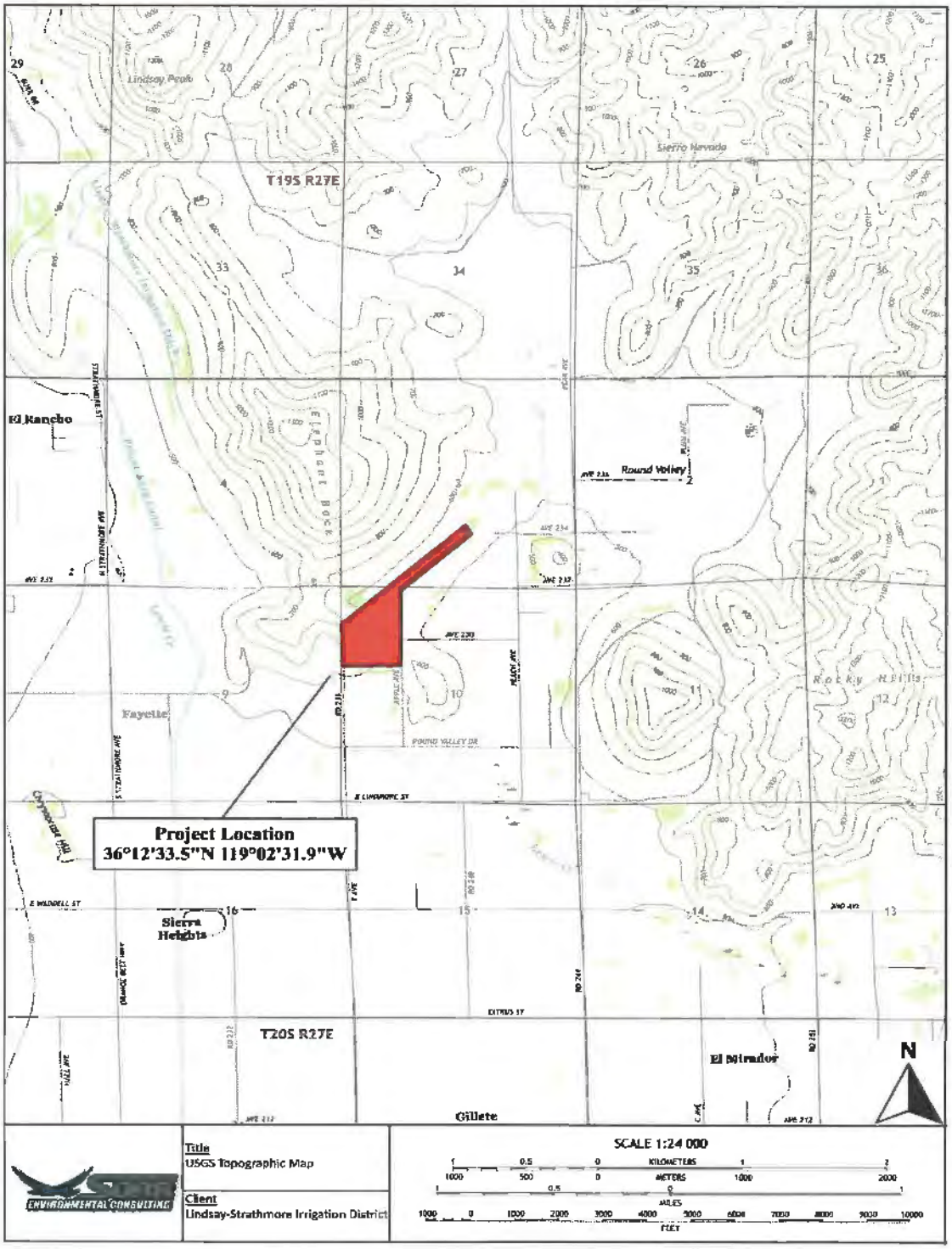


Figure 1— Project Location, adapted from USGS 7.5' series Lindsay, California, 2021

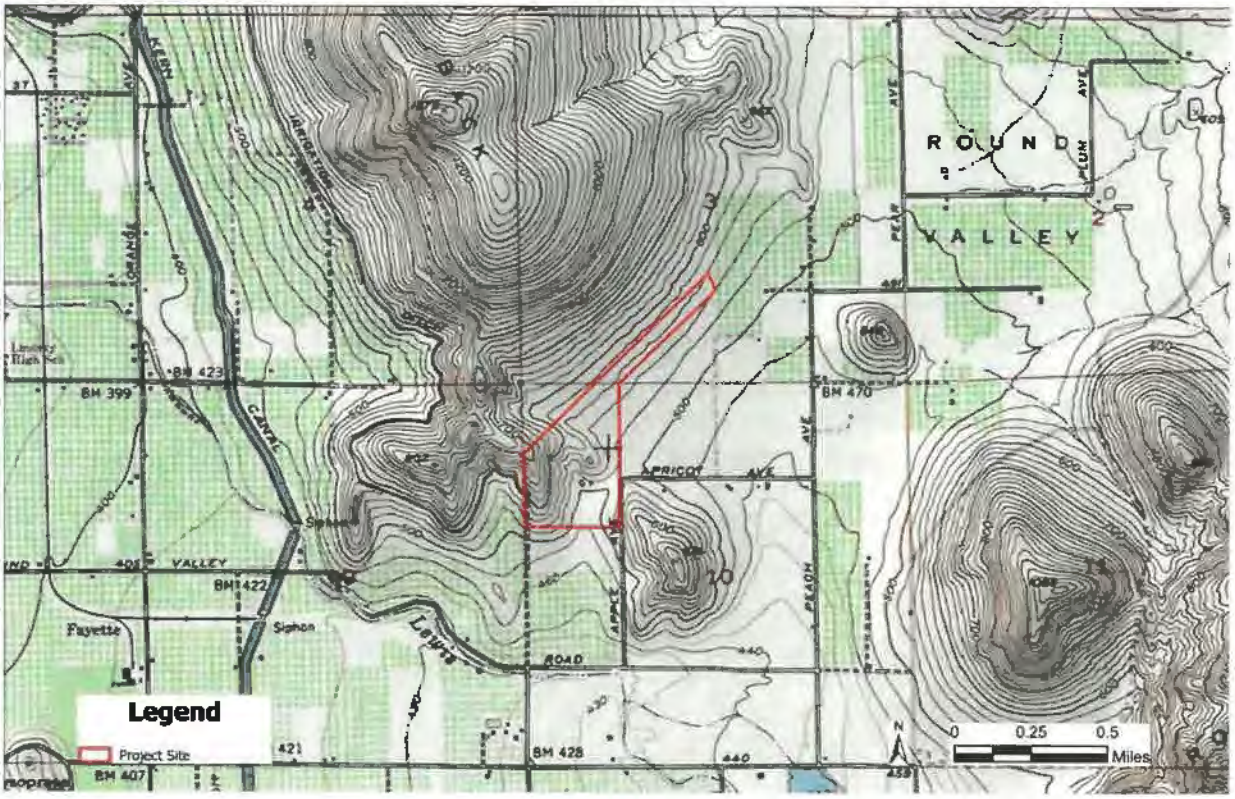


Figure 2— Project Boundary Terrain Map

Figure 3— Soil Types Occurring in the Project area

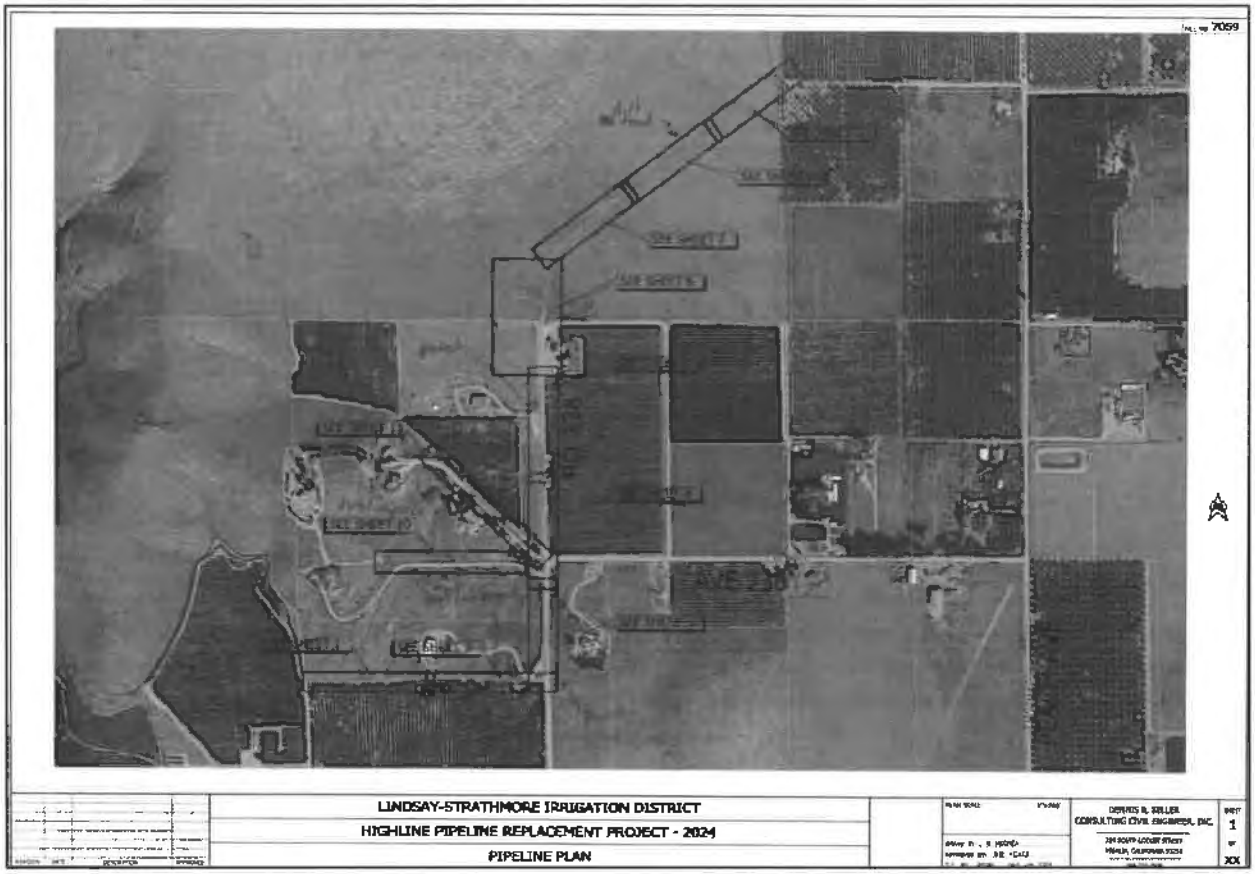


Figure 4— Proposed Pipeline Plan

Figure 5- Overview of North tip of Project Area.

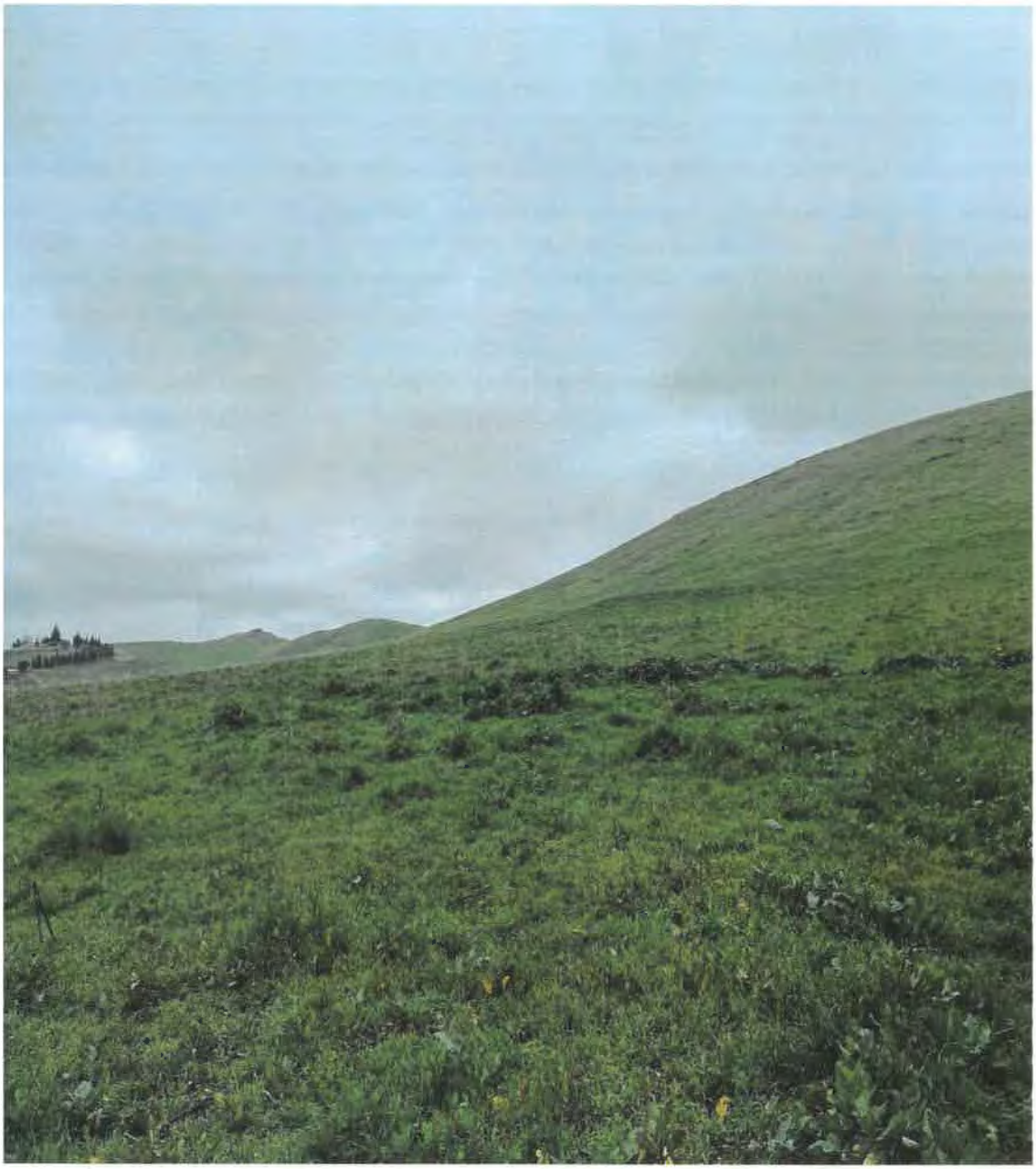


Figure 6- Overview from North of East Walnut St and Road 168 Intersection.

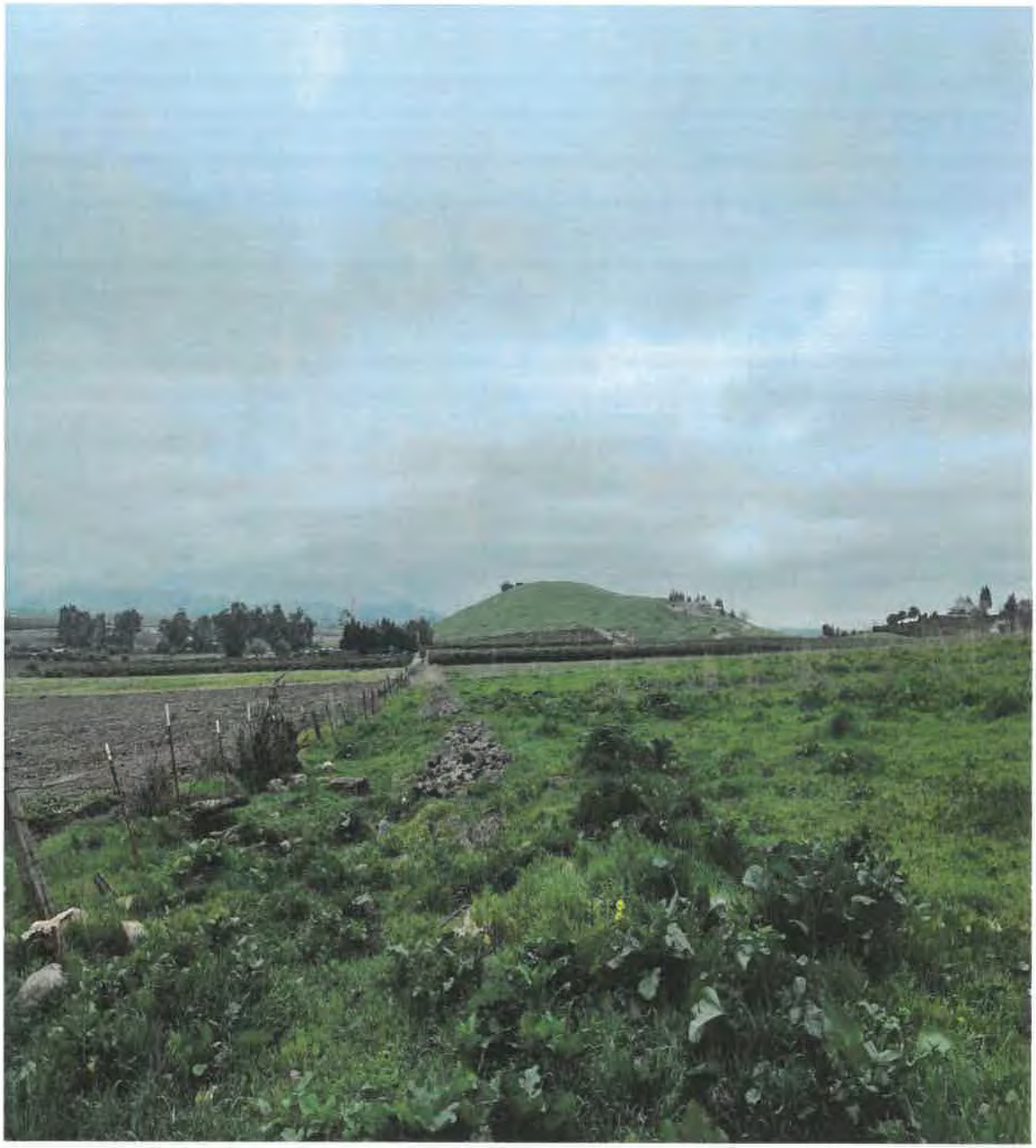


Figure 7- Overview from North of East Walnut St and Road 168 Intersection.

Figure 8- Rusted Possible Irrigation Pipe.

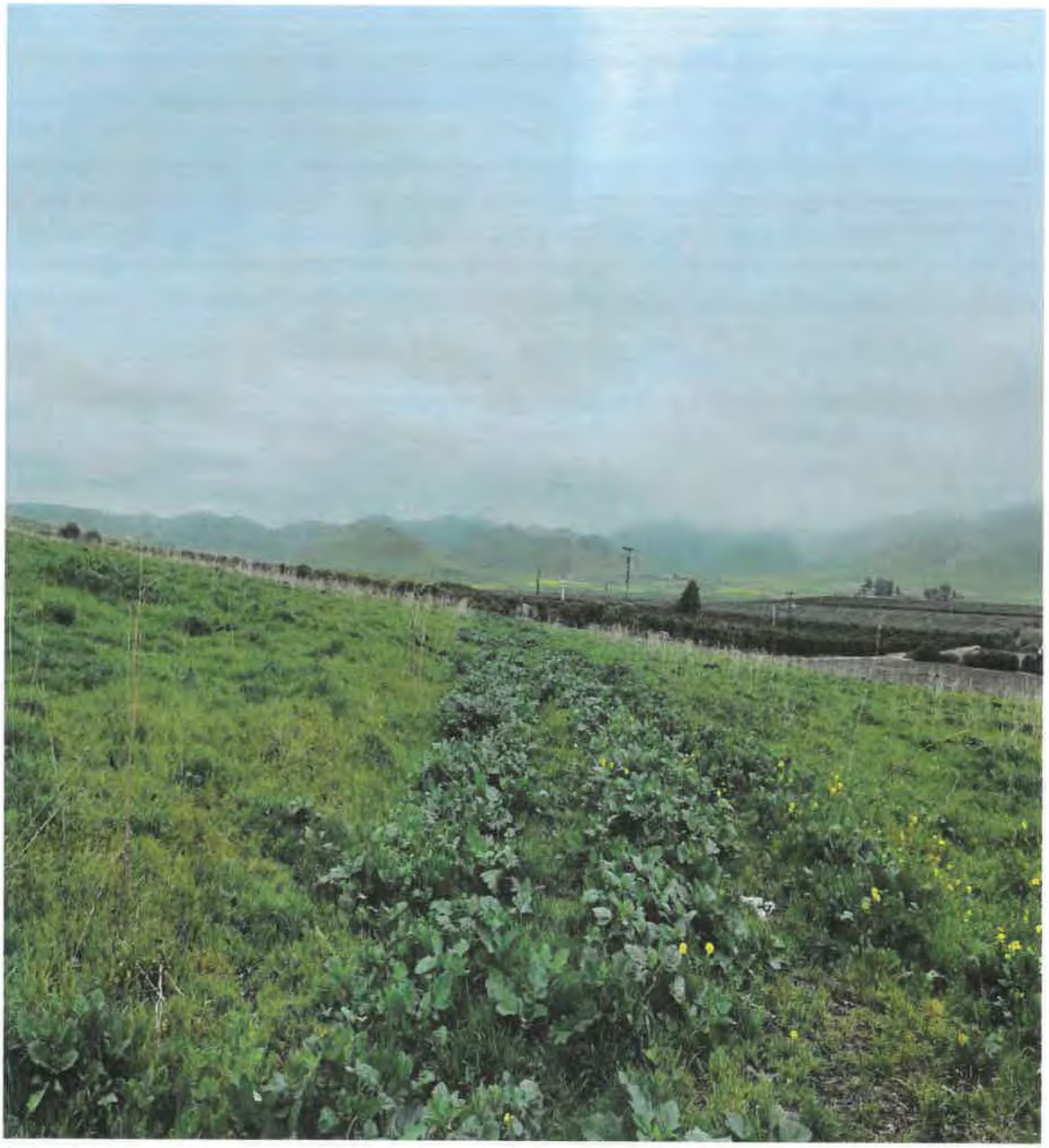


Figure 9- Overgrown Road in Upper Portion of Project Area.

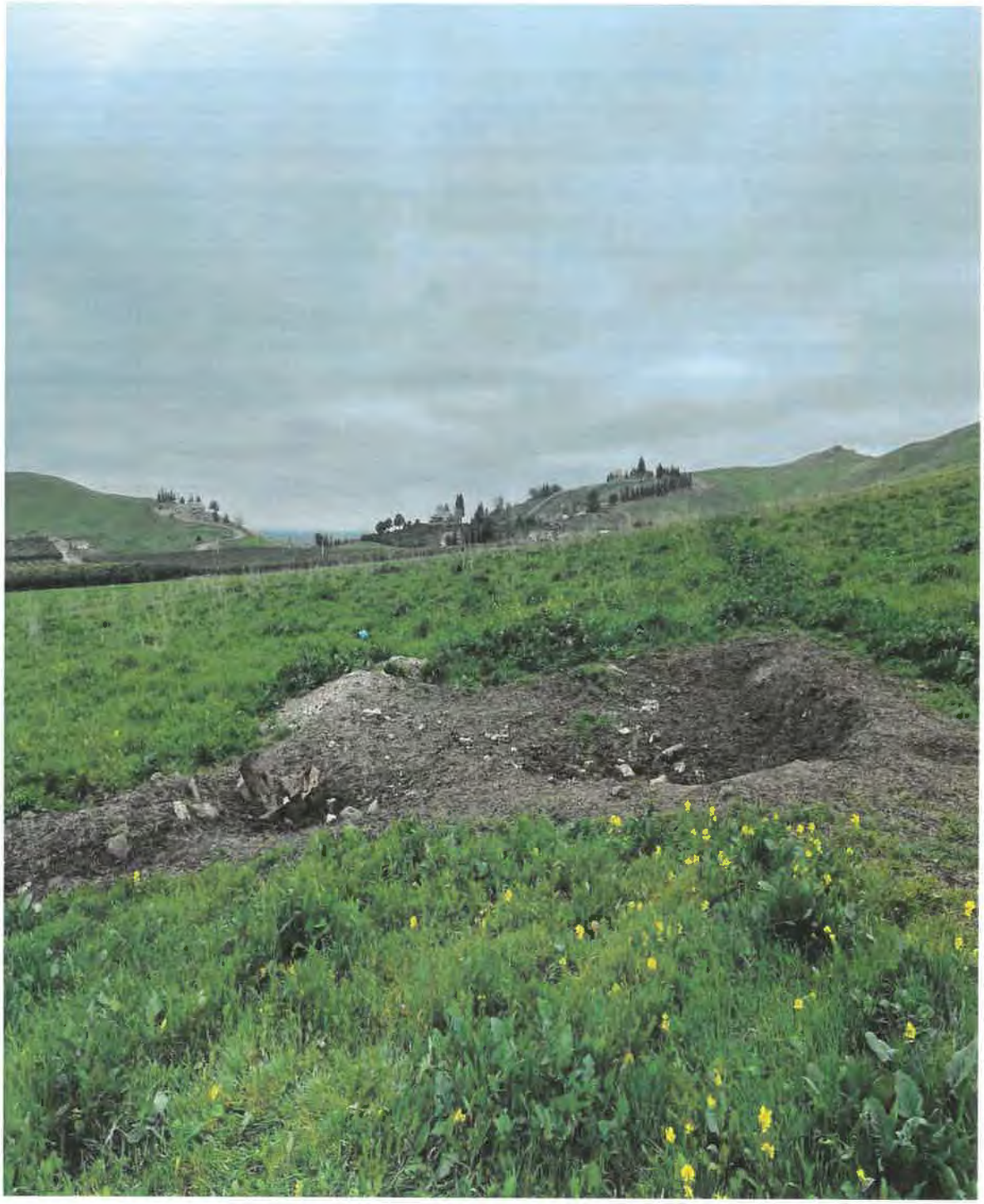


Figure 10- Dug out area south of overgrown road.

Figure 11- West edge of second offshoot.

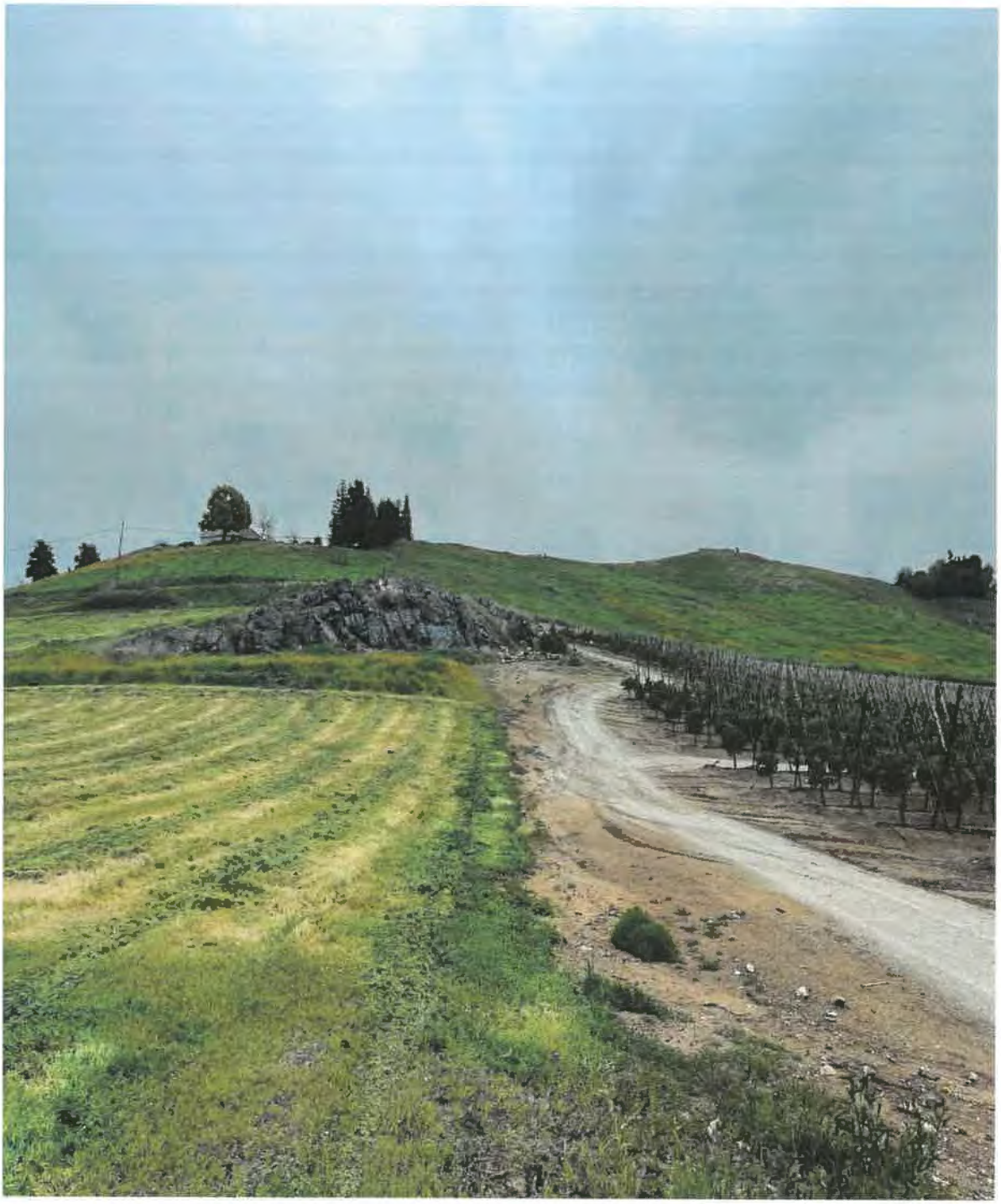


Figure 12- Center of the third offshoot.

Figure 13- Intersection of third offshoot end.

Figure 14- Beginning of offshoot four.

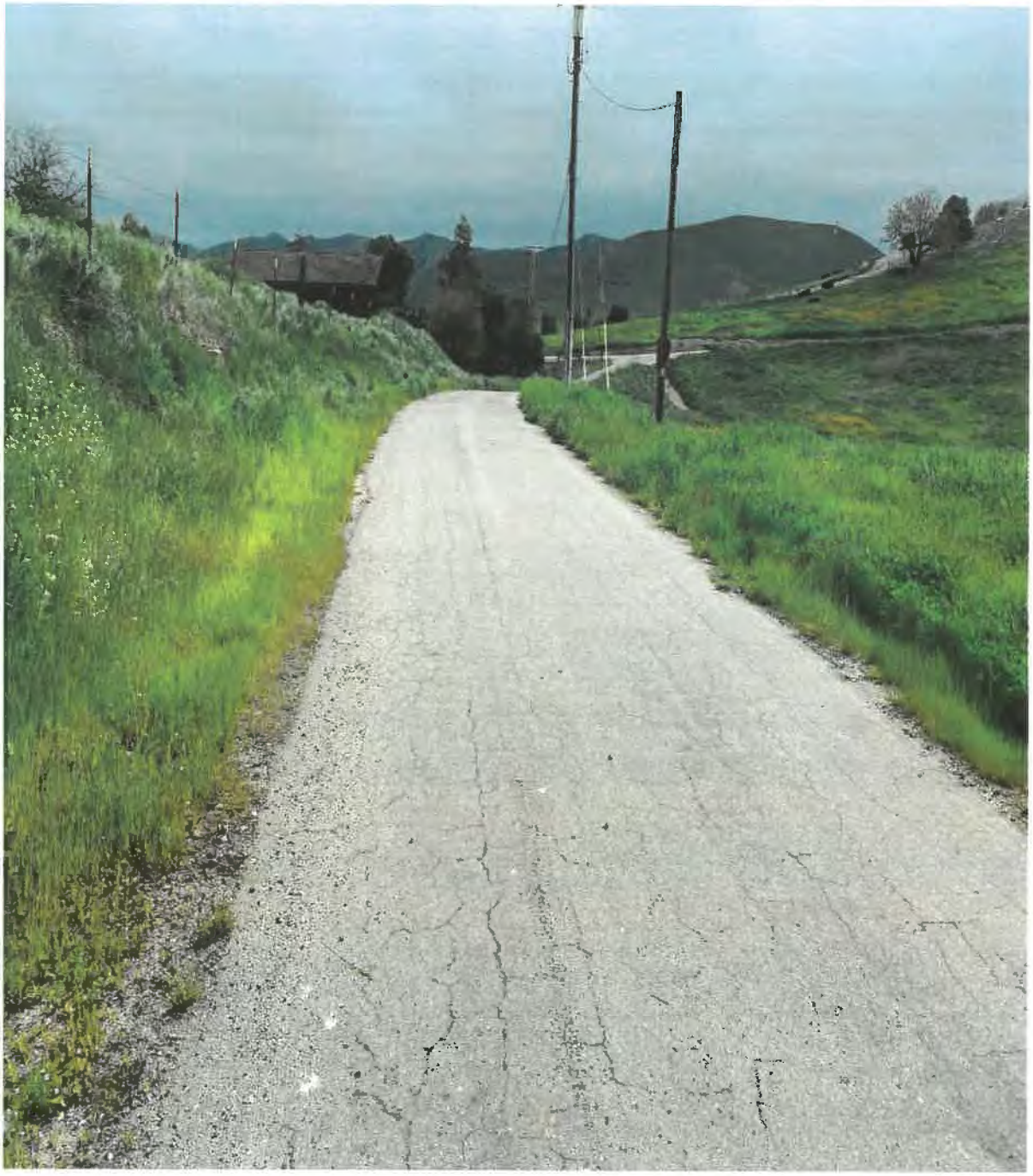


Figure 15- Center of offshoot four.

APPENDIX A

Southern San Joaquin Valley Information Center Records Search

Confidential Appendices Removed

APPENDIX A

Southern San Joaquin Valley Information Center Records Search

Corporate Headquarters
1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

Cultural Resources Records Search Request

Friday, March 1, 2024

Southern San Joaquin Valley Information Center
California State University Bakersfield
Mail Stop: 72DOB
9001 Stockdale Highway
Bakersfield, CA 93311-1022
Tel: 661.654.2289
ssjvic@csub.edu

RE: Phase I CEQA Cultural Resource Assessment Report for Lindsay-Strathmore Irrigation District proposed highline pipeline replacement, Lindsay, CA, 93247. APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011.

Dear Celeste,

Please find attached one project location map, shapefiles, and the SSJVIC/CHRIS Data Request Form for the proposed highline pipeline replacement project in Lindsay, California. The proposed project is situated on the Lindsay, California (2021), USGS 7.5' Series Quadrangle, T 20S, R 27E, S 3 & 10. The approximately 66.3-acre project area is located on APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011 on Road 238 in Lindsay, California. The Project proposes a highline pipeline replacement of the existing 8- and 10-inch pipelines along the Friant-Kern Canal alignment between approximately WGS 84 11N 316804 E 4009652 N and 11N 316139 E 4008661 N.

Please conduct a normal rate records search, including no more than a 0.50-mile radius buffer, of the project location illustrated on the attached map. Please provide the following information:

- PDF of all site records and associated survey reports (Note: PDF/photocopy only those site reports that appear to be pertinent to the immediate project location and search area; surveys and other site/resources can be listed, with full reports requested later if necessary).
- A list of all previous sites and surveys within the search area.
- A confirmation of any sites, structures, or linear features on local, state, and/or federal registers/lists in the project location or the 0.50-mile search area that are not yet mapped on the GIS.

If the normal records search costs will exceed $500.00, or if you have any questions or comments, please e-mail me at hfroshour@soarhere.com. Please contact me as soon as possible if there will be any delays with the records search, as the client may request an expedited search. Please email the encrypted search results in PDF format to: hfroshour@soarhere.com.

Many thanks in advance for your assistance with this project.

Most Sincerely,

Heather Froshour, M.A., R.P.A.
Sr. Archaeologist
Soar Environmental Consulting, Inc.
207.232.8912

California Historical Resources Information System

CHRIS Data Request Form

ACCESS AND USE AGREEMENT NO.: 515.00 **IC FILE NO.:** _____

To: Southern San Joaquin Valley Information Center

Print Name: Heather Froshour Date: 02/29/2024

Affiliation: Soar Environmental Consulting Inc.

Address: 1322 East Shaw Ave. Suite 400

City: Fresno State: CA Zip: 93710

Phone: (559) 547-8884 Fax: _____ Email: hfroshour@soarhere.com

Billing Address (if different than above): _____

Billing Email: cdavis@soarhere.com Billing Phone: _____

Project Name / Reference: Phase 1 CRA Lindsay-Strathmore Irrigation District

Project Street Address: APNs 210-010-046, 048, 049, 050, 051, & 210-110-011

County or Counties: Tulare

Township/Range/UTMs: T20S, R27E, S3&10, 11N 316804E 4009652N & 316139E 4008661N

USGS 7.5' Quad(s): Lindsay (2021), USGS 7.5' Series Quadrangle

PRIORITY RESPONSE (Additional Fee): yes ☐ / no ☒

TOTAL FEE NOT TO EXCEED: $ 500.00
(If blank, the Information Center will contact you if the fee is expected to exceed $1,000.00)

Special Instructions:

Information Center Use Only

Date of CHRIS Data Provided for this Request: _____

Confidential Data Included in Response: yes ☐ / no ☐

Notes: _____

CHRIS Data Request Form

Mark the request form as needed. Attach a PDF of your project area (with the radius if applicable) mapped on a 7.5' USGS topographic quadrangle to scale 1:24000 ratio 1:1 neither enlarged nor reduced and include a shapefile of your project area, if available. Shapefiles are the current CHRIS standard for submitting digital spatial data for your project area or radius. **Check with the appropriate IC for current availability of digital data products.**

- Documents will be provided in PDF format. Paper copies will only be provided if PDFs are not available at the time of the request or under specially arranged circumstances.
- Location information will be provided as a digital map product (Custom Maps or GIS data) unless the area has not yet been digitized. In such circumstances, the IC may provide hand drawn maps.
- In addition to the $150/hr. staff time fee, client will be charged the Custom Map fee when GIS is required to complete the request [e.g., a map printout or map image/PDF is requested and no GIS Data is requested, or an electronic product is requested (derived from GIS data) but no mapping is requested].

For product fees, see the CHRIS IC Fee Structure on the OHP website.

1. **Map Format Choice:**

Select One: Custom GIS Maps ☒ GIS Data ☐ Custom GIS Maps **and** GIS Data ☐ No Maps ☐

Any selection below left unmarked will be considered a "no."

Location Information:

	Within project area	Within 0.5 mi. radius
ARCHAEOLOGICAL Resource Locations[1]	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Locations	yes ☒ / no ☐	yes ☒ / no ☐
Report Locations[1]	yes ☒ / no ☐	yes ☒ / no ☐
"Other" Report Locations[2]	yes ☒ / no ☐	yes ☒ / no ☐

3. **Database Information:**
(contact the IC for product examples, or visit the SSJVIC website for examples)

	Within project area	Within 0.5 mi. radius
ARCHAEOLOGICAL Resource Database[1]		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☐ / no ☒	yes ☐ / no ☒
Excel Spreadsheet	yes ☐ / no ☒	yes ☐ / no ☒
NON-ARCHAEOLOGICAL Resource Database		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☐ / no ☒	yes ☐ / no ☒
Excel Spreadsheet	yes ☐ / no ☒	yes ☐ / no ☒
Report Database[1]		
List (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Detail (PDF format)	yes ☐ / no ☒	yes ☐ / no ☒
Excel Spreadsheet	yes ☐ / no ☒	yes ☐ / no ☒
Include "Other" Reports [2]	yes ☒ / no ☐	yes ☒ / no ☐

4. **Document PDFs** (paper copy only upon request):

	Within project area	Within 0.5 mi. radius
ARCHAEOLOGICAL Resource Records[1]	yes ☒ / no ☐	yes ☒ / no ☐
NON-ARCHAEOLOGICAL Resource Records	yes ☒ / no ☐	yes ☒ / no ☐
Reports[1]	yes ☒ / no ☐	yes ☒ / no ☐
"Other" Reports[2]	yes ☒ / no ☐	yes ☒ / no ☐

CHRIS Data Request Form

5. Eligibility Listings and Documentation:

	Within project area	Within 0.5 mi. radius
OHP Built Environment Resources Directory[3]:		
Directory listing only (Excel format)	yes ☒ / no ☐	yes ☒ / no ☐
Associated documentation[4]	yes ☒ / no ☐	yes ☒ / no ☐
OHP Archaeological Resources Directory[1,5]:		
Directory listing only (Excel format)	yes ☒ / no ☐	yes ☒ / no ☐
Associated documentation[4]	yes ☒ / no ☐	yes ☒ / no ☐
***California Inventory of Historic Resources* (1976):**		
Directory listing only (PDF format)	yes ☒ / no ☐	yes ☒ / no ☐
Associated documentation[4]	yes ☒ / no ☐	yes ☒ / no ☐

6. Additional Information:

The following sources of information may be available through the Information Center. However, several of these sources are now available on the OHP website and can be accessed directly. The Office of Historic Preservation makes no guarantees about the availability, completeness, or accuracy of the information provided through these sources. Indicate below if the Information Center should review and provide documentation (if available) of any of the following sources as part of this request.

Caltrans Bridge Survey	yes ☒ / no ☐
Ethnographic Information	yes ☒ / no ☐
Historical Literature	yes ☒ / no ☐
Historical Maps	yes ☒ / no ☐
Local Inventories	yes ☒ / no ☐
GLO and/or Rancho Plat Maps	yes ☒ / no ☐
Shipwreck Inventory	yes ☐ / no ☒
Soil Survey Maps	yes ☒ / no ☐

---

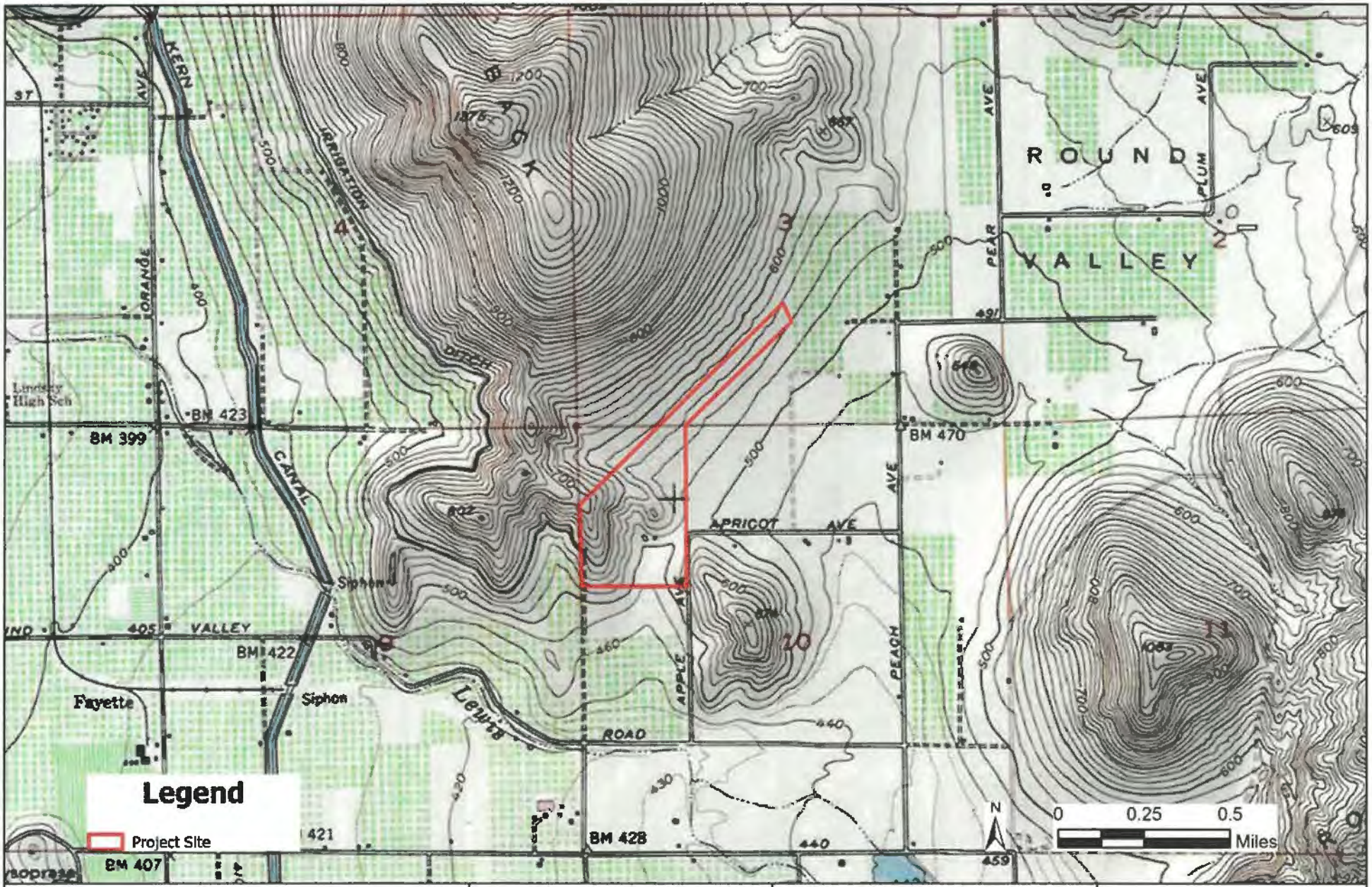
[1] In order to receive archaeological information, requestor must meet qualifications as specified in Section III of the current version of the California Historical Resources Information System Information Center Rules of Operation Manual and be identified as an Authorized User or Conditional User under an active CHRIS Access and Use Agreement.

[2] "Other" Reports GIS layer consists of report study areas for which the report content is almost entirely non-fieldwork related (e.g., local/regional history, or overview) and/or for which the presentation of the study area boundary may or may not add value to a record search.

[3] Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Includes, but not limited to, information regarding National Register of Historic Places, California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and historic building surveys. Previously known as the HRI and then as the HPD, it is now known as the Built Environment Resources Directory (BERD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.

[4] Associated documentation will vary by resource. Contact the IC for further details.

[5] Provided as Excel spreadsheets with no cost for the rows; the only cost for this component is IC staff time. Previously known as the Archaeological Determinations of Eligibility, now it is known as the Archaeological Resources Directory (ARD). The Office of Historic Preservation compiles this documentation and it is the source of the official status codes for evaluated resources.



1322 East Shaw Avenue, Suite 400 Fresno, CA 93710 www.soarhere.com 559.647.8884	Title USGS Topographic Map	Facility Address Lindsay-Strathmore	Figure # 1 USGS Topographic Map
	Client Lindsay-Strathmore Irrigation District		Revision Date 02/27/2024

Source: USGS Topo Map; Soar 2024

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic

3/11/2024

Heather Froshour
Soar Environmental Consulting
1322 East Shaw Ave., Suite 400
Fresno, CA 93710

Re: Phase 1 CRA Lindsay-Strathmore Irrigation District
Records Search File No.: 24-099

The Southern San Joaquin Valley Information Center received your record search request for the project area referenced above, located on Lindsay USGS 7.S' quad. The following reflects the results of the records search for the project area and the 0.5 mile radius:

As indicated on the data request form, the locations of resources and reports are provided in the following format: ☒ custom GIS maps ☐ GIS data

Resources within project area:	None
Resources within 0.S mile radius:	P-54-005249
Reports within project area:	None
Reports within 0.5 mile radius:	TU-01576, 01583, 01889

Resource Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Resource Database Printout (details):	☐ enclosed	☐ not requested	☐ nothing listed
Resource Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Report Database Printout (list):	☒ enclosed	☐ not requested	☐ nothing listed
Report Database Printout (details):	☐ enclosed	☒ not requested	☐ nothing listed
Report Digital Database Records:	☐ enclosed	☒ not requested	☐ nothing listed
Resource Record Copies:	☒ enclosed	☐ not requested	☐ nothing listed
Report Copies:	☒ enclosed	☐ not requested	☐ nothing listed
OHP Built Environment Resources Directory:	☐ enclosed	☐ not requested	☒ nothing listed
Archaeological Determinations of Eligibility:	☐ enclosed	☐ not requested	☒ nothing listed
CA Inventory of Historic Resources (1976):	☐ enclosed	☐ not requested	☒ nothing listed

Caltrans Bridge Survey: Not available at SSJVIC; please see https://dot.ca.gov/programs/environmental-analysis/cultural-studies/california-historical-bridges-tunnels

Ethnographic Information: Not available at SSJVIC

Historical Literature: Not available at SSJVIC

Historical Maps: Not available at SSJVIC; please see http://historicalmaps.arcgis.com/usgs/

Local Inventories: Not available at SSJVIC

GLO and/or Rancho Plat Maps: Not available at SSJVIC; please see http://www.glorecords.blm.gov/search/default.aspx#searchTabIndex=0&searchByTypeIndex=1 and/or http://www.oac.cdlib.org/view?docId=hb8489p15p;developer=local;style=oac4;doc.view=items

Shipwreck Inventory: Not available at SSJVIC; please see https://www.slc.ca.gov/shipwrecks/

Soil Survey Maps: Not available at SSJVIC; please see http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Please forward a copy of any resulting reports from this project to the office as soon as possible. Due to the sensitive nature of archaeological site location data, we ask that you do not include resource location maps and resource location descriptions in your report if the report is for public distribution. If you have any questions regarding the results presented herein, please contact the office at the phone number listed above.

The provision of CHRIS Data via this records search response does not in any way constitute public disclosure of records otherwise exempt from disclosure under the California Public Records Act or any other law, including, but not limited to, records related to archeological site information maintained by or on behalf of, or in the possession of, the State of California, Department of Parks and Recreation, State Historic Preservation Officer, Office of Historic Preservation, or the State Historical Resources Commission.

Due to processing delays and other factors, not all of the historical resource reports and resource records that have been submitted to the Office of Historic Preservation are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for historical resource management work in the search area. Additionally, Native American tribes have historical resource information not in the CHRIS Inventory, and you should contact the California Native American Heritage Commission for information on local/regional tribal contacts.

Should you require any additional information for the above referenced project, reference the record search number listed above when making inquiries. Invoices for Information Center services will be sent under separate cover from the California State University, Bakersfield Accounting Office.

Thank you for using the California Historical Resources Information System (CHRIS).

Sincerely,

Jeremy E David
Assistant Coordinator

Resource List

SSJVIC Record Search 24-099

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-54-005249	CA-TUL-003100H	Resource Name - CAR-0716-001; Resource Name - Lewis Creek	Structure, Site	Historic	AH06; HP20	2007 (R. Orfila, T. Barket, Center for Archaeological Research); 2022 (R. Azpitarte, ASM Affiliates, Inc.)	TU-01459, TU-01963

Report List

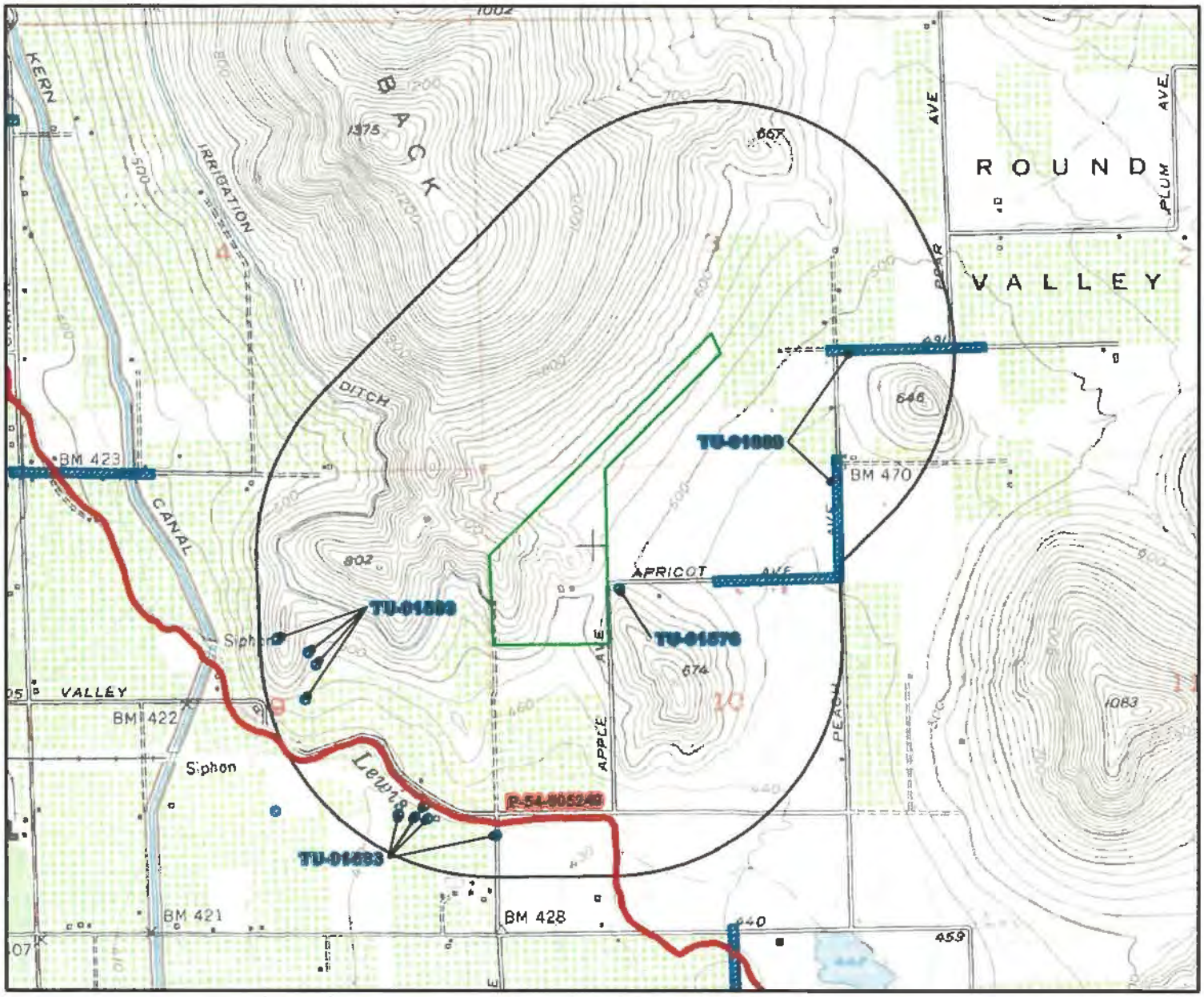
SSJVIC Record Search 24-099

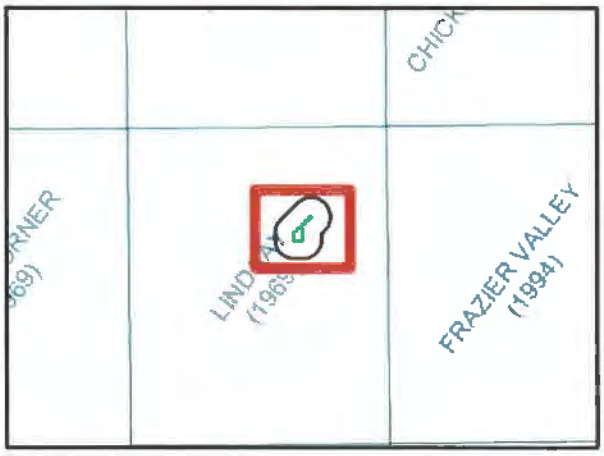
Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
TU-01576		2011	Schmidt, James J.	Archaeological Letter Report: Round Valley, Paige, and Iona 12kV Deteriorated Pole Replacement Project (WO 6051-4800; R-4895 TD502579; T-4803TD510206; T-4806 TD510213; T-4823 TD510591), Tulare and Kings Counties, California	Compass Rose Archaeological, Inc.	
TU-01583	Submitter - WO 6051-4800 F4809 (10); Submitter - WO 6051-4800 P-4806 (7); Submitter - WO 6053-4800 0-4878 (1)	2010	Orfila, Rebecca S.	Archaeological Survey for the Southern California Edison Company: Replacement of Eighteen Deteriorated Power Poles on the Booster 12 kV, Bowen 12 kV, Cattle 12 kV, El Mirador 12 kV, Isabella 12 kV, Nickerson 12 kV, Roeding 12 kV, Round Valley 12 kV, and Zante 12 kV Circuits in Kern and Tulare Counties in California	RSO Consulting, Archaeological and Historical Resource Management	
TU-01889	Other - Record Search 19-073; Submitter - PN 32080.00	2019	Whitley, David S. and Carey, Peter A.	Class III Inventory/Phase I Survey, Lindsay-Strathmore Irrigation District Pipeline Replacement Project, Tulare County, California	ASM Affiliates, Inc.	54-004614, 54-004626, 54-004632, 54-005509, 54-005510, 54-005511

California Historical Resources Information System

Fresno
Kern
Kings
Madera
Tulare

Southern San Joaquin Valley Information Center
California State University, Bakersfield
Mail Stop: 72 DOB
9001 Stockdale Highway
Bakersfield, California 93311-1022
(661) 654-2289
E-mail: ssjvic@csub.edu
Website: www.csub.edu/ssjvic





May depict confidential cultural resource locations. Do not distribute.

Map pages depicting no data have been excluded.

Project Area

Record Search radius

N W E S

0 0.1 0.2 0.4 Miles

0 0.125 0.25 0.5 Kilometers

SSJV Information Center Record Search 24-099
Requester: Heather Froshour, Soar Environmental Consulting, Inc.
Project Name: Phase 1 CRA Lindsay-Strathmore Irrigation District
USGS 7.5' Quad(s): Lindsay
County: Tulare

APPENDIX B

Sacred Lands File & Native American Contacts List Request

Corporate Headquarters
1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

Sacred Lands File & Native American Contacts List Request

Friday, March 1, 2024

Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Tel: 916.373.3710
Fax: 916.373.5471
nahc@nahc.ca.gov

RE: Phase I CEQA Cultural Resource Assessment Report for Lindsay-Strathmore Irrigation District proposed highline pipeline replacement, Lindsay, CA, 93247. APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011.

Dear Sir/Madam,

Please find attached one project location map, Sacred Lands File NA Contact Form, and Local Government Tribal Consultation List Request for the proposed highline pipeline replacement project in Lindsay, California. The proposed project is situated on the Lindsay, California (2021), USGS 7.5' Series Quadrangle, T 20S, R 27E, S 3 & 10. The approximately 66.3-acre project area is located on APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011 on Road 238 in Lindsay, California. The Project proposes a highline pipeline replacement of the existing 8- and 10-inch pipelines along the Friant-Kern Canal alignment between approximately WGS 84 11N 316804 E 4009652 N and 11N 316139 E 4008661 N.

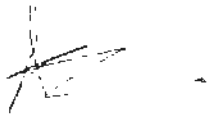
This letter is intended to inform you of the project and to help ensure compliance with the California Environmental Quality Act (CEQA). As part of the Cultural Resources Study for the project, we are requesting your insights on potential Native American cultural properties and resources in and/or near the project.

Please respond at your earliest convenience if you have any information to consider for this study.

Also, we would greatly appreciate if you could review the attached map and indicate to us if there are any concerns you might have or input regarding potentially sensitive cultural heritage values in the project area and vicinity.

Feel free to contact me by email at hfroshour@soarhere.com or phone at 207.232.8912.

Most Sincerely,



Heather Froshour, M.A., R.P.A.
Sr. Archaeologist
Soar Environmental Consulting, Inc.
207.232.8912

Sacred Lands File & Native American Contacts List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Phase I Cultural Resources Assessment Lindsay-Strathmore Irrigation District

County: Tulare

USGS Quadrangle Name: Lindsay, California, Tulare County, 7.5' Series

Township: 20S **Range:** 27E **Section(s):** 3 & 10

Company/Firm/Agency: Soar Environmental Consulting Inc.

Street Address: 1322 East Shaw Ave. Suite 400

City: Fresno **Zip:** 93710

Phone: (559)547-8884

Fax:

Email: hfroshour@soarhere.com

Project Description:

The approximately 66.3-acre project area is located on APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011 on Road 238 in Lindsay, California. The Project proposes a highline pipeline replacement of the existing 8- and 10-inch pipelines along the Friant-Kern Canal alignment between approximately WGS 84 and 11N 316804 E 4009652 N and 11N 316139 E 4008661 N.

Local Government Tribal Consultation List Request

Native American Heritage Commission
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

Type of List Requested

■ **CEQA Tribal Consultation List (AB 52)** – *Per Public Resources Code § 21080.3.1, subs. (b), (d), (e) and 21080.3.2*

☐ **General Plan (SB 18)** - *Per Government Code § 65352.3.*

Local Action Type:

☐ **General Plan** ☐ **General Plan Element** ☐ **General Plan Amendment**

☐ **Specific Plan** ☐ **Specific Plan Amendment** ☐ **Pre-planning Outreach Activity**

Required Information

Project Title: Phase I Cultural Resources Assessment Lindsay-Strathmore Irrigation District

Local Government/Lead Agency: Soar Environmental Consulting Inc.

Contact Person: Heather Froshour

Street Address: 1322 East Shaw Ave. Suite 400

City: Fresno **Zip:** 93710

Phone: (559) 547-8884 **Fax:**

Email: hfroshour@soarhere.com

Specific Area Subject to Proposed Action

County: Tulare **City/Community:**

Project Description:

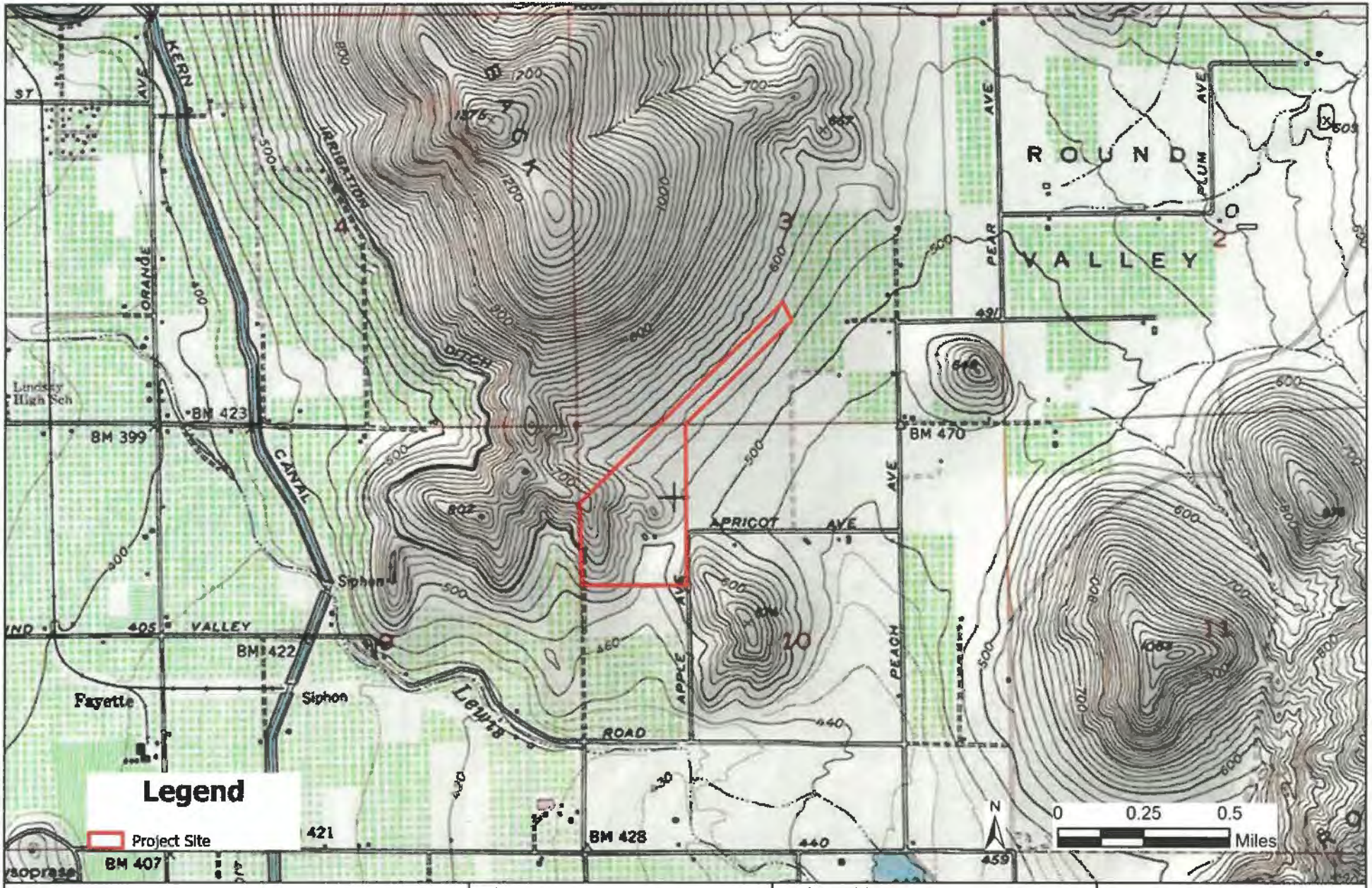
The approximately 66.3-acre project area is located on APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011 on Road 238 in Lindsay, California. The Project proposes a highline pipeline replacement of the existing 8- and 10-inch pipelines along the Friant-Kern Canal alignment between approximately WGS 84 11N 316804 E 4009652 N and 11N 316139 E 4008661 N.

Additional Request

■ **Sacred Lands File Search** - ***Required Information:***

USGS Quadrangle Name(s): Lindsay, California (2022) 7.5' Series Quad

Township: 20S **Range:** 27E **Section(s):** 3 & 10



SOAR ENVIRONMENTAL CONSULTING 1322 East Shaw Avenue, Suite 400 Fresno, CA 93710 www.soarhere.com 559.647.8884	Title USGS Topographic Map	Facility Address Lindsay-Strathmore	Figure # 1 USGS Topographic Map
	Client Lindsay-Strathmore Irrigation District		Revision Date 02/27/2024

Source: USGS Topo Map; Soar 2024

NATIVE AMERICAN HERITAGE COMMISSION

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

March 11, 2024

Heather Froshour
hfroshour@soarhere.com

Via Email to: *hfroshour@soarhere.com*

Re: Phase I Cultural Resources Assessment Lindsay-Strathmore Irrigation District Project, Tulare County

To Whom It Moy Concern:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriote tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Murphy.Donahue@NAHC.ca.gov

Sincerely,

Murphy Donahue

Murphy Donahue
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Tulare County
3/11/2024

County	Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Fax #	Email Address	Cultural Affiliation	Counties	Last Updated
Tulare	Tule River Indian Tribe	F	Joey Garfield, Tribal Archaeologist	P. O. Box 589 Porterville, CA. 93258	(559) 783-8892	(559) 782-8932	joey.garfield@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San	7/22/2016
	Tule River Indian Tribe	F	Kerri Vera, Environmental Department	P. O. Box 589 Porterville, CA. 93258	(559) 783-8892	(559) 783-8932	kerri.vera@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San	7/22/2016
	Tule River Indian Tribe	F	Neil Peyron, Chairperson	P.O. Box 589 Porterville, CA. 93258	(559) 781-4271	(559) 781-4610	neil.peyron@tulerivertribe-nsn.gov	Yokut	Alameda,Amador,Calaveras,Contra Costa,Fresno,Inyo,Kern,Kings,Madera,Mariposa,Merced,Monterey,Sacramento,San	
	Wuksachi Indian Tribe/Eshom Valley Band	N	Kenneth Woodrow, Chairperson	1179 Rock Haven Ct. Salinas, CA, 93906	(831) 443-9702		kwood8934@aol.com	Foothill Yokut Mono	Alameda,Calaveras,Contra Costa,Fresno,Inyo,Kings,Madera,Marin,Mariposa,Merced,Mono,Monterey,San Benito,San	6/16/2023

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Phase I Cultural Resources Assessment Lindsay-Strathmore Irrigation District Project, Tulare County.

Record: PRC3-3924-OC 2374
Report Type: List of Tribes
Counties: Tulare
NAHC Group: All

Corporate Headquarters
1322 E. Shaw Avenue, Suite 400 Fresno, CA, 93710
www.soarhere.com • 559.547.8884

Thursday, March 14, 2024

Tule River Indian Tribe
P. O. Box 589
Porterville, CA, 93258
Phone: (559) 783-8892
joey.garfield@tulerivertribe-nsn.gov

RE: Phase I CEQA Cultural Resource Assessment Report for Lindsay-Strathmore Irrigation District proposed highline pipeline replacement, Lindsay, CA, 93247. APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011.

Dear Joey Garfield, Tribal Archaeologist,

Below, please find a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

The proposed project is situated on the Lindsay, California (2021), USGS 7.5' Series Quadrangle, T 20S, R 27E, S 3 & 10. The approximately 66.3-acre project area is located on APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011 on Road 238 in Lindsay, California. The Project proposes a highline pipeline replacement of the existing 8- and 10-inch pipelines along the Friant-Kern Canal alignment between approximately WGS 84 11N 316804 E 4009652 N and 11N 316139 E 4008661 N.

The Lindsay-Strathmore Irrigation District has requested a Phase 1 Archaeological Resource Assessment (Phase 1) to determine the potential for cultural resources prior to development, pursuant to state and local laws, including the California Environmental Quality Act (CEQA) and Tulare County guidelines. Soar Environmental Consulting Inc. (Soar Environmental) proposes to complete the Phase 1 study for the present project.

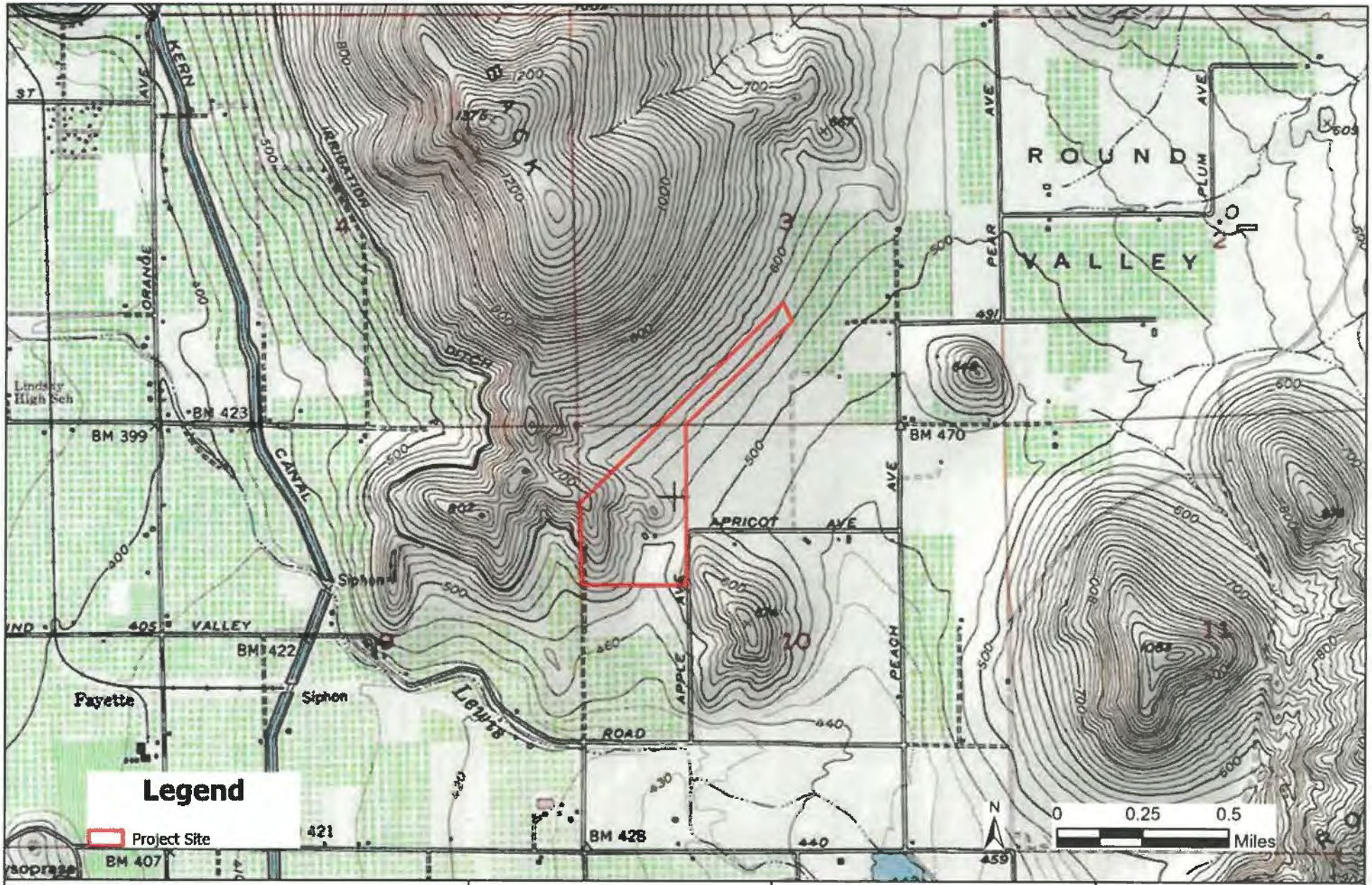
An important element of a Phase 1 study is to identify sites, resources, or locations of cultural importance to the local Native American community. As part of the process, Soar Environmental contacted the Native American Heritage Commission (NAHC) on March 1, 2024. On March 11, 2024, Soar received a response letter from the NAHC indicating **negative results** of the Sacred Lands File search. Furthermore, the NAHC identified your organization as a point of contact regarding potentially known recorded sites or cultural resources within Tulare County.

Soar contacted the Southern San Joaquin Valley Information Center (SSJVIC) of the California Historical Resources Information System on March 1, 2024. On March 11, 2024, SSJVIC no historic cultural resources within the project area. No archaeological sites are known within the project area. No previous surveys have been conducted within the project area. One (1) historic cultural resource was identified within the ½-mile search radius of the project area. No historic properties on federal, state, or local inventories have been evaluated within the project area. Three (3) previous surveys have been conducted within a ½-mile radius of the project area. On March 13, 2024, Soar conducted an archeological pedestrian field survey of the project area. No **cultural resources** were identified during the field survey.

Soar is contacting you to determine if you have any concerns regarding the proposed development. Pursuant to PRC § 21080.3.1 (d), you have **30 days** from the receipt of this letter to request consultation, in writing, with Soar. Should you have any concerns or knowledge of cultural resources in the specific project area, please contact me at hfroshour@soarhere.com or at (207) 232-8912 at your earliest convenience. If Soar does not hear from you within this time, we shall assume that you have no comments regarding this project.

Respectfully,

Heather Froshour, M.A., R.P.A.
Sr. Archaeologist
Soar Environmental Consulting, Inc.



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Thursday, March 14, 2024

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kerri.vera@tulerivertribe-nsn.gov

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Dear Kerri Vera, Environmental Department,

Below, please find a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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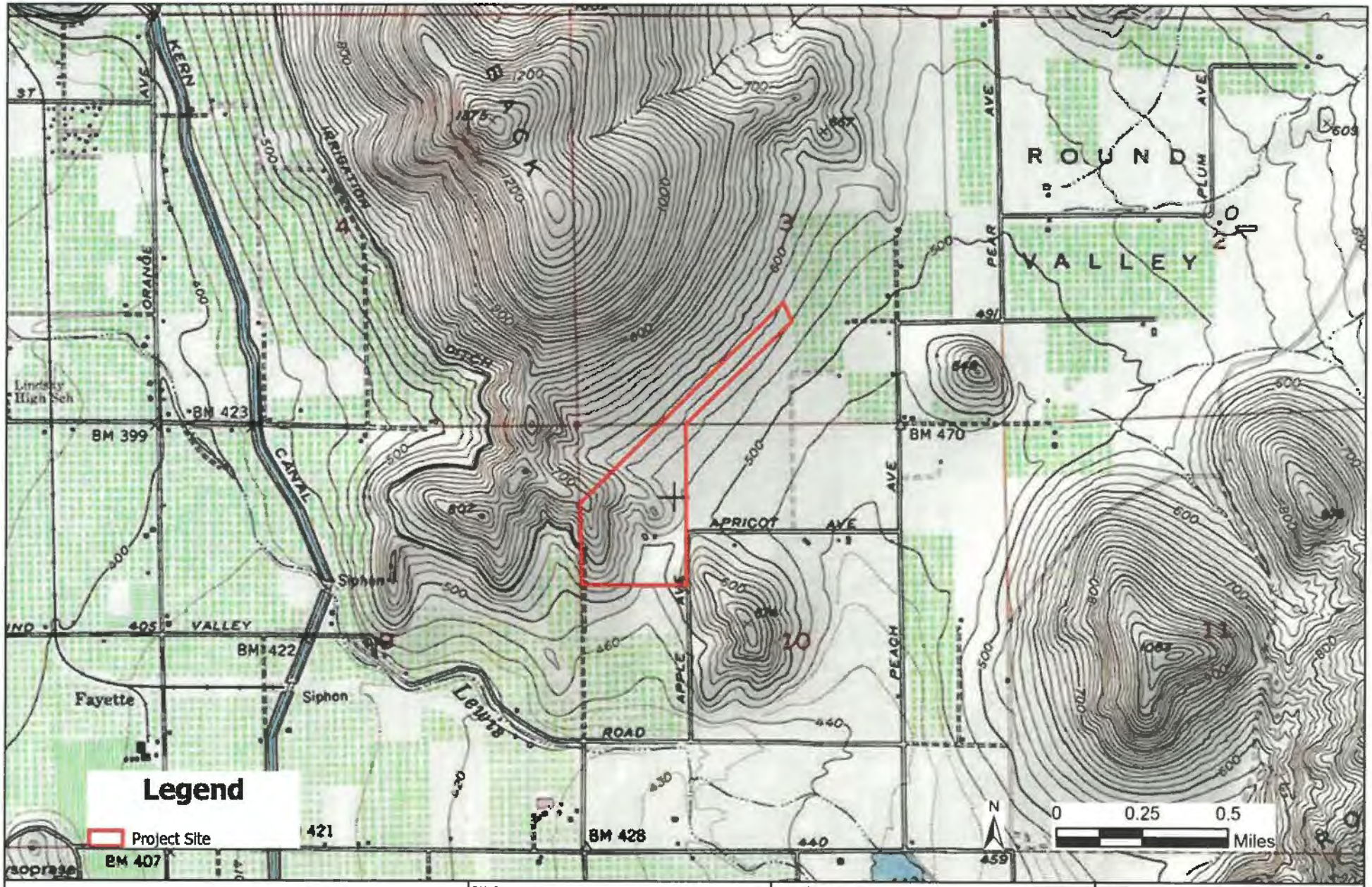

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Thursday, March 14, 2024

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Dear Neil Peyron, Chairperson,

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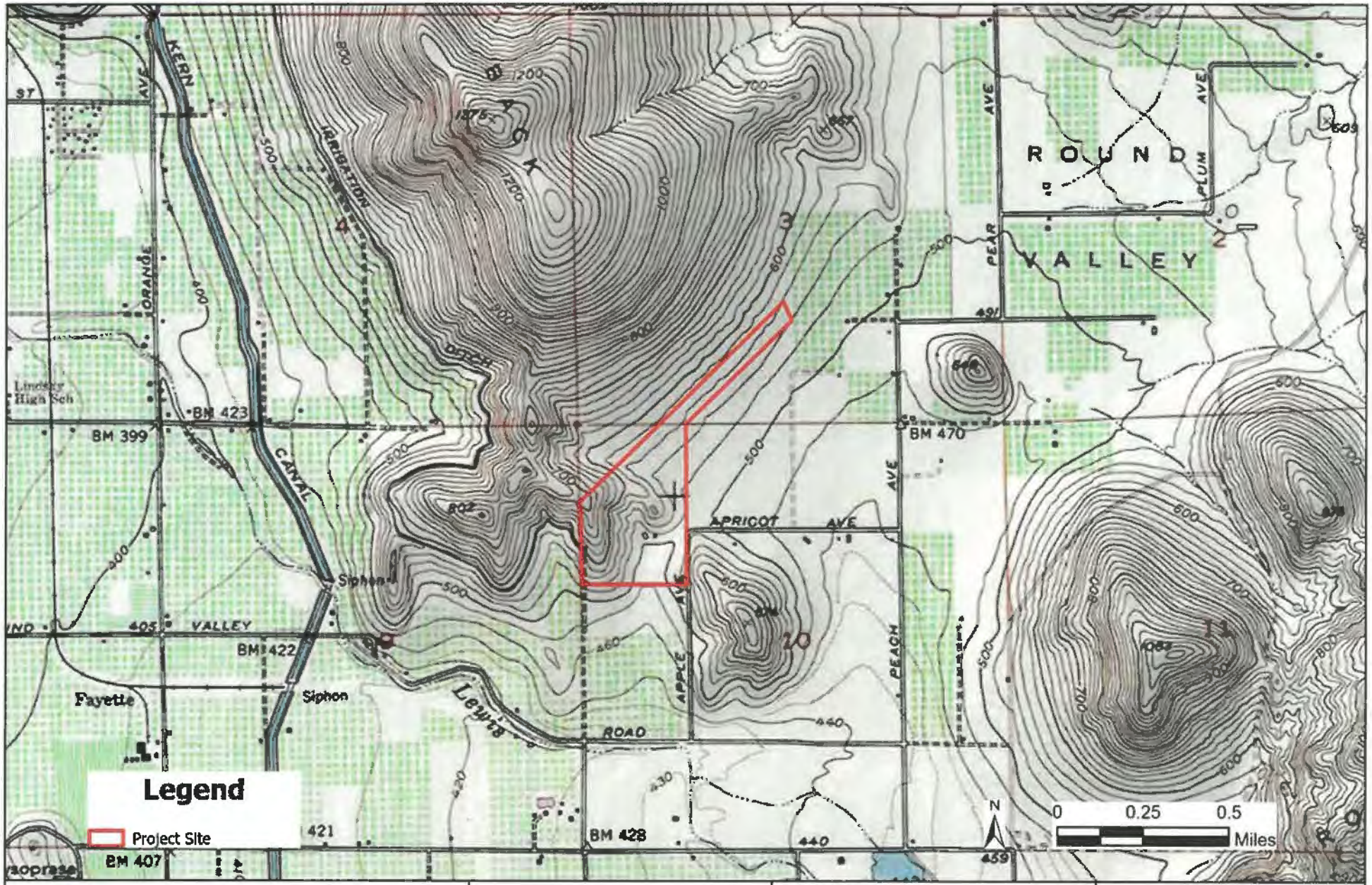

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Thursday, March 14, 2024

Wuksachi Indian Tribe/Eshom Valley Band
1179 Rock Haven Ct.
Salinas, CA, 93906
Phone: (831) 443-9702
kwood8934@aol.com

RE: Phase I CEQA Cultural Resource Assessment Report for Lindsay-Strathmore Irrigation District proposed highline pipeline replacement, Lindsay, CA, 93247. APNs 210-010-046, 210-010-048, 210-010-049, 210-010-050, 210-010-051, & 210-110-011.

Dear Kenneth Woodrow, Chairperson,

Below, please find a description of the proposed project, a map showing the project location, and the name of our project point of contact, pursuant to Public Resources Code (PRC) § 21080.3.1 (d).

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An important element of a Phase I study is to identify sites, resources, or locations of cultural importance to the local Native American community. As part of the process, Soar Environmental contacted the Native American Heritage Commission (NAHC) on March 1, 2024. On March 11, 2024, Soar received a response letter from the NAHC indicating **negative results** of the Sacred Lands File search. Furthermore, the NAHC identified your organization as a point of contact regarding potentially known recorded sites or cultural resources within Tulare County.

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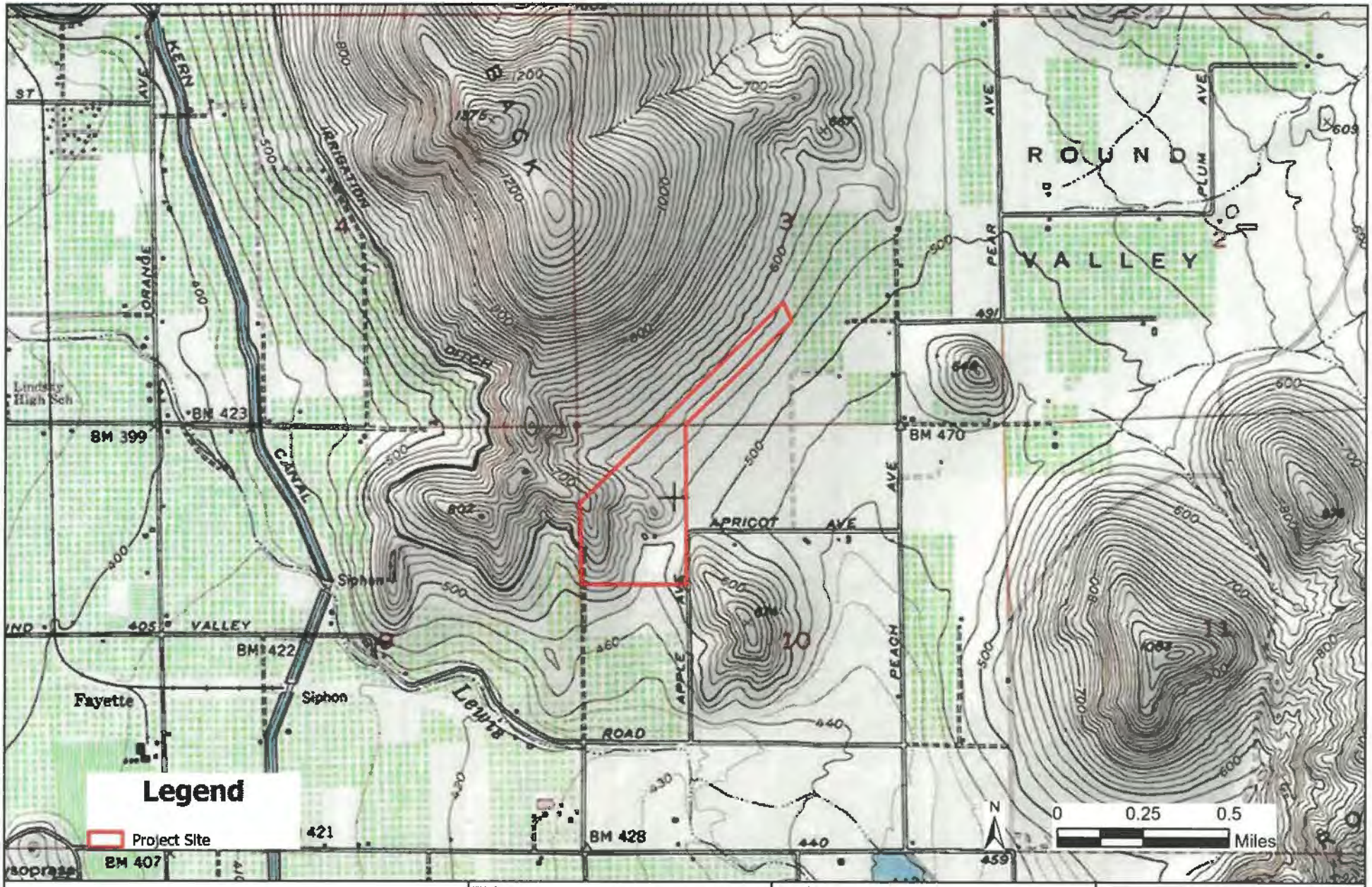

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APPENDIX C

Staff Resumes

Heather Froshour

Senior Archaeologist

12 Years of Relevant Experience

Biography

Ms. Froshour's background emphasises archaeology, anthropology, and cultural resources monitoring.

Education

- M.A. in Historical Archaeology, November 2014. University of Leicester, Leicester, UK.
- B.A. in Anthropology/Geography, June 2010. University of Southern Maine, Gorham/Portland, ME.

Professional Development

- 8 hr training in Wilderness Firest Aid (Sierra Rescue International)
- Adult, Child, Infant C.A.R.E. CPR & First Aid Training (Sierra Rescue International)
- Driver/Operator

Professional Affiliations

- Register of Professional Archaeologists
- CHRIS Qualified Archaeologist
- Society of American Archaeology - SAA
- Society of Historical Archaeology - SHA

Technical Expertise

- Lithic Analysis
- Technical Report Writing
- Lab analysis
- Cultural Monitoring
- Site Surveying – Phases 1-3
- Excavation
- Metal Detection
- Auguring
- Research
- MS Office
- Collector for ArchGIS

Practical Experience

Ms. Froshour is a registered professional archaeologist and cultural resources specialist with extensive experience in field and technical work. This experience including cultural resources monitoring, site survey, phase 1-3 excavations, and anthropology on various projects throughout the United States. She has a combined 8 years of experience in academic, consulting, museum, and public archaeology, and has worked in CRM since 2013 throughout various regions of the United States. Primary states of focus have included Maine, Massachusetts, Louisiana, Georgia, Virginia, Arizona, and California. She routinely assesses cultural resources for project related effects and their significance, provides cultural resource mitigation services, directs archaeological surveys of both excavation and pedestrian methods, and prepares documents for Section 106 of the NHPA, CEQA, and NRHP. Ms. Froshour also has experience working alongside trial monitors through survey with in the Colorado River and Mendocino National Forest regions. She has worked alongside the USDA Forest Service to provide post-fire monitoring and mitigation recommendations.

Ms. Froshour is certified by the Register for Professional Archeologists (Registrant ID: 5457).

Highlighted Projects

California High-Speed Rail Authority Construction Package 1, Cultural Resources Support, March 2023-Present
Heather is the Cultural Resources Support for this construction package. As such, she oversees staff archaeologist cultural reporting, monitoring, and artifact processing on the 33-mile right of way in Fresno and Madera Counties.

SOAR Environmental Consulting, Senior Archaeologist, January 2023-Present
Senior Archaeologist, Phase I Cultural Resources Assessment, Wildomar, California
Provided desktop research, site pedestrian survey, full Phase 1 report, and tribal consultation for two small retail construction projects in Riverside County.

Senior Archaeologist, Phase I Cultural Resources Assessment, Visalia & Tulare , California
Provided desktop research, supervised the 2-person crew site pedestrian survey, full Phase 1 report, and tribal consultation, Cultural Resources Initial Study for two rezoning and housing subdivision construction projects in Tulare County.

Senior Archaeologist, Phase I Cultural Resources Evaluation, Yokuts Valley, California
Provided desktop research, tribal consultation, and full Phase 1 report for the construction a new saber transmission tower to accompany existing USACE and CAL FIRE structures on a 100 square feet area on top of Bear Mountain in Fresno County.

Senior Archaeologist, Phase I Cultural Resources Evaluation, Shirley Meadows, California
Provided desktop research, tribal consultation, and full Phase 1 report with DPR forms for the construction a new saber transmission tower, and concrete masonry shelter enclosed in an 8 foot tall wire fence on a 100 square feet area on top of Shirley Peak in Kern County.

Senior Archaeologist, Phase I Cultural Resources Evaluation, Mountain Ranch, California
Provided desktop research, tribal consultation, and full Phase 1 report with DPR forms for the construction a new saber transmission tower, and propane tank enclosed in an 8 foot tall wire fence on a 100 square feet area on top of Quiggs Mountain in Calaveras County.

Senior Archaeologist, Phase I Cultural Resources Assessment, Glennville, California
Provided desktop research, site pedestrian survey, tribal consultation, and full Phase 1 report for the construction a new saber transmission tower, CMU block shelter, and parking lot enclosed in a wire fence on a 100 square feet area on top of Mount Pheasant in Kern County.

Senior Archaeologist, Phase I Cultural Resources Assessment, Bakersfield, California
Provided desktop research, site pedestrian survey, and full Phase 1 report for rezoning project and multiple family residence construction project.

Senior Archaeologist, Phase I Cultural Resources Assessment, Joshua Tree, California
Provided desktop research, site pedestrian survey, and full Phase 1 report for upscale yurt campground construction project.

Post Fire Fuels and Priority Heritage Asset Assessment Surveys, Grindstone Region, CA (June 2022-December 2022). The Great Basin Institute, Archaeological Crew Lead.
Phase I pedestrian surveys and site recording on post-wildfire burned landscapes within the Mendocino National Forest. Overseeing a small crew in the field survey, site recording, and completion of extensive USDA Forest Service site reports and mapping of cultural resources in the area. Ensured that all pertinent data is documented and reported to Forest Services standards with specific attention to current field conditions, disturbances, vegetation, terrain, and geospatial data of cultural resources. Provided day to day support of the crew and worked as a liaison between the Great Basin Institute and Mendocino National Forest personnel. Conducted Section 106 and Section 110 Priority Heritage Asset assessments of archaeological resources throughout the eastern region of the Mendocino. Assisted in final Phase 1 survey report writing.

Various Cultural Resource Management Survey Projects, GA & NC (June 2021- April 2022). TerraXplorations, Inc., Archaeology Field Director.
Phase I shovel testing in various locations throughout Georgia, in addition to a single project just outside of Raleigh, NC. These projects include road, bridge, and culvert improvement surveys as well as solar tract, farm, and generator surveys. All projects were conducted in 30m intervals along transect within the ESB of the survey area. All positive shovel tests were then delineated in 15m interval cruciform to determine site boundaries. Several projects required the use of metal detection grids in order to thoroughly survey areas of known Civil War activity. A number of projects for the Georgia Department of Transportation also required the probing of areas within the project ESB that were located within 1km from a known cemetery, with potential anomalies delineated and all results fully recorded. Duties include overseeing and directing field crews in locating, collecting, recording, and interpreting data from the survey. The supervision of personnel, including aiding in hiring and firing, performance reviews, training, work allocation, and problem resolution. Ensuring safe work practices and directing morning safety meetings to address potential hazards and safety concerns in the areas scheduled for fieldwork that day. Participation in field and office

meetings with PIs and company owners to address scheduling and management procedures based on client needs as well as those of state and federal regulations and requirements.

Cultural Resource Management Survey Project, VAM-1 and Glasgow Pipeline Replacement, VA (May 2021-June 2021). TerraXplorations, Inc., Archaeology Crew Chief.

Phase I shovel test excavations from the replacement of the VAM-1 and Glasgow natural gas pipelines in the Blue Ridge Mountains, near the Appalachian Trail. Evaluated and conducted field work in various conditions in primarily mountainous terrain. Under direct supervision helped to manage and organize field crew in order to complete the project in a timely and efficient manner. Maintained field equipment and assisted in the writing and compilation of all field paperwork. Personally in charge of the majority of all mappings of and oversight of field crew for sites throughout the project area.

Various Cultural Resource Management Survey Projects, LA & MS (August 2020-May 2021). TerraXplorations, Inc., Archaeology Field Technician.

Phase I shovel test excavations for bank mitigation in North Eastern Mississippi along the Buttahatchee River. Phase III survey of two projects; the historic St. Amelia Plantation in Welcome, Louisiana and an unnamed prehistoric village in Plaquemine, Louisiana. The phase III projects both required excavating the foundations of various structures, and in the case of the prehistoric site excavating and mapping postholes within pits. The projects also required drawing plan views, and stratigraphic profiles, as well as feature and level write-ups. Unit excavations included 1mx1m to 3mx3m units, with a few requiring the extension of existing units to chase out observed features and artifact clusters.

Various Cultural Resource Management Survey Projects, ID & WI (June 2020 -July 2020). Tetra Tech, Inc., Archaeology Field Technician.

Phase I pedestrian surveying of various wind and solar farm projects throughout corn and soybean fields.

Cultural Resource Management Survey, Acadiana to Gillis, LA (January 2020-March 2020). BGE, Inc., Archaeology Field Technician.

Phase I shovel test excavations of proposed natural gas pipeline between Acadian and Gillis, Louisiana. This project entailed the excavation of 30mx30m units with distance varying based on HPA and LPA guidelines (a spacing of 30m to 50m respectively). A requirement of the survey was to maintain daily investigation point forms for individual shovel test units. In addition to this, it was required to aid in recording artifacts and photos of sites found throughout the project.

Various Cultural Resource Management Survey Projects, MN & IA (November 2019-December 2019). In Situ Archeological Consulting LLC, Archaeology Field Technician.

Phase I pedestrian surveying of various natural gas and cellular tower projects, as well as Phase II field work entailing the excavation of 45cmX45cm test units and GPS data collection. The projects also occasionally required the writing of site forms, and research for future projects at the Minnesota SHPO collections.

Cultural Resource Management Survey, Ten West Link Project, CA & AZ (August 2019-October 2019). POWER Engineers Inc., Archaeology Field Technician.

Phase I pedestrian survey of the proposed 500 kV transmission line connecting electrical substations in Tonopah, Arizona and Blythe, California. This project entailed working in one of five teams, and often included 1-2 tribal monitors from the Colorado River Indian Tribes. The

right of way crews used a 400ft buffer for the corridor, with each team using a 15m spread to survey the proposed transmission line. This survey required the use of a Trimble GPS system to navigate the corridor and plot both isolate and site locations for GIS and recording crew use. As part of the recording crew later in the survey, it was also required to conduct thorough site analysis and recordation via site forms and Trimble points of each observed artifact and feature, both historic and prehistoric.

Authored Publications

2024 Froshour, Heather, and Rowland, Kevin. "Phase I Cultural Resources Assessment: Cameron Ranch Housing Subdivision Project, Visalia, California."

2024 Froshour, Heather. "Phase I Cultural Resources Assessment Cake House Cannabis Small Retail Center, Wildomar, California."

2024 Froshour, Heather. "Phase I Cultural Resources Assessment: Lagomarsinio Housing Subdivision Project, Tulare, California."

2024 Froshour, Heather. "Phase I Cultural Resources Assessment: Elliot Housing Subdivision Project, Visalia, California."

2023 Froshour, Heather. "Phase I Cultural Resources Evaluation: 30811 Bear Mountain Rd., Yokuts Valley, California."

2023 Froshour, Heather. "Phase I Cultural Resources Evaluation: Shirley Peak, Rd. 622, Kern County, California."

2023 Froshour, Heather. "Phase I Cultural Resources Evaluation: Sierra Vista Lookout., Quiggs Mountain, Mountain Ranch, California."

2023 Froshour, Heather. "Phase I Cultural Resources Evaluation: Granite Rd., Mount Pheasant, Glennville, California."

2023 Froshour, Heather. "Phase I Cultural Resources Assessment: 4415 Wilson Rd., Bakersfield, California."

2023 Froshour, Heather. "Cultural Resources Desktop Assessment: 1941 N. Golden State Blvd., Fresno, California."

2023 Froshour, Heather. "Phase I Cultural Resources Assessment: 3174 Bonair Ave., Joshua Tree, California."

2023 Froshour, Heather. "Cultural Resources Desktop Assessment: 3200 Rio Linda Blvd., Sacramento, California."

2023 Hawley, Maria and Froshour, Heather. "Cultural Resources Assessment, 18644 16th Ave., Stratford, California."

2022 Lashway, Nick, Hovis, Chad, and Froshour, Heather. "Upper Thomes Forestwide Fuels Phase I Report: U.S.D.A. Forest Service Mendocino National Forest Covelo and Grindstone Ranger Districts, California."

Academic Publications

2013 Hamilton, Nathan D. and Froshour, Heather D (presenter). "Explore 5,000 Years of History in Danvers, Massachusetts."

2013 Froshour, Heather D. "Preserving the Past: Public and Historical Archaeology at the Rebecca Nurse Homestead, Danvers, Massachusetts."

2012 Froshour, Heather D (presenter). "17th-18th Century Occupations in Danvers, Massachusetts."

Kevin Rowland

Archaeologist

Education

Southern New Hampshire University: M.A. History, 2023
Mississippi State University: B.A. Anthropology, 2018
Mississippi University for Women: B.A. History, 2014
East Mississippi Community College: A.A. Liberal Arts, 2010

Key Skills

Identifying cultural resources in historical battlefields.
Exhuming, identifying, and moving remains.
Technical report writing.
Ground penetrating radar
Historical research

Biography

Mr. Rowland provides expertise in archaeology for field support and technical writing in multiple states including California and, recently, in the Southeastern United States. His performance includes all phases of cultural resources evaluations per State and Federal environmental law as an archaeological field director, technician, Crew Chief, and metal detection specialist. Kevin works in various environments, from sugar cane fields in Louisiana to the mountains of Virginia and the Central Valley of California. He exhumes human remains and recovers prehistoric artifacts and metal artifacts. Experience working with Ground Penetrating Radar (GPR).

Work Experience

2023 – Soar Environmental Consulting, Inc., Archaeologist
Working on the California Department of Fish and Wildlife wildfire resiliency program on public lands.

2020 - 2023 – Terraxplorations, Inc. – Field Director/Historian/Metal Detection Specialist. Phase 1 through Phase 3 studies.

2023, Archaeological field Director, North Carolina, (2023.158) Phase I. Included grave locating and relocating.

2022 Archaeological Field Director, Atlanta Georgia Cemetery GPR work.

2021-2022, Archaeological Field Director, Georgia, GDOT 285 Phase I

November 2020: Archaeology Field Technician at Caledonia MS (Phase I Survey)

November 2020-January 2021: Archaeological Field Technician at Formosa Group, Louisiana (16SJ70) Phase II

October 2020: Archaeological Field Technician at Reserve LA (Phase I Survey)

2020: Archaeological Field Technician at SLM, Louisiana (16SJ80)

2018: Archaeological Field Technician at the Levi Colbert Prairie site, Mississippi (22MO1246)

1322 E. Shaw Avenue, Suite 400, Fresno, CA 93710
www.soarhere.com • 559.547.8884

APPENDIX E

FLOOD HAZARD MAP

HIGHLINE PIPELINE REPLACEMENT PROJECT

LINDSAY-STRATHMORE IRRIGATION DISTRICT

National Flood Hazard Layer FIRMette

FEMA

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone A, V, A99
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard. Area of 1% annual chance flood with average depth less than one foot or with drainag areas of less than one square mile Zone
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes. Zone X
- Area with Flood Risk due to Levee Zone D

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represe an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/29/2024 at 1:29 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations tables in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations tables should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the floodways were computed at cross-sections and interpolated between cross-sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The projection used in the preparation of this map was Universal Transverse Mercator (UTM) Zone 11. The horizontal datum was NAD 83, GRS80 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional discrepancies in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS3812
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for bench marks shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1997 or later.

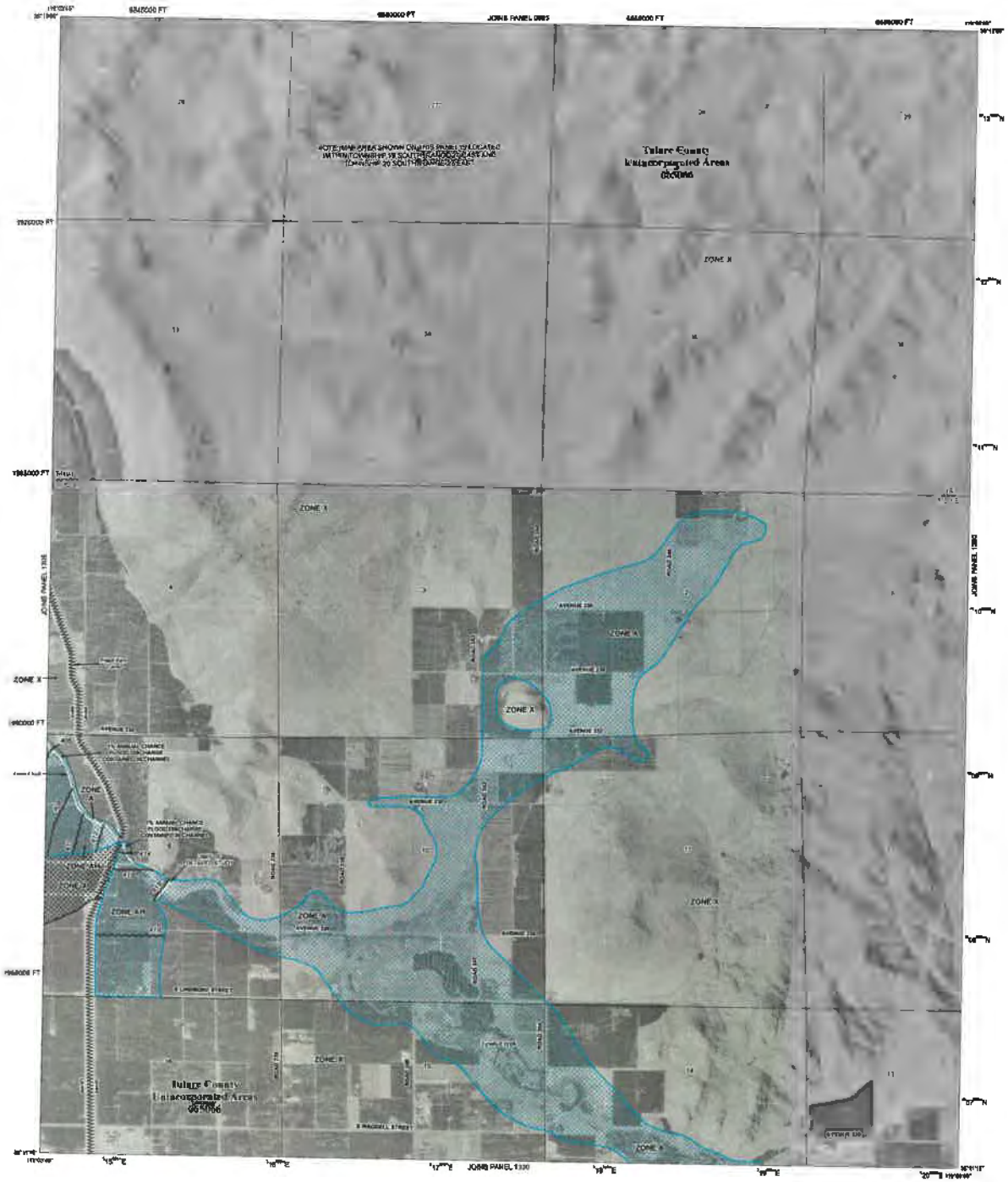
This map reflects more detailed and up-to-date stream channel configurations than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study Report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed Map Index for an overview map showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the FEMA Map Service Center at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov.

If you have questions about this map or questions concerning the National Flood Insurance Program in general, please call 1-877-FEMA MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- ZONE A — No Base Flood Elevations determined.
- ZONE AE — Base Flood Elevations determined.
- ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- ZONE AR — Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.
- ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL. 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988

- Cross section line
- Transect line
- 87°07'45", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83), Western hemisphere
- 1000-meter Universal Transverse Mercator grid values, zone 11
- 6000000 FT — 5000-foot grid ticks: California State Plane coordinate system, zone IV (FIPSZONE 0405), Lambert Conformal Conic projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORY
Refer to listing of Map Repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP: June 16, 2009

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
1000 0 2000 FEET
500 0 500 METERS

PANEL 1310E

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

TULARE COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 1310 OF 2550
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
TULARE COUNTY	065066	1310	E

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
06107C1310E

EFFECTIVE DATE
JUNE 16, 2009

Federal Emergency Management Agency