INITIAL STUDY / ENVIRONMENTAL ASSESSMENT



Soboba Band of Luiseño Indians
Septic to Sewer Conversion Project

Riverside County, CA | April 2025

Lead Agencies:

Indian Health Service
California Area
650 Capitol Mall, Suite 7-100
Sacramento, CA 95814

State Water Resources Control Board
1001 I Street
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Section 1 | Introduction

1.1 OVERVIEW OF THE PROPOSED ACTION AND ENVIRONMENTAL REVIEW PROCESS

This Initial Study / Environmental Assessment (IS/EA) has been jointly prepared by the State Water Resources Control Board (SWRCB) as the lead State agency and Indian Health Service (IHS) as the lead federal agency to fulfil the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] 21000 et seq.) and the National Environmental Policy Act (NEPA) (42 United States Code [USC] §4321 et seq). This IS/EA assesses the environmental impacts resulting from the Septic-to-Sewer Conversion Project (Proposed Project) proposed by the Soboba Band of Luiseño Indians (Band), which would include improvements on the Soboba Reservation and off the Reservation. The Proposed Project may receive funding in part from the State of California and the federal government, and as such this IS/EA has been prepared to facilitate environmental review for all parts of the Proposed Project.

1.1.1 California Environmental Quality Act

An Initial Study (IS) is a document prepared by a lead State agency to determine whether a project may have a significant effect on the environment. In accordance with California Code of Regulations (CCR) Title 14 (Chapter 3, Section 15000, *et seq*.) – also known as the CEQA Guidelines – Section 15064 (a)(1) states that an environmental impact report (EIR) must be prepared if there is substantial evidence in light of the whole record that the project under review may have a significant effect on the environment and should be further analyzed to determine mitigation measures or project alternatives that might avoid or reduce project impacts to less-than-significant levels. A negative declaration (ND) may be prepared instead if the lead agency finds that there is *no substantial* evidence in light of the whole record that the project may have a significant effect on the environment. A ND is a written statement describing the reasons why a proposed project, not otherwise exempt from CEQA, would not have a significant effect on the environment and, therefore, why it would not require the preparation of an EIR (CEQA Guidelines Section 15371). According to CEQA Guidelines Section 15070, a ND or mitigated ND (MND) shall be prepared for a project subject to CEQA when either:

a. The IS shows there is no substantial evidence, in light of the whole record before the agency, that the proposed project may have a significant effect on the environment, or
b. The IS identified potentially significant effects, but:
    1. Revisions in the project plans or proposals made by or agreed to by the applicant before the proposed MND and IS released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur is prepared, and
    2. There is no substantial evidence, in light of the whole record before the agency, that the proposed project as revised may have a significant effect on the environment.

1.1.2 National Environmental Policy Act

NEPA requires all Federal Departments and agencies to take into account all potential environmental consequences of their activities prior to initiation of these activities. While CEQA requires that a determination of significant impacts be stated in an IS, NEPA does not require this for an EA. Under NEPA, significance is used to determine whether an Environmental Impact Statement (EIS) is required. An EA is

the basis for developing information on which to determine significance, such as the context and the intensity of the impacts, while a separate document, a Finding of No Significant Impact (FONSI), documents when there are no significant impacts. If potentially significant impacts are identified, then an EIS must be prepared.

1.2 LOCATION AND SETTING

The Project Site includes all proposed sewer lines between the individual developed land uses and the existing Eastern Municipal Water District (EMWD) facilities, in central Riverside County, California at the northern end of the San Jacinto Valley (**Figure 1-1**). The Project Site includes approximately 19.6 miles of pipeline alignments, lift stations, and staging areas partially within unincorporated Riverside County and within the City of San Jacinto (**Figure 1-2**). The majority of the Project Site is located on the Band's 8,320-acre Reservation. This IS/EA will collectively refer to the entire proposed pipeline network as the Project Site, and where appropriate will refer to portions of the Project Site as "on-Reservation" or "off-Reservation", as depicted in **Figure 1-3**.

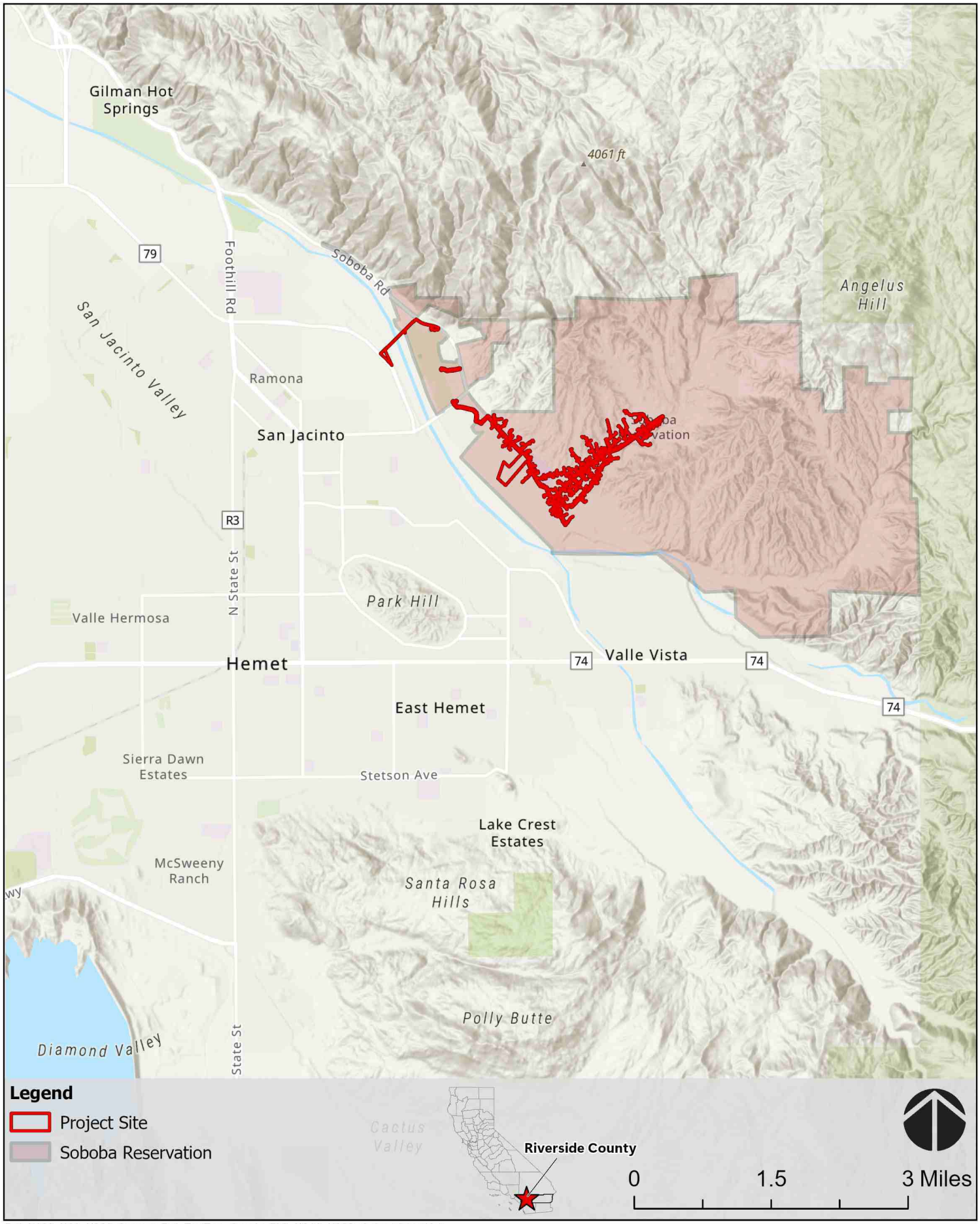
As shown in **Figure 1-3**, there are approximately 4.4 acres of off-Reservation project areas within the City of San Jacinto in the northernmost portion of the Project Site, which includes a small levee access ramp on the northeast side of the San Jacinto River, an approximately 1,640-foot pipeline below the San Jacinto River, and a 3.4-acre Staging Area on the southwestern side of the River. In the central portion of the Project Site, a proposed pipeline would be installed across Lake Park Drive for approximately 65 feet, which is also within the City of San Jacinto limits. The final off-Reservation area is where a short (less than 400 feet) segment of pipeline will be installed in Soboba Road partly within the City of San Jacinto's jurisdiction and partly within the County of Riverside's jurisdiction.

1.3 PURPOSE AND NEED

The Band is a federally recognized tribe of Luiseño people in Riverside County, California with approximately 1,200 members and governed by a tribal council consisting of five elected tribal members. The Soboba Indian Reservation was established by the US government in San Jacinto on June 18, 1883. The Reservation includes 8,320 acres in the lower reaches of the San Jacinto Mountains, near the City of San Jacinto.

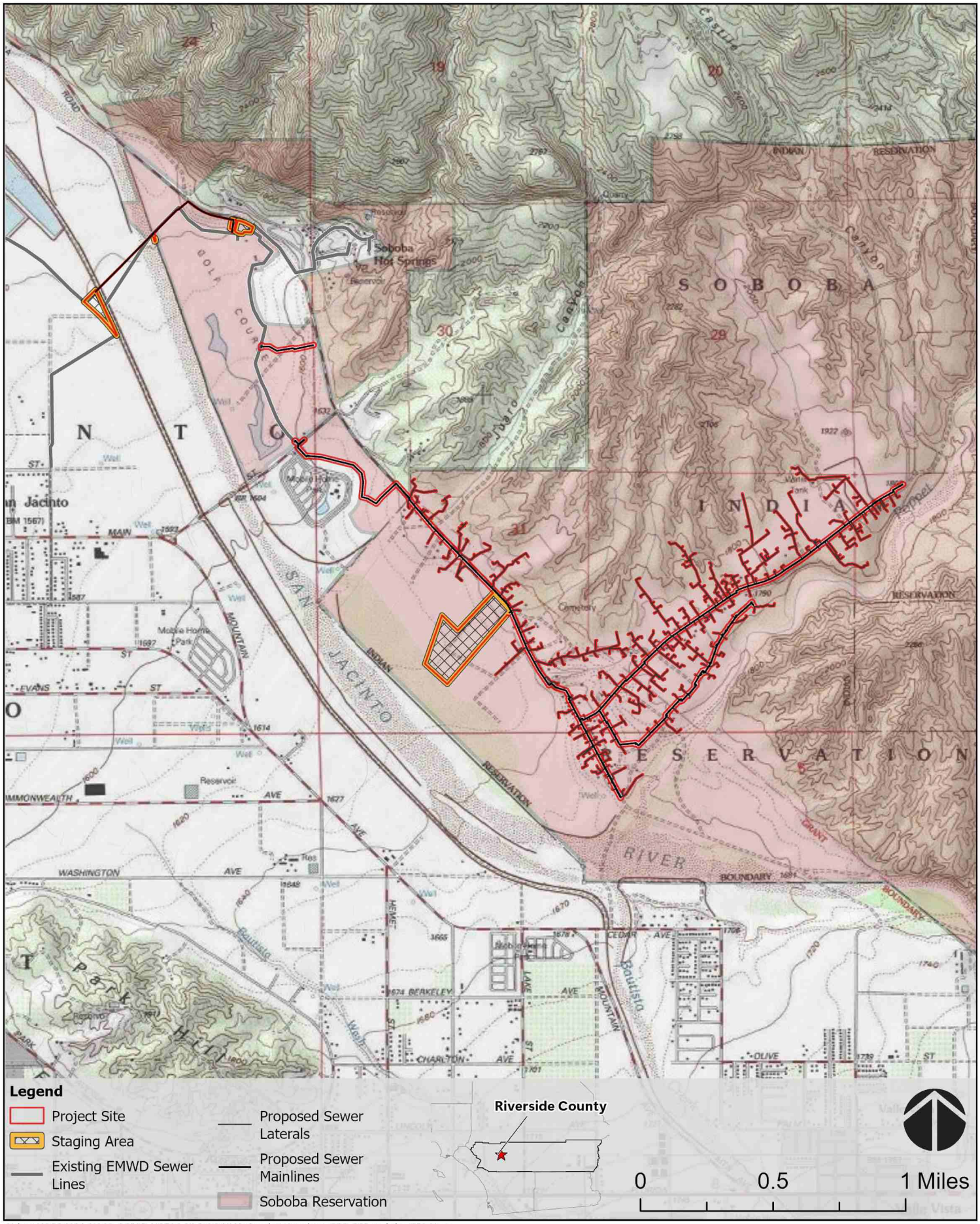
Over time, homes built on the Reservation relied exclusively on individual septic systems for wastewater treatment and disposal, and all 263 existing residences and government or commercial buildings on the Reservation are served by individual septic systems or seepage pits. Tribal officials have become concerned that the existing sewage disposal is inadequate and may present future health and environmental concerns. Over time, the aging septic systems can potentially pose threats to surface water quality in the area. As a result of this situation, a Septic to Sewer Collection system is considered an important health and safety initiative of the Band. A primary objective of the Proposed Project is to improve the health of Tribal members and the environment. Development of the sewer and wastewater system will generate expanded employment opportunities during the construction period, provide essential community services, support development of new housing that has long been planned within the Reservation, and protect public health and the environment.

There are existing temporary facilities that convey wastewater from the Band's Soboba Casino Resort and the EMWD service area on the east side of the river, through the Soboba Springs Golf Course and below



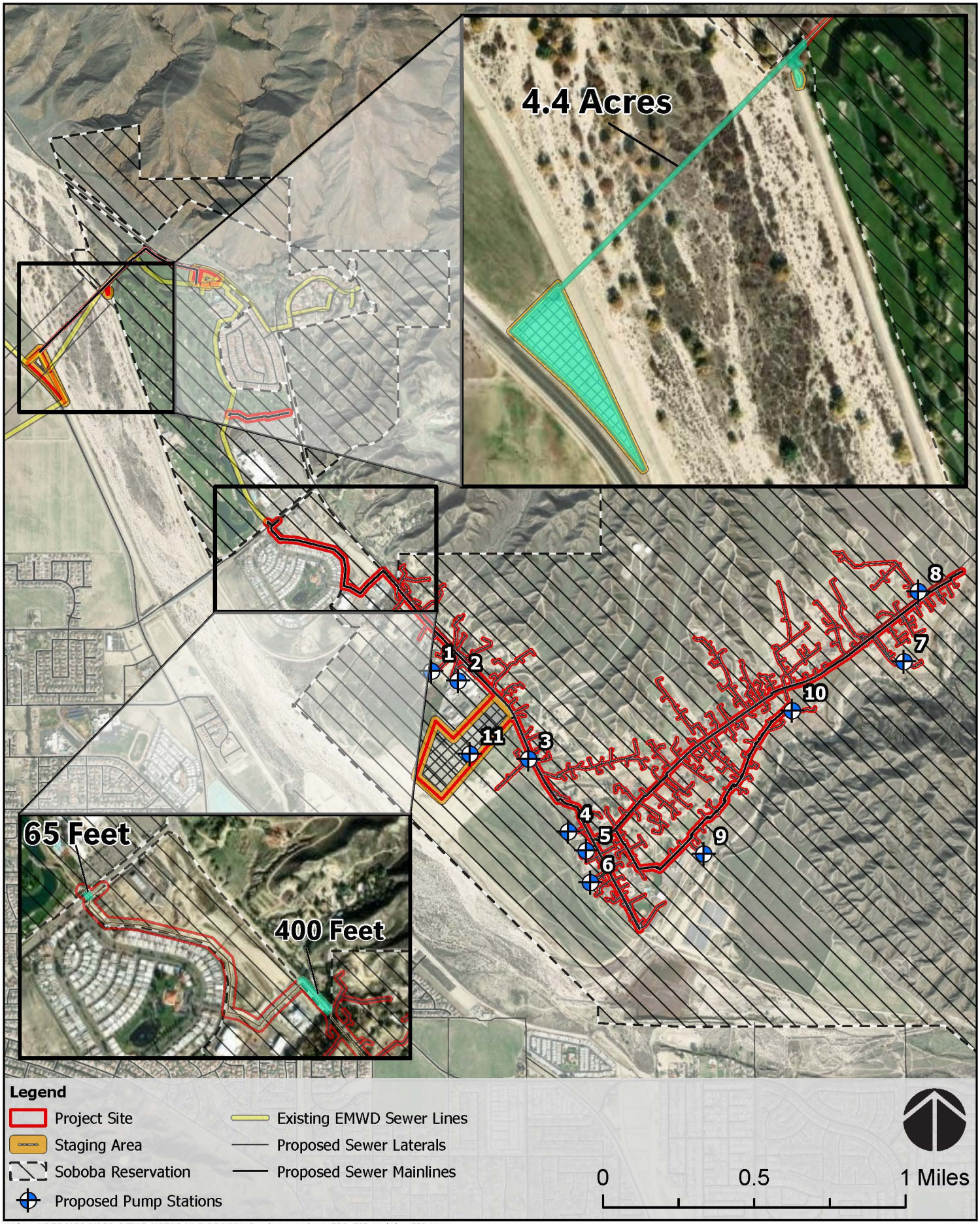
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FIGURE 1-1
REGIONAL LOCATION



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FIGURE 1-2
SITE AND VICINITY



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 1-3

OFF-RESERVATION PROJECT COMPONENTS

the San Jacinto River. These EMWD facilities can currently accommodate an additional 300 equivalent dwelling unit (EDU) of wastewater flow, however they were constructed to be temporary facilities that would be upgraded to permanent facilities in the future. Existing non-Tribal communities within EMWD's service area that are connected to this aging, temporary pipeline include the Soboba Springs Lake Park mobile home community and existing tract development in the City of San Jacinto. This portion of the Proposed Project will upgrade the existing temporary facilities for long-term benefit of EMWD, the population within its service area, and the environment in the vicinity of the San Jacinto River.

1.4 REQUIRED PERMITS AND APPROVALS

This IS/EA may be utilized as the environmental review document to support approval of grant funding from federal and State agencies. Federal grant and funding assistance opportunities that are currently identified include IHS and the U.S. Environmental Protection Agency (USEPA). State grant and funding assistance that may support the Proposed Project includes SWRCB State Revolving Fund (SRF) loan application. The following grants and programs are being investigated as potential funding sources for the Proposed Project:

- U.S. Department of Housing and Urban Development (HUD) Economic Development Initiative Community Project Grant
- IHS financial assistance program funded by the Infrastructure, Investments, and Jobs Act (IIJA)
- USEPA, Region 9 grant funded by the general supplemental Bipartisan Infrastructure Law (BIL) funding under the Clean Water Indian Set-Aside (CWISA) program
- SWRCB funding under the Clean Water and Drinking Water (CW & DW) SRF Programs

In addition, the following environmental permits/approvals may be required prior to construction of all or part of the Proposed Project:

- Riverside County Flood Control and Water Conservation District encroachment permit
- U.S. Army Corps of Engineers (USACE) Sections 404 and 408 approvals for installing pipeline under levee and/or culverted waters of the U.S.
- USEPA or Regional Water Quality Control Board (RWQCB) 401 Water Quality Certification or waiver of such
- EMWD ministerial approval of tie-in to EMWD treatment facilities, potential for future Maintenance Agreement
- Encroachment Permits from the City of San Jacinto and/or the County of Riverside for work within designated roadway rights-of-way
- Construction General Permit under National Pollutant Discharge Elimination System

Section 2 | Project Description and Alternatives

This IS/EA considers two possible actions: the No Action Alternative and the Proposed Action. The No Action Alternative reflects future conditions without the Proposed Action and serves as a basis of comparison for determining potential effects to the human environment.

2.1 NO ACTION ALTERNATIVE

Under the No Action Alternative, the proposed sewer collection system would not be developed, existing temporary EMWD facilities (including a pump station and an 8-inch forcemain crossing the San Jacinto River) would continue to be used to serve the EMWD non-Tribal customers and the Soboba Casino Resort, and the homes and administration buildings on the Reservation would continue to rely on aging septic infrastructure. Under the No Action Alternative, continued use of the existing facilities under current conditions is likely to result in environmental damage in the long-term, as septic tank failure and river crossing pipeline failure may occur over time, and substantial costs associated with repair and property damages may incur.

2.2 PROPOSED ACTION

The Proposed Action is the approval of federal and State funding being requested by the Band for construction of the Soboba Septic-to-Sewer Project (Proposed Project). In total, the Proposed Project includes the construction of approximately 19.6 miles of new sewer pipeline both on- and off-Reservation (**Figure 2-1** and **Table 2.2-1**). **Figure 2-1** provides an overview of the Proposed Project, while **Figures 2-2** and **2-3** provide a more detailed view of the northern and southern portions of the Project Site, respectively.

Table 2.2-1: Summary of Proposed Facilities

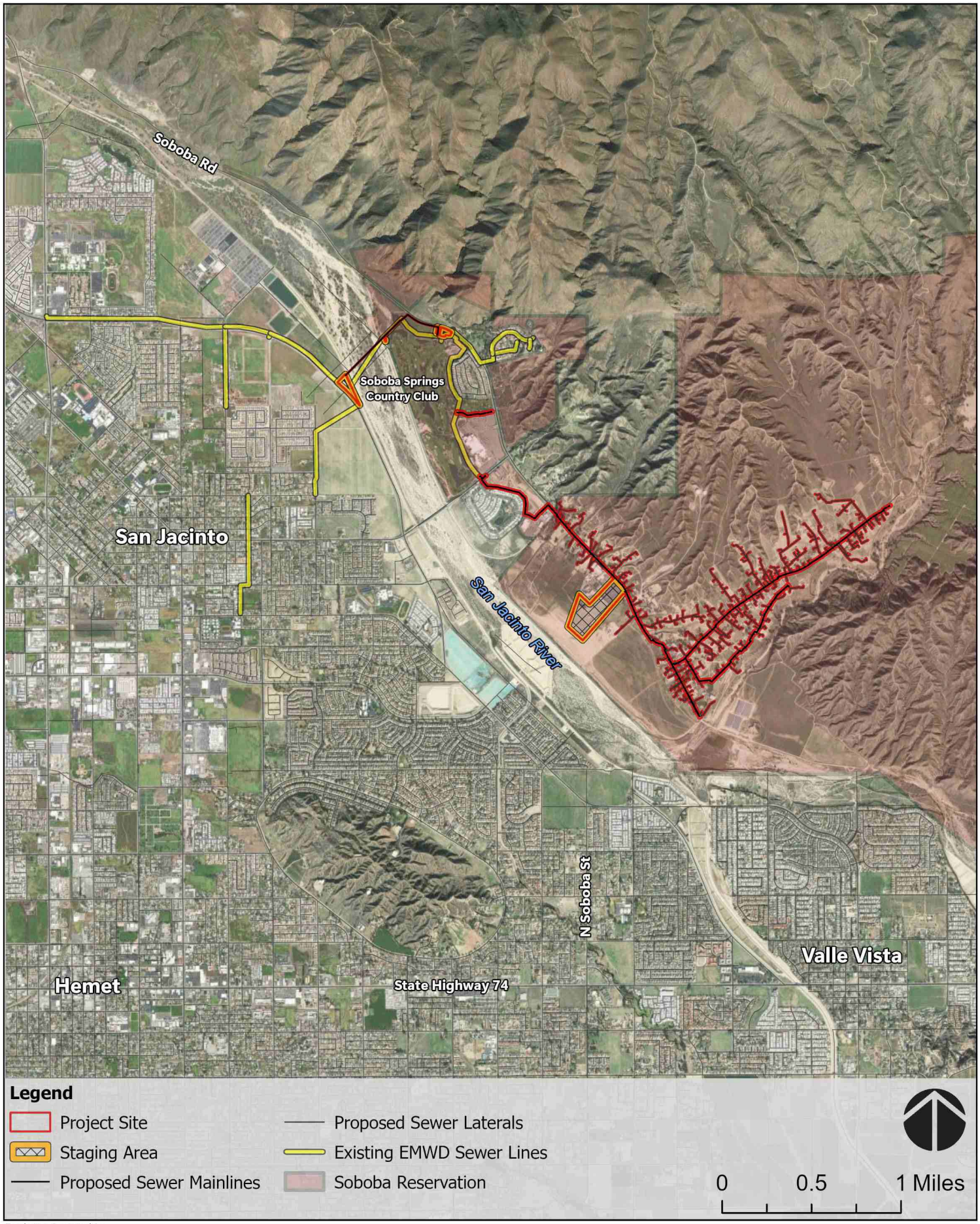
Pipeline	Length / Area	Location
10- to 16-inch PVC mainlines	±27,500 feet total	On- and Off-Reservation
PVC laterals	±72,200 feet	On-Reservation
15-inch gravity mainline below San Jacinto River	±3,840 feet	On- and Off-Reservation
3 individual Staging Areas	34 acres in total	On- and Off-Reservation
Proposed Levee Ramp	0.2 acre	Off-Reservation

Sources: **Appendix A** and **Appendix B**

2.2.1 Proposed Facilities

On-Reservation Infrastructure

The Proposed Project includes approximately 27,500 feet of new 10-inch to 16-inch polyvinyl chloride (PVC) sewer mainlines, of which the majority (±26,680 feet) are on-Reservation within Soboba Road, Poppet Flats Road, Castile Canyon Road, Silvas Flat Road, Noli Road, and other local roads (**Appendix A**). All of the approximately 72,200 feet of proposed sewer laterals would be constructed within the



Earthstar Geographics, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

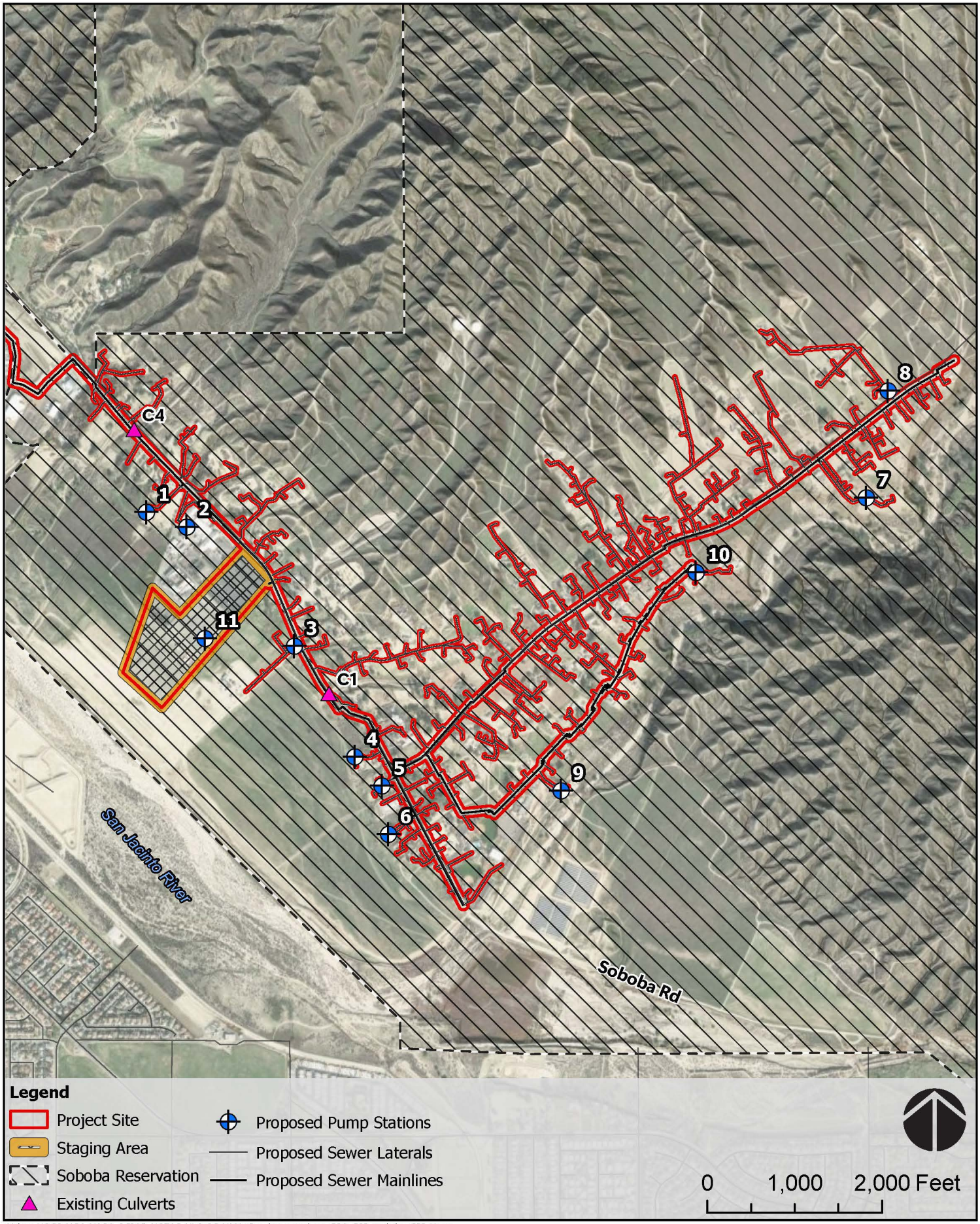
FIGURE 2-1
AERIAL OVERVIEW



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 2-2

PROPOSED PROJECT - NORTHERN DETAIL



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 2-3

PROPOSED PROJECT - SOUTHERN DETAIL

Reservation. These pipelines would serve Tribal residential and administration buildings and would include a combination of gravity mainlines and forcemains. **Figure 2-3** provides a more detailed view of the southern portion of the Proposed Project. Roads within the Reservation are mostly paved with no curb and gutter. Underground utilities along these roads include water and gas lines. Overhead utilities include cable and fiber optic lines. Underground electric duct banks and vaults exist along a part of Soboba Road and overhead electric with power poles exist for other locations including Soboba Road, Castile Canyon Road, and Poppet Flats Road. The proposed pipeline alignments have been sited and designed to avoid existing utilities. There are 11 underground on-Reservation lift stations proposed for the collection system. The lift stations collect flows at low points and pump to high points where gravity flows are reestablished (**Appendix A**).

Figure 2-2 provides a more detailed view of the northern portion of the Project Site. As shown therein, there are no proposed mainlines between Lake Park Drive, where the existing sewer lines behind the Band's casino are sufficiently sized to accommodate the Proposed Project. North of and adjacent to the casino parking area, a proposed 10-inch gravity sewer line would collect and deliver flows from the future Olive Ranch/Ciernia development site (east of Soboba Road) to the existing 16-inch EMWD line.

Within the Band's golf course, additional upgrades are required to replace the existing, temporary pipeline facilities managed by EMWD (**Appendix B**). The new 15-inch gravity mainline would be routed through and around the golf course (on-Reservation) to replace these temporary facilities. The proposed pipeline would be routed around the eastern side of the driving range and would turn sharply west at the northern property line of the golf course. The proposed alignment along the northern property boundary would be 20 feet from the fence within the existing golf cart path, sited to minimize potential impacts to the native habitat on the opposite (non-Project) side of the fence. The new 15-inch gravity mainline is approximately 3,840 feet in total, and approximately 2,200 feet are on the Reservation.

Off-Reservation Infrastructure

At the northwestern edge of the golf course where the Band's property ends, the 15-inch gravity mainline will be microtunneled below the San Jacinto River for approximately 1,640 feet off-Reservation (**Figure 2-2**). A short levee ramp is proposed to provide vehicular access from the edge of the Band's golf cart path to the end of the existing river levee where there would be a proposed manhole to provide access to the microtunneled pipe (**Appendix B**). This proposed levee ramp would be surfaced with gravel (either decomposed granite or crushed rock) and would require approximately 0.2 acre of area.

On the southwest side of the San Jacinto River, the new gravity line will connect to existing EMWD 15-inch lines at an existing manhole to be conveyed to EMWD treatment facilities. The entire length of the proposed 15-inch line will be gravity fed. The off-Reservation pipeline, staging area on the west side of the river, and entry/exit pits for the microtunneling result in approximately 4.17 acres of off-Reservation development within the northern portion of the Project Site (see **Figure 1-3**).

There are also two small sections of proposed pipeline totaling approximately 620 feet in length within the central portion of the Project Site that are off-Reservation. First, a portion of the 10-inch mainline system will be trenched across Lake Park Drive, which is within the City of San Jacinto jurisdiction (**Appendix C**). The second area is a portion of proposed mainline (approximately 400 feet) within Soboba Road that is partly within Riverside County and partly within the City of San Jacinto (**Appendix A**).

Service Area Connections

The Proposed Project is expected to support 824 connections, both new and existing customers of EMWD. On the Reservation, the Proposed Project would result in approximately 356 residential connections (263 existing residences and 93 planned homes) and 12 Tribal public facilities (e.g., administration buildings, schools, public works, etc.). Approximately 456 residences within the Soboba Springs Lake Park mobile home community, existing tract development in the City of San Jacinto, and a small handful of commercial users are currently connected to the temporary pipeline and would benefit from the permanent pipeline that would be microtunneled below the river.

2.2.2 Decommissioning Existing Facilities

The existing septic tanks and seepage pits on the Reservation will be crushed or filled and abandoned in-place to minimize ground disturbance and ensure balanced cut and fill onsite.

The existing 8-inch forcemain through the golf course and below the San Jacinto River will be slurry-filled to prevent collapse and will be abandoned in place to minimize environmental disturbance. The existing lift station located within the Band's Soboba Springs golf course associated with temporary 8-inch forcemain will no longer be required for the permanent gravity line across the San Jacinto River and would be demolished in accordance with a Demolition Plan previously approved by EMWD. The lift station consists of a wet well and pump, diesel emergency standby generator, main control panel, odor control chemical storage tank, and emergency shower and eyewash station. The demolition of the lift station would not commence until the entire gravity sewer system is in place and operational. To the maximum extent feasible, electrical components in good working order will be reused or recycled at appropriate facilities.

2.2.3 Construction Methods and Details

Trenching and Surface Restoration

The vast majority of proposed pipelines would be constructed using open cut trenching, which requires clearing of the pipeline alignment, saw cutting pavement where necessary, excavation of the trench, pipeline installation, backfill operations, and surface restoration. The wastewater pipelines would be constructed primarily by open trenches with a maximum depth of approximately 30 feet below ground surface and a maximum width of approximately 6 feet. Shoring of these trenches will be required per recommendations contained within a Geotechnical Report. Proposed pipelines would be bedded in gravel engineering specifications and the trenches would be backfilled with native materials, resulting in balanced cut and fill onsite (**Appendix A**). No dewatering would be needed for the trenches within the Reservation. To provide an area along the pipelines for construction equipment and worker access, the Project Site includes buffers along the centerline of each pipe for temporary work and access areas. These buffers are 15 feet on each side of the proposed laterals and 50 feet along the mainlines. Through the golf course, the buffer will be 10 feet on the north side of the proposed 15-inch gravity mainline through the golf course to prevent encroachment into the undeveloped area to the north and a 15-foot buffer along the southern side into the playable greens.

Surface restoration techniques would be employed after segments of pipeline construction are completed. All surfaces and roadways would be restored to pre-project conditions. This would include restoring unpaved areas by planting grasses and native vegetation, and repaving of roadways and golf cart pathways.

Jack and Bore

Pipeline crossings of two culverted drainages would be accomplished by jack and bore; these culverts are labeled as C1 and C4 as depicted on **Figures 2-2** and **2-3**. This is a trenchless method used to avoid disturbance to roads, utilities, and culverted drainages. An entry pit and exit pit are dug on either end of the segment and a jack and bore machine is placed in the entry pit. The machine bores a hole while jacking a segment of pipeline into the drilled hole. Once complete, the pipeline is connected and the pits are filled in. Depending on site conditions or terms of encroachment permits (if applicable at various segments), trenches would be secured at the end of each workday by either covering with steel plates, backfill material, or installing barricades to restrict access.

Directional Drilling – Microtunneling

The portion of the proposed 15-inch mainline that crosses the San Jacinto River would be microtunneled to avoid direct impacts to the bed, banks, or channel of the river. Microtunneling would require an entry pit on the southwest side of the river which will be approximately 25 feet long, 10 feet wide, and between 30 to 35 feet deep. The receiving pit on the northeast side of the river adjacent to the existing golf course would measure 15 feet long, 10 feet wide, and 20 to 25 feet deep. The entry and exit pits would be located outside of the levees and would be shored to protect the structural integrity of the levees. Shoring of the entry and exit pits would be accomplished via one of the following methods as recommended by a Geotechnical Report: sheet piles, secant pipe shafts, caissons, interlocking sheet piles, cutter soil mixing, or drilled shafts with a liner. Groundwater may be encountered, and if dewatering is required for the pits, the primary anticipated method of addressing the water would be to pump it into a settling tank before being discharged either into the golf course ponds or used to irrigate the golf course landscaping, and avoiding direct discharge to waters of the U.S. Alternatively, if direct discharge to the San Jacinto River was necessary, it would only occur after obtaining a Discharge Authorization Letter under RWQCB Order No. R8-2020-0006 for *de minimis* discharges and a "No Fee Access Permit" from the Flood Control District prior to discharge. The microtunneling would occur below the southern river levee and adjacent to but north of the terminus of the northern river levee. The pipeline microtunneling would occur below the regulated river channel and levees, and therefore it is not anticipated that the USACE would require a Section 408 permit or a Section 404 Nationwide Permit for utility pipelines.

Below the San Jacinto River, the 15-inch line will be encased in a larger 48-inch steel casing pipe for protection. A low-density cellular backfill material consisting of foam and a water-cement mixture is pumped into the annular space between the pipe and casing. The segment of pipeline below the San Jacinto River will be a minimum of 10.5 feet below the river bottom and has been designed such that natural long-term river scouring would not affect the pipeline integrity (**Appendix B**).

Microtunneling involves laser-guided and steered trenchless construction that advances a pipe into the ground by pipe jacking methods while simultaneously removing spoils using a highly automated and mechanized tunnel boring machine called a microtunnel boring machine (MTBM). This technique uses engineered bentonite-based drilling fluid to counterbalance groundwater pressures. This approach necessitates surface equipment for fluid processing and cleaning. Microtunneling can be used to directly install the carrier pipe behind the MTBM or to install an enlarged casing pipe followed by insertion of the carrier pipe (**Appendix B**).

Equipment and Materials

Proposed pipelines will be bedded in gravel per the engineering specifications and the trenches will be backfilled with native materials, resulting in balanced cut and fill onsite (**Appendix A**). Import of well-graded crushed rock, concrete, and AC asphalt would be required for pipeline bedding and repaving of roadways after pipeline installation. Approximately 2,600 cubic yards (CY) of well-graded crushed rock, 4,240 CY of concrete, and 610 CY of AC asphalt would be required.

The equipment shown in **Table 2.2-2** may be utilized during construction of the Proposed Project.

Table 2.2-2: Equipment List

Equipment	Number	Estimated Hours of Operation (per day)
Pavement saw	1	8
Jack hammers	1	2
Excavators	2	8
Front-end loaders	2	6
10-wheel dump trucks	3	6
Crane	1	6
Bulldozers	1	2
Water truck	1	6
Trench shields	6	8
Air compressors	1	6
Flat-back delivery truck	1	3
Concrete trucks	3	3
Sweepers	1	2
Road grader	1	2
Paving equipment: backhoe, asphalt hauling trucks, compactors, paving machine, rollers	1	6
Concrete pumper trucks	1	4
Welding trucks	1	3
Side boom pipe handler tractor	1	4

Staging Areas

As shown in **Figures 2-2** and **2-3**, three staging areas totaling approximately 34 acres are proposed for equipment and materials. Two staging areas are located on-Reservation in previously disturbed and graded areas. The easternmost staging area is located in an unused parking lot (**Figure 2-2**) while a second on-Reservation staging area is located within the golf course on the northeastern side of the San Jacinto River (**Figure 2-3**). There is also a staging area located on property owned by EMWD on the south side of the San Jacinto River in an open area on the land side of the levee (**Figure 2-3**).

Construction Timeline and Hours

Construction activities associated with the on-Reservation mainlines and laterals will begin in July 2025 and continue for an estimated 3 years, with construction hours consistent with both City and County regulations. Construction activities will occur between 7:00 AM and 6:00 PM on weekdays and Saturdays,

and between 9:00 AM and 6:00 PM on Sundays and holidays. Microtunneling of the gravity mainline below the San Jacinto River is anticipated to begin in 2026.

2.2.4 Operation and Maintenance Activities

Periodic maintenance of the proposed pipelines and appurtenant structures would be required after the Proposed Project is operational. Piping, valves, lift stations, and appurtenant structures would be checked and maintained, and replaced as necessary. The Band is negotiating an agreement with EMWD such that the Band will be responsible for construction and maintenance of the on-Reservation portions of the Proposed Project. The Band will also be responsible for construction of the off-Reservation portion of the Proposed Project, with future operations and maintenance to be completed by EMWD for the off-Reservation components.

2.3 BEST MANAGEMENT PRACTICES AND DESIGN FEATURES

Protective measures and best management practices (BMPs), including regulatory requirements and voluntary measures that would be implemented by the Band, have been incorporated into the design of the Proposed Project. Where applicable, these measures will be incorporated into any design or construction contracts to eliminate or substantially reduce environmental consequences from the Proposed Project. These measures are discussed below in **Table 2.3-1**.

Table 2.3-1: Protective Measures and Best Management Practices

Resource Area	Protective Measures and Best Management Practices
Air Quality	The construction contractor will develop a specific construction schedule describing the approach to where and how long construction activities will occur, subject to review and approval by the Band. The following dust suppression measures will be implemented during construction to control the production of fugitive dust (particulate matter 10 microns in size [PM_{10}]) and prevent wind erosion of bare and stockpiled soils: ▪ Control of fugitive dust will be consistent with best available control measures identified within Table 1 of SCAQMD District Rule 403. ▪ Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. ▪ Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. ▪ Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. ▪ Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). ▪ The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. CARB enforces idling limitations and compliance with diesel fleet regulations.

Resource Area	Protective Measures and Best Management Practices
	○ Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [CCR, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. ○ Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR, Title 13, sections 2449 and 2449.1]. ▪ Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.
Biological Resources	**Construction BMPs:** ▪ Pets shall not be allowed on site during construction. ▪ Waste receptacles shall be made available within the Project Site and shall be properly maintained, with regular trash removal. All trash and food items should be promptly contained within closed, wildlife-proof containers. These should be regularly removed from the Project Site to reduce the attractiveness of the area to ravens and other predators. ▪ Construction equipment shall be cleaned prior to use in the Project Site and before leaving the site in order to prevent the spread of invasive or noxious species to the Project Site. When applicable, weed-free dirt, mulch, gravel, and other materials should be used. ▪ On Tribal trust land, the Band must enroll in the USEPA's 2022 Construction General Permit. On non-federal land, the landowner must enroll under the State Water Quality Control Board's 2022 Construction General Permit prior to the initiation of construction. In conjunction with enrollment under either of these permit programs, a Storm Water Pollution Prevention Plan (SWPPP), Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. The following conservation measures shall be implemented to avoid adverse effects to the San Bernadino Kangaroo Rat (SBKR): ▪ **CM-1**: Before any ground disturbance begins, the contractor will delineate and mark all limits of construction to be clearly visible to all personnel. All construction-related activities by contractors, subcontractors, or their agents and equipment (including staging, materials storage, and personnel parking areas) will be restricted to the designated limits of construction and staging areas. ▪ **CM-2**: Periodic monitoring of the active work areas shall be performed no less than once a week by a biological monitor familiar with the ecosystems and flora and fauna of the region and able carry out CM 1 through 7. a) The biological monitor shall have the authority to halt work in the instance of any encroachments into protected habitat or the discovery of any listed species in the Action Area. b) The biological monitor shall develop and conduct an environmental awareness education program for all construction personnel (including temporary contractors and subcontractors) before any construction work commences. At a minimum, the information presented will include (i) a description of SBKR and its habitats; (ii) legal status of SBKR and the meaning of "take" under the Act and the ramifications of violations of the Act; (iii) delineation and flagging

Resource Area	Protective Measures and Best Management Practices
	of the Action Area, and limitations on movement of personnel and equipment; and (iv) construction best management practices. ▪ **CM-3**: No construction activity shall take place at night. ▪ **CM-4**: At the end of each workday, trenches shall be filled or tightly covered. For trenches that must remain open, animal escape mechanisms shall be installed. This may consist of putting boards in trenches or creating 45-degree angle sides to trenches so that animals may crawl out if they fall in. ▪ **CM-5**: Prior to backfilling, all trenches will be checked for small mammals. If detected, backfilling will be postponed until the mammal leaves on its own accord via a ramp as described in CM 3. ▪ **CM-6**: Last connected pipe of the day or any open pipe should have entrance covered with plywood and/or capped to stop animals from entering. ▪ **CM-7**: All disturbed areas will be restored to their original condition. Trenches will be backfilled and compacted, and the original ground contours restored. Paved areas will be repaved. Unpaved areas will be reseeded with a native seed mix and mulch applied (or other similar soil stabilization measures will be implemented).
Hazardous Materials	**Adherence to Local, State, and Federal Regulations:** ▪ During construction the Band shall adhere to the following local, State, and federal regulations across the entirety of the Project Site: o Federal Code Title 40 and 49; o OSHA 29 CFR 1910; o California Code Title 23 Sections 5001; o California Labor Code Section 5401; o California Code Title 24 Section 5701; o California Health & Safety Code Section 25507; o California Health and Safety Code Division 20, Chapter 6.5, Article 6.5, Article 6.6, and Article 13; o Riverside County ordinance 651; and o San Jacinto ordinance 8.32.07 **Spill Prevention Measures:** Personnel will follow BMPs for filling and servicing construction equipment and vehicles. BMPs that are designed to reduce the potential for incidents/spills involving hazardous materials include the following. ▪ Fuel, oil, and hydraulic fluids will be transferred directly from a service truck to construction equipment to reduce the potential for accidental release. ▪ Catch-pans will be placed under equipment to catch potential spills during servicing. ▪ Refueling will be conducted only with U.S. Department of Labor Occupational Safety and Health Administration (OSHA) approved pumps, hoses, and nozzles. ▪ All disconnected hoses will be placed in containers to collect residual fuel from the hose. ▪ Vehicle engines will be shut down during refueling. ▪ Refueling will be performed away from bodies of water to prevent contamination of water in the event of a leak or spill. ▪ Service trucks will be provided spill containment equipment, such as absorbents. ▪ Should a spill contaminate soil, the soil will be put into containers and disposed of in accordance with local, State, and federal regulations.

Resource Area	Protective Measures and Best Management Practices
	▪ All containers used to store hazardous materials will be inspected at least once per week for signs of leaking or failure.
Hydrology and Water Resources	On Tribal trust land, the Band must enroll in the USEPA's 2022 Construction General Permit. On non-federal land, the landowner must enroll under the State Water Quality Control Board's 2022 Construction General Permit prior to the initiation of construction. In conjunction with enrollment under either of these permit programs, a SWPPP, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials. BMPs included within the SWPPP must include, but will not be limited to, the following: ▪ Limiting grading activities to immediate construction areas. ▪ Employing temporary erosion control measures (e.g., silt fences, fiber rolls, vegetated swales). ▪ Scheduling construction activities to minimize disturbance during peak runoff periods. ▪ Stabilizing disturbed areas through paving or revegetation. ▪ Stabilizing construction area entrances and exits with large-diameter rock. ▪ Developing a spill prevention and countermeasure plan for proper storage, collection, and disposal of potential pollutants. ▪ Ensuring proper storage and handling of petroleum products. ▪ Providing sanitary facilities and disposal facilities for construction workers. ▪ Using wheel wash or rumble strips and sweeping paved surfaces to remove tracked soil. ▪ Implementing Low Impact Development (LID) methods, such as bioswales, to manage stormwater runoff.
Noise	The following measures will be enacted to minimize noise disturbances during construction: ▪ All construction vehicles or equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and acoustical shields or shrouds in accordance with manufacturers' specifications. ▪ Loud stationary construction equipment shall be located as far away from sensitive receptor areas as feasible. To the extent feasible, existing barrier features (structures) shall be used to block sound transmission between noise sources and noise sensitive land uses. ▪ Maintenance of construction equipment and machinery, including noise reducing components such as mufflers, silencers, covers, guards, vibration isolators, etc., shall be performed regularly to reduce excess noise. ▪ Construction equipment and machinery that produce reduced noise and vibration levels shall be utilized to the extent feasible. ▪ Construction equipment and machinery shall only be operated by trained and qualified personnel. ▪ Haul trucks shall be operated in accordance with posted speed limits. ▪ The Band shall monitor construction noise and vibration and will designate a disturbance coordinator (such as an employee of the general contractor or the project manager for the Band), post the coordinator's contact telephone number conspicuously around the Project Site, and provide the number to nearby sensitive receptors. The disturbance coordinator shall receive all public

Resource Area	Protective Measures and Best Management Practices
	complaints, be responsible for determining the cause of the complaints, and implement any feasible measures to alleviate the problem.
Traffic	The Band shall ensure that a traffic management plan is designed and implemented to handle traffic disruptions during construction that ensures safety and minimizes disruptions to traffic flow. The contractor shall be responsible for developing and executing the plan as part of the construction bid package. The following strategies could be implemented as part of the traffic management plan: ▪ Establish work zones with barriers, cones, and signs to direct traffic safely around the site. ▪ Implement detours and communicate alternate routes in advance. ▪ Schedule lane closures during off-peak hours and post clear notifications. ▪ Use trained flaggers to manage traffic flow through the construction area. ▪ Enforce temporary speed limits with clearly marked signs. ▪ Provide safe walkways for pedestrians with barriers separating them from vehicles. ▪ Regularly inform the public about traffic changes through various media. ▪ Monitor traffic patterns and adjust detours or lane closures as needed.
Utilities and Service Systems	The following waste management practices will be implemented during the construction period to reduce landfill disposal and promote sustainable construction practices: ▪ Recyclable materials such as wood, metal, concrete, and asphalt will be separated and recycled to the maximum extent feasible. ▪ Waste containers will be clearly labeled and placed around the site for proper sorting. ▪ Regular monitoring will ensure compliance, with reports documenting waste reduction efforts.
Wildfire	Personnel will follow the following BMPs that are designed to reduce the potential for igniting a fire during construction: ▪ Construction equipment will contain spark arrestors, as provided by the manufacturer. ▪ Staging areas, welding areas, or areas slated for development using spark-producing equipment will be cleared of dried vegetation or other materials that could serve as fire fuel. ▪ No smoking, open flames, or welding will be allowed in refueling or service areas. ▪ Service trucks will be provided with fire extinguishers. ▪ Provide training for all construction personnel on fire safety procedures, including the identification of fire hazards, safe equipment operation, and emergency response actions. ▪ Conduct regular maintenance of construction equipment to prevent malfunctions that could ignite fires. ▪ Ensure fire extinguishers and other firefighting equipment are readily available on-site. ▪ Coordinate with the Soboba Fire Department (SFD) and the Riverside County Fire Department (RCFD) to ensure that emergency response plans are in place and that fire protection services are aware of ongoing project activities.

2.4 COMPARISON OF ALTERNATIVES

This section discusses the degree to which the No Action Alternative and the Proposed Project would meet the objectives outlined in **Section 1.3**, Purpose and Need.

The primary objective of the Proposed Project is to improve the health of Tribal members and the environment. This objective could be met successfully by the Proposed Project, which would substantially improve the wastewater treatment on the Band's Reservation and for existing residential community members currently served by EMWD's temporary pipeline. The No Action Alternative would not meet this objective, as the existing, aging septic tanks and seepage pits would continue to function as the primary sewage disposal option on the Reservation. Over time, this aging infrastructure could fail, leading to significant water quality degradation, particularly during storms, due to unmanaged sewage overflow.

An additional objective of the Proposed Project is to generate expanded employment opportunities during the construction period, provide essential community services, support development of new housing, and protect public health and the environment. These goals could be met successfully by the Proposed Project, which would allow the Band to partner with EMWD to provide a regional collection system for centralized treatment that would benefit the environment, Tribal and non-Tribal community members, and protect public health. The No Action Alternative would not meet this objective, as the aging infrastructure would continue to be used and could eventually lead to public health and environmental issues if they were to fail.

Section 3 | CEQA Initial Study Checklist

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

As indicated by the discussions of existing and baseline conditions, and impact analyses that follow in this Section, environmental factors not checked below would have no impacts or less than significant impacts resulting from the project. Environmental factors that are checked below would have potentially significant impacts resulting from the project. Mitigation measures are recommended for each of the potentially significant impacts that would reduce the impact to less than significant.

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

The analyses of environmental impacts below results in an impact statement, which shall have the following meanings:

Potentially Significant Impact: This category is applicable if there is substantial evidence that an effect may be significant, and no feasible mitigation measures can be identified to reduce impacts to a less than significant level. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

Less than Significant with Mitigation Incorporated: This category applies where the incorporation of mitigation measures would reduce an effect from a "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measure(s), and briefly explain how they would reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

Less Than Significant Impact: This category is identified when the proposed project would result in impacts below the threshold of significance, and no mitigation measures are required.

No Impact: This category applies when a project would not create an impact in the specific environmental issue area. "No Impact" answers do not require a detailed explanation if they are adequately supported by the information sources cited by the lead agency, which show that the impact does not apply to the specific project (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

DETERMINATION

On the basis of this initial evaluation (to be completed by the Lead Agency):

☐ 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.

Brian Cary Digitally signed by Brian Cary Date: 2025.04.02 11:17:19 -07'00' Water Boards

Signature

4/2/2025

Date

3.1 AESTHETICS

Except as provided in Public Resources Code Section 21099, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and 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?	☐	☐	☒	☐

3.1.1 Environmental Setting

The Project Site is situated in unincorporated Riverside County, California, at the northern end of the San Jacinto Valley, in the foothills on the western side of the San Jacinto Mountains. The area features a mix of river terraces and fan-shaped deposits of sediment from canyons and gullies that flow into the river. Elevation ranges from about 1,560 to 1,865 feet above sea level, with the land gently sloping westward toward the San Jacinto River floodplain.

Figure 3-1 depicts the existing conditions of the site; as shown therein, the Proposed Project will extend through the Band's Reservation, generally following existing roadways and local roads, before passing through the Band's golf course and under the San Jacinto River. As shown in photos 4 and 6, views of the surrounding mountains and river floodplain are visible from the Project Site.

The primary scenic views near the Project Site, as defined by Riverside County, are the San Jacinto foothills and mountains, and the San Jacinto River that flows at the base of the foothills adjacent to the Project Site.

The Project Site includes open space and preserved lands, levees and stormwater detention basins, commercial facilities, a gaming facility, golf course, educational and recreational facilities, transportation corridors, and rural residential land uses. The surrounding land uses are rural residential, urban residential, commercial, tribal reservation lands, state and federal land (San Bernardino National Forest),



Photo 1: Typical Dirt Driveway



Photo 2: Typical Paved Roadway



Photo 3: Paved Roadway with Drainage Ditch



Photo 4: Stormwater Retention Pond



Photo 5: Dirt Path Within Golf Course



Photo 6: San Jacinto River

Acorn Environmental taken February 7, 2024

FIGURE 3-1
SITE PHOTOGRAPHS

and grazing land. Light emitting sources in the vicinity of the Project Site include residential homes and business on the Reservation, residential neighborhoods off-Reservation, and traffic from local roads.

The closest State scenic highway that is officially designated by the California Department of Transportation (Caltrans) is State Route (SR) 74, which is located approximately 5 miles southeast of the Project Site (Caltrans, 2024). Views from SR 74 include the San Jacinto River and Mountains. The Project Site is not visible from SR 74. The County designates Soboba Road, through which much of the Project Site extends along, as a County Eligible Scenic Highway in the San Jacinto Valley (Riverside, County, 2015c).

3.1.2 Regulatory Setting

The following State and local regulations would apply to the Off-Reservation portions of the Project Site.

State

Caltrans State Scenic Highway Program

The Caltrans State Scenic Highway Program aims to preserve and protect the scenic beauty of California's highways. It designates highways as "Scenic Highways" based on their outstanding scenic qualities and promotes measures to maintain and enhance the visual experience for travelers.

Local

Riverside County General Plan

The Riverside County General Plan includes the following policies that apply to the Proposed Project:

> **Policy LU 4.1:** Require that new developments be located and designed to visually enhance, not degrade the character of the surrounding area through consideration of the following concepts:
>
> a) Compliance with the design standards of the appropriate area plan land use category.
> b) Require that structures be constructed in accordance with the requirements of Riverside County's zoning, building, and other pertinent codes and regulations.
> l) Mitigate noise, odor, lighting, and other impacts on surrounding properties.
> o) Preserve natural features, such as unique natural terrain, arroyos, canyons, and other drainage ways, and native vegetation, wherever possible, particularly where they provide continuity with more extensive regional systems.
>
> **Policy LU 14.1:** Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public.
>
> **Policy LU 31.5:** Require that public facilities be designed to consider their surroundings and visually enhance, not degrade, the character of the surrounding area.

San Jacinto Valley Area Plan

The San Jacinto Valley Area Plan includes the following policies that apply to the Proposed Project:

> **Policy SJVAP 3.2:** Require development adjacent to the River to be set back from the top of bluffs or slopes, where applicable, an appropriate distance as determined by the Riverside County Geologist in order to protect the natural and recreational values of the River and to avoid public responsibility for property damage from soil erosion or future floods.

Policy SJVAP 3.7: Discourage the addition of local road crossings. If any additional crossing is allowed, careful consideration shall be given to location, design and landscaping to take advantage of the scenic character of the River and to avoid destruction of its natural values.

Policy SJVAP 3.8: Discourage utility lines within the River corridor. If approved, lines shall be placed underground where feasible and shall be located in a manner to harmonize with the natural environment and amenity of the River.

Policy SJVAP 13.1: Protect the scenic highways in the San Jacinto Valley Area Plan from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the General Plan Land Use, Multipurpose Open Space, and Circulation Elements.

Envision San Jacinto General Plan 2040

The City of San Jacinto General Plan includes the following goals and policies that apply to the Proposed Project:

Goal LU-5: Community Character and Design. A visually attractive community that helps create a unique sense of place.

Policy LU-5.1: Standards and Guidelines. Develop and enforce development standards and objective design guidelines that provide clear direction for achieving quality community design in new development and redevelopment projects.

Policy LU-5.3: Site Planning. Identify and preserve, as feasible, the significant features of a site, such as viewsheds, heritage trees, and rock outcroppings, during the design and development of new projects.

Policy LU-5.5: Sustainable Design. Support "green" and "sustainable" developments that respect and conserve the region's important resources.

Goal RM-7: Parks and Recreational Resources. An integrated system of parks, recreational, and open space facilities that meet the community's needs and preferences.

Policy RM-1.2: Scenic Resources: Encourage the preservation of San Jacinto's scenic resources, including mature trees, rock outcroppings, hillsides, ridgelines, and other prominent natural landforms, to the extent practical.

3.1.3 Impact Assessment

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

Less than Significant. The potential visual impacts of the Proposed Project would be limited to the construction phase. Scenic vistas near the Project Site, including the San Jacinto River, would be temporarily altered by the presence of construction equipment, excavated materials, and staging areas. However, once the Proposed Project is completed, pipelines would be underground and the area of temporary disturbance would be restored to its original condition, thus having no long-term impact on scenic vistas. The levee access ramp that would extend from the end of the golf cart path to the terminus of the existing river levee would not substantially alter scenic vistas. Therefore, the Proposed Project would not substantially adversely impact local scenic vistas and impacts would be less than significant.

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

Less than Significant. The Project Site is located approximately 5 miles from SR 74, the nearest officially designated state scenic highway, and is not visible from this roadway (Caltrans, 2024). However, the County of Riverside designates Soboba Road as a County Eligible Scenic Highway in the San Jacinto Valley. Approximately 1.5 miles of proposed mainline are sited within Soboba Road, the vast majority within the Reservation where the County General Plan does not guide land use planning. However, as shown on **Figure 1-3**, a small portion of this (less than 400 feet and 0.69 acre) are within Soboba Road off-Reservation. While Soboba Road will be temporarily altered during construction activities for the installation of the new sewer pipelines, once completed, the proposed pipeline would be underground, removed pavement would be repaved, and the temporarily disturbed area would be restored to its original condition. This will ensure that there are no long-term impacts on scenic resources and that views from adjacent properties are not obstructed. Construction will occur on already disturbed land, and there are no notable trees, rock outcroppings, or historic buildings on the Project Site that would be impacted. Therefore, the Proposed Project would not damage scenic resources, resulting in a less than significant impact.

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

Less than Significant. The Project Site is located in a nonurbanized area, primarily on the Band's Reservation, while small portions are within the City of San Jacinto and Riverside County. While construction activities would result in a temporary impact to visual character, surface restoration techniques would be employed after segments of pipeline construction are completed to restore all surfaces and roadways to pre-project conditions. This would include planting grasses and native vegetation in unpaved areas and repaving roadways or golf cart pathways. The only permanent above-ground impact is the proposed levee ramp which would be consistent with the surrounding developed uses. As such, the visual character of the Project Site would be altered during construction and in the short term after construction is completed (i.e., until vegetation grows similarly to the pre-construction condition). In the long-term, the visual character of the Project Site would not be appreciably different from the existing visual character. Therefore, the Proposed Project would not substantially degrade the existing visual character or quality of the Project Site and its surroundings, and the impact would be less than significant.

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

Less than Significant. Construction activities could involve temporary sources of light or glare from machinery. As discussed in **Section 2.2.3**, construction activities will occur between 7:00 AM and 6:00 PM on weekdays and Saturdays, and between 9:00 AM and 6:00 PM on Sundays and holidays, which is consistent with Section 8.40.090 of the San Jacinto Municipal Code and Section 9.52.020 of the Riverside County Municipal Code. Therefore, temporary construction activities will be limited to daylight hours to avoid nighttime lighted activities. The Proposed Project does not involve the installation of any new sources of light or glare. Therefore, there would be a less-than-significant impact from new sources of substantial light or glare which would adversely affect day or nighttime views in the area.

3.2 AGRICULTURE AND FORESTRY RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program (FMMP) of the California Resources Agency, to non-agricultural use?	☐	☐	☒	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?				☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?				☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?			☒	

3.2.1 Environmental Setting

Agriculture

According to the 2022 Census of Agriculture, a total of 361,970 acres in Riverside County are used for farming purposes (U.S Department of Agriculture [USDA], 2022). The State of California developed the Farmland Mapping and Monitoring Program (FMMP) to provide data to decision makers for use in planning for the present and future of California's agricultural land resources. Prime farmland is a designation applied to lands with the best combination of physical and chemical features able to sustain long-term agriculture. Farmland of Statewide Importance is a designation applied to lands that are similar to Prime Farmland but with minor shortcomings, such as large slopes or the diminished ability to store soil moisture. Unique farmland is comprised of lesser quality soils used for the production of the State's leading agricultural crops (California Department of Conservation [DOC], 2024).

According to the FMMP, the Project Site is identified as a combination of urban and built-up land, farmland of local importance, grazing land, and other land by the DOC (DOC, 2022), as shown in **Figure 3-2** and **Table 3.2-1**. The Project Site has not been farmed in recent years and is not currently used for agricultural purposes.

Table 3.2-1: FMMP Land Determinations

Land Type	Acres
Urban and Built-up Land	44.8
Grazing Land	3.8
Farmland of Local Importance	15.8
Other Land	75.0
Total	139.4

Source: DOC, 2022

The purpose of the Farmland Protection Policy Act (FPPA) is to discourage federal activities that would convert farmland to non-agricultural uses. According to Section 523.10 of the FPPA, an area is not considered farmland if the land is identified by the U.S. Census Bureau as urban (Natural Resources Conservation Service [NRCS], 2024a). Urban is defined as an area with over 10,000 residents. The Project Site is located within an urban area as shown on the Census Map (U.S. Census Bureau, 2020a). Riverside County has approximately 2,492,422 residents and the City of San Jacinto has approximately 55,440 residents as of 2023 (U.S. Census Bureau, 2023a). The on-Reservation portions of the Project Site occur primarily within existing roadways and residential driveways; there is FMMP-designated farmland in the vicinity and some actively cultivated areas near the Project Site. Although County of Riverside zoning does not apply on the Reservation, the zoning overlays for the Project Site are for rural residential and not for agricultural uses. The off-Reservation portions of the Project Site are zoned through the City of San Jacinto for open space recreation, residential, and specific plan and not for agricultural uses. Therefore, the Project Site is not subject to the provisions of the FPPA.

There is no designated forest land or timberland in the Project Site.

3.2.2 Regulatory Setting

Additional federal regulatory setting, including the FPPA, is discussed in **Section 4.9.** The following State and local regulations would apply to the Off-Reservation portions of the Project Site.

State

Williamson Act

This act is designed to preserve farmlands and open space lands by discouraging premature and unnecessary conversion to urban areas. Landowners contract with the County to maintain agricultural or open space land use of their lands in return for a reduced property tax assessment.

Right to Farm Act

California Civil Code Section 3482.5, also known as the Right to Farm Act, contains provisions to ensure that agricultural operations are not considered nuisances, so long as they do not obstruct navigable waterways or public areas. This ordinance supersedes any conflicting local regulations but does not prohibit local jurisdictions from adopting ordinances that allow notification to those in close proximity to an agricultural activity that they are subject to the provisions of the Right to Farm Act.

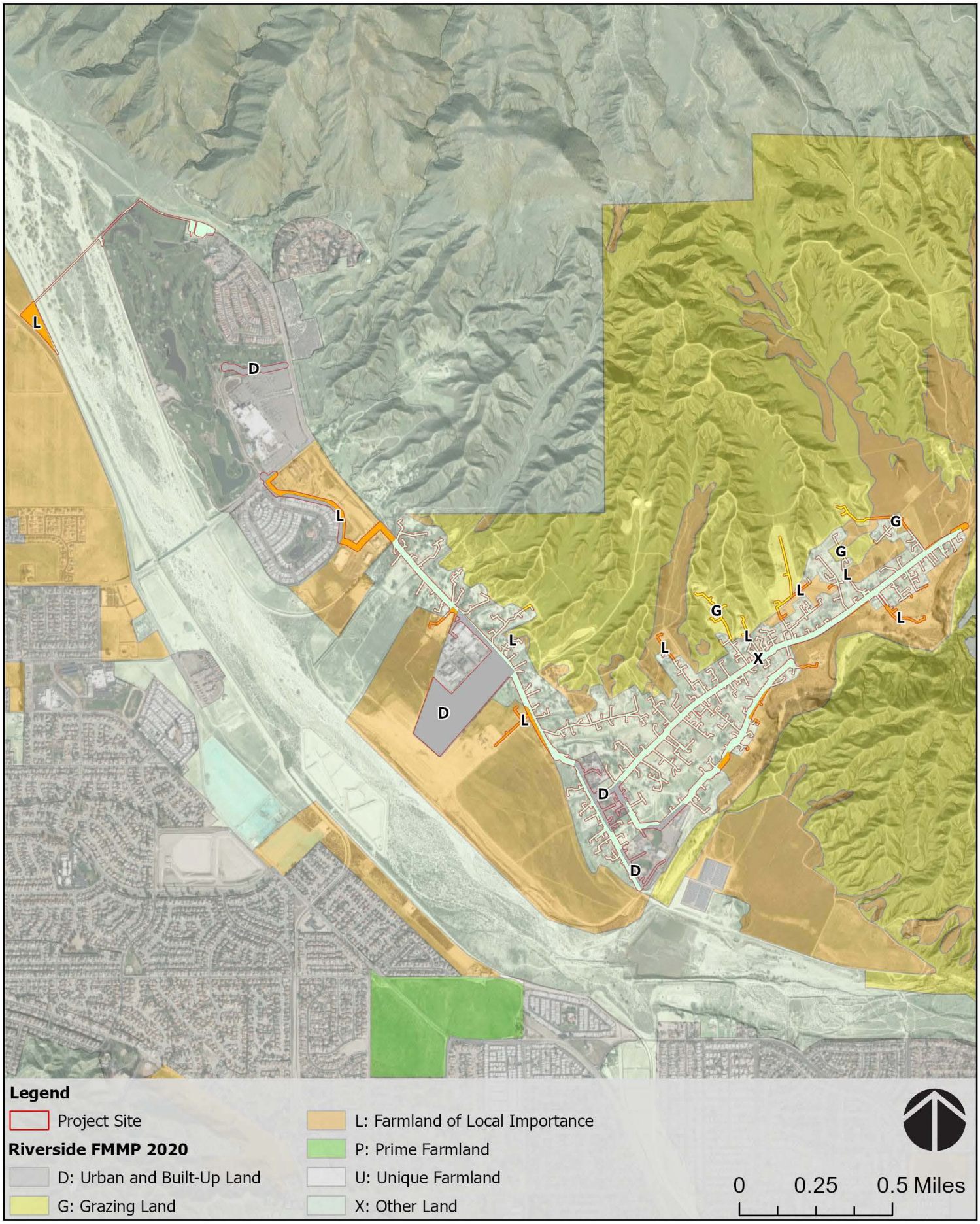


FIGURE 3-2
FMMP DESIGNATIONS

Local

Riverside County Right to Farm Ordinance

Ordinance number 625.1, Riverside County's "Right to Farm" Ordinance, conserves, protects, and encourages the development, improvement, and continued viability of agricultural land and industries for the long-term production of food and other agricultural products, and for the economic well-being of the County's residents. It is also to balance the rights of farmers to produce food and other agricultural products with the rights of non-farmers who own, occupy, or use land within or adjacent to agricultural areas. The ordinance aims to reduce the loss of agricultural resources by limiting the circumstances under which agricultural operations may be deemed to constitute a nuisance.

City of San Jacinto General Plan

The Land Use Element of the City of San Jacinto General Plan outlines Policy LU-2.4, which states that agricultural operations should be allowed and supported on lands within the City limits that are designated for development uses, until such time as new development is proposed for the land. Action LU-2e gives priority to projects that reduce development pressure on agricultural lands and other sensitive resources. Policy LU-3.6 ensures that proposed developments adjacent to agricultural lands include adequate buffers to reduce potential land use conflicts (City of San Jacinto, 2022).

3.2.3 Impact Assessment

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

Less than Significant. Currently, the majority of the Project Site is already disturbed. The proposed on-Reservation sewer laterals would accommodate the replacement of septic tanks and seepage pits within existing neighborhoods and would be located primarily within existing roadways and residential driveways. Although the FMMP designates approximately 15.7 acres as farmland of local importance, many of these areas are not cultivated agricultural land; rather, they are lawns or landscaping associated with residences or grassy areas. No cultivated agricultural areas will be converted by the Proposed Project. The replacement of the existing, temporary forcemain below the San Jacinto River would not be within designated farmland. The Proposed Project would not convert farmland to non-agricultural uses, and therefore the impact would be less than significant.

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

No Impact. No portion of the Project Site is located on land zoned for agricultural use or protected by a Williamson Act Contract. Therefore, no impact would occur as a result of the Proposed Project.

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

No Impact. There is no land zoned for forest land or timberland, nor do timber species occur within the Project Site. The Proposed Project would have no impact.

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

No Impact. There is no forest land in the vicinity of the Project Site. The Project Site is either developed or landscaped with grass. There are no forestry or timberland resources located on the Project Site. There would be no impact.

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

Less than Significant. The Proposed Project's on-Reservation sewer laterals would accommodate the replacement of septic tanks and seepage pits within existing neighborhoods; the replacement of the existing, temporary forcemain below the San Jacinto River would serve existing non-Tribal communities in addition to the on-Reservation land uses. The Proposed Project is designed to meet the local service needs of existing and planned residential, commercial, and administrative developments in the County and on the Reservation. The Proposed Project would not induce other changes in the environment that would result in conversion of agricultural land to non-agricultural uses. The Proposed Project would have a less-than-significant impact.

3.3 AIR QUALITY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non- attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	☐	☐	☒	☐

3.3.1 Environmental Setting

The Project Site is located within western Riverside County, California and lies within the South Coast Air Basin (SCAB), which includes all of Orange County and the non-desert portions of Los Angeles, Riverside and San Bernardino counties. Air quality conditions in the SCAB are under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). According to the Air Quality Management Plan (AQMP) adopted by the SCAQMD for the SCAB, the worst air quality problem in the nation occurs in the SCAB. With very light average wind speeds, the basin atmosphere has a limited capability to disperse air contaminants horizontally. Furthermore, the vertical dispersal of air pollutants in the SCAB is hampered

by the presence of a temperature inversion in the layers of the atmosphere near the surface of the Earth, which holds air pollutants near the ground and results in high concentrations of air pollution, especially in the inland areas of the SCAB. In winter, fine particulate matter (PM) and nitrogen oxides (NOx) are significant pollution problems due to low-level inversions and air stagnation, while ozone levels are lower. In summer, longer daylight and stronger sunlight increase smog production from hydrocarbons and NOx, though carbon monoxide (CO) is less problematic due to better ventilation (Riverside County, 2018).

Attainment Status

As shown in **Table 3.3-1**, the SCAQMD portion of the County is currently designated as nonattainment for State ozone, PM_{10}, and $PM_{2.5}$ standards. Furthermore, it is classified as a serious nonattainment for federal $PM_{2.5}$ standards, extreme nonattainment for federal ozone standards and attainment (maintenance) for federal CO, NO_X, and PM_{10} standards. The SCAQMD portion of the County is designated as an attainment or unclassified area for all other federal and State ambient air quality standards.

Table 3.3-1: Air Quality Attainment Status for Western Riverside County

Pollutant	California Standard	Federal Standard
Ozone	Nonattainment	Nonattainment (Extreme)
CO	Attainment	Attainment (Maintenance)
NO_X	Attainment	Attainment (Maintenance)
SO_X	Attainment	Attainment
PM_{10}	Nonattainment	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment	Nonattainment (Serious)

Source: CARB, 2022; USEPA, 2024a

PM_{10}: Particulate matter with diameters that are generally 10 micrometers and smaller

$PM_{2.5}$: Particulate matter with diameters that are generally 2.5 micrometers and smaller

SO_X: sulfur oxides

Hazardous Air Pollutants

Hazardous air pollutants (HAP) are a group of pollutants of concern that are a specific group of airborne chemicals designated by the USEPA. Sources of HAPs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different HAPs. The most important, in terms of health risk, are diesel particulate matter (DPM); benzene; formaldehyde; 1,3-butadiene; and acetaldehyde.

HAPs are less pervasive in the urban atmosphere than CAPs but are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are different types of HAPs, with varying degrees of toxicity. The USEPA currently lists over 188 HAPs. The majority of the estimated health risk from HAPs can be attributed to relatively few compounds, the most important being DPM. Diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The visible emissions in diesel exhaust are particulate matter that includes carbon. Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances.

Sensitive Receptors

Some receptors are considered more sensitive than others to air pollutants. The reasons for sensitivity include pre-existing health problems, proximity to emissions and odor sources, or duration of exposure to air pollutants or odors. Schools, hospitals, and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality related health problems. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with greater associated exposure to ambient air quality.

The nearest sensitive receptors to the Project Site include Soboba Preschool, Noli Indian School, St. Joseph's Catholic Church, Kut Poki Church, and the residential neighborhood through which the sewer pipeline runs, all located adjacent to the Project Site.

3.3.2 Regulatory Setting

Air quality within the project site is regulated by agencies such as the USEPA and the California Air Resources Board (CARB) at the federal and State levels, respectively, and locally by the SCAQMD.

Federal

Clean Air Act

The USEPA is responsible for enforcing the federal Clean Air Act (CAA). The USEPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The USEPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g. beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

State

California Air Resources Board

CARB is responsible for meeting the State requirements of the federal CAA, administering the California CAA, and establishing the California Ambient Air Quality Standards (CAAQS). The California CAA, as amended in 1992, requires all air districts in the State to endeavor to achieve and maintain the CAAQS. The CAAQS are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. CARB regulates mobile air pollution sources, such as motor vehicles. The agency is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective on March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level.

State Airborne Toxic Control Measure Standards

State Airborne Toxic Control Measure (ATCM) standards, established by CARB, are regulations designed to reduce emissions of hazardous pollutants from various sources to protect public health. These

measures target specific pollutants that pose significant health risks, such as those from industrial processes, vehicles, and equipment. The ATCMs outline emission limits, control technologies, and operational practices to minimize the release of toxic substances. CARB oversees compliance with these standards, enforcing penalties for violations to ensure their effectiveness.

Local

Riverside County General Plan

The Air Quality Element of the Riverside County General Plan includes the following policies that are relevant to the Proposed Project:

Policy AQ 1.1: Promote and participate with regional and local agencies, both public and private, to protect and improve air quality.

Policy AQ 1.2: Support Southern California Association of Government's (SCAG) Regional Growth Management Plan by developing intergovernmental agreements with appropriate governmental entities such as the Western Riverside Council of Governments (WRCOG), the Coachella Valley Association of Governments (CVAG), sanitation districts, water districts, and those subregional entities identified in the Regional Growth Management Plan.

Policy AQ 1.3: Participate in the development and update of those regional air quality management plans required under federal and state law, and meet all standards established for clean air in these plans.

Policy AQ 1.4: Coordinate with the SCAQMD and MDAQMD to ensure that all elements of air quality plans regarding reduction of air pollutant emissions are being enforced.

Policy AQ 1.5: Establish and implement air quality, land use and circulation measures that improve not only the County's environment but the entire region.

SCAQMD 2022 Air Quality Management Plan

The 2022 AQMP is a series of plans adopted for the purpose of reaching short- and long-term goals for those pollutants that the Basin is designated as a "nonattainment" area because it does not meet federal or state AAQS. Local air districts are responsible for preparing the portion of the State Implementation Plan (SIP) applicable within their boundaries. SIPs are comprehensive plans that describe how an area will attain NAAQS. The 2022 AQMP will be the portion of the SIP for the Basin and Coachella Valley. The plan outlines various emission reduction strategies targeting both stationary and mobile sources and includes regulatory programs, incentives, and partnerships with local, state, and federal agencies.

South Coast Air Quality Management District

SCAQMD is a regional agency responsible for regulating air quality in Southern California's SCAB. It develops and enforces air quality regulations, monitors pollution levels, issues permits for emission sources, and implements regional air quality plans. Specific rules applicable to the Proposed Project may include, but are not limited to, Rule 403: Fugitive Dust**.** This Rule aims to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (man-made) fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions (CARB, 2024).

3.3.3 Methodology

Construction emissions associated with development of the Proposed Project were calculated with the California Emissions Estimator Model (CalEEMod) 2022.1 (California Air Pollution Control Officers Association [CAPCOA], 2022). Because the Proposed Project is a wastewater conveyance system, the project would have negligible operational emissions. Most of the mainlines have been designed to be gravity fed, with only 11 pump stations required across nearly 20 miles of pipeline for the few locations where gravity lines were not feasible. Since the primary function of the sewer pipeline is to transport wastewater with minimal mechanical processes or energy use, no significant ongoing operational emissions are associated with the project. The change in wastewater treatment associated with the Proposed Project (i.e., treatment at the regional wastewater treatment plant rather than individual septic systems) would have negligible impact on indirect operational emissions. Operational emissions are therefore not analyzed further.

Thresholds of Significance

The SCAB is currently in nonattainment for ozone, PM_{10}, and $PM_{2.5}$ State standards. The SCAQMD establishes significance thresholds to assess the regional impact of project-related air pollutant emissions in the SCAQMD, presented in **Table 3.3-2**. A project with emissions rates below these thresholds would not result in a cumulatively considerable increase of any criteria pollutant and is considered to have a less than significant impact on air quality.

Table 3.3-2: SCAQMD Air Quality Thresholds of Significance (Construction)

Criteria Pollutant	Emission Threshold (lbs per day)
VOCs	75
NO_X	100
CO	550
SO_X	150
PM_{10}	150
$PM_{2.5}$	55
Lead	3

Source: SCAQMD, 2023
VOC: Volatile Organic Compound

3.3.4 Impact Assessment

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant with Mitigation. The Proposed Project is located within the SCAB under the jurisdiction of the SCAQMD, who is responsible for formulating and implementing the AQMP for the Basin, which also serves as the SIP (SCAQMD, 2022). The primary purpose of the most recent 2022 AQMP is to identify, develop, and implement strategies and control measures to meet the 2015 8-hour ozone NAAQS - 70 parts per billion (ppb) as expeditiously as practicable. To determine consistency between the Proposed Project and the AQMP, the Proposed Project must comply with applicable SCAQMD rules and regulations; comply with proposed or adopted control measures; and be consistent with the growth forecasts utilized in preparation of the AQMP, which are based on regional population, housing, and employment projections prepared by SCAG. The Proposed Project would not result in a significant air quality impact from construction activities, as described below. **Mitigation Measure AQ-1** is identified to ensure that the Proposed Project adheres to the applicable construction BMPs from the AQMP. The BMPs

from the AQMP would not be legally binding on the Reservation and would only be applicable to off-Reservation areas served by the Proposed Project; therefore, the Band has committed to and **Mitigation Measure AQ-1** ensures these measures are implemented consistently across the entire Project Site. Moreover, as discussed in **Section 3.14**, Population and Housing, the Proposed Project does not include growth-generating components, but rather would accommodate existing and planned growth. The Reservation is not considered part of the county, however the Proposed Project would still be consistent with growth projections contained in the County's General Plan and SCAG and AQMP forecasts. Based on these considerations and pursuant to SCAQMD guidelines, project-related emissions are accounted for in the AQMP, and a less-than-significant impact would occur.

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?

Less than Significant. The SCAQMD portion of the County where the Project Site is located is currently designated as a nonattainment area for State ozone, PM_{10}, and $PM_{2.5}$ standards. Furthermore, it is designated as a nonattainment (serious) area for federal $PM_{2.5}$ standards, nonattainment (partial) for federal lead standards, nonattainment (extreme) area for federal ozone standards, and as attainment (maintenance) for federal CO, NO_X, and PM_{10} standards. The 2022 AQMP serves as the air quality plan for the region. As such, inconsistency with the 2022 AQMP would be considered a cumulatively adverse air quality impact. Furthermore, project-specific emissions that exceed the thresholds of significance for criteria pollutants would be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the County is in non-attainment under applicable federal or state ambient air quality standards.

The Proposed Project would result in construction emissions during demolition of the existing golf course lift station, pipeline trenching, pipe installation and backfill, microtunneling, and repaving. These emissions would be limited and short term. The Proposed Project's construction emissions would include those associated with off-road heavy equipment operation, worker vehicle commutes, and haul truck activity for import of construction materials. As discussed in **Section 3.3.3**, the SCAQMD has established thresholds of significance for determining environmental significance. Results of the CalEEMod analysis, included in **Table 3.3-3** and **Appendix E**, show that emissions generated from construction of the Proposed Project will be less than the applicable SCAQMD emission thresholds for criteria pollutants. Furthermore, with implementation of **Mitigation Measure AQ-1**, impacts due to temporary construction activities would be further reduced. Therefore, a less-than-significant impact would occur.

Table 3.3-3: Project Construction Emissions (pounds per day)

Summary Report	CO	NO_X	ROG	SO_2	PM_{10}	$PM_{2.5}$
2025	20.5	17.1	2.31	0.05	2.66	0.88
2026	21.0	16.0	2.25	0.05	2.61	0.83
2027	20.8	15.3	2.20	0.05	2.56	0.79
2028	19.9	14.4	2.13	0.05	2.52	0.74
Maximum Daily Emissions	21.0	17.1	2.31	0.05	2.66	0.88
SCAQMD Threshold	550	100	75	150	150	55
Above Threshold?	No	No	No	No	No	No

Source: **Appendix E**
ROG: Reactive organic gas

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant with Mitigation. The Project Site is located adjacent to numerous sensitive receptors, including Soboba Preschool, Noli Indian School, St. Joseph's Catholic Church, Kut Poki Church, and the residential neighborhood through which Project construction would occur. To minimize potential effects from fugitive dust emissions during construction, the Proposed Project will be required to implement BMPs specified by SCAQMD's Rule 403 under the Fugitive Dust regulation, which is required by **Mitigation Measure AQ-1**. Because of less-than-significant construction emissions per SCAQMD guidelines as described above and with adherence to **Mitigation Measure AQ-1** and applicable SCAQMD rules, a less-than-significant impact would occur.

Hazardous Air Pollutants

Construction of the entire Proposed Project would require approximately three years, although construction activities will not occur in the same portion of the Project Site continuously for three years. Rather, equipment will move through the Project Site as pipeline segments are completed. During project construction, DPM would be generated from construction equipment and vehicles. DPM is known by the State of California to include carcinogenic compounds, and long-term exposure to diesel exhaust emissions has the potential to result in adverse health effects. Long-term exposure is typically equated with a lifetime of chronic exposure, which is defined in CAPCOA's Air Toxics "Hot Spots" Program Risk Assessment Guidelines as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Because the Proposed Project's generation of DPM would be limited to a three-year construction period and would not be directly adjacent to the sensitive receptors for the entire three-year construction period, it would not result in long-term exposure of sensitive receptors to DPM, and potential impacts related to exposure of sensitive receptors to substantial pollutant concentrations (including diesel exhaust emissions) would be less than significant.

Carbon Monoxide Hotspots

Carbon monoxide hotspots are areas of localized increased carbon monoxide concentrations caused by severe vehicle congestion on major roadways, typically near intersections. The Proposed Project would generate vehicle trips during construction in the form of haul trucks and worker commute vehicles; however, the number of vehicles generated would be limited and would not result in congestion on nearby roadways. Construction vehicle generation would also be temporary. The Proposed Project would not result in increased vehicle trips during operation, aside from the occasional maintenance worker vehicle trip. Therefore, the Proposed Project would not result in the exposure of sensitive receptors to carbon monoxide hotspots, and impacts would be less than significant.

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

Less than Significant. During the construction period, emission-related odors from construction equipment and vehicles (particularly diesel exhaust) may occur temporarily in the immediate surrounding area. Specifically, construction equipment and vehicles could intermittently emit diesel exhaust perceptible by nearby receptors along roadways (i.e., from transport vehicles) and near the Project Site during construction. These odors dissipate quickly and would not affect a substantial number of people, as construction activities (including vehicle trips) would be minor in duration and extent.

3.3.5 Mitigation Measures

AQ-1: Best Available Control Measures

Project contractors shall ensure that the relevant SCAQMD Basic Control Emission Control Practices (also known as BMPs) shall be implemented during project construction for all project activities whether on- or off-Reservation. BMPs include:

- Control of fugitive dust consistent with best available control measures identified within Table 1 of SCAQMD District Rule 403.
- Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 mph.
- The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. CARB enforces idling limitations and compliance with diesel fleet regulations.
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [CCR, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
  - Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR, Title 13, sections 2449 and 2449.1].
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.

3.4 BIOLOGICAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
California Department of Fish and Game or U.S. Fish and Wildlife Service?				
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒	☐	☐
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?	☐	☒	☐	☐

3.4.1 Environmental Setting

A Biological Resources Assessment (BRA) was prepared for the Proposed Project and is included as **Appendix F-1**. Additionally, a Biological Assessment (BA) was prepared to facilitate Section 7 consultation pursuant to the Federal Endangered Species Act (FESA), discussed further in **Section 4.4** below, and is included as **Appendix F-2**. Finally, an Aquatic Resources Delineation (ARD) was prepared in order to facilitate coordination with the U.S. Army Corps of Engineers (USACE) and identify potential impacts to jurisdictional aquatic resources (**Appendix F-3**). This section summarizes the results of these reports.

Methodology

The following resources were reviewed in support of this analysis:

- U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation species list (Attachment A of **Appendix F-2**)
- USFWS National Wetlands Inventory(NWI) (Figure 8 of **Appendix F-2**)
- National Marine Fisheries Service (NMFS) critical habitat and essential fish habitat mappers (NMFS, 2024a; NMFS, 2024b)
- Custom Soil Report for the Project Site (Figure 5 of **Appendix F-3**)
- Aerial imagery of the Project Site

A biological resources survey was completed on February 7, and April 18 and 27, 2024 and consisted of a variable-intensity pedestrian survey. Methodologies for identifying the boundaries of aquatic resources for the ARD are detailed in Section 3 of **Appendix F-3**. Similarly, methodologies for preparation of the BRA and BA are detailed in Section 3 of **Appendix F-1** and Section 3 of **Appendix F-2**.

Habitat Types

The Project Site contains the following habitat types: coastal scrub, riparian, annual grassland, developed/disturbed, channels, and stormwater basins. These habitat types are discussed below. Representative photos of the Project Site are presented in **Figure 3-1**, and the extent of the habitats are shown on **Figure 3-3**.

Coastal Scrub (2.64 acres)

In the Project Site, coastal scrub occurs in areas of high sun exposure that have not been cleared or graded, and primarily on alluvial fans and river terraces. It also occurs in islands of river washes. Characteristic species observed within this habitat type are California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), scalebroom (*Lepidospartum squamatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, *S. apiana*).

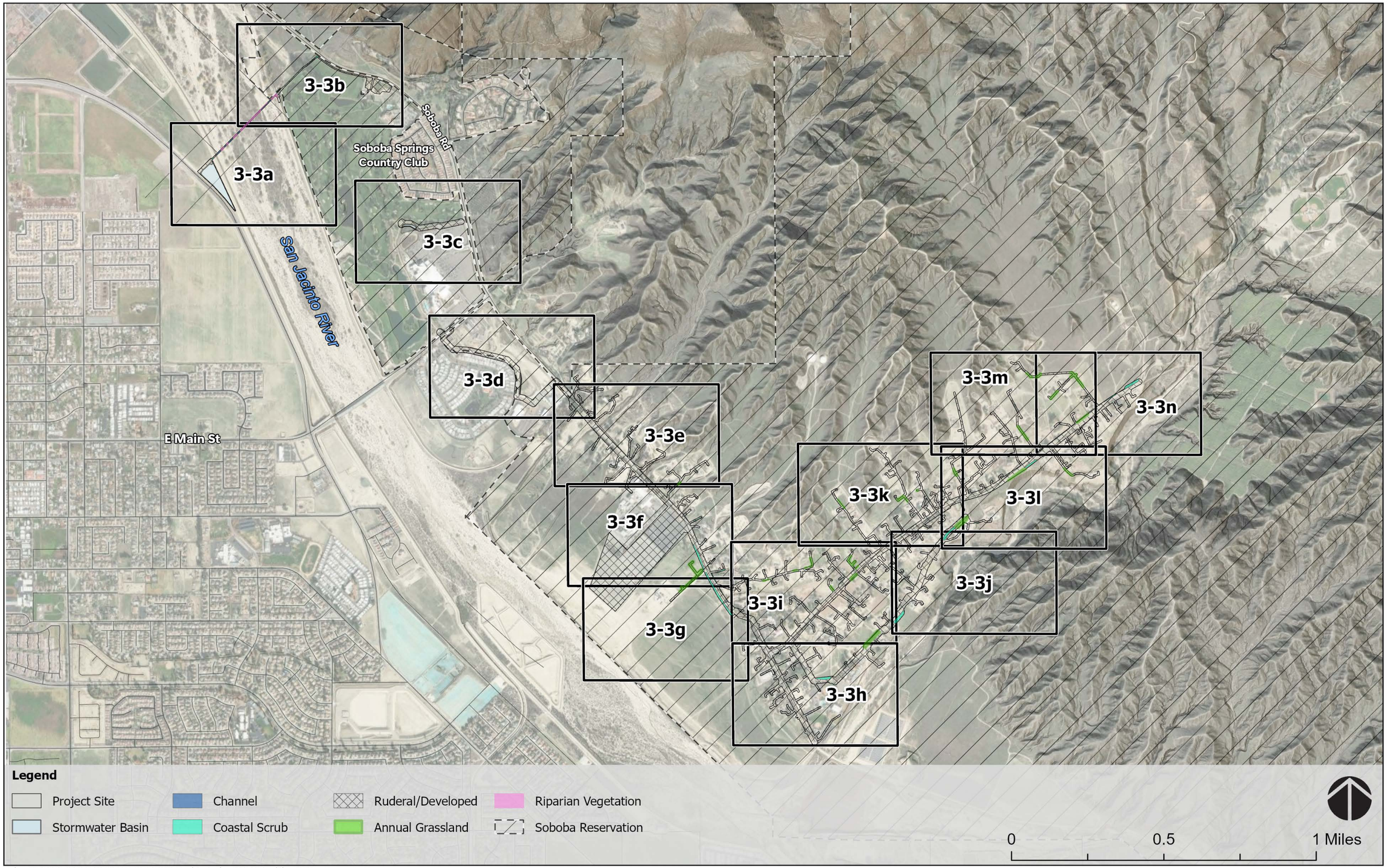
Riparian (0.37 acres)

Within the San Jacinto River channel there are islands of riparian communities that are either riparian woodland or riparian scrub. Dominant tree species of riparian woodland are sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), and several species of willow (*Salix* spp.), but upland trees can also be present, such as coast live oak (*Quercus agrifolia*) and California walnut (*Juglans californica*). The understory of riparian woodlands contains box elder (*Acer negundo*), big-leaf maple (*A. macrophyllum*), stinging nettle (*Urtica dioica*), poison oak (*Toxicodendron diversilobum*), and wild grape (*Vitis girdiana*).

Riparian scrub communities are variable and consist of stands of tamarisk (*Tamarix* spp.) or giant reed (*Arundo donax*), or mixed communities of Mexican elderberry (*Sambucus mexicana*), mulefat (*Baccharis salicifolia*), salt grass (*Distichlis spicata*), wild cucumber (*Marah macrocarpus*), mugwort (*Artemisia douglasiana*), and willow and blackberry thickets.

Annual Grassland (2.36 acres)

In areas subject to grading, grazing, or field agriculture, non-native annual grasslands occur. These communities are dominated by several species of grasses that have evolved to persist in concert with human agricultural practices such as wild oats (*Avena* spp.), chess and other bromes (*Bromus* spp.), barley (*Hordeum* spp.), rye grasses (*Lolium* spp.), rat-tail fescue (*Vulpia myuros*), and Mediterranean schismus (*Schismus barbatus*). Weedy forbs are also present, especially shortpod mustard (*Hirschfeldia incana*).



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 3-3
HABITATS

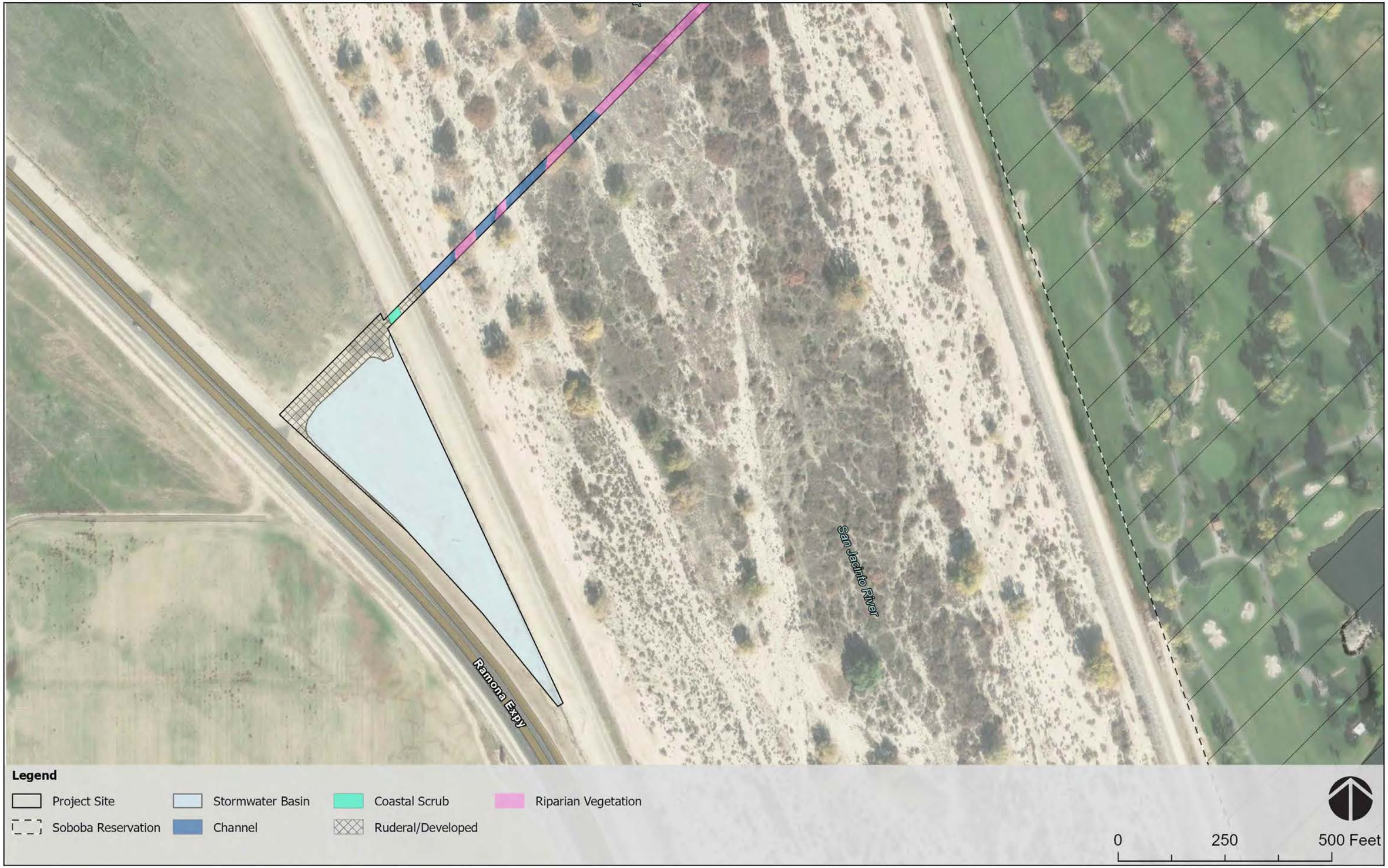


FIGURE: 3-3a
HABITATS

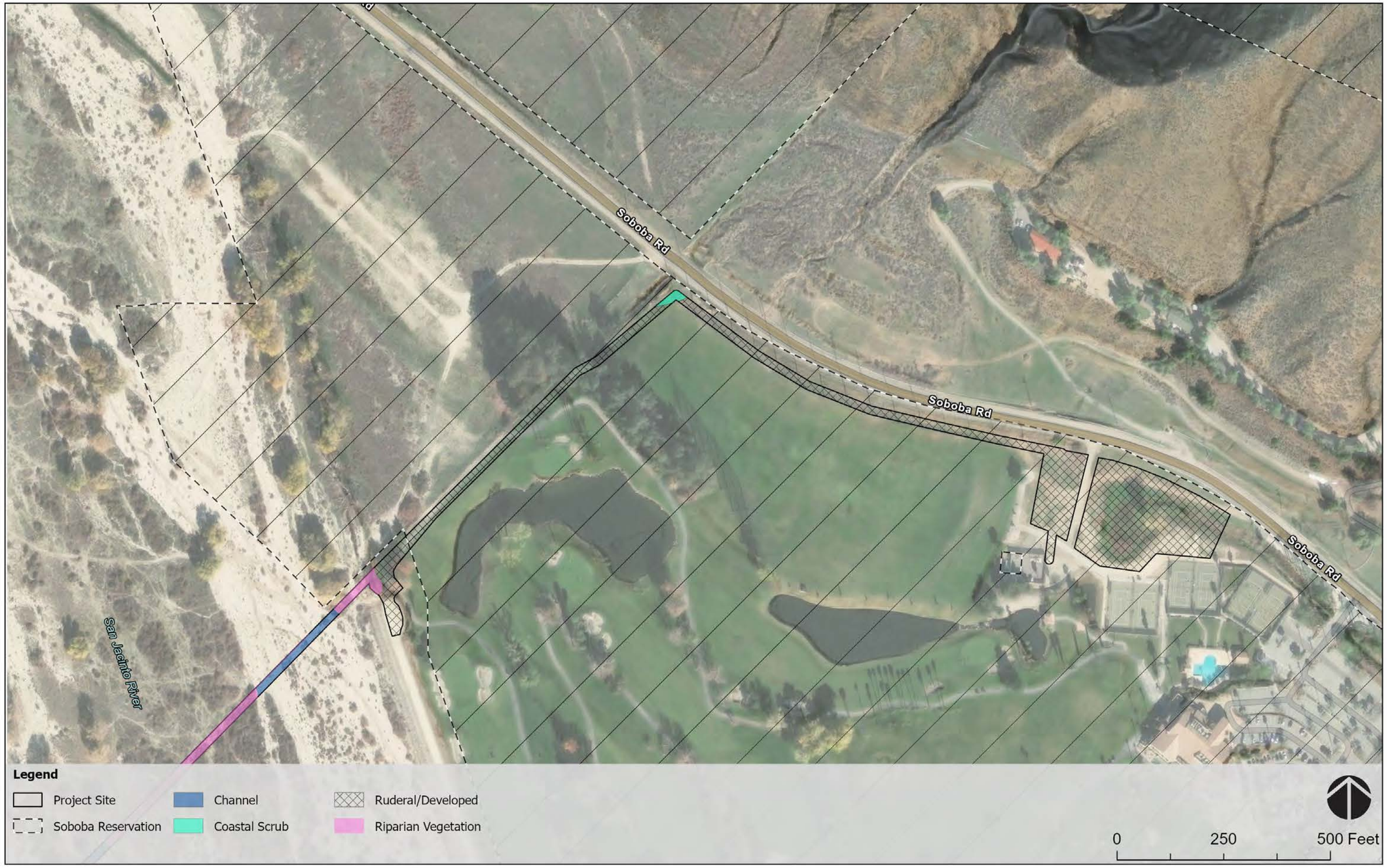


FIGURE: 3-3b
HABITATS



FIGURE: 3-3c
HABITATS

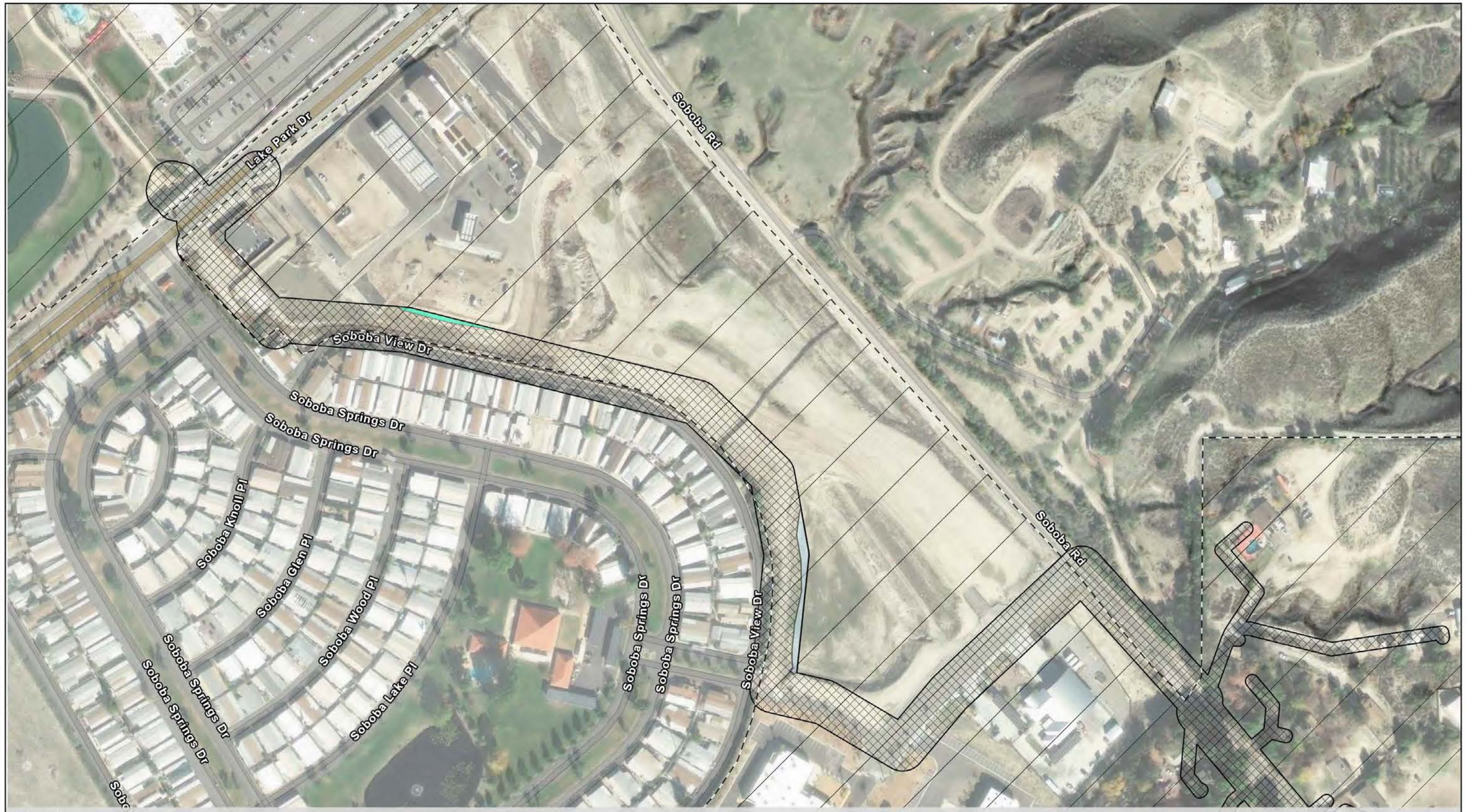


FIGURE: 3-3d
HABITATS



FIGURE: 3-3e
HABITATS



FIGURE: 3-3f
HABITATS

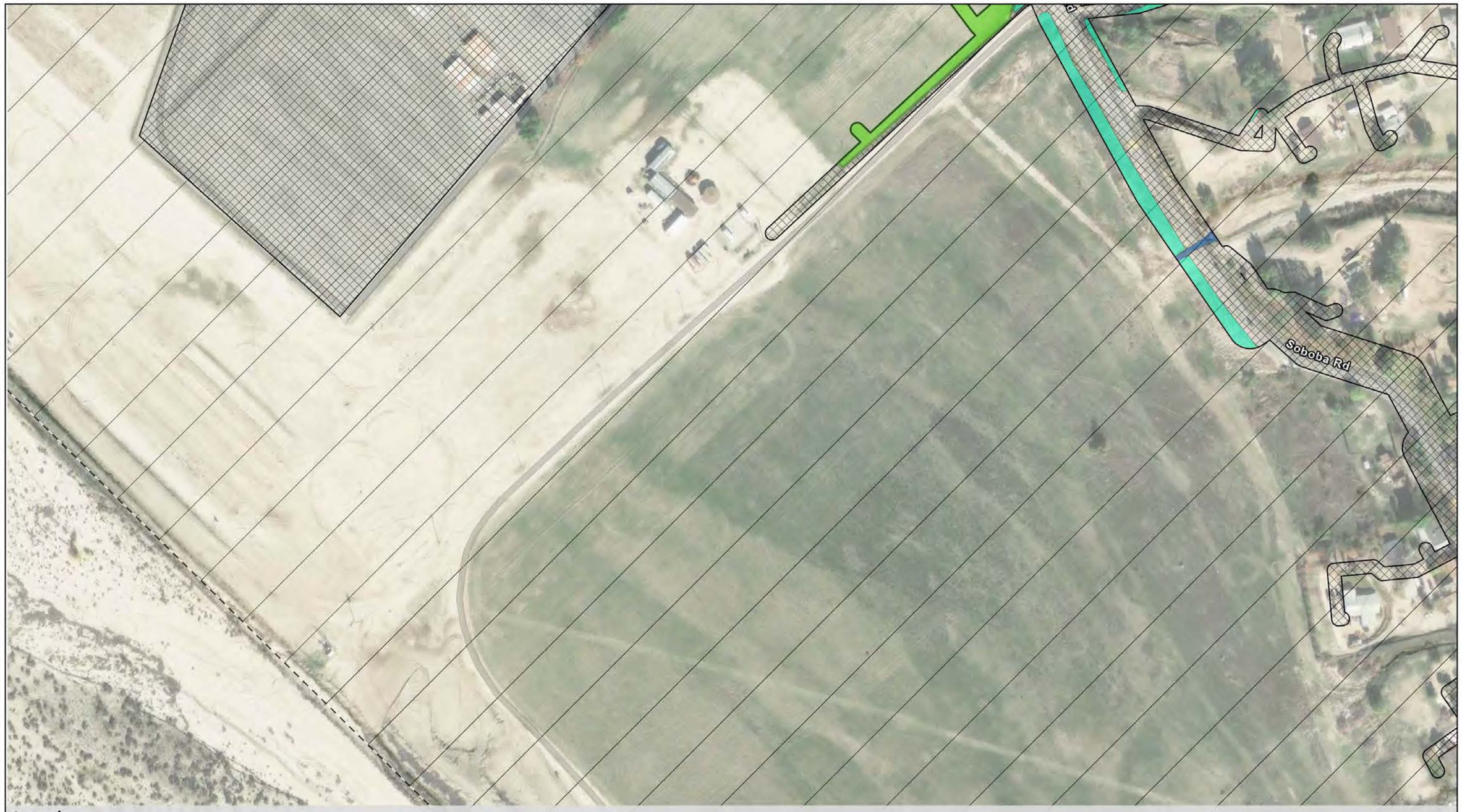


FIGURE: 3-3g
HABITATS



FIGURE: 3-3h
HABITATS



FIGURE: 3-3i
HABITATS



FIGURE: 3-3j
HABITATS



FIGURE: 3-3k
HABITATS



FIGURE: 3-3l
HABITATS



FIGURE: 3-3m
HABITATS

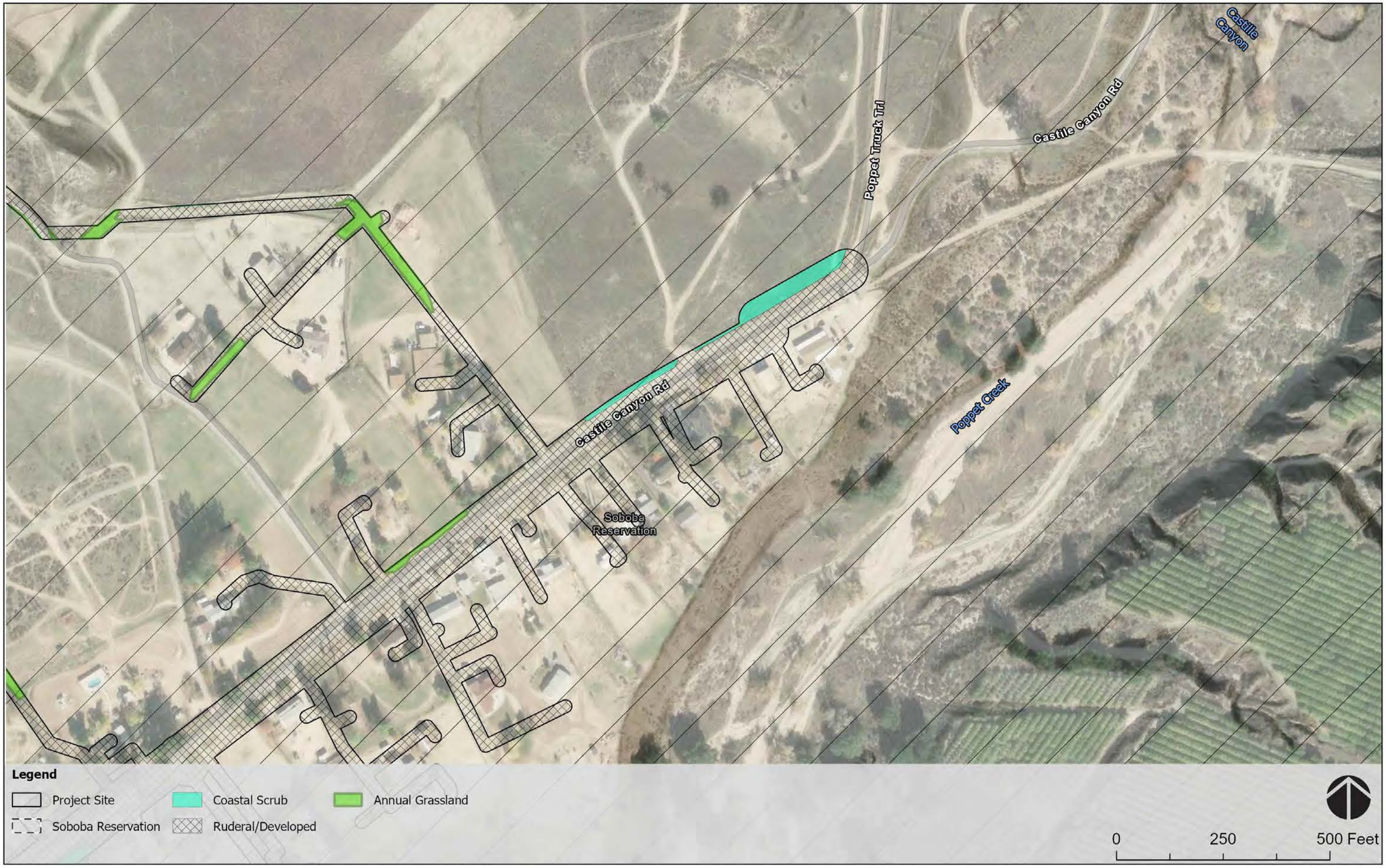


FIGURE: 3-3n
HABITATS

Developed/Disturbed (130.3 acres)

Developed land is intensively used with much of the land paved or covered by structures or landscaped. Vegetation in these areas generally consists of non-native ornamental species (grass in a golf course fairway and greens and residential lawns, flowerbeds, shrubs, and decorative trees). Part of these areas are cleared areas that are generally devoid of vegetation. Disturbed lands contain species adapted to ruderal habitats, which are primarily non-native European grasses and weedy forbs. Clumps of wooded

areas are also present. Some consist of stands of Eucalyptus (*Eucalyptus* spp.), but there are remnants of coast live oak woodlands in a few places.

Channels (0.41 acres)

Potentially Federally Jurisdictional Channels

There are three federally jurisdictional channels in the Project Site. The San Jacinto River crosses the Project Site where a gravity main is proposed to be microtunneled below the channel. It is a braided intermittent channel that is a mixture of river wash and islands of riparian habitat. River wash is a substrate of sand and gravel deposited by flood events. Vegetation is very sparse and consists of colonizers and other early successional species from riparian or grassland communities. Persistent vegetation consists primarily of willow saplings, annual grasses, and mustards. Reeds (*Juncus* spp.) and rushes (*Carex* spp., *Scirpus* spp.) are present in wetter areas. The San Jacinto River is not a Navigable Waterway under Section 10 of the Rivers and Harbors Act or a Traditional Navigable Water per Section 404 of the Clean Water Act (USACE, 2025). Discharges of fill or dredging within the San Jacinto River or the two federally jurisdictional channels described below would require Section 404 permit authorization.

Under Soboba Road northwest of the tribal administrative building, there is a double box culvert that conveys flow from an unnamed ephemeral channel in an arroyo towards the San Jacinto River. Upstream of this culvert, disturbed scrub vegetation is dominant (e.g., Russian thistle, shortpod mustard). After discharging from the box culverts, the channel continues westward towards San Jacinto River. The channel terminates in a sandy agricultural field 1,700 feet short of the active channel of the San Jacinto River.

Southeast of the fire station on Soboba Road, there is a pipe culvert that transmits stormflows from Juaro Canyon and from road ditches towards the San Jacinto River. Upstream of the Project Site, the channel has coastal scrub vegetation. This elliptical pipe culvert discharges into a ruderal field and has created a small alluvial fan. The discharge point is at least 1,500 feet from the San Jacinto River.

Non-Jurisdictional Drainages

There are also non-jurisdictional drainage features in the Project Site, including upland swales, small pipe culverts, and other manmade stormwater control features. At the intersection of Castile Canyon Road and Soboba Road there is a stormwater catchment system. Storm flows dissipate through a long open culvert into a sandy agricultural field 1,400 feet short of the San Jacinto River. There are no wetlands associated with the stormflow discharge point; upland plants are dominant (mustard, barley, chamomile, and tree tobacco). Under Soboba Road at the parking lot of the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches towards the San Jacinto River. This culvert discharges overland onto a large, paved parking lot, where it evaporates, or dissipates as sheetflow to a ruderal field. The discharge point is 2,300 feet from the riverbank. Along Soboba Road near the entrance to the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches under Soboba Road towards the San Jacinto River. This culvert discharges into the remnant stormwater and landscaping facilities.

Stormwater Basins (3.31 acres)

The Project Site is adjacent to, or partially within, three stormwater retention basins that have been excavated in uplands. There is a flood control basin along West Ramona Expressway, approximately 3.0 acres in size. This area is proposed as a material laydown/equipment storage area. This feature is not mapped by NWI. The basin is barren and has no hydrophytes, soils are not hydric, and the seasonally-ponded water is a result of off-channel stormwater control facilities associated with roadways.

A second stormwater basin occurs at the edge of the service road between the casino facilities and the golf course facilities; this basin receives stormwater from the casino parking lots and an upper basin. A gravity main would be installed near this basin.

The third stormwater retention basin is located south of Lake Park Drive near Soboba View Drive; the basin is kept free of vegetation and has no wetland habitats. A gravity main would be installed near this basin.

Federally Listed Species

For the purposes of this assessment, "federally listed species" has been defined to include those species that are listed as Endangered or Threatened under FESA or formally proposed candidates for listing. A USFWS species list was generated and a BA prepared to identify impacts to species with the potential to occur on the Project Site. As discussed in **Appendix F-2**, the following federally listed species have the potential to occur within the Project Site:

- San Diego Ambrosia (*Ambrosia pumila*) – Endangered: Suitable habitat is limited to the San Jacinto River channel.
- San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*) – Endangered: Suitable habitat with the Project Site includes the San Jacinto River channel within the riparian habitat, and the coastal scrub habitat.
- Stephens' Kangaroo Rat (*Dipodomys stephensi*) – Threatened: Suitable habitat for this species occurs in small patches in the Project Site where coastal scrub and adjacent grassland occurs. Based upon survey results, this species is currently absent from the Project Site, but may colonize the site in the future.
- Coastal California Gnatcatcher (*Polioptila californica californica*) – Threatened: Coastal California gnatcatcher has a low potential to occur in the Project Site, and only in the areas containing coastal scrub habitat.
- Least Bell's Vireo (*Vireo bellii pusillus*) – Endangered: The Project Site contains suitable habitat only in the San Jacinto River channel, within the riparian habitat. This habitat may be used for nesting or foraging.
- Southwestern Willow Flycatcher (*Empidonax traillii extimus*) – Endangered: The Project Site contains suitable habitat only in the San Jacinto River channel, within the riparian habitat. This habitat may be used for nesting or foraging.
- Southwestern Pond Turtle (*Actinemys pallida*) – Proposed Threatened: The San Jacinto River is the only water resource that contains water for a long enough period for the needs of southwestern pond turtle. The majority of the Project Site is upland habitat (dispersal only) that experiences high levels of human activity and intensive land management. It is therefore considered sub-optimal dispersal habitat unlikely to be used.

- Arroyo Toad (*Anaxyrus californicus*) – Endangered: Suitable habitat for this species is limited to the San Jacinto River. The majority of the Project Site is unsuitable terrestrial habitat that experiences high levels of human activity and intensive land management. It is therefore considered sub-optimal dispersal habitat unlikely to be used.

Critical Habitat and Essential Fish Habitat

The Project Site is adjacent to, and partially within, designated critical habitat for San Bernardino kangaroo rat. Critical habitat for arroyo toad occurs approximately 0.5 miles east of the Project Site along the floodplain of the upper San Jacinto River and Bautista Creek within Subunit 9a, which is the western-most extent of the Subunit. This critical habitat is shown on **Figure 3-4**. There is no NMFS critical habitat or essential fish habitat within the Project Site (NMFS, 2024a; NMFS, 2024b).

State-Listed Species

For the purposes of this assessment, "State-listed species" has been defined to include: 1) species listed as Threatened or Endangered under the California Endangered Species Act (CESA) or proposed candidates for listing; 2) Fully Protected species, as designated by the California Department of Fish and Wildlife (CDFW); and 3) plant species meeting the definition of 'Rare' or 'Endangered' under CEQA Guidelines 14 CCR § 15125 (c) and/or 14 CCR § 15380, including plants listed on the California Native Plant Society (CNPS) Lists 1A (presumed extinct in California), 1B (rare, threatened, or endangered in California and elsewhere), 2A (presumed extirpated in California, but more common elsewhere), and 2B (rare, threatened, or endangered in California, but more common elsewhere). As discussed in **Appendix F-1**, the following state-listed species have the potential to occur within the Project Site:

- San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*) – Species of Special Concern (SSC): Suitable habitat occurs within portions of Project Site that contain scrub habitat.
- San Diego Desert Woodrat (*Neotoma lepida intermedia*) – SSC: Suitable habitat occurs within portions of Project Site that contain scrub habitat.
- Southern Grasshopper Mouse (*Onychomys torridus*) – SSC: Suitable habitat occurs within portions of Project Site that contain scrub habitat.
- Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*) – SSC: Suitable habitat occurs within portions of Project Site that contain scrub habitat.
- White-Tailed Kite (*Elanus leucurus*) – SSC: Suitable habitat occurs in the San Jacinto River portion of Project Site. This habitat may be used for foraging. Nesting habitat not present.

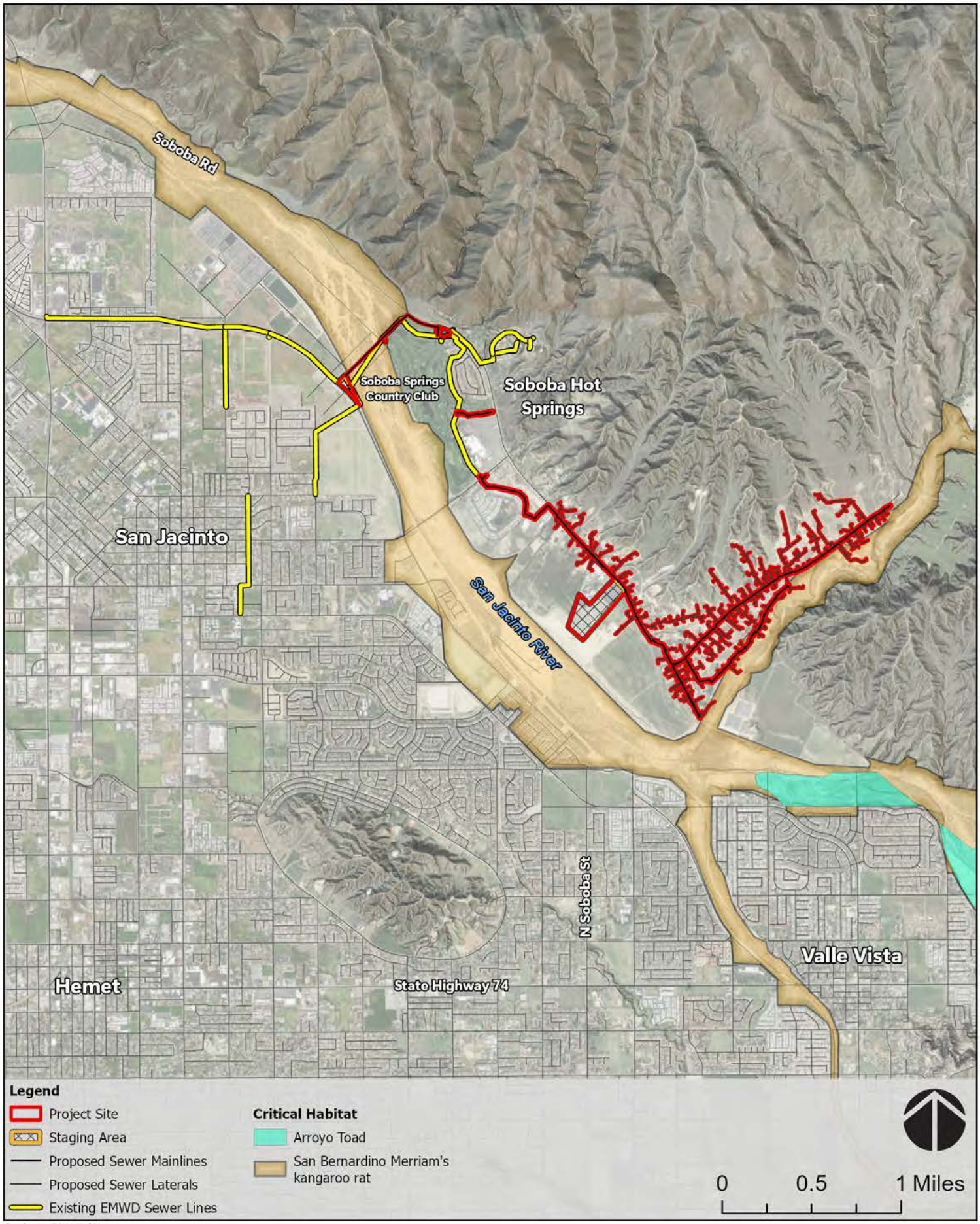
Nearby documented occurrences of both federal- and state-listed species are shown in **Figure 3-5**.

3.4.2 Regulatory Setting

Federal

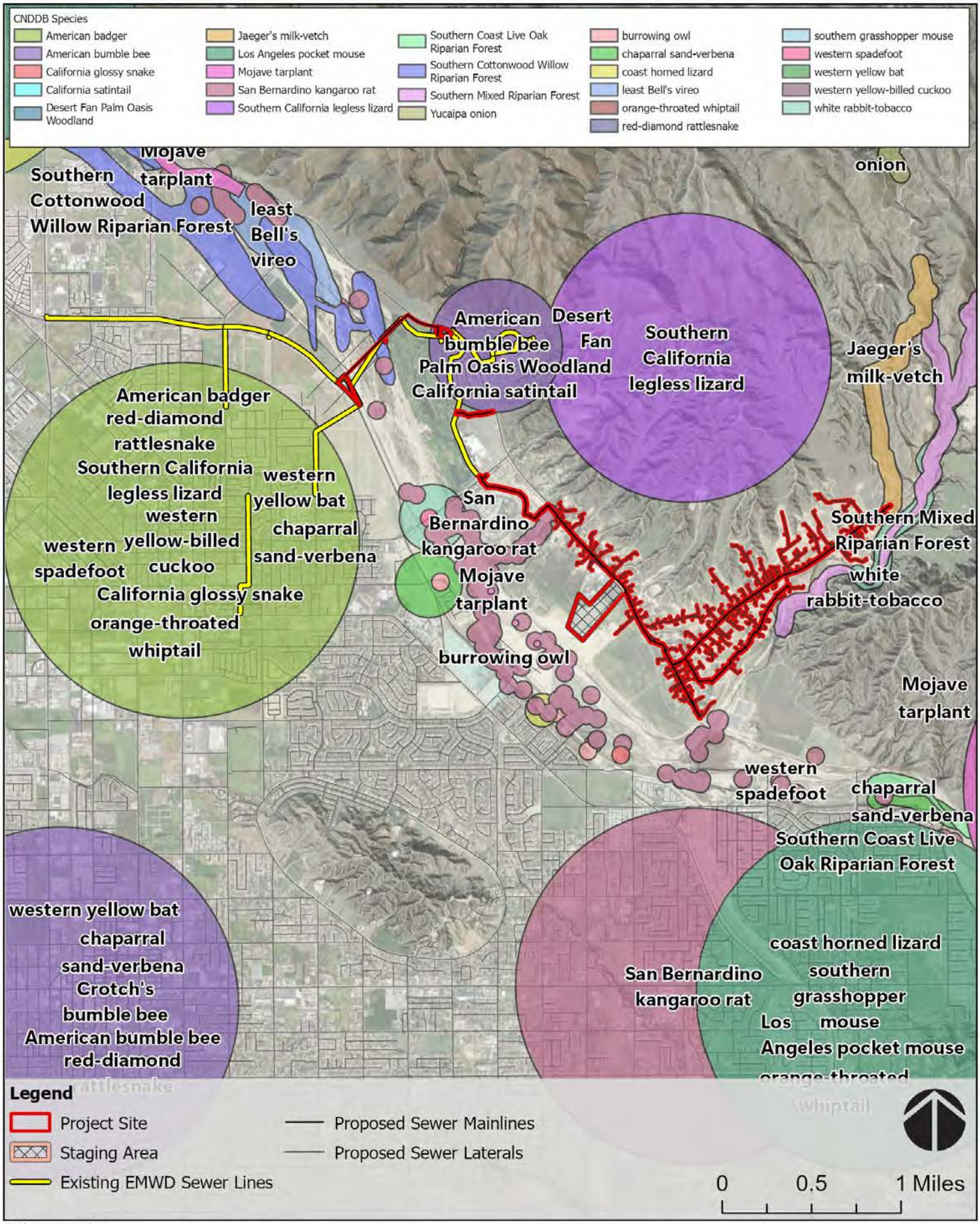
Federal Endangered Species Act

The FESA protects species that are at risk of extinction and provides for the conservation of the ecosystems on which they depend. The USFWS and the National Oceanic and Atmospheric Administration (NOAA), Fisheries Service (NOAA Fisheries) share responsibility for implementing FESA. Generally, USFWS manages terrestrial and freshwater species, while NOAA Fisheries is responsible for marine and anadromous species. Threatened and endangered species on the federal list (50 CFR Sections 17.11 and 17.12) are protected from take, which is defined as direct or indirect harm. If "take" of a listed species is



Earthstar Geographics, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 3-4
CRITICAL HABITAT



Earthstar Geographics, Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User

FIGURE 3-5
CNDDB RESULTS

incidental to an otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for federal agencies.

Pursuant to requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether a federally listed species may be present on the site and whether the proposed project will have a potentially significant impact upon such species. Under the FESA, habitat loss is considered an impact to the species.

In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species that is proposed for listing under the FESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]). Therefore, project-related impacts to these species, or their habitats, would be considered significant.

Magnuson-Stevens Act and Sustainable Fisheries Act

The Magnuson–Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law that governs marine fisheries management in U.S. federal waters. First passed in 1976, the Magnuson-Stevens Act fosters the long-term biological and economic sustainability of marine fisheries. Its objectives include: preventing overfishing; rebuilding overfished stocks; increasing long-term economic and social benefits; ensuring a safe and sustainable supply of seafood; and protecting habitat that fish need to spawn, breed, feed, and grow to maturity.

The Sustainable Fisheries Act of 1996 (Public Law 104-297) amended the Magnuson-Stevens Act to establish new requirements for fishery management councils to identify and describe Essential Fish Habitat (EFH) and to protect, conserve, and enhance EFH for the benefit of fisheries. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The Sustainable Fisheries Act also established a federal EFH consultation process that advises federal agencies to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH. Consultation is required if a federal agency has authorized, funded, or undertaken part or all of a proposed activity and the action will adversely affect EFH.

An adverse effect includes direct or indirect physical, chemical, or biological alternations to waters or substrate, species and their habitat, quality and/or quantity of EFH, or other ecosystem components. If a federal agency determines that an action will not adversely affect EFH, and NOAA Fisheries agrees, no consultation is required. A 2002 update to EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern, specific areas within EFH that have extremely important ecological functions and/or are especially vulnerable to degradation.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. As such, project-related disturbances must be reduced or eliminated during the nesting season. Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC Subsection 668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The definition of take is the same as the definition under the FESA. The USFWS established five recovery programs in the mid-1970s based on geographical distribution of the species, with California located in the Pacific Recovery Region. Habitat conservation efforts in the Pacific Recovery Region, including laws and management practices at federal, state, and community levels, have helped facilitate bald eagle population increases. Critical habitat for bald and golden eagles was not designated as part of the Pacific Recovery Plan created under FESA. Likewise, critical habitat was not designated by regulation under FESA.

In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington where it had already been listed as threatened. In 2007, the bald eagle was federally delisted under FESA. However, the provisions of the act remain in place for protection of bald and golden eagles.

Clean Water Act (Sections 404 and 401)

Any project that involves discharge of dredged or fill material into jurisdictional Waters of the U.S. must first obtain authorization from the USACE, under Section 404 of the Clean Water Act (CWA). Projects requiring a 404 permit under the CWA also require a Section 401 certification from either the USEPA for trust land, or the RWQCB for non-trust land. These two agencies also administer the National Pollutant Discharge Elimination System (NPDES) general permits for construction activities disturbing one acre or more. Effective September 8, 2023, the USEPA and the USACE have issued a new final rule in the Code of Federal Regulations to conform the definition of 'waters of the United States' to the 2023 Supreme Court's May 25, 2023 decision in Sackett vs. EPA. Under the new final rule, tributaries and wetlands must have a continuous surface connection to navigable waterways to be considered jurisdictional under the CWA. Only those relatively permanent, standing, or continuously flowing bodies of water meet the current definition. In certain states where litigation regarding this definition is ongoing, the pre-2015 definition of waters of the U.S. is in effect. California is not one of these states and currently operates under the definition in the new final rule.

State

California Endangered Species Act

CESA declares that certain plant or animal species will be given protection by the state because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The CESA established that it is State policy to conserve, protect, restore, and enhance state-listed species and their habitats. Under State law, plant and animal species may be formally listed by the California Fish and Game Commission. Under CESA, those species that are listed are protected from take. CESA authorizes take that is ancillary to an otherwise lawful activity provided that one of the following occurs:

- For federally and state-listed species: a federal incidental take permit is issued in accordance with Section 10 of the FESA and CDFW certifies the incidental take statement.
- For state listed species that are not federally listed: an incidental take permit is acquired from CDFW consistent with CESA (California Fish & Game Code § 2080.1[a]).

California Fish and Game Code

The California Fish and Game Code defines "take" (Section 86) and prohibits take of a species listed under the CESA (California Fish and Game Code § 2080), or has otherwise been designated as having special status (California Fish and Game Code §§ 3511, 4700, and 5050). Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a State-listed species if specific criteria outlined in Title 14 CCR §§ 783.4(a), (b) and CDFW Code § 2081(b) are met. The CDFW Code § 3503 also states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the code.

Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the taxonomic order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory non-game bird except as provided by rules and regulations adopted by the U.S. Secretary of the Interior under provisions of the MBTA. CDFW cannot provide take authorization under the CESA for impacts to migratory birds.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the California Fish and Game Code designate special-status plant species and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

Local

Riverside County General Plan

Chapter 5 of the Riverside County General Plan includes the County's Multipurpose Open Space Element which contains the County's goals and policies related to biological resources. This includes water resources, forestry resources, vegetation communities, open spaces, and conservation plans. According to the General Plan, the purpose of the Multipurpose Open Space Element is to "addresses protecting and preserving natural resources, agriculture and open space areas, managing mineral resources, preserving and enhancing cultural resources, and providing recreational opportunities for the citizens of Riverside County."

Riverside County Municipal Code

The Riverside County Municipal Code Chapter 12.24.050 requires a permit for the removal of native trees. According to the County code, the planning director may approve tree removal permits if tree removal would not result in increased erosion/ flow of surface water and if one or more of the following are met: (1) the tree presents a public health hazard; (2) the tree density is so great that thinning is necessary to the overall health of the treed area; (3) 50 percent of trees on a property are maintained, with at least half of these in the front yard/visible from the public road; or (4) tree removal is part of construction of residences within an area zoned for residences. Chapter 13.12 provides requirements related to stormwater and other discharges protective of water resources.

Western Riverside Multi-Species Habitat Conservation Plan

The Western Riverside Multi-Species Habitat Conservation Plan (MSHCP) covers the western portion of Riverside County. However, Reservation lands are excluded from the plan area; therefore, the on-Reservation portions of the Project Site are not considered part of the plan area. According to the Western Riverside MSHCP, the plan has the following three overarching goals:

- Biological Goal: In the Western Riverside MSHCP Plan Area, Conserve Covered Species and their Habitats.
- Economic Goal: Improve the future economic development in the County by providing an efficient, streamlined regulatory process through which Development can proceed in an efficient way. The MSHCP and the General Plan will provide the County with a clearly articulated blueprint describing where future Development should and should not occur.
- Social Goal: Provide for permanent open space, community edges, and recreational opportunities, which contribute to maintaining the community character of Western Riverside County.

The Western Riverside MSHCP provides a streamlined review of proposed development projects and a review of potential impacts and necessary avoidance and minimization measures for federally listed species.

The Western Riverside MSHCP, in addition to being a Habitat Conservation Plan, is also considered a Natural Communities Conservation Plan (NCCP). An NCCP Permit issued through the Western Riverside MSHCP by CDFW provides a streamlined review of proposed development projects and a review of potential impacts and necessary avoidance and minimization measures for state-listed species.

City of San Jacinto General Plan

Chapter 6 of the City of San Jacinto's 2040 General Plan contains the City's Resource Management Element and the City's goals related to biological resources. According to the City's General Plan, the goal of biological resource protection is to "preserve and enhance biological communities that contribute to the region's biodiversity, with a special focus on sensitive, rare, or endangered plant and wildlife species in accordance with state and federal resource agency requirements." Additionally, the City's General Plan aims to address its conservation and resource protection goal through "[cooperating] with the County of Riverside to develop and manage preserve areas within the urban landscape. During the review of development proposals, use the Western Riverside MSHCP Habitat Conservation Plan (particularly Section 3.2.13 San Jacinto Valley Area Plan) to help assess potential project impacts and mitigation requirements."

3.4.3 Impact Assessment

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

Less than Significant with Mitigation.

Federally Listed Species

A discussion is provided below by species for those federally-listed species with potential to occur within the Project Site. A detailed discussion is provided in Section 5.2 of **Appendix F-2**. As noted in **Section 3.4.1**, the off-Reservation portion of the Project Site falls within the Western Riverside MSHCP. The BA prepared for the Proposed Project was submitted to USFWS to facilitate Section 7 consultation and determined that the Proposed Project may affect but is unlikely to adversely affect San Bernardino kangaroo rat. The Biological Assessment also determined that there would be no effect to other FESA species, including critical habitat, with consideration of conservation measures identified within the Biological Assessment. On March 28, 2025, a response was received from the USFWS that acknowledged the Biological Assessment determined that the Proposed Project may affect but is unlikely to adversely affect San

Bernardino kangaroo rat. The USFWS concurred with this determination with consideration of the conservation measures proposed therein.

This section below provides consistency with the FESA through project-specific informal consultation with USFWS for the Project Site as a whole. Consistency with the Western Riverside MSHCP is discussed in detail under Biological Resources Question (f).

Construction BMPs outlined in **Table 2.3-1** would be applicable to all species below and would include measures such as properly collecting trash, a prohibition against personnel pets at the Project Site, and allowing wildlife within the Project Site to pass unharmed. As operation of the Proposed Project would not result in ongoing ground disturbance, and temporarily disturbed habitat would be restored to pre-construction conditions, the assessment below focuses on construction impacts.

San Diego Ambrosia (Ambrosia pumila)

Suitable habitat for this species is limited to the San Jacinto River channel. As discussed above, direct impacts to riparian habitat and the San Jacinto River channel would not occur. The gravity main would be installed at least 10.5 feet below the river channel, so there will be no disturbance to this area of suitable habitat. Thus, implementation of the Proposed Project would have no impact on San Diego ambrosia.

Slender-horned Spineflower (Dodecahema leptoceras)

Suitable habitat for this species is limited to coastal scrub habitat. This species was not observed; however, this species may establish within coastal scrub over time. Coastal scrub habitat within the Project Site is limited to slivers of habitat at the eastern end of the proposed sewer alignments along Poppet Flats Road and at the upper end of some of the proposed lateral lines. Impacts would be temporary; therefore, loss of habitat would not occur. Should slender-horned spineflower establish within coastal scrub habitat, take of individuals could occur. This would be a significant impact. **Mitigation Measure BIO-1** in **Section 3.4.4** would require a preconstruction botanical survey of coastal scrub habitat prior to impacts to coastal scrub habitat to ensure this species is absent. If observed, **Mitigation Measure BIO-1** requires the preparation of a salvage and mitigation plan in consultation with USFWS to ensure individual slender-horned spineflowers are salvaged or replaced through compensatory plantings. This would be a less-than-significant impact with mitigation.

San Bernardino Kangaroo Rat (Dipodomys merriami parvus)

Potential habitat for San Bernardino kangaroo rat occurs only in small patches where coastal scrub or riparian habitat is present. Direct impacts to riparian habitat are not anticipated. Coastal scrub habitat within the Project Site is limited to slivers of habitat at the eastern end of the proposed sewer alignments along Poppet Flats Road and at the upper end of some of the proposed lateral lines. Impacts would be temporary; therefore, loss of habitat would not occur.

The Project Site is currently unoccupied by San Bernardino kangaroo rat (**Appendix F-2**). Consultation with the USFWS occurred under Section 7 of the ESA, which determined that the Proposed Project, with implementation of Conservation Measures included in **Table 2.3-1,** may affect but would not adversely affect San Bernardino kangaroo rat (**Appendix F-4**). Because there remains a possibility, although unlikely, that San Bernardino kangaroo rat could migrate into construction areas, there is a low potential that construction activities could result in injury or mortality of San Bernardino kangaroo rat. This would be a significant impact. **Mitigation Measures BIO-2 and BIO-3** includes impact avoidance measures, including a pre-construction survey of suitable habitat for San Bernardino kangaroo rats by a permit-holding

biologist, construction BMPs, worker environmental awareness training, and periodic biological monitoring. Should evidence of San Bernardino kangaroo rat occupation of the Project Site be observed during the preconstruction survey, the Proposed Project will be re-aligned to fully avoid this species, or the individuals will be translocated through consultation with USFWS. With implementation of these measures, the Proposed Project is not expected to result in take of San Bernardino kangaroo rats during construction. With consideration of Conservation Measures included in **Table 2.3-1** and mitigation, impacts to San Bernardino kangaroo rat would be less than significant.

Stephens' Kangaroo Rat (Dipodomys stephensi)

Potential habitat for Stephens' kangaroo rat occurs only in small patches within the Project Site where coastal scrub, grassland habitats, or riparian habitat is present. Impacts to riparian habitat would not occur. Grassland and coastal scrub occurs in the eastern end of the proposed sewer alignments along Poppet Flats Road; at the upper end of some of the proposed lateral lines; and the riparian habitat within the San Jacinto River channel. The Project Site is currently unoccupied by Stephen's kangaroo rat (**Appendix F-2**). Because there is a possibility, although unlikely, that Stephen's kangaroo rat could migrate into construction areas, there is a low potential that construction activities could result in injury or mortality of Stephen's kangaroo rat. This would be a significant impact. **Mitigation Measures BIO-2 and BIO-3** includes impact avoidance measures, including a pre-construction survey of suitable habitat for Stephen's kangaroo rats by a Service-approved biologist, construction BMPs, worker environmental awareness training, and periodic biological monitoring. Should evidence of Stephen's kangaroo rat occupation of the Project Site be observed during the preconstruction survey, the Proposed Project will be re-aligned, or the individuals will be translocated through consultation with USFWS. With implementation of these measures, the Proposed Project is not expected to result in take of Stephen's kangaroo rats during construction. With consideration of mitigation, impacts to San Bernardino kangaroo rat would be less than significant.

Coastal California Gnatcatcher (Polioptila californica californica)

Coastal California gnatcatcher has a low potential to occur in the Project Site, and only in the areas containing coastal scrub habitat. This includes low potential to nest in the coastal scrub habitat. As discussed above, impacts would be limited to temporary construction impacts. Construction activities could result in disturbance of nesting birds. Disturbance of nesting coastal California gnatcatcher would be a significant impact. **Mitigation Measure BIO-6** contains impact avoidance measures including a pre-construction survey for nesting birds and the implementation of avoidance measures if nesting birds are detected, such as postponing project activities until the nest is no longer active, or installing a disturbance-free buffer. Because potential impacts would be avoided, this would be a less-than-significant impact with mitigation.

Least Bell's Vireo (Vireo bellii pusillus)

The Project Site contains suitable habitat, including nesting habitat, in the San Jacinto River channel. As discussed above, impacts to the San Jacinto River channel would not occur. However, noise-generating construction activities could still result in disturbance of nesting birds. Disturbance of nesting Least Bell's vireo would be a significant impact. **Mitigation Measure BIO-6** contains impact avoidance measures including a pre-construction survey for nesting birds and the implementation of avoidance measures if nesting birds are detected, such as postponing project activities until the nest is no longer active, or installing a disturbance-free buffer. Because potential impacts would be avoided, this would be a less-than-significant impact with mitigation.

Southwestern Willow Flycatcher (Empidonax traillii extimus)

The Project Site contains suitable habitat, including nesting habitat, in the San Jacinto River channel. As discussed above, impacts to the San Jacinto River channel would not occur. However, noise-generating construction activities could still result in disturbance of nesting birds. Disturbance of nesting southwestern willow flycatcher would be a significant impact. **Mitigation Measure BIO-6** contains impact avoidance measures including a pre-construction survey for nesting birds and the implementation of avoidance measures if nesting birds are detected, such as postponing project activities until the nest is no longer active, or installing a disturbance-free buffer. Because potential impacts would be avoided, this would be a less-than-significant impact with mitigation.

Southwestern Pond Turtle (Actinemys pallida)

Suitable habitat for southwestern pond turtle within the Project Site is limited to the San Jacinto River channel. The Project Site does not contain any known populations of southwestern pond turtle, and the nearest known population is more than four times the longest known overland migration of this species (**Appendix F-2**). It is considered unlikely to disperse through the Project Site. Further, impacts to the San Jacinto River channel itself would not occur, and impacts to adjacent habitat would be limited to temporary disturbance to developed land within the golf course and the barren stormwater detention pond. Neither of these areas provide suitable nesting or aestivation habitat.

Impacts to southwestern pond turtle would therefore be limited to potential injury or mortality to southwestern pond turtles that may cross the Project Site. This would be a potentially significant impact. Because there is a possibility, although unlikely, that southwestern pond turtle could migrate into construction areas, **Mitigation Measures BIO-2** and **BIO-5** outlines impact avoidance measures to address this issue. These measures include a pre-construction clearance survey for southwestern pond turtle, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed Project is not expected to result in the direct take (mortality) of southwestern pond turtle. Therefore, impacts would be less than significant with mitigation.

Arroyo Toad (Anaxyrus californicus)

Suitable habitat for arroyo toad within the Project Site is limited to the San Jacinto River channel. Natural upland areas immediately adjacent to the San Jacinto River channel provide terrestrial habitat. The Project Site does not contain any known populations of arroyo toad, and the nearest record of arroyo toad reported in the California Natural Diversity Database (CNDDB) is over five times the average dispersal distance of this species (**Appendix F-2**). Thus, the likelihood of this species dispersing through the Project Site is low. Further, land that would be temporarily disturbed by the Proposed Project adjacent to the San Jacinto River would be limited to developed land within the golf course and the barren stormwater detention pond. Neither of these areas provide suitable aestivation habitat. Therefore, potential for Arroyo toad to occur within the Project Site is limited to low potential within the San Jacinto River channel and a low potential for individuals to disperse through the Project Site within undeveloped lands.

Direct impacts to arroyo toad would therefore be limited to potential injury or mortality to arroyo toads that may cross the Project Site. This would be a potentially significant impact. Because there is a possibility, although unlikely, that arroyo toad could migrate into construction areas, **Mitigation Measures BIO-2** and **BIO-5** outlines impact avoidance measures to address this issue. These measures include a pre-construction clearance survey for arroyo toad, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed

Project is not expected to result in the direct take (mortality) of arroyo toad. Therefore, impacts would be less than significant with mitigation.

Indirect impacts to arroyo toad could result from habitat disturbance or degradation. The Proposed Project will require temporary ground disturbance in some areas of suitable habitat, but there will be no permanent habitat conversion or indirect take from habitat loss. At the San Jacinto River, ground disturbance will be limited to the excavation of a bore pit at the golf course near the San Jacinto River bank; this temporary construction footprint is less than 400 square feet. The gravity main will be microtunneled at least 10.5 feet below the river channel. Finally, construction activities have the potential to degrade nearby aquatic habitat through release of impaired runoff from accidental spill of common construction materials or sedimentation from disturbance of soils. However, as discussed in **Section 4.2.2**, the Proposed Project would be subject to the NPDES Construction General Permit and a site-specific SWPPP that would contain BMPs to ensure that aquatic habitats are not degraded during construction. Therefore, implementation of the Proposed Project would have a less-than-significant impact on arroyo toad with consideration of mitigation.

Critical Habitat and Essential Fish Habitat

There is no NMFS critical habitat or EFH within or in close proximity to the Project Site. Therefore, there would be no effect to NMFS critical habitat or EFH. The Project Site is, however, partially within critical habitat for San Bernardino kangaroo rat. The Project Site overlaps this critical habitat designation in two locations: on the western end of the Project Site in the San Jacinto River where the proposed 15-inch gravity line would be installed at least 10.5 feet under the channel; and on the eastern end of the proposed sewer alignments along Poppet Flats Road and Castile Canyon Road.

Microtunneling under the San Jacinto River channel will not require any ground disturbance within the channel. Ground disturbance would be limited to the excavation of a bore pit outside of the San Jacinto riverbank and within the disturbed area at the edge of the golf course. This temporary construction footprint is less than 400 square feet. Access to this bore pit will be through the golf course. On the other end of the river, the bore pit will be excavated on the outside of the levee in a ruderal area. The gravity main will be installed at least 10.5 feet below the river channel. Therefore, alterations to critical habitat within the San Jacinto River channel would not occur.

Some of the proposed sewer mains and laterals along Poppet Flats Road and Castile Canyon Road are within mapped critical habitat for San Bernardino kangaroo rat, but the pipes will be installed primarily under roads and other ruderal and developed areas that do not contain suitable habitat for San Bernardino kangaroo rat. The proposed sewer line installations will require trenching to bury the lines deep underground. This will temporarily disturb a long but narrow path of ground, and the disturbed areas will be restored to their original conditions and re-vegetated or re-paved. No permanent habitat conversion will occur. Therefore, potential impacts would be limited to temporary construction impacts concentrated within habitat that is unsuitable for San Bernardino kangaroo rat. This would be a less-than-significant impact to critical habitat.

State-Listed Species

A discussion is provided below by species of those state-listed species with potential to occur within the Project Site (**Appendix F-1**). Although state-listed species are generally not afforded special protections on federal trust land, the Band has committed to implementation of biological resources mitigation consistently across both the on- and off-Reservation aspects of the Project Site. Further, as a project BMP, wildlife observed within a construction area would be allowed to leave unharmed, regardless of status.

San Diego Black-Tailed Jackrabbit (Lepus californicus bennettii)

San Diego black-tailed jackrabbit has the potential to forage or pass through scrub habitat, though the likelihood is reduced due to the small and degraded condition of this habitat. Impacts to San Diego black-tailed jackrabbit would therefore be limited to potential injury or mortality to individuals that may cross through scrub habitat within the Project Site during construction. This would be a potentially significant impact. Because there is a possibility, although unlikely, that San Diego black-tailed jackrabbit could migrate into construction areas, **Mitigation Measures BIO-2** and **BIO-3** outline impact avoidance measures to address this issue. These measures include a pre-construction clearance survey for San Diego black-tailed jackrabbit, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed Project is not expected to result in the direct take (mortality) of San Diego black-tailed jackrabbit. Therefore, impacts would be less than significant with mitigation.

San Diego Desert Woodrat (Neotoma lepida intermedia)

San Diego desert woodrat has the potential to forage or pass through scrub habitat, though the likelihood is reduced due to the limited and degraded condition of this habitat. Middens were not observed during biological surveys and are not expected to occur within the Project Site due to the high level of surrounding disturbance and small area of suitable habitat on the Project Site. Impacts to San Diego desert woodrat would therefore be limited to potential injury or mortality to individuals that may cross through scrub habitat within the Project Site during construction. This would be a potentially significant impact. Because there is a possibility, although unlikely, that San Diego desert woodrat could migrate into construction areas, **Mitigation Measures BIO-2** and **BIO-3** outline impact avoidance measures to address this issue. These measures include a pre-construction clearance survey for San Diego desert woodrat, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed Project is not expected to result in the direct take (mortality) of San Diego desert woodrat. Therefore, impacts would be less than significant with mitigation.

Southern Grasshopper Mouse (Onychomys torridus)

Southern grasshopper mouse is a SSC but is not afforded protection under FESA or CESA. Southern grasshopper mouse has the potential to forage or pass through scrub habitat, though the likelihood is reduced due to the small area and degraded condition of this habitat on the Project Site. Additionally, southern grasshopper mouse may burrow within scrub habitat within the Project Site. Therefore, potential impacts to this species are similar to Stephen's kangaroo rat and would consist of injury or mortality of southern grasshopper mouse crossing the scrub habitat within Project Site, or to burrows within scrub habitat, if present. This would be a significant impact. **Mitigation Measures BIO-2** and **BIO-3** include impact avoidance measures, including a pre-construction survey of suitable habitat for southern grasshopper mouse by a CDFW-approved biologist, construction BMPs, worker environmental awareness training, and periodic biological monitoring. Should evidence of southern grasshopper mouse occupation of the Project Site be observed during the preconstruction survey, the Proposed Project will be re-aligned,

or the individuals will be translocated through consultation with CDFW. With implementation of these measures, the Proposed Project is not expected to result in take of southern grasshopper mouse during construction. With consideration of mitigation, impacts to southern grasshopper mouse would be less than significant.

Los Angeles Pocket Mouse (Perognathus longimembris brevinasus)

Los Angeles pocket mouse is a SSC but is not afforded protection under FESA or CESA. Los Angeles pocket mouse has the potential to forage or pass through scrub habitat, though the likelihood is reduced due to the small area and degraded condition of this habitat on the Project Site. Additionally, Los Angeles pocket mouse may burrow within the San Jacinto River channel. As discussed above, impacts to the San Jacinto River channel would not occur. Therefore, potential impacts to this species are limited to injury or mortality of Los Angeles pocket mouse crossing the scrub habitat within Project Site. This would be a significant impact. **Mitigation Measures BIO-2** and **BIO-3** include impact avoidance measures, including a pre-construction survey of suitable habitat for Los Angeles pocket mouse by a CDFW-approved biologist, construction BMPs, worker environmental awareness training, and periodic biological monitoring. Should evidence of Los Angeles pocket mouse occupation of the Project Site be observed during the preconstruction survey, the Proposed Project will be re-aligned, or the individuals will be translocated through consultation with CDFW. With implementation of these measures, the Proposed Project is not expected to result in take of Los Angeles pocket mouse during construction. With consideration of mitigation, impacts to southern grasshopper mouse would be less than significant.

White-Tailed Kite (Elanus leucurus)

Suitable habitat for this species is limited to foraging over the San Jacinto River channel. As discussed above, impacts to the channel would not occur. Nesting habitat was not observed, and it is not anticipated that this species would nest on or in the vicinity of the Project Site. Measures protective of nesting birds in general are discussed below. There would be no significant impacts to white-tailed kite.

Nesting and Migratory Birds

The Project Site and vicinity provide potential nesting habitat for migratory birds and other birds of prey. If active nests are present in these areas, ground-disturbing activities associated with development of the Proposed Project could adversely affect these species through sensory disturbance of nests. With the implementation of mitigation identified in **Mitigation Measure BIO-5**, which includes pre-construction surveys and placement of disturbance-free buffers around active nests, potential adverse effects to nesting birds during construction would be reduced to less than significant.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant. Sensitive habitats within the Project Site include riparian habitat, channels, and grassland identified as habitat important for grassland connectivity in MSHCP Criteria Cells 2893 and 2996. Channels are discussed under question (c), and riparian habitat has been avoided through project design.

Sensitive habitats are also identified in the MSHCP by specific planning areas called “criteria cells,” which are 160 acres in size and are eligible for the creation of land preserves. After excluding the portions of the Project Site that are owned by non-signatories to the MSHCP (the Band and EMWD), the remaining portions of the Project Site are located in three cells:

- Criteria Cell 2996, where a proposed mainline crosses Lake Park Drive;
- Criteria Cell 3100, where a proposed mainline will be installed under Soboba Road near the fire station; and
- Criteria Cell 2893, where the proposed gravity main will be installed under the San Jacinto River channel.

The MSHCP conservation criterion for Cell Group Z, which contains cells 2893 and 2996, are the conservation of grassland habitat west of the San Jacinto River with connectivity to grassland habitats in adjacent cells south of East Main Street/Lake Park Drive; no new habitat conservation is identified for cell 3100. No habitat conservation is targeted in the location of the Project Site. Grasslands within the Project Site are extremely limited and degraded due to the presence of non-native species and adjacent development. These areas would only be temporarily impacted and would be restored following construction. Therefore, there would be no loss of grassland habitat within criteria cells. This would be a less-than-significant impact.

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

Less than Significant with Mitigation.

Federally Jurisdictional Waters of the U.S. and Waters of the State

No wetlands occur within or adjacent to the Project Site. As discussed further in **Section 3.10**, the potential for indirect impacts to water quality from construction would be less than significant with consideration of the necessary NPDES permit and site-specific SWPPP and BMPs. Therefore, this section considers potential direct impacts resulting from construction. The two culverted waters of the U.S. channels (C4 Juaro Canyon and C1 unnamed) would not be impacted by project construction activities because the proposed sewer pipelines would be drilled below the culverts within the roadway using jack-and-bore technique, and no direct or indirect impacts to the channels would occur. Therefore, a Section 404 permit would not be required for the construction of the pipeline below culvert C1 and C4.

Installation of the gravity mainline under the San Jacinto River (water of the U.S. and State) will be accomplished by microtunneling, and the entry and exit boring pits are located outside of the levees to avoid any direct impacts to the stream channel or its banks. However, microtunneling uses drilling lubricants such as bentonite clay, which carries a risk that drilling lubricants may accidentally rise to the surface via fractures in bedrock (an event known as “frac-out”). This would be a significant impact. To ensure that drilling lubricants do not accidentally rise to the surface via fractures in bedrock, a frac-out contingency plan has been drafted and would be implemented to avoid the potential for significant indirect impacts to water quality (see the discussion in **Section 3.10.3**). With implementation of **Mitigation Measure HYD-2**, impacts to waters of the U.S. or State would be less than significant.

Other Non-Jurisdictional Drainages

There are small water features or man-made storm drain systems that convey runoff through and around the Project Site. As discussed above, during construction, surface water quality has the potential to be degraded from storm water transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling.

As discussed above, the potential for indirect impacts to water quality from construction would be less than significant with consideration of the necessary NPDES permit and site-specific SWPPP and BMPs.

Water Quality

Implementation of the Proposed Project will have a beneficial effect upon the environment by the replacement of aging septic systems and seepage pits with a sewer collection system and centralized sewage treatment. Septic systems inject unsanitized water, which can contain chemicals, excess nutrients, and bacteria, into the ground, which can contribute incrementally to environmental degradation, especially to aquatic habitats. Seepage pits can generally be more impactful due to the vertical nature of the drainage field. The retirement of these septic systems is expected to result in the restoration of normal nutrient cycling in terrestrial habitats and improved water quality in aquatic habitats.

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?

No Impact. No designated wildlife corridors exist within the majority of the Project Site. The exception is the part of the Project Site that is below the San Jacinto River, which is an important wildlife corridor. The San Jacinto River contains fishery resources but is not within designated Essential Fish Habitat or NMFS critical habitat for any fish species. Impacts to the San Jacinto River corridor were avoided by project design (use of microtunneling instead of trenching and locating entrance and receiving pits outside of the river corridor). The Proposed Project would restore any impacted surfaces to pre-project conditions and all project components would be below ground. The only permanent above-ground project component is the levee ramp that would extend from the existing golf cart to the terminus of the existing levee and provide access to the proposed manhole near the edge of the Band's golf course. This gravel access road would not block wildlife movement. No impact would occur.

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

No Impact. Lands within the Band's Reservation are not subject to local municipal policies or ordinances. Additionally, the Band does not have Tribal ordinances related to biological resources that would be applicable to the Proposed Project. Although not subject to local policies or ordinances, the Proposed Project would not involve tree removal or other actions that would be inconsistent with local policies and ordinances that apply to off-Reservation lands. Off-Reservation lands depicted in **Figure 1-3** are subject to local policies and ordinances. As noted above, the Proposed Project does not involve actions that would conflict with local policies or ordinances. There would be no impact.

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?

Less than Significant with Mitigation. The off-Reservation portions of the Project Site are located within Criteria Cells of the MSHCP: the portion of the gravity main alignment that will be installed under the San Jacinto River (Criteria Cell 2893); the portion of the mainline that will be installed within Lake Park Drive (Criteria Cell 2996); and the 350-foot length of the mainline that will be installed under Soboba Road (near the Soboba fire station) where the road is County-owned (Criteria Cell 3100). Therefore, an MSHCP consistency analysis is presented below.

MSHCP Consistency Analysis

Three off-Reservation portions of the Project Site are located within Criteria Cells of Subunit 3, Upper San Jacinto River/Bautista Creek and within Core Area 5; however, only one of the three areas (the San Jacinto River portion) requires a detailed consistency analysis. The other two portions of the Project Site (Lake Park Drive and Soboba Road) are designated as Covered Roads and these two project areas are paved roads with no natural habitats. Thus, while they are within Criteria Cells, these project areas are not eligible for Reserve Assembly because they are Covered Roads. The MSHCP does not include existing roads within the Criteria Area in the total acreage of Additional Reserve Lands and are not included in the MSHCP Conservation Area. These two project areas will only require temporary disturbance to pavement and road beds. In order to ensure construction methodologies are consistent with the MSHCP and to avoid any potential indirect impacts to habitat, applicable BMPs contained within the MSHCP Volume 1, Appendix C, Standard BMPs and MSHCP Volume 1, Section 7.5.3, Construction Guidelines are included as **Mitigation Measures BIO-4** and **BIO-7** in **Section 3.4.4**. As such, these two portions of the Project Site are consistent with the MSHCP and do not require land preservation.

The remaining off-Reservation project area below the San Jacinto River is further analyzed for consistency with the MSHCP. Land disturbance during construction is temporary and is confined to two small areas of the microtunneling at the entry pit (about 250 square feet) and the receiving pit (about 150 square feet). Near the receiving pit, a small (0.2-acre) levee ramp is proposed to connect the existing golf cart path with the terminus of the existing levee. A small staging area approximately 3.4 acres in size would be located on EMWD property adjacent to the entry pit on the southwestern side of the river that is currently graded and used for stormwater retention. None of these areas are eligible for Reserve Assembly because they are already developed lands. The entry pit and staging area are located adjacent to West Ramona Expressway at the outside base of a levee on an unpaved EMWD service road, the receiving pit is located on the Soboba Springs Golf Course in a landscaped area, and the short gravel levee ramp is located in a heavily disturbed area between the end of the golf cart path and the end of the existing levee. In between these pits, the proposed gravity mainline will be installed at least 10.5 feet below the San Jacinto River channel. Water resource protection measures have been prescribed to ensure that the microtunneling procedure does not impact water quality in the San Jacinto River. In addition, the construction activities will comply with the MSHCP BMPs (**Mitigation Measure BIO-7** in **Section 3.4.4**). This Project Site is near sensitive habitat (San Jacinto River and riparian habitat) and riparian bird habitat, and to be consistent with the MSHCP, potential impacts to the following categories need to be analyzed: riparian/riverine resources; vernal pools; fairy shrimp; and riparian birds.

Riparian/riverine resources exist in the Project Site only where the gravity mainline will be installed under the San Jacinto River. Impacts to the San Jacinto River corridor will be avoided by project design (use of microtunneling instead of trenching, and locating entrance and receiving pits outside of the river corridor and levees). The San Jacinto River will also be protected by implementation of the conservation measures described previously (e.g., worker environmental awareness training, biological monitoring, and construction BMPs). There are no vernal pools in or near the Project Site. There is no habitat for fairy shrimp in or near the Project Site. Riparian birds could utilize the Project Site primarily in the San Jacinto River channel; suitable habitat also occurs on the outer edges of the Project Site where coastal scrub habitat is present. Project implementation will not result in any habitat loss for riparian birds. Riparian birds will be protected by performance of pre-construction nesting bird surveys, as well as the implementation of worker environmental awareness training, biological monitoring, and construction BMPs. Thus, implementation of the Proposed Project is consistent with the MSHCP goal of the protection of riparian/riverine resources, vernal pools, fairy shrimp, and riparian birds.

Finally, to be consistent with the MSHCP, land development projects must not impact conservation criteria or Planning Species that are designated in Cell Group Z, the Subunit 3, Upper San Jacinto River/Bautista Creek, or in Core Area 5. The MSHCP conservation criterion for Cell Group Z, which contains cells 2893 and 2996, are the conservation of grassland habitat west of the San Jacinto River with connectivity to grassland habitats in adjacent cells south of East Main Street/Lake Park Drive; no new habitat conservation is identified for cell 3100. No habitat conservation is targeted in the location of the Project Site. Implementation of the Proposed Project will not create new barriers to animal movement and will not result in the permanent loss of grassland habitats, although temporary disturbances may occur to small grassland patches. These areas will be restored and reseeded. The Planning Species for Core Area 5 are mountain yellow-legged frog, arroyo toad, least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, and Los Angeles pocket mouse. These Planning Species are not likely to occur in the Project Site, and measures are provided to avoid construction-related impacts. Therefore, the Proposed Project is consistent with the MSHCP.

It is noted that work within the on-Reservation portion of the Project Site would be consistent with the MSHCP as well for the same reasons as above, even though the MSHCP would not apply. The MSHCP did not consider the Reservation within its bounds and met conservation goals with the expectation that no land would be preserved on the Reservation and that development and tribal sovereignty would not be affected by the MSHCP.

3.4.4 Mitigation Measures

BIO-1: Pre-Construction Botanical Survey

Prior to any construction activities that would disturb coastal scrub habitat, a qualified biologist or botanist shall perform a pre-construction botanical survey within these areas to ensure that slender-horned spineflower is not present in work areas. Although this species is conspicuous year-round, the botanical survey would ideally be performed in the blooming period (from April to July). The pre-construction botanical survey shall be valid for no more than three years; if construction within coastal scrub habitat is not initiated within three years after the botanical surveys, the survey shall be repeated, during the appropriate blooming period if possible.

If slender-horned spineflower is detected, these plants shall be avoided and demarcated with exclusion fencing and signage. Where avoidance is not possible, a plant salvage and mitigation program shall be implemented. Project activities within 50 feet of the identified plants shall be delayed until after a qualified biologist has prepared a plant salvage and mitigation program, the outline of which is described below. The plant salvage and mitigation program shall be submitted to CDFW and USFWS for approval prior to impacting any listed plants.

The plant salvage and mitigation program shall consist of the following:

- Identification of the number and locations of impacted plants
- Salvage/mitigation options to include collection of seeds and sowing of the seeds in the fall/winter in suitable habitats where construction has been completed
- Management actions such as covering with a weed-free mulch like sterile (pasteurized) wheat straw, and removal of weeds or supplemental watering
- A monitoring and adaptive management program that outlines success criteria and actions to be taken should such criteria not be met, developed in consultation with USFWS

BIO-2: Worker Awareness Training and Construction Monitoring

Prior to construction, all construction workers shall take part in an environmental awareness program conducted by a qualified biologist. Special-status species to be covered in the program are: San Bernardino kangaroo rat, Stephen's kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, Los Angeles pocket mouse, southwestern pond turtle, arroyo toad, and general nesting birds. This training shall include a description of the listed species with the potential to occur in the work area, their habitat needs, an explanation of the status of the species and protection under federal and/or State law, and a list of the measures being taken to avoid or reduce impacts to the species during project construction. The curriculum shall also identify the limits of the construction areas and restrictions on movement of personnel and equipment and applicable construction BMPs. The awareness program will be conducted at the start of construction and thereafter as required for new construction personnel. The training shall include a handout or video containing all training information. The project manager shall use these training materials to train any additional construction personnel that were not in attendance at the first meeting, prior to starting work on the project.

Periodic biological monitoring of the active work areas shall be performed no less than once a week by a qualified biologist familiar with the ecosystems and flora and fauna of the region, or by a designated Tribal monitor who has been trained by the qualified biologist. The biological monitor shall be granted the authority to halt work in the instance of any encroachments into protected habitat or the discovery of any listed species in the Project Site. In the very unlikely circumstance that a listed species is encountered, it shall be immediately relocated out of harm's way by the monitoring biologist.

BIO-3: Special-status Mammal Protection Measures

A pre-construction survey for San Bernardino and Stephen's kangaroo rats shall be conducted within two weeks of groundbreaking in any area containing coastal scrub habitat, grassland habitat, or in the vicinity of the San Jacinto River channel that will be subject to ground-disturbing activities. The pre-construction surveys shall also survey for San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse. The survey shall be performed by a Service-approved biologist. If no individuals or sign of kangaroo rats or other special-status mammals are detected, work may begin immediately. If individuals, active burrows, or fresh signs of kangaroo rats are detected, protocol trapping surveys shall be conducted. If San Bernardino or Stephen's kangaroo rats are present, the USFWS shall be consulted and avoidance measures implemented. This may consist of project re-alignment or the translocation of kangaroo rats. If special-status mammals including San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse are detected, avoidance measures should be implemented in consultation with CDFW. This may consist of project re-alignment or the translocation of the special-status mammals. These actions are summarized in the table below.

Species	Pre-construction Survey Requirement	Protocol if Observed
San Bernardino kangaroo rat	▪ Within two weeks of construction on or within 100 feet of the San Jacinto River channel, riparian habitat, or coastal scrub habitat ▪ Surveying biologist shall be USFWS-approved	▪ Halt work and allow the animal to leave unharmed ▪ Consult with USFWS. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with USFWS consultation

Species	Pre-construction Survey Requirement	Protocol if Observed
Stephen's kangaroo rat	▪ Within two weeks of construction on or within 100 feet of coastal scrub, grassland, or riparian habitat ▪ Surveying biologist shall be USFWS-approved	▪ Halt work and allow the animal to leave unharmed ▪ Consult with USFWS. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with USFWS consultation
San Diego black-tailed jackrabbit	▪ Within two weeks of construction on or within 100 feet of coastal scrub habitat ▪ Surveying biologist shall be CDFW-approved	▪ Halt work and allow the animal to leave unharmed
San Diego desert woodrat	▪ Within two weeks of construction on or within 100 feet of coastal scrub habitat ▪ Surveying biologist shall be CDFW-approved	▪ Halt work and allow the animal to leave unharmed
Southern grasshopper mouse	▪ Within two weeks of construction on or within 100 feet of coastal scrub habitat ▪ Surveying biologist shall be CDFW-approved	▪ Halt work and allow the animal to leave unharmed ▪ Consult with CDFW. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with CDFW consultation
Los Angeles pocket mouse	▪ Within two weeks of construction on or within 100 feet of coastal scrub habitat of the San Jacinto River channel ▪ Surveying biologist shall be CDFW-approved	▪ Halt work and allow the animal to leave unharmed ▪ Consult with CDFW. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with CDFW consultation

BIO-4: Construction Procedures

The following construction procedures shall be followed:

- Because kangaroo rats are nocturnal, no construction activity shall take place at night. In particular, trenching, backfilling, compacting, and other ground-disturbing activities are restricted to daylight hours.
- Trenches shall be filled or tightly covered at the end of each work day. For trenches that must remain open, animal escape mechanisms shall be installed. This may consist of putting boards in trenches or creating shallow slopes at the ends of trenches so that animals may crawl out.
- Ensure that there are no animals present before trenches are filled or pipes are used.
- Pipe openings shall be covered so that no animals are able to enter pipes.
- Do not feed animals; do not litter; ensure that trash receptacles are closed tightly.
- Before any ground disturbance begins, the contractor will delineate and mark all limits of construction to be clearly visible to all personnel. All construction-related activities by contractors, subcontractors, or their agents and equipment (including staging, materials storage, and personnel parking areas) will be restricted to the designated limits of construction and staging areas.
- All disturbed areas will be restored to their original condition. Trenches will be backfilled and compacted, and the original ground contours restored. Paved areas will be repaved. Unpaved

areas will be reseeded with a native seed mix and mulch applied (or other similar soil stabilization measures will be implemented).

BIO-5: Aquatic Animal Protection During Construction

To ensure that southwestern pond turtle and arroyo toad are not present in construction areas, pre-construction clearance surveys shall be conducted by a qualified biologist where construction activities occur within 100 feet of a channel. These surveys shall be conducted within 14 days of the commencement of ground-disturbing activities in or near any channel. If either of these species is discovered during the survey, project activities shall not begin until USFWS has been consulted and avoidance and minimization measures established and then implemented. This may consist of project re-alignment, translocation of the animals, and/or the erection of exclusionary fence at that location.

BIO-6: Protection of Nesting Birds During Construction

If construction activities occur during the nesting season (February 15 to August 31), pre-construction survey for the presence of nesting birds shall be conducted within seven days of construction activities by a qualified biologist on and within 500 feet of proposed construction areas. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed. Avoidance measures shall include establishment of a buffer zone using construction fencing or the postponement of construction until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest. Avoidance buffers may vary in size depending on the species' life history requirements, habitat characteristics, project-related activities, and disturbance levels.

BIO-7: MSHCP Consistency Measures

The following measures are identified by the MSHCP as construction BMPs that would be applicable to the Proposed Project and were not previously identified as recommended measures:

- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to site shall be via pre-existing access routes to the greatest extent possible.
- The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of channels shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).

- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

3.5 CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §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 dedicated cemeteries?	☐	☒	☐	☐

3.5.1 Environmental Setting

EnviroPro Consulting, LLC (EnviroPros) conducted a cultural resources study of the Project Site (EnviroPro, 2025). The study included a records search of files at the Eastern Information Center (EIC) and the South Coast Information Center (SCIC), Native American outreach, and field inspection. Archaeological literature and records searches were conducted at the EIC and the SCIC of the California Historical Resources Information System (CHRIS) on January 19, 2024 and January 27, 2025, respectively, with a half-mile buffer around the Area of Potential Effects (APE). The results of these searches indicated that no cultural resource studies have been completed within the APE, but 21 studies had been completed within a half-mile radius of the APE. The CHRIS search also included searching the lists of resources on or determined eligible for the National Register of Historic Places (National Register), the California Register of Historical Resources (CRHR), California State Historical Landmarks, and California Sate Points of Historical Interest. Field surveys were also conducted by EnviroPros archaeologists on February 28, March 11, March 12, March 18, September 17, and September 23, 2024. Representatives of the Tribe's Cultural Resources Department also participated in the field visits in February and March 2024, and assisted in preparation of the cultural resources report (EnviroPro, 2025).

The study found that two historical resources are located in the project area: the S-Curve Site and the Fiesta site. The S-Curve Site is an ethnographic village site that was originally recorded in 1865. The Fiesta Site is the location of the annual historic Soboba Fiesta. Both sites were determined to be eligible for the National Register under Criterion D and as Traditional Cultural Properties and are also considered to be historical resources and Tribal Cultural Resources under CEQA (**Appendix G**).

3.5.2 Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA 1966) is the most concise and effective federal law dealing with historic preservation. In addition, applicable State and local requirements have been derived from this legislation. The NHPA established guidelines to "preserve important historic, cultural, and natural aspects of our cultural heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice." The NHPA includes regulations specifically for federal land-holding agencies but also includes regulations (known as Section 106) that pertain to all projects that are funded, permitted, or approved by any federal agency and which have the potential to affect historic properties. In addition, the NHPA authorizes the Secretary of the Interior to establish a National Register. The National Register is an inventory of districts, sites, buildings, structures, and objects significant at a national, State, or local level in American history, architecture, archaeology, engineering, and culture. The National Register is wholly maintained by the National Park Service, the Advisory Council on Historic Preservation, and the State Office of Historic Preservation (SHPO) and grants-in-aid programs.

Native American Graves Protection and Repatriation Act

In the event that human remains are encountered at any time during project work, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to California Public Resources Code (PRC) Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American and are located on Tribal land, they are subject to the provisions of 43 CFR Part 10 Subpart B of the Native American Graves Protection and Repatriation Act, which stipulates the Indian Tribe (Soboba) will determine the appropriate treatment of remains found on tribal land. Compliance with 36 CFR Part 800.13 is also required in the event of the unanticipated discovery of human remains.

State

California Register of Historic Resources

The California Register of Historical Resources (California Register) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Important cultural resources can be listed in the California Register through a number of methods, and listing requires approval from the State Historical Resources Commission. Properties can be nominated to the California Register by local governments, private organizations, or citizens. State Historical Landmarks and National Register-listed properties gain automatic listing in the California Register. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register. In order for a cultural resource to be significant, or in other words eligible, for listing in the California Register, it must reflect one or more of the following criteria (PRC 5024.1c):

- Criterion 1 (Events): Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
- Criterion 2 (Persons): Resources that are associated with the lives of persons important to local, California, or national history.

- Criterion 3 (Architecture): Resources that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values.
- Criterion 4 (Information Potential): Resources or sites that have yielded or have the potential to yield information important to the prehistory or history of the local area, California, or the nation.

California Environmental Quality Act

CEQA requires that public agencies assess the effects on historical resources of public or private projects that the agencies finance or approve. Historical resources are defined as buildings, sites, structures, objects, areas, places, records, or manuscripts that the Lead Agency determines to have historical significance, including architectural, archaeological, cultural, or scientific significance. CEQA requires that if a project results in an effect that may cause a substantial adverse change in the significance of a historical resource, alternative plans or mitigation measures must be considered. However, only significant historical resources need to be addressed. Therefore, before the assessment of effects or development of mitigation measures, the significance of cultural resources must be determined.

In addition, properties that are listed in or eligible for listing in the National Register are considered eligible for listing in the California Register and thus are significant historical resources for the purposes of CEQA (PRC Section 5024.1[d][1]).

According to CEQA, a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant impact on the environment (*State CEQA Guidelines* 15064.5[b]). CEQA also states that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of an historical resource or its immediate surroundings such that the significance of the resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or materially and adversely alter the physical characteristics of a historical resource that convey its historical significance and qualify or justify its eligibility for inclusion in the California Register or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Significant Historical Resources under State CEQA Guidelines

In completing an analysis of a project under CEQA, it must first be determined if the project site possesses a historical resource. A site may qualify as a historical resource if it falls within at least one of four categories listed in *State CEQA Guidelines* Section 15064.5(a). The four categories are:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register (PRC Section 5024.1, Title 14 California Code of Regulations [CCR], Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1 (g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript that a Lead Agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the Lead Agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be

considered by the Lead Agency to be "historically significant" if the resource meets the criteria for listing on the California Register (PRC Section 5024.1, Title 14 CCR, Section 4852). These conditions are related to the eligibility criteria for inclusion in the California Register (PRC Sections 5020.1[k], 5024.1, 5024.1[g]). A cultural resource may be eligible for inclusion in the California Register if it:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

4. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register, is not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a Lead Agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

A Lead Agency must consider a resource that has been listed in, or determined to be eligible for listing in the California Register (Category 1) as an historical resource for CEQA purposes. In general, a resource that meets any of the other three criteria listed in *State CEQA Guidelines* Section 15064.5(a) is also considered to be a historical resource unless "the preponderance of evidence demonstrates that the resource is not historically or culturally significant."

3.5.3 Impact Assessment

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

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

Less Than Significant Impact with Mitigation. Two historical resources were identified in the project area: the S-Curve Site and the Fiesta Site. During construction, excavation will be limited to the previously disturbed portion of the S-Curve Site within an existing roadway. The known boundaries of the Fiesta Site are also located outside of the proposed excavation areas. Therefore, the intact portions of both sites will be avoided during construction of the project. With the implementation of Mitigation Measures CR-1, CR-2, CR-4 and CR-5, the Proposed Project will not significantly impact these two resources.

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

Less Than Significant Impact with Mitigation. No human remains were identified in the Project Site during the cultural resources study. However, it is possible that human remains may be present at subsurface levels. Implementation of Mitigation Measure CR-3 would ensure that potentially significant impacts would be reduced to less than significant.

3.5.4 Mitigation Measures

CR-1: Avoid Impacts Where Feasible

The Proposed Project shall, where feasible, avoid impacts to cultural resources. If during construction, it is determined that there is a potential for impacts to cultural resources, further cultural resources analysis, as defined in Mitigation Measures CR-2 and CR-4, may be required by the State Water Resources Control Board.

CR-2: Inadvertent Discovery

If significant deposits associated with the S-Curve or Fiesta Site, or other cultural resources (archaeological, historical, or tribal resources), are inadvertently unearthed during excavation or other ground disturbing activities, the contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. If not already retained due to conditions present pursuant to Mitigation Measures CR-1 or CR-4, the Soboba Band shall retain a tribal monitor and a qualified professional archaeologist to evaluate the significance of the find and appropriate course of action. If avoidance of the resources is not feasible, steps outlined in the Management Plan in CR-4 shall be followed. After the find has been appropriately avoided or mitigated, work in the area may resume.

CR-3: Human Remains

In the event that human remains are unearthed during excavation and grading activities, all activity shall cease immediately. Pursuant to State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent and are located on Tribal land, they are subject to the provisions of 43 CFR Part 10 Subpart B of the Native American Graves Protection and Repatriation Act, which stipulates the Indian Tribe (Soboba) will determine the appropriate treatment of remains found on tribal land. If the remains are located outside of Tribal land, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall serve as consultant on how to proceed with the remains.

CR-4: Cultural Resource Monitoring and Inadvertent Discovery Plan

At least 30 days prior to commencement of any grading, excavation and/or ground disturbing activities taking place, the Soboba Band shall retain a qualified archaeological principal investigator, meeting the Secretary of Interior's Professional Standards for archaeology, with experience and extensive knowledge of cultural resources geographically connected to the Project site.

The Project Archaeologist, in consultation with the Soboba Tribal Historic Preservation Officer and the State Water Resources Control Board, shall develop a Cultural Resource Management Plan to address the details, timing, and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the plan shall include:

a. Project scheduling;
b. Coordination with the Soboba Cultural Resource Department, the Project Archaeologist, and Project Foreman or Construction Supervisor for grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and

Native American Tribal Monitors' and Project Archaeologist's authority to stop and redirect grading activities;

c. The protocols and stipulations that will be followed in the event of inadvertent cultural resource discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation;
d. The protocols and procedures for avoidance and preservation of inadvertently discovered resources will include, at a minimum, to fence and identify the area as an Environmental Sensitive Area (ESA). The Project Foreman or Construction Supervisor will ensure that appropriate temporary fencing is installed (i.e., orange fabric/barrier fencing) to prevent any unintentional disturbances to specific areas of sensitivity during any earthmoving activities associated with the project;
e. The protocols and procedures for relocation of cultural resources that cannot be avoided and preserved in place, for permanent preservation in perpetuity;
f. The protocols and procedures for treatment and final disposition of any archeological resources and sacred sites, if discovered on the project site;
g. Creation of 3-dimensional (3D) models of all unavoidable sites located within the Project area;
h. The scheduling and timing of the Cultural Sensitivity Training for all lead project personnel.

CR-5: Memorandum of Agreement

A memorandum of agreement (MOA) shall be executed and implemented pursuant to 36 CFR 800.6. The MOA shall be signed by the IHS and the Soboba Tribal Historic Preservation Officer. The IHS may invite additional parties to be signatories. The MOA will incorporate the mitigation measures identified above (CR-1 through CR-4) and govern the undertaking of the Proposed Project with respect to Historic Properties.

3.6 ENERGY

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	☐	☐	☐	☒

3.6.1 Environmental Setting

The production of electricity requires the conversion of energy stored in natural resources such as water, wind, oil, gas, coal, solar radiation, certain minerals (for nuclear power), and geothermal energy. Energy consumed in the vicinity of the Project Site is currently attributed to vehicles traveling on local roadways, the use of electricity and natural gas in nearby residences, and electricity used for other land uses such as

the nearby casino, schools, and commercial buildings. Production of energy and energy use both result in pollution and depletion of these renewable and nonrenewable resources.

The County is served by Riverside Public Utilities and the City is served by San Jacinto Power for its electrical energy demands. San Jacinto Power is a Community Choice Aggregation provider for the City and is serviced by Southern California Edison (SCE), which also serves the Reservation. Southern California Gas company services the City and County for natural gas. The Band has a 1-megawatt solar photovoltaic system, in which the Band receives credit for electricity fed back into the grid through an agreement with SCE.

In Riverside County, the California Energy Commission (CEC) reported an annual electrical consumption of approximately 17780.57 million kWh in 2022. Of the 17780.57 million kWh consumed, approximately 9060.56 million kWh was from residential use and approximately 8720.02 million kWh was from nonresidential use (CEC, 2024).

3.6.2 Regulatory Setting

Additional regulatory setting information is found in **Section 3.3** and **Section 3.8**.

State

California Public Resources Code Section 21100(b)(3)

Requires the environmental impact report to analyze energy use and conservation as part of the assessment of a proposed project's environmental impact. It requires a description of the wasteful, inefficient, and unnecessary consumption of energy caused by a project.

3.6.3 Impact Assessment

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

Less Than Significant. Construction of the Proposed Project would result in energy consumption. Heavy equipment used to bring materials to and from the Project Site, workers commuting to the Project Site, and tools used during construction would consume petroleum products. The use of this energy is necessary for Project Site development and would be utilized only when needed for construction progress. Construction would be temporary in nature and of a limited scale. Compliance with federal, State, and local regulations (e.g., limit engine idling times) would reduce short-term energy demand and prevent the wasteful or inefficient use of energy during construction to the extent feasible, ensuring there would be less-than-significant impacts due to energy use.

Operation of the Proposed Project would involve minor consumption of electricity from the local utilities to power the sewer pump stations and other typical maintenance equipment. The majority of the proposed sewer mainlines, including the 15-inch mainline below the San Jacinto River, have been designed to be gravity fed rather than forcemains to minimize the need for pumping and its associated energy usage. As a result, the Proposed Project would not result in wasteful or inefficient use of energy resources and would thus have a less-than-significant impact.

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

No Impact. The Proposed Project consists of a utility improvement that would not conflict with state or local plans for renewable energy or energy efficiency. The Band's existing solar project provides power to the local grid that would power the proposed pump stations. The Proposed Project would therefore have no impact.

3.7 GEOLOGY AND SOILS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
I. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
II. Strong seismic ground shaking?	☐	☐	☒	☐
III. Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
IV. Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site of unique geologic feature?	☐	☒	☐	☐

3.7.1 Environmental Setting

The Project Site is located within the Peninsular Ranges Geomorphic Province, characterized by a series of mountain ranges separated by northwest-trending valleys, subparallel to faults branching from the San Andreas Fault (CGS, 2002). The Project Site is within the San Jacinto Fault Zone (SJFZ), one of the most seismically active fault zones in Southern California. Major geological features of the Project Site include the San Jacinto Mountains rising on the northeast, and the San Jacinto Valley and River on the southwestern side.

Topography

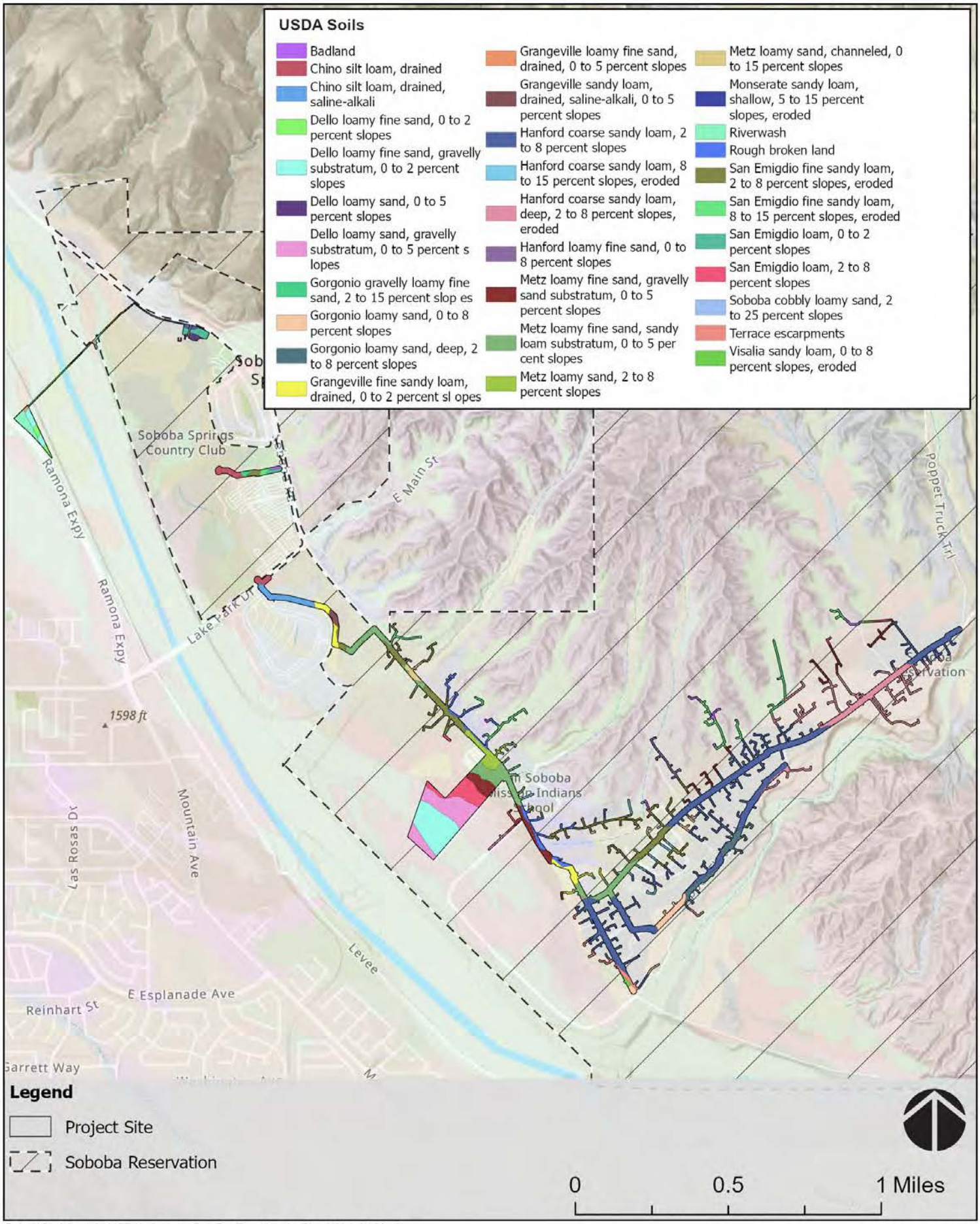
The topography in the area features river terraces and alluvial fans at the terminus of various canyons and arroyos that flow into the San Jacinto River. Located at the base of the foothills on the western flank of the San Jacinto Mountains, this area separates the San Jacinto River Basin to the west from the Coachella Valley to the east. The elevation ranges from approximately 1,560 to 1,865 feet above sea level. In general, the topography of the Project Site is gently sloping to the west towards the San Jacinto River floodplain.

Soil Types and Characteristics

The Project Site includes 29 mapped soil types, the majority of which are soils from the Chino, Dello, Gorgonio, Grangeville, Hanford, Metz, and San Emigdio soil series (NRCS, 2024b). **Figure 3-6** provides a map of soils on the Project Site, while **Table 3.7-1** details the characteristics of each soil type.

Hanford series soils, which make up the largest portion (33.62 percent) of the Project Site, are very deep, well-drained soils formed in moderately coarse textured alluvium predominantly from granite. San Emigdio series soils consist of very deep, well-drained soils formed in dominantly sedimentary alluvium (17.61 percent of the Project Site). Metz series soils consist of very deep, somewhat excessively drained soils formed in alluvial material from mixed, but predominantly sedimentary rocks (16.21 percent of the Project Site). The Dello series soils consist of very deep, very poorly drained soils formed in alluvium from granitic rock sources (15.56 percent of the Project Site). Gorgonio series soils consist of gravelly loamy fine sand (4.60 percent of the Project Site). Chino series soils consist of gray, calcareous (chalky) silt loam (3.14 percent of the Project Site). Grangeville series soils consist of very deep, somewhat poorly drained

soils formed in moderately coarse textured alluvium predominantly from granitic rock sources (2.96 percent of the Project Site). The remainder of the Project Site is comprised mainly of bedrock (3.47 percent of the Project Site) and additional soils in small quantities (1.81 percent of the Project Site).



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

FIGURE 3-6
USDA SOIL SERIES

Table 3.7-1: Soil Characteristics

Soils	Percent of Site	Hydrologic Soil Group	Drainage Class	Linear Extensibility
Badland	0.80	N/A	N/A	N/A
Chino silt loam, drained	1.37	C/D*	Somewhat poorly drained	Low/ moderate
Chino silt loam, drained, saline-alkali	1.77	C/D*	Somewhat poorly drained	Low/ moderate
Dello loamy sand, 0 to 5 percent slopes	0.38	A/D*	Somewhat poorly drained	Low/ moderate
Dello loamy sand, gravelly substratum, 0 to 5 percent slopes	6.72	A/D*	Somewhat excessively drained	Low
Gorgonio gravelly loamy fine sand, 2 to 15 percent slopes	0.20	A	Somewhat excessively drained	Low
Gorgonio loamy sand, 0 to 8 percent slopes	1.90	A	Somewhat excessively drained	Low
Gorgonio loamy sand, deep, 2 to 8 percent slopes	2.49	A	Somewhat excessively drained	Low
Grangeville fine sandy loam, drained, 0 to 2 percent slopes	2.24	A/D*	Moderately well drained	Low
Grangeville loamy fine sand, drained, 0 to 5 percent slopes	0.27	A/D*	Moderately well drained	Low
Grangeville sandy loam, drained, saline-alkali, 0 to 5 percent slopes	0.45	A/D*	Moderately well drained	Low
Hanford coarse sandy loam, 2 to 8 percent slopes	24.06	A	Well drained	Low
Hanford coarse sandy loam, 8 to 15 percent slopes, eroded	0.79	A	Well drained	Low
Handford coarse sandy loam, deep, 2 to 8 percent slopes, eroded	8.10	A	Well drained	Low
Hanford loamy fine sand, 0 to 8 percent slopes	0.66	A	Well drained	Low
Metz loamy fine sand, gravelly sand substratum, 0 to 5 percent slopes	4.92	A	Somewhat excessively drained	Low
Metz loamy fine sand, sandy loam substratum, 0 to 5 percent slope	8.27	A	Somewhat excessively drained	Low
Metz loamy sand, 2 to 8 percent slope	2.11	A	Somewhat excessively drained	Low
Metz loamy sand, channeled, 0 to 15 percent slopes	0.92	A	Somewhat excessively drained	Low
Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded	0.09	D	Well drained	Low
Riverwash	1.43	N/A	Excessively drained	Low
Rough broken land	2.67	N/A	N/A	N/A
San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded	9.60	A	Well drained	Low
San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded	3.39	A	Well drained	Low
San Emigdio loam, 0 to 2 percent slopes	1.03	A	Well drained	Low
San Emigdio loam, 2 to 8 percent slopes	3.59	A	Well drained	Low
Soboba cobbly loamy sand, 2 to 25 percent slopes	0.11	A	Excessively drained	Low

Soils	Percent of Site	Hydrologic Soil Group	Drainage Class	Linear Extensibility
Terrace escarpments	1.03	N/A	N/A	N/A
Visalia sandy loam, 0 to 8 percent slopes, eroded	0.19	A	Somewhat poorly drained	Low

Source: USDA, 2024

* The surface level characteristics are indicated first and the deeper soil characteristics are after the forward slash.

Soil Hazards

The hydrologic soil group (HSG) is a classification based on the runoff potential of the soils when thoroughly saturated by a long duration storm. Soils are grouped into four classes that grade from A to D, with A being coarse-grained soils with high infiltration and low runoff potential and D being mostly fine-grained clays with extremely slow infiltration and high runoff potential. The majority of soils on the Project Site (72 percent) have a hydrologic rating of A, indicating they have high infiltration rates and low runoff potential (USDA, 2024; USDA, 2002).

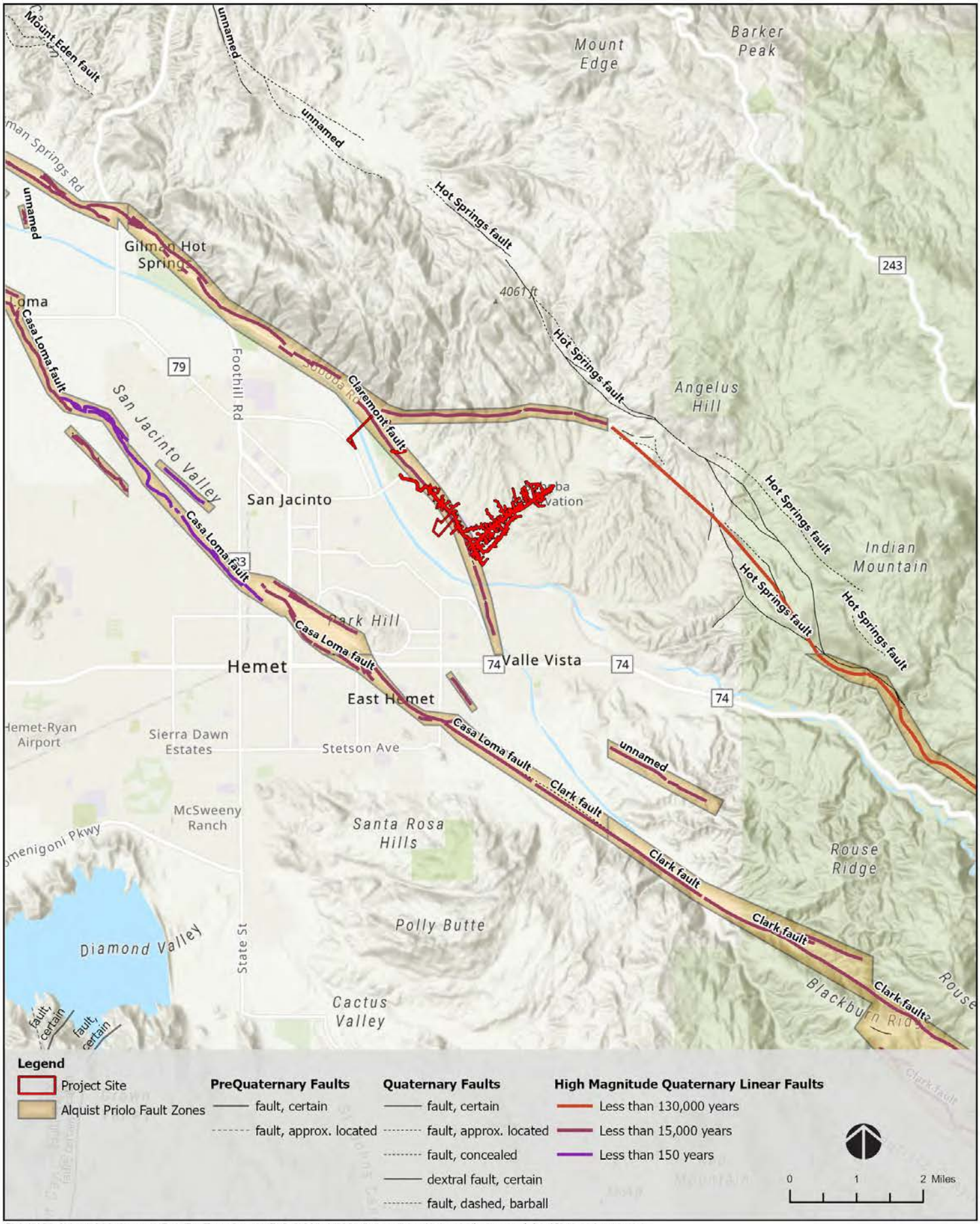
Drainage class is a measure of the frequency and duration of wet periods under conditions similar to those in which the soil developed. The majority of soils on the Project Site (83 percent) are well-drained to excessively well-drained (USDA, 2024).

Expansive soils may increase in volume when water is absorbed and shrink when dried. This property is measured using linear extensibility. Expansive soils are of concern because they can cause foundations to rise during the rainy season and fall during the dry season, causing structural distortion. Most soils on the Project Site have low linear extensibility ratings, indicating they have low shrink-swell potential (USDA, 2024).

Liquefaction occurs primarily in saturated, loose, fine- to medium-grained soils where the groundwater table is within approximately 50 feet of the surface. Strong seismic shaking can cause soils to lose their strength and behave as liquid. Liquefaction-related effects include loss of bearing strength, ground oscillations, lateral spreading, and flow failures or slumping. Portions of Riverside County are susceptible to liquefaction hazards (Riverside County, 2024). The most recent 2024 County General Plan indicates that the Project Site is no longer designated as a liquefaction zone (Riverside County, 2024).

Seismic Conditions

The Project Site is situated in southern California within the SJFZ, a major right-lateral strike-slip fault. The SJFZ zone encompasses various segments with the potential to subject the Project Site to ground shaking from seismic activity, including the Casa Loma, Clark, and Claremont faults, which run northwest/southeast (**Figure 3-7**). The Project Site is transected by the Claremont fault, and as a result is within an Alquist-Priolo Earthquake Fault Zone as designated by the California Geologic Survey (CGS). The nearest fault with historic displacement is the Casa Loma Fault, located approximately 2 miles southwest of the Project Site. The Claremont and Casa Loma faults converge to form the Clark fault, located approximately 2 miles southeast of the Project Site. Additionally, the Hot Springs fault is located approximately 0.75 miles northeast of the Project Site (CGS, 2023).



Esri, NASA, NGA, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

FIGURE 3-7
REGIONAL FAULTS

Paleontological Resources

Bargas Environmental Consulting, LLC (Bargas) completed a paleontological resources assessment for the Proposed Project that included reviews of geologic maps, scientific literature, and online paleontological databases, as well as a records search at the Western Science Center (WSC) (**Appendix H**).

The Project Site is mapped as underlain by multiple alluvial and fluvial deposits ranging in age from the Holocene to the late Pliocene (Dibblee, 2003). These deposits are broadly separated topographically at the surface, with older geologic units occurring in areas of higher elevation and vice versa. Furthermore, the younger, Holocene-age deposits likely transition to Pleistocene-age deposits of similar depositional history at depth, though the precise depth at which this transition occurs is not clear. Geologic units and paleontological potential are detailed in **Table 3.7-2**.

Table 3.7-2: Geologic Units and Paleontological Potential

	Symbols(s)	Geologic Unit Name and Age	Age	Paleontological Potential
Surficial Deposits	Qg	Alluvial sand and gravel of major steam channels	Holocene	Low
	Qa	Alluvial sand and clay of valley areas	Holocene	Low at surface; high at depth
	Qoa	Older alluvial gravel and sand of low terrace remnants	Pleistocene	High
Cenozoic Bedrock	QTs	Bautista beds	Pliocene - Pleistocene	High

Source: **Appendix H**

The records search of the Project Site and an approximately 2.5-mile buffer found no previously recorded vertebrate fossil localities directly underlying the Project Site or within the 2.5-mile buffer. However, the assessment notes that the Pleistocene and Pliocene deposits underlying the Project Site are well known to produce significant paleontological resources across southern California. While the Holocene-age deposits typically do not have contain fossils, the Pliocene and Pleistocene deposits are considered to have high paleontological sensitivity. Because older Pleistocene deposits underlay some of the alluvial sand and clay of valley areas (Qa), those areas are considered to have a high paleontological sensitivity below 10 feet. Furthermore, a records search of the University of California Museum of Paleontology (UCMP) online database was conducted, which returned 11 fossil localities from the Bautista beds (Cenozoic-aged bedrock) containing 307 vertebrate and floral fossil specimens. Faunal fossils include rabbit, tapir, deer, pronghorn, horse, and ground sloth. An abundance of floral fossil specimens was reported to have been sourced from Bautista beds on the Soboba Indian Reservation, though the specific location was not identified (**Appendix H**).

3.7.2 Regulatory Setting

Federal

Clean Water Act

The CWA prohibits the discharge of sediment and erosion into navigable waters of the United States to protect water quality. It establishes regulatory measures to control soil erosion and sediment runoff, ensuring that construction and land development activities implement BMPs to prevent sediment

pollution. The goal is to maintain the integrity of the nation's waters by minimizing the impact of soil disturbance and erosion on water quality.

BIA Document 59 IAM 7

59 IAM 7 of the Bureau of Indian Affairs (BIA) Indian Affairs Manual provides guidance on the management and protection of cultural resources, including paleontological, archaeological, and historical resources, on Native American lands. It outlines the BIA's responsibilities in preserving these resources, ensuring that activities such as development or construction do not harm cultural or scientific sites. It also emphasizes the importance of tribal consultation and compliance with relevant federal laws, including the Paleontological Resources Preservation Act, to ensure the proper handling and protection of fossils and other cultural resources on tribal lands.

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones along active and potentially active faults in California to mitigate the risks associated with surface fault rupture. This act mandates that any proposed construction projects within these designated zones undergo thorough geologic investigations to ensure that structures intended for human occupancy are not built directly on top of active fault traces, thereby ensuring the structural integrity of new developments and minimizing the risk of earthquake-related damage. The applicability of the Act is limited to projects that include construction of human habitation (California PRC, Chapter 7.5, Sections 2621.5(b) and 2621.6(a)).

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act aims to protect the public from earthquake-related hazards like strong ground shaking, liquefaction, landslides, and ground failure. Under this act, the California Geological Survey (CGS) is tasked with mapping areas at risk for these seismic hazards. According to the CGS, an "active" fault is defined as one that has shown evidence of movement within the last 11,000 years, which is the Holocene epoch. The maps produced under this program identify zones where detailed site-specific investigations are required prior to any new construction. The maps produced under the Seismic Hazards Mapping Act identify zones requiring detailed site-specific investigations before new construction, ensuring that appropriate measures—such as reinforcing foundations, improving soil conditions, or avoiding the most hazardous areas—are taken to mitigate identified risks.

Local

Riverside County General Plan

The Multipurpose Open Space Element of the Riverside County General Plan (2015) includes the following policies to ensure that paleontological resources are appropriately considered:

> **Policy OS 19.6:** Whenever existing information indicates that a site proposed for development has high paleontological sensitivity as shown on Figure OS-8, a paleontological resource impact mitigation program (PRIMP) shall be filed with the County Geologist prior to site grading. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources.
>
> **Policy OS 19.7:** Whenever existing information indicates that a site proposed for development has low paleontological sensitivity as shown on Figure OS-8, no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the County Geologist shall

be notified and a paleontologist shall be retained by the project proponent. The paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.

Policy OS 19.8: Whenever existing information indicates that a site proposed for development has undetermined paleontological sensitivity as shown on Figure OS-8, a report shall be filed with the County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources prior to approval of that department.

Policy OS 19.9: Whenever paleontological resources are found, the County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet.

City of San Jacinto Development Code

Chapter 17.500 of the San Jacinto Development Code provides for the protection of paleontological resources. Where development is proposed for an area in which there are known archaeological or paleontological resources on the site or in the vicinity, a report shall be prepared by a qualified professional before CEQA compliance review. If significant impacts are identified, the review authority may require modification of the project to avoid impacts, monitoring of soil disturbance, or other measures to mitigate the impacts.

3.7.3 Impact Assessment

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant. The Project Site is intersected by the Claremont fault and is in close proximity to three other active faults within the SJFZ. Furthermore, the Proposed Project is partially within a designated Alquist-Priolo Earthquake Fault Zone (**Figure 3-7**). However, since the Proposed Project is not designed for human occupancy, it is not subject to A-P Zoning Act regulations per California PRC, Chapter 7.5, § 2621.5(b) and § 2621.6(a). A large magnitude earthquake along the Claremont fault or other nearby segments within the SJFZ could potentially cause local ground rupture effects that may damage the proposed sewer system. However, even if the proposed sewer system is damaged, there is no potential for injury or death. The potential impacts related to the proximity of the Proposed Project to local and regional fault zones would be addressed through adherence to associated regulatory and industry standards, including applicable elements of the California Building Code (CBC) and Uniform Plumbing Code (UPC). Moreover, the installation of pipelines in this location would not increase the likelihood or severity of fault rupture. The Proposed Project would not be associated with significant levels of risk of loss, injury, or death from rupture of a known earthquake fault. Therefore, the impacts would be less than significant.

ii. Strong seismic ground shaking?

Less than Significant. The Project Site is intersected by the Claremont fault and is in close proximity to three other active faults within the SJFZ. As such, there is the potential for an earthquake to occur that would subject the Project Site to strong seismic shaking. However, the Proposed Project would be designed and constructed in conformance with applicable elements of the CBC and UPC. Specifically, these standards involve incorporating seismic factors into facility design, the use of appropriate materials, the removal of unsuitable soils, and the use of properly engineered fill. Compliance with the CBC and UPC would reduce the potential effects of seismic ground shaking on the proposed facilities to less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant. Liquefaction is caused by build-up of excess hydrostatic pressure in saturated cohesionless soils due to cyclic stress generated by ground shaking. The Proposed Project is located in a seismically active area with the potential for significant ground shaking. Portions of Riverside County are susceptible to liquefaction, which is a secondary effect of strong seismic shaking. The County's 2016 General Plan identified the Project Site as having high liquefaction susceptibility; however, the most recent 2024 General Plan indicates that the site is no longer within a designated liquefaction zone (Riverside County, 2016; Riverside County, 2024). Further, the U.S. Geological Survey (USGS) identifies the Project Site as having low liquefaction potential (USGS, 2024a). The Proposed Project would be designed and constructed in conformance with applicable elements of the CBC and UPC to ensure that the proposed facilities can withstand ground shaking which would reduce the secondary impacts of liquefaction. Therefore, the potential for the Proposed Project to exacerbate the risk of liquefaction in the Project area is less than significant.

iv. Landslides?

Less than Significant. Landslide risk is typically associated with high slopes and unstable soils. Heavy rains or strong seismic shaking events can induce landslides. While the Proposed Project is located in a seismically active area with the potential for significant ground shaking, the Project Site is not mapped as having significantly unstable soils which could contribute to landslides. Additionally, there have been no recorded landslide events on or in the vicinity of the Project Site as mapped by the USGS (USGS, 2024b). The proposed pipeline routes do not cross areas of steep slopes. As such, the potential for the Proposed Project to exacerbate the risk of landslides in the Project area, or be impacted by a landslide, is less than significant.

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

Less than Significant. The majority of soils on the Project Site are classified as having low runoff potential. They are less prone to erosion due to their ability to quickly absorb water, which will reduce surface runoff and minimize erosion risk on the Project Site during construction.

The vast majority of the proposed pipelines would be constructed using open cut trenching, which has the potential to result in localized soil erosion. However, construction would be temporary in nature and surface restoration techniques will be employed after segments of pipeline construction are completed. This will include restoring all surfaces and roadways to pre-project conditions by planting grasses and native vegetation in unpaved areas and repaving roadways or golf cart pathways. As detailed in **Section 3.10** and **Table 2.3-1**, BMPs will be implemented to further minimize erosion, dust, and other soil

disturbances during construction. Additionally, a SWPPP will be implemented throughout the construction phase, in compliance with NPDES Construction General Permit requirements, and will include measures to control runoff over exposed soils. With the immediate revegetation of disturbed soils and the implementation of BMPs and the SWPPP, the area will be stabilized and resistant to soil mobilization and transport soon after construction. Therefore, the Proposed Project would have a less-than-significant impact on soil erosion and 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?

Less than Significant. The Project Site has stable soils with a low potential for geologic hazards such as landslides, lateral spreading, subsidence, or collapse. However, the surrounding area includes known liquefaction hazards and a potentially active fault runs through portions of the site. As a result, project construction involving open-cut trenching and pit excavation could exhibit instability or collapse if improperly managed. The wastewater pipelines would be constructed primarily by open-cut trenches with a maximum depth of approximately 30 feet below ground surface and a maximum width of approximately 6 feet. Trench excavations typically involve vertical or near vertical walls and can exhibit instability and the potential for collapse as a result of loose or unstable soil and geologic materials. Potential trench instability hazards would be addressed through required conformance with applicable U.S. Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (Cal-OSHA) requirements. These standards include criteria related to trench slope limitations and dimensions, the use of appropriate shoring, shielding, and benching to provide trench stability, and restrictions on adjacent uses (e.g., heavy equipment use). Conformance with these regulatory standards, as well as the project's proposed construction methods, would avoid or reduce potential impacts related to trench stability to a less than significant level. As a result, the Proposed Project would have a less-than-significant impact.

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

Less than Significant. The soils on the Project Site have low linear extensibility ratings and are not considered expansive soils (NRCS, 2024b). Consequently, the Proposed Project would not be located on expansive soil, as defined in Table 18-1-B of the UBC and would not create substantial direct or indirect risks to life or property. Expansive soils are attributable to the water holding capacity of clay materials. Such behavior can adversely affect structural integrity (including underground facilities) through shifting of support materials during the shrink-swell process. Although not expected, if expansive soils are encountered during project construction, associated potential impacts would be addressed through conformance with regulatory and industry standards, including applicable elements of the CBC. Specifically, this may include efforts such as removal of expansive soils and replacement with engineered fill. Conformance with the described regulatory standards would reduce potential impacts related to expansive soils from project implementation to less-than-significant levels.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. The Proposed Project involves the replacement of existing septic infrastructure with a sewer and wastewater system. Consequently, it does not involve constructing septic tanks or alternative wastewater disposal systems and will have no impact on soils designated for supporting such purposes.

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

Less than Significant with Mitigation. A paleontological study was conducted for the Proposed Project that included reviews of geologic maps and scientific literature, and a records search at the WSC to identify any known paleontological resources within the Project Site or within a 2.5-mile buffer. While no known paleontological resources were discovered within the Project Site or the 2.5-mile buffer, the Pleistocene and Pliocene deposits underlying portions of the Project Site are well known to produce significant paleontological resources across southern California. Furthermore, paleontological resources were noted from similar geologic units to those mapped within the Project Site during an online search of the UCMP database and during a review of published scientific literature. As such, there is a potential to encounter paleontologically significant fossils across much of the Project Site should proposed excavations extend to impact native Pleistocene- and Pliocene-age deposits. With the implementation of **Mitigation Measures GEO-1** and **GEO-2**, which mandate the preparation and implementation of a comprehensive Paleontological Resources Monitoring and Treatment Plan (PRMTP) prior to any Project-related ground disturbance, and paleontological surveys in areas where excavations will impact portions of the Project Site mapped as Pleistocene older alluvial gravel, sand of low terrace remnants (Qoa), or the Bautista beds (QTs), unanticipated discoveries during construction can be appropriately managed. Impacts would be less than significant with mitigation.

3.7.4 Mitigation Measures

GEO-1: Paleontological Resource Mitigation and Treatment Plan

A qualified professional paleontologist meeting the minimum standards for a qualified professional paleontologist under Society of Vertebrate Paleontology (SVP) (2010) standards shall be retained prior to the start of earthmoving activities associated with the Project in order to develop and implement a site-specific PRMTP. The PRMTP shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project Site. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the qualified paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the lead agencies. The plan shall also include a description of the professional qualifications required of key staff, communication protocols to be followed during construction, fossil recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens. This treatment plan will guide all paleontological resources mitigation efforts during Project construction.

GEO-2: Pre-Construction Paleontological Survey

Prior to the start of construction, a qualified professional paleontologist meeting the minimum standards for a qualified professional paleontologist under SVP (2010) shall perform a paleontological survey of the Project Site where it is mapped as underlain by high paleontological potential geologic units, specifically

the Pleistocene older alluvial gravel and sand of low terrace remnants (Qoa) and the Bautista beds (QTs). The survey shall verify the geologic mapping of high paleontological potential geologic units and document any fossils observed at the surface of the Project Site. The paleontologist shall document all paleontological resources discovered during the survey using photography, field notes, and GPS mapping. At a minimum, the paleontologist will assign a unique field number to each discovery and will record the date of discovery; GPS coordinates; elevation; geologic unit name and age; detailed stratigraphic, lithologic, and taphonomic data; fossil descriptions(s) and initial taxon and element identifications; paleoenvironmental interpretations; and photographs. Paleontological discoveries shall be evaluated by the qualified professional paleontologist, in consultation with the lead agency, to determine if the discovered paleontological resources are significant using SVP (2010) guidelines. Should significant paleontological resources be discovered, they must be collected prior to the start of construction. Collected fossils shall be consolidated using appropriate modern consolidants (e.g., Paraloid B-72), prepared to the highest level of identification feasible, and deposited in an approved paleontological repository (e.g., Western Science Center). The Band would have the opportunity to review the report before it is submitted to the repository. The results of the paleontological survey shall be documented in a technical report and used to inform the development of the PRMTP (if not developed together as a single document).

3.8 GREENHOUSE GAS EMISSIONS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?	☐	☐	☐	☒

3.8.1 Environmental Setting

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The GHGs that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are primarily determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2, CH_4, and N_2O are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing are associated with agricultural practices and landfills. N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. In addition to

natural sources, human activities are exerting a substantial and growing influence on climate by changing the composition of the atmosphere and the ocean, and by modifying the land surface through deforestation and urbanization that reduces carbon capture and decreases albedo (Intergovernmental Panel on Climate Change, 2014). GHGs are typically quantified in terms of "carbon dioxide equivalent" (CO_2e), a common measure used to compare the emissions of various GHGs based on their global warming potential. This measure is usually presented in metric tons (MT) and is expressed as MT CO_2e.

3.8.2 Regulatory Setting

State

Assembly Bill (AB) 32

California's major initiative for reducing GHG emissions is outlined in Assembly Bill 32 (AB 32), the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020, and requires CARB to prepare a Scoping Plan that outlines the main State strategies for reducing GHGs to meet the 2020 deadline. In addition, AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MT CO_2e. The Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and Cap-and-Trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defined CARB's climate change priorities for the next five years and set the groundwork to reach post-2020 statewide goals. Senate Bill 32 (SB 32) was signed by the governor on September 8, 2016 to extend AB 32 by requiring the State to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). To ensure consistency with SB 32 CARB adopted another update the Scoping Plan in December 2017. The 2017 Scoping Plan update highlights California's progress toward meeting the "near-term" 2030 GHG emission reduction goals defined in the original Scoping Plan. The strategy includes extending the Cap-and-Trade program post-2020, implementation of the Short-Lived Climate Pollutant Plan and Mobile Source Strategy and increasing renewable energy generation and improving energy efficiency. In 2016, the Legislature passed SB 32. This established a benchmark for California to reduce GHG emissions to 40 percent below 1990 levels by 2030. Under the 2022 Scoping Plan, seven key areas were identified: transportation sustainability, clean electricity grid, sustainable manufacturing and buildings, carbon dioxide removal and capture, short-lived climate pollutants (non-combustion gases), and natural and working lands.

Local

South Coast Air Quality Management District

On December 5, 2008, the SCAQMD Governing Board approved interim CEQA GHG significance thresholds for stationary sources, rules, and plans using a tiered approach for determining significance. Tier 3, the primary tier the SCAQMD board uses for determining significance, set a screening significance threshold of 10,000 MT CO_2e/year for determining whether a stationary source project would have a less than significant cumulative GHG impact. While useful for a reference, this threshold is meant to apply to industrial projects where SCAQMD is the lead agency (SCAQMD, 2008).

County of Riverside Climate Action Plan

The County of Riverside adopted a Climate Action Plan (CAP) in 2015 for unincorporated areas to establish goals and policies incorporating sustainability and GHG reduction targets into its management process. The CAP set a goal to reduce emissions to 1990 levels by 2020, in line with the State's AB 32 GHG reduction targets. Updated in 2019, the CAP provides further guidance on Riverside County's GHG inventory reduction goals, thresholds, policies, guidelines, and implementation programs, including 2030 thresholds to reduce emissions to 40 percent below 1990 levels. The CAP elaborates on the County's General Plan goals and policies related to GHG emissions and serves as a specific implementation tool to guide future decisions. It includes a review process for evaluating individual project GHG impacts and determining significance under CEQA. The development review process for evaluating GHG impacts and determining significance for CEQA purposes will be streamlined by (1) applying an emissions level determined to be less than significant for small projects and (2) utilizing Screening Tables to mitigate project GHG emissions that exceed the threshold level. Projects will have the option of preparing a project-specific technical analysis to quantify and mitigate GHG emissions. A threshold level above 3,000 MT CO_2e per year will be used to identify projects requiring the use of Screening Tables or a project-specific technical analysis to quantify and mitigate emissions (Riverside County, 2015b).

Riverside County General Plan

The Air Quality Element of the Riverside County General Plan includes the following policies that are relevant to the Proposed Project:

> **Policy AQ 18.2:** Adopt GHG emissions reduction targets. Pursuant to the results of the Carbon Inventory and Greenhouse Gas Analysis for Riverside County, future development proposed as a discretionary project pursuant to the General Plan shall achieve sufficient reductions in greenhouse gas emissions in order to be found consistent with the County's Climate Action Plan.
>
> **Policy AQ 18.3:** Develop a Climate Action Plan for reducing GHG emissions. The Riverside County CAP has been developed to formalize the measure necessary to achieve County GHG emissions reduction targets. The CAP includes both the policies necessary to meet stated targets and objectives are met. These targets, objectives and Implementation Measures may be refined, superseded, or supplemented as warranted in the future.
>
> **Policy AQ 18.4:** Implement policies and measures to achieve reduction targets. The County shall implement the greenhouse gas reduction policies and measures established under the County Climate Action Plan for all new discretionary development proposals.
>
> **Policy AQ 18.5:** Monitor and verify results. The County shall monitor and verify the progress and results, and make any necessary revisions to, the CAP by 2020 and a minimum every four years thereafter. The progress and results of, and revisions to, the CAP will be made available to the public for review prior to approval. If monitoring reveals that the targets of the CAP are not being met, the CAP shall be revised to ensure that any changes needed to stay 'on target' with the stated goals are accomplished.
>
> **Policy AQ 19.1:** Continue to coordinate with CARB, SCAQMD, and the State Attorney General's office to ensure that the milestones and reduction strategies presented in the General Plan and the CAP adequately address the county's GHG emissions.

Policy AQ 19.2: Utilize County's CAP as the guiding document for determining County's greenhouse gas reduction thresholds and implementation programs. Implementation of the CAP and its monitoring program shall include the ability to expand upon, or where appropriate, update or replace the Implementation Measures established herein such that the implementation of the CAP accomplishes the greenhouse gas reduction targets.

3.8.3 Methodology

Construction emissions associated with development of the Proposed Project were calculated with the California Emissions Estimator Model (CalEEMod) 2022.1 (CAPCOA, 2022).

The Riverside County CAP sets a threshold to evaluate GHG emissions for small projects. The threshold of 3,000 MT CO_2e per year is used to define small projects that, when combined with modest efficiency measures, are considered less than significant, and do not need to use the Screening Tables or alternative GHG mitigation analysis, as detailed in **Section 3.8.2**. The required efficiency measures for small projects include:

- Energy efficiency of at least five percent greater than 2010 Title 24 requirements, and
- Water conservation measures that match the California Green Building Code in effect as of January 2011 (Riverside County, 2015b).

Therefore, for a project to have a less-than-significant impact related to GHGs, it must be below this threshold.

3.8.4 Impact Assessment

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant. As detailed in **Section 3.8.3**, the Riverside County CAP has set a threshold of 3,000 MT CO_2e to identify small projects that are considered less than significant and would not require mitigation. GHG emissions associated with the Proposed Project would result primarily from construction activities and would involve emissions from construction equipment and vehicle trips associated with construction workers and hauling. The Proposed Project is not expected to generate operational GHG emissions, as the sewer pipeline's primary function is to transport wastewater with minimal active mechanical processes or energy use. Consequently, operational emissions were not quantified, and there are no emissions to compare against established thresholds. Total GHG emissions from the Proposed Project's three-year construction duration are detailed in **Table 3.8-1**. The proposed construction activities would contribute a total of 1,620.5 MT CO_2e. Consistent with the methodologies in the County CAP, total GHG emissions from construction have been amortized over the 30-year lifetime of the Project, which would result in approximately 54.01 MT CO_2e per year. This would be well below the 3,000 MT CO_2e per year threshold, as established by the Riverside County CAP. As such, impacts would be less than significant.

Table 3.8-1: Total Estimated Construction GHG Emissions (MT CO_2e/yr)

Phase	Emissions
2025	165
2026	693
2027	691
2028	71.5
Total Construction Emissions	1,620.5
Amortized Construction Emissions	54.01

Source: **Appendix E**

b) Conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

No Impact. As discussed above, the Proposed Project would result in construction GHG emissions below the 3,000 MT CO_2e per year threshold, as established by the Riverside County CAP, and negligible operational GHG emissions. As such, the Proposed Project would not result in emissions that would adversely affect state-wide attainment of GHG emission reduction goals as described in AB 32 and SB 32. Furthermore, the Proposed Project would comply with all applicable building standards regarding construction. However, certain operational standards, including the efficiency standards detailed by the CAP, are not applicable because the Proposed Project does not involve buildings or water use. Project emissions would therefore have a less than cumulatively considerable contribution to global climate change impacts, and the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. No impact would occur.

3.9 HAZARDS AND HAZARDOUS MATERIALS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
significant hazard to the public or the environment?				
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency 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?	☐	☐	☒	☐

3.9.1 Environmental Setting

The Project Site extends through several residential neighborhoods adjacent to the Band's golf course, with other scattered commercial, open space, and agricultural uses. The surrounding area has historically maintained these uses. There are no records indicating past industrial or commercial activities involving hazardous materials within the project area. Comprehensive reviews of the Department of Toxic Substances (DTSC) EnviroStor (DTSC, 2024) and USEPA Envirofacts (USEPA, 2024b) databases confirmed the absence of any adverse effects or hazardous material incidents in this locale.

There are no known hazardous materials on the Project Site, including storage tanks or waste dumps, as it is located primarily within existing roads and driveways. There are some commercial uses adjacent to and within 500 feet of the Project Site, such as the Soboba Casino Resort and the Roadrunner Express Gas Station, that were developed within the last five years. These commercial uses would involve the routine use, transport, and storage of hazardous materials, which would be managed in accordance with local and federal safety requirements. There are no known industrial land uses near the Project Site. The absence of industrial activities and the predominance of residential land use have contributed to a low potential for hazardous material presence. Investigations into potential contamination revealed no issues concerning soil or groundwater contamination. Consequently, there have been no cleanup activities, as no hazardous conditions have been identified.

Several sensitive receptors, including on-Reservation and off-Reservation residences, the Noi Indian School, Soboba Preschool, and a community park (The Oaks at Soboba), are located within a quarter-mile of the Project Site. The Project Site is not located within the vicinity of a private airstrip or within an airport land use plan. It is also not within two miles of a public airport or public use airport. The nearest airport is Hemet-Ryan Airport, located approximately 8 miles southwest of the Project Site.

3.9.2 Regulatory Setting

The management of hazardous materials is subject to a comprehensive regulatory framework designed to ensure the protection of public health and the environment. This framework encompasses federal, state, and local regulations, each contributing a layer of oversight and enforcement to guarantee safe practices in the handling, storage, transport, and disposal of hazardous materials.

Federal Regulations

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) provides a comprehensive framework for the management of hazardous and non-hazardous solid waste. RCRA establishes guidelines for waste minimization, prohibits the open dumping of waste, and emphasizes the importance of recycling and conservation. The act requires hazardous waste to be tracked from its point of generation to its final disposal, ensuring responsible management throughout its lifecycle.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, addresses the cleanup of sites contaminated with hazardous substances. It authorizes the USEPA to respond to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA also establishes liability for parties responsible for contamination, ensuring they bear the costs of cleanup and remediation.

Occupational Safety and Health Administration

OSHA sets and enforces standards to ensure safe and healthy working conditions. OSHA regulations, particularly 29 CFR 1910.120, cover hazardous waste operations and emergency response activities. These regulations mandate comprehensive training programs, emergency response plans, and protective measures to safeguard workers handling hazardous materials.

State Regulations

California Hazardous Waste Control Law

The California Hazardous Waste Control Law (HWCL) mirrors the federal RCRA program but includes additional state-specific requirements. Administered by the DTSC, HWCL governs the generation, transportation, treatment, storage, and disposal of hazardous waste within the state. It aims to protect public health and the environment by ensuring the safe management of hazardous waste.

Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Proposition 65 requires businesses to provide clear and reasonable warnings about significant exposures to chemicals that cause cancer, birth defects, or other reproductive harm. It also prohibits the discharge of listed chemicals into sources of drinking water. Compliance with Proposition 65 ensures that the public is informed about potential chemical hazards and that water sources remain uncontaminated.

California Code of Regulations, Title 22

Title 22 of the California Code of Regulations encompasses regulations for the identification, classification, and management of hazardous waste. It includes stringent requirements for hazardous waste treatment, storage, and disposal facilities. Compliance with Title 22 ensures that hazardous waste is managed in a manner that minimizes risks to public health and the environment.

Tribal Ordinances and Regulations

On September 13, 2018, the Band adopted Ordinance No. GR96-GRO-05 "Prohibiting Illegal Hazardous Waste and Disposal on the Soboba Reservation." The ordinance prohibits open disposal, dumping, burying, or unpermitted burning of waste on the Soboba Reservation to protect public health and the environment. Individuals and entities must properly manage, transport, and dispose of waste, using secure and appropriate containers. Property owners or occupants are responsible for maintaining their premises in compliance with these regulations.

Local Regulations

Riverside County General Plan

The Riverside County General Plan includes policies and programs to ensure the safe management of hazardous materials. Key elements include requirements for hazardous materials business plans, emergency response plans, and proper storage and disposal practices to minimize risks to public health and the environment.

Riverside County Hazardous Materials Management Division

This division is responsible for implementing hazardous materials regulations within Riverside County. It enforces local ordinances related to the management of hazardous materials, such as Ordinance 651.5 including inspections, permitting, and emergency response.

City of San Jacinto Municipal Code

The City of San Jacinto has specific municipal codes that govern the storage, handling, and disposal of hazardous materials within City limits. San Jacinto Municipal Code Section 8.32.070 outlines hazardous waste hauling requirements and mandates that every person who collects or hauls hazardous or extremely hazardous waste must immediately notify the health officer in writing.

Riverside County Operational Area Emergency Response Plan

The City of San Jacinto contracts with the Riverside County Fire Department (RCFD) for fire and emergency services. The City's fire service is provided by two fire stations located within the City. The San Jacinto Fire Department is involved in the emergency response to hazardous materials incidents. They coordinate with other local agencies to provide rapid and effective response to any hazardous materials emergencies, ensuring public safety (Riverside County, 2019).

3.9.3 Impact Assessment

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant. Construction of the Proposed Project involves the use of routine hazardous materials such as fuels, lubricants, and solvents. These materials are necessary for construction activities but can pose risks if not managed properly. Routine handling of hazardous materials has the potential to result in spills or leaks, which could contaminate soil, groundwater, and surface water, including the nearby San Jacinto River. Additionally, improper disposal of hazardous materials could lead to environmental contamination and health risks for construction workers and the local community. Adherence to existing federal, state, and local regulations will reduce the potential for the routine use, transport, and storage of hazardous materials to result in significant impacts.

The on-Reservation portions of the Project Site are subject to only Tribal and federal laws, while the off-Reservation portions of the Project Site are subject to all local, State, and federal regulations. In order to ensure risks associated with hazardous materials use during construction are minimized consistently and to the maximum extent feasible, BMPs and project commitments provided in **Table 2.3-1** commit the Band to adhering to all Tribal, local, State, and federal hazardous materials across all portions of the Project Site.

Operation of the Proposed Project does not involve the use, transport, or storage of hazardous materials. With compliance with existing regulations, impacts would be less than significant and no mitigation would be required.

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?

Less than Significant with Mitigation. As discussed under Question A above, construction of the Proposed Project would require the use of hazardous materials. Accidental releases of hazardous materials during construction activities could occur due to equipment failure, human error, or unforeseen incidents. Such releases could have significant environmental and health impacts if not promptly addressed. Spills or leaks of hazardous materials could contaminate soil and water resources, including the San Jacinto River, posing risks to aquatic life and water quality. Additionally, exposure to hazardous materials could harm construction workers and nearby residents, particularly sensitive receptors such as schools. To reduce these risks to less-than-significant levels, **Mitigation Measure HAZ-1** requires the preparation and implementation of an Emergency Response Plan (ERP), which outlines procedures for responding to hazardous materials incidents, including containment, notification, and cleanup. The construction site will be equipped with spill response kits, and workers will be trained in their use. Regular site inspections and monitoring will help identify and address potential hazards promptly. Coordination with local emergency response agencies, such as the San Jacinto and Riverside County Fire Departments, under this ERP will ensure a swift and effective response to any incidents. With mitigation, this impact is less than significant.

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

Less than Significant with Mitigation. The Project Site is located in proximity to the Noi Indian School and the Soboba Preschool. Compliance with applicable local, State, and federal regulations pertaining to hazardous materials use and transport would minimize risks to sensitive receptors caused by the use of

hazardous materials during construction activities. Compliance with federal, state, and local regulations is crucial to ensuring the safe management of hazardous materials and minimizing environmental and health risks. The Proposed Project will obtain all necessary permits related to hazardous materials management, including those for storage, transportation, and disposal. In addition, due to the proximity of sensitive receptors, **Mitigation Measure HAZ-1** requires preparation and implementation of an ERP. Regular audits and inspections will be conducted to ensure ongoing compliance with applicable regulations. Detailed records of hazardous materials inventory, usage, and disposal will be maintained, and any spills or releases will be reported to the appropriate regulatory agencies.

Adhering to the ERP, BMPs, and compliance with all relevant regulations will minimize risks to public health and the environment. Regular monitoring, worker training, and coordination with local agencies will further ensure that hazardous materials are handled safely and in compliance with all regulatory requirements. With mitigation, the potential impacts are reduced to less-than-significant levels.

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?

Less than Significant. The Project Site extends through several residential neighborhoods adjacent to the Band's golf course, with other scattered commercial, open space, and agricultural uses in the vicinity. There are no records indicating past industrial or commercial activities involving hazardous materials within the project area. There are no known hazardous materials on the Project Site, including storage tanks or waste dumps, as it is located primarily within existing roads and driveways. There are some commercial uses adjacent to and within 500 feet of the Project Site, such as the Soboba Casino Resort and the Roadrunner Express Gas Station, that were developed within the last five years. There are no known industrial land uses near the Project Site. The absence of industrial activities and the predominance of residential land use have contributed to a low potential for hazardous material presence. Therefore, impacts would be less than significant.

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

No Impact. The Project Site is not located within the vicinity of a private airstrip or within an airport land use plan. It is also not within two miles of a public airport or public use airport. The nearest airport is Hemet-Ryan Airport, located approximately 8 miles southwest of the Project Site. As the Proposed Project is primarily focused on upgrading sewer infrastructure and does not introduce new hazards or noise sources that would exacerbate existing airport noise, there will be no impact.

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

Less than Significant. Construction and installation of the Proposed Project would occur within various rights-of-way and would result in lane closures. Full road closures are not anticipated, and the rights-of-way would remain open to traffic in both directions during construction. However, traffic diversions and detours may result from temporary lane closures. Therefore, implementation of a traffic management for the Proposed Project as discussed in **Table 2.3-1** would allow for maintained access to hospitals, emergency response centers, school locations, communication facilities, highways and bridges, or airports. As such, the Proposed Project would not impair implementation of or physically interfere with

an adopted emergency response plan or emergency evacuation plan, and this impact would be less than significant.

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

Less than Significant. During construction, the operation of equipment could create sparks that could ignite the vegetation on or adjacent to the Project Site. Examples of construction equipment that could ignite a fire and thus increase wildfire risk include power tools, pavement saws, and acetylene torches. However, implementation of BMPs in **Table 2.3-1** would reduce the probability of igniting a fire during construction. These BMPs include the prevention of fuel being spilled and putting spark arresters on equipment having the potential to create sparks. Operational activities are minimal and would not pose a significant fire risk. Therefore, the risk of loss, injury, or death involving wildland fires is less than significant.

3.9.4 Mitigation Measures

HAZ-1: Emergency Response Plan

The Band or the construction contractor shall develop and implement an ERP that includes procedures for hazardous materials incidents. At a minimum, the ERP shall include but not be limited to, the following measures:

- Coordinate with local emergency response agencies to ensure a prompt and effective response to incidents.
- Conduct regular drills and training sessions to ensure readiness for hazardous materials emergencies.
- Conduct regular inspections of storage areas, equipment, and containment systems.
- Perform routine maintenance to ensure that all safety measures are functioning correctly.
- Keep records of inspections and maintenance activities for regulatory compliance.
- Maintain accurate records of hazardous materials inventory, usage, and disposal.
- Document all training sessions, inspections, and incident responses.
- Ensure that all required reports are submitted to regulatory agencies in a timely manner.

3.10 HYDROLOGY AND WATER QUALITY

Would the project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable	☐	☐	☒	☐

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
groundwater management of the basin?				
c) Substantially alter the existing drainage pattern of the site or area including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or 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?	☐	☐	☒	☐

3.10.1 Environmental Setting

Hydrology

The Project Site is located within the San Jacinto River Watershed and the Middle San Jacinto River and Upper San Jacinto River subwatersheds, as shown in **Figure 3-8**. The San Jacinto River Watershed covers 780 square miles and includes Lake Elsinore, the largest natural freshwater lake in Southern California, located at the lowest point within the watershed. This system is all part of the larger Santa Ana River Basin (Lake Elsinore and San Jacinto Watersheds Authority, n.d.). The majority of the Project Site is within the Middle San Jacinto subwatershed, which experiences precipitation and temperature patterns typical of central Riverside County. The area averages 12.5 inches of annual rainfall, with temperatures averaging 75°F. Seasonal variations include mild winters with average temperatures around 52.3°F and hot summers averaging 97.8°F (City of San Jacinto, 2024).



Esri, CGIAR, USGS, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

FIGURE 3-8
WATERSHED BOUNDARIES

The San Jacinto River itself is 42 miles long, flowing generally north and west in the vicinity of the Project Site. In the project area, the San Jacinto River has a braided channel that flows in rainy periods and is prone to flooding after storm events. Hydrological data provided by the USGS indicates that the river's flow is not continuous, and measurements during dry months reflect the base elevation of gaging stations rather than active water flow. The USGS monitors the San Jacinto River at two locations near the Project Site. The first station, located approximately 4.5 miles east and upstream of the Project Site (Site ID: 11069500), recorded a maximum gage height of 3.72 feet on March 31, 2024, with flows receding by June (USGS, 2024c). A second station, approximately 2.5 miles west and downstream of the Project Site (Site ID: 11070150), consistently exhibited flashy flows reaching a maximum height of 2.94 feet on March 30, 2024 and declining to base elevations by April 18, 2024 and remaining dry through November 2024 (USGS,2024d). The historic maximum height recorded was 6.23 feet in January 2005. The San Jacinto River reaches upstream and downstream of the Project Site are not listed on the State's 303(d) list for impaired water bodies, which means there are no Total Maximum Daily Loads (TMDLs) or Basin Plan requirements for these water bodies. This status indicates that the water quality in the San Jacinto River is not currently impaired (SWRCB, 2022).

Drainage and Flooding

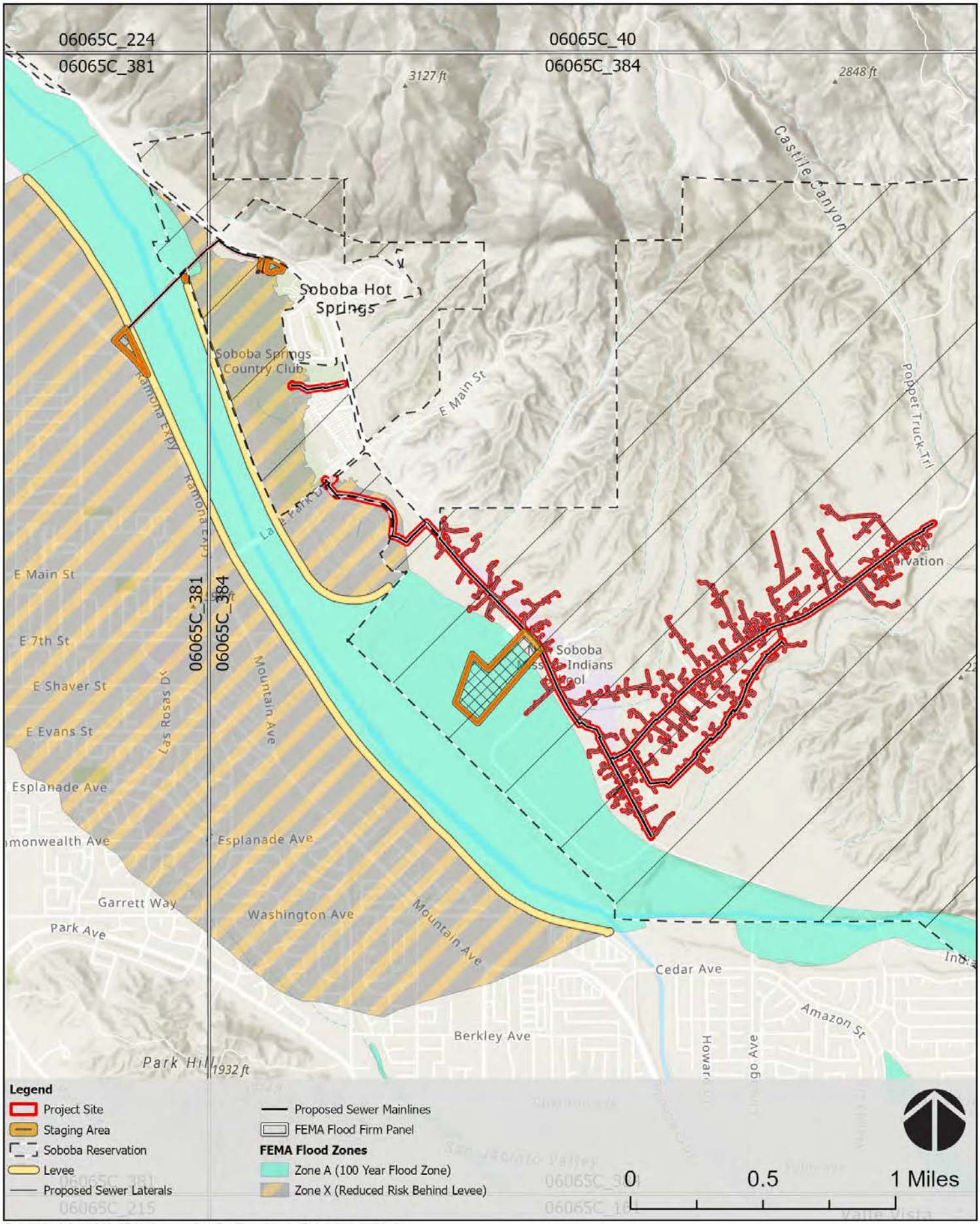
The majority of the Project Site is outside of the 100-year flood zone along the San Jacinto River. The central staging area and several pipelines in its vicinity are located in Flood Zone A (see **Figure 3-9**). **Figure 3-9** provides a FEMA map illustrating the flood zones. Levees are located on either side of the River, which provide reduced flood risk (Zone X) for some of the Project Site, including within the golf course and near the Soboba Springs community. Zone X identifies areas with a 500-year flood hazard or areas with a 100-year flood hazard with average depth of less than one foot.

The San Jacinto River is the major drainage feature in the area and generally flows southeast to northwest. Poppet Creek, Castille Canyon, and Juaro Canyon are major tributaries that drain the hillsides above and through the Reservation before joining the San Jacinto River; these drainages along with other unnamed streams are depicted in **Figure 3-10**. In addition to these larger channels, the Band maintains a network of drainage ditches, culverts, and pipelines to move stormwater around built components on the Reservation. Existing pipe culverts within the Project Site are displayed on **Figure 3-10**; the presence of culverts does not indicate natural channels or imply jurisdiction. Additionally, the Band’s golf course includes several ornamental ponds.

Groundwater Resources

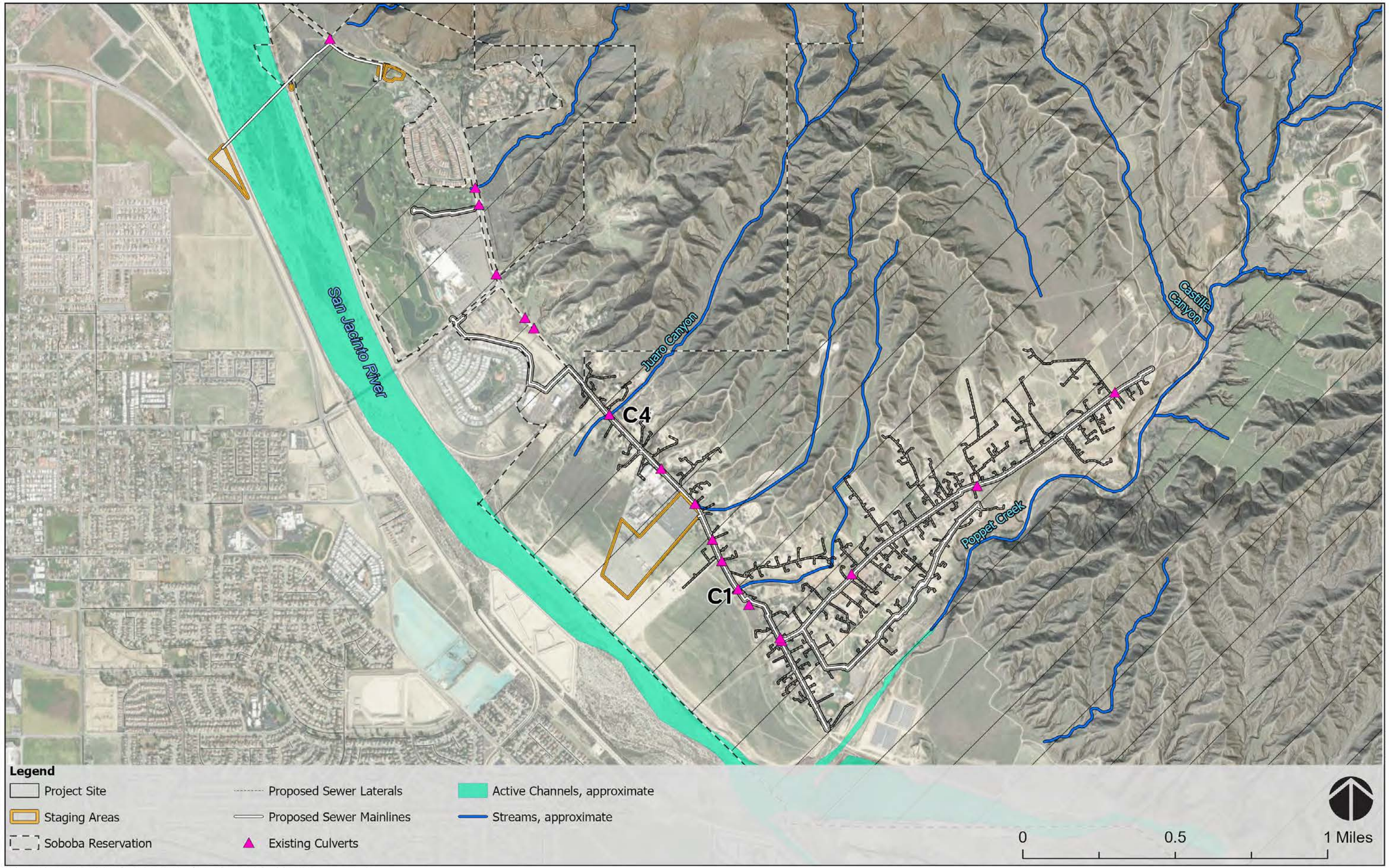
The Project Site is located within the San Jacinto groundwater subbasin, which is primarily recharged by the San Jacinto River and its tributaries, along with supplemental recharge from the State Water Project and reclaimed water via infiltration ponds. This groundwater basin, spanning 188,000 acres in western Riverside County, plays a critical role in the region's water supply. EMWD operates a groundwater recharge and storage program within the San Jacinto Basin.

The basin's management involves addressing the legacy issue of salt accumulation, which remains a concern despite efforts to improve water quality. To manage this, groundwater desalters are utilized to extract and treat groundwater with high Total Dissolved Solids (TDS) and nitrate concentrations, which have historically been problematic in certain areas of the basin. The high TDS concentrations in the groundwater are largely attributed to the basin’s geology, particularly the older alluvial deposits that contain fine materials with lower transmissivity, allowing salts to accumulate (California Department of Water Resources [DWR], 2006). Additionally, the movement of groundwater with elevated TDS content



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

FIGURE 3-9
FEMA FLOOD ZONES



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 3-10
SURFACE WATER RESOURCES

from the western part of the basin into areas of lower TDS in the central basin further contributes to the issue (DWR, 2006). While the overall groundwater quality has been considered suitable for domestic, irrigation, and industrial uses, recent data indicate variability in TDS and nitrate levels across the basin. For instance, TDS levels in some areas have been recorded as high as 12,580 mg/L, though the average is around 463 mg/L. Nitrate contamination within the groundwater basin is an additional water quality concern that is primarily linked to agricultural activities and wastewater inputs. The southeastern part of the basin in particular has experienced elevated nitrate-nitrogen concentrations due to agricultural practices, and nitrate levels exceeding 10 mg/L have been observed in wells throughout the basin (DWR, 2006). These higher levels of nitrate-nitrogen concentrations necessitate the ongoing management and remediation efforts to protect both groundwater and surface water resources (DWR, 2006). Regulatory Setting

Federal Regulations

Clean Water Act

CWA (33 U.S. Code [USC] § 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The USEPA is delegated as the administrative agency under the CWA. Relevant sections of the CWA are as follows.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines. Section 303(d) requires states to identify impaired off-Reservation water bodies, rank these impaired bodies based on severity of contamination and uses for the waters, and develop water quality management strategies, usually in the form of total maximum daily loads for the contaminant(s) of concern.
- Section 401 (Water Quality Certification) requires an applicant for any federal permit that proposes an activity that may result in a discharge to Waters of the U.S., to obtain certification from the USEPA for on-trust land activities, or the state for off-Reservation activities, that the discharge will comply with other provisions of the CWA.
- Section 402 establishes NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into Waters of the U.S. Each NPDES permit contains limits on concentrations of pollutants discharged to surface waters to prevent degradation of water quality and protect beneficial uses.
- USACE Section 404 Permit – Required under the CWA for any activity that results in the discharge of dredged or fill material into Waters of the U.S. The permit is issued by USACE and ensures that such discharges comply with environmental regulations and minimize impacts on aquatic resources.

The Federal Antidegradation Policy was adopted as part of the 1972 amendments to the CWA. Federal policy (CFR, Title 40, Part 131.12) specifies that each state must develop, adopt, and retain an anti-degradation policy to protect the minimum level of off-Reservation surface water quality necessary to support existing uses. Each state must also develop procedures to implement the anti-degradation policy through water quality management processes. Each state anti-degradation policy must include implementation methods consistent with the provisions outlined in 40 CFR § 131.12. On trust land, these issues are addressed by the USEPA.

General NPDES Permit for Construction

In 1990, an amendment to the CWA directed the NPDES permitting program to address non-point source pollution from construction activities. Construction activities include clearing, grading, excavation, stockpiling, and reconstructing existing facilities involving removal and replacement of existing foundations or other hardscapes. Construction projects disturbing one or more acres of soil must be covered under the NPDES Construction General Permit process. For tribal projects on land held in trust by the federal government, the Band proposing the project must apply for coverage under the USEPA's NPDES Construction General Permit. Project proponents are required to submit to the USEPA a complete Notice of Intent (NOI) to comply with the permit. A complete NOI package consists of an NOI form, site map, and fee. The USEPA's NPDES Construction General Permit also requires the development and implementation of a SWPPP. The SWPPP contains a site map showing the construction site perimeter, existing and proposed buildings, lots and roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the site. The SWPPP must list BMPs that will be implemented during construction and operation to address stormwater runoff rates and quality. SWPPP BMPs include the following categories:

- Site planning considerations, such as preservation of existing vegetation;
- Vegetation stabilization through methods such as seeding and planting;
- Physical stabilization through use of dust control and stabilization measures;
- Diversion of runoff by utilizing earth dikes and temporary drains and swales;
- Velocity reduction through measures such as slope roughening/terracing; and
- Sediment trapping/filtering through use of silt fences, straw bales and sand bag filters, and sediment traps and basins.

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) aims to protect public health by regulating the nation's public drinking water supply. The Act authorizes the USEPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants.

Federal Emergency Management Agency

The Federal Emergency Management Agency (FEMA) designates flood hazard areas and manages the National Flood Insurance Program (NFIP). Local agencies enforce floodplain management regulations to reduce flood risks, which include restrictions on development in flood-prone areas and requirements for flood-resistant construction.

State Regulations

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act is California's primary water quality control law. This Act establishes the SWRCB and nine RWQCBs with authority over water quality regulation in California. The Act requires the SWRCB and RWQCBs to adopt water quality control plans (Basin Plans) and implement programs to protect the state's waters.

California Safe Drinking Water Act

Similar to the federal SDWA, the California Safe Drinking Water Act aims to ensure the delivery of safe drinking water to the public. The Act provides the SWRCB with the authority to implement and enforce drinking water standards in California.

Sustainable Groundwater Management Act

The intent of the California Sustainable Groundwater Management Act (SGMA; Water Code § 10720 et seq.) is to "enhance local management of groundwater consistent with rights to use or store groundwater… [and] to preserve the security of water rights in the state to the greatest extent possible consistent with the sustainable management of groundwater." The SGMA states that "any local agency or combination of local agencies overlying a groundwater basin may elect to be a groundwater sustainability agency for that basin" (Water Code § 10723). A groundwater sustainability agency will be formed within each groundwater basin to prepare and implement a plan for long-term groundwater sustainability.

The San Jacinto Groundwater Basin Groundwater Sustainability Agency (GSA) was formed in compliance with the SGMA and is primarily managed by the EMWD. The GSA oversees the non-adjudicated portion of the San Jacinto Groundwater Basin, covering approximately 61% of the basin. Member agencies include EMWD, which serves a population of over 800,000, and other local stakeholders. The Groundwater Sustainability Plan (GSP) for the San Jacinto Groundwater Basin was submitted to the California DWR on November 17, 2021. The GSP aims to ensure long-term sustainable management of groundwater resources in the basin (San Jacinto Groundwater Basin GSP, 2021).

Local Regulations

Santa Ana Regional Water Quality Control Board

The Santa Ana RWQCB is responsible for the protection of water quality within the Santa Ana River Basin. The Board implements water quality control plans, conducts monitoring, and enforces regulations to maintain and improve the quality of the region's water resources. The Santa Ana RWQCB has prepared a Water Quality Control Plan (Basin Plan) for the Santa Ana River Basin. The Basin Plan is created to maintain and improve water quality and safeguard the beneficial uses of water in the region. It serves as a resource for the Regional Board and others who interact with water or manage wastewater in the area covered by the Plan. Agencies involved in environmental regulation and resource management also rely on the Basin Plan.

Riverside County Drainage Area Management Plan

The 2017 Drainage Area Management Plan (DAMP) for the Santa Ana Region is Riverside County's main document for translating municipal separate storm sewer system (MS4) requirements into actionable programs and implementation plans to manage urban runoff. The DAMP was developed and is regularly updated through a consensus-building process that includes input from the public and private sectors, and public review under CEQA. It serves as a model for documenting compliance with the Santa Ana Region MS4 Permit and guides Permittees in developing and implementing their Local Implementation Plans (LIPs), which contain the enforceable aspects of the compliance programs.

Groundwater Management Plan

The San Jacinto Basin was designated a high-priority basin in DWR's 2019 SGMA Basin Prioritization report, which requires the non-adjudicated portion of the Basin to be managed by a GSA by 2022, and for a GSP to be in place by 2024. EMWD's Board of Directors became the exclusive GSA for the western part of the Basin in April 2017. A draft GSP for the San Jacinto Groundwater Basin was released in September 2021, with the GSP approved in 2023 by DWR. The Hemet-San Jacinto Watermaster submits an annual report to DWR in compliance with SGMA for adjudicated basins (DWR, 2019). The Project Site is located within the adjudicated portion of the San Jacinto Basin, which is managed by the Hemet-San Jacinto

Watermaster, as defined by the Stipulated Judgment for the Canyon Subbasin, San Jacinto Upper Pressure Subbasin, and Hemet Subbasin (Superior Court of California, 2013).

Riverside County Policies

Riverside County implements several policies relevant to water management in unincorporated areas, including those impacting the San Jacinto River. The Floodplain Management Ordinance (Ordinance No. 458) regulates land use and development within designated floodplains to minimize flood risks, protect life and property, and prevent water quality degradation. The ordinance aligns with FEMA requirements and supports groundwater recharge by preserving natural floodplain functions (Riverside County, 2015d). Similarly, the Riverside County General Plan includes policies to encourage sustainable water management. For instance, Policy OS 2.1 promotes the protection of natural watercourses and the integration of water-sensitive design into development projects, while Policy OS 2.3 emphasizes groundwater recharge and conservation efforts (Riverside County, 2015).

In addition, the County adheres to the MS4 Permit, which requires developments in unincorporated areas to implement water quality controls, including BMPs and LID practices, to manage stormwater and urban runoff. The MS4 Permit is overseen by the Riverside County Flood Control and Water Conservation District.

City of San Jacinto Municipal Code

The San Jacinto Municipal Code includes several chapters relevant to water management. Chapter 13.44 addresses stormwater and urban runoff management, aiming to protect public health and safety by minimizing stormwater discharges and regulating non-stormwater discharges into the storm drain system. Chapter 15.28 regulates hillside development, requiring approval from the planning commission before any hillside development, which may include drainage and landscaping features to reduce erosion and support groundwater recharge. Chapter 15.40 covers floodplain management, providing land use and development regulations in flood-prone areas to promote public safety and minimize losses from flood conditions. The City Engineer is appointed as the floodplain administrator, responsible for ensuring adherence to all relevant flood-related regulations. Chapter 17.325 focuses on water-efficient landscaping and irrigation, requiring project applicants to submit a landscape and irrigation package for review and approval before receiving a certificate of occupancy or other final City approval. Finally, Section 17.600.100 requires new developments or modifications to existing developments to include a Water Quality Management Plan (WQMP) to prevent water quality deterioration and allows the City Engineer to approve the BMPs.

3.10.2 Impact Assessment

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant with Mitigation.

Construction Impacts

Construction activities, including earth moving, grading, trenching, and excavation, can temporarily alter the topography and drainage patterns of the Project Site, potentially increasing erosion and sedimentation, which could affect surface water quality. Additionally, the use of construction equipment and storage and handling of fuels, equipment lubricants, and fluids may result in petroleum product

discharges that could be harmful to water quality if they directly enter the San Jacinto River or its tributaries, or are spilled on the ground where they may enter the groundwater or be mobilized and transported in stormwater runoff following construction. Other potential construction related contaminants associated with the equipment used or inadvertently discharged by construction workers may include trash, cleaners, solvents, and human sanitary wastes. The staging areas where equipment and chemicals will be stored have been intentionally sited away from surface waters to minimize the potential for accidental releases, should they occur, to enter receiving waters. To minimize the potential for construction activities to result in water quality impacts, the Band will implement BMPs in compliance with the NPDES 2022 Construction General Permit from the USEPA for the approximately 134 acres of the Project Site on the Reservation. Approximately 5 acres of off-Reservation Project Site would obtain separate coverage through the SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (General Permit; Order No. 2022-0057-DWQ). As discussed in **Table 2.3-1**, coverage under the USEPA and SWRCB NPDES permits will require preparation and implementation of federal and State-level SWPPPs, with measures such as:

- Limiting grading activities to immediate construction areas.
- Employing temporary erosion control measures (e.g., silt fences, fiber rolls, vegetated swales).
- Scheduling construction activities to minimize disturbance during peak runoff periods.
- Stabilizing disturbed areas through paving or revegetation.
- Stabilizing construction area entrances and exits with large-diameter rock.
- Developing a spill prevention and countermeasure plan for proper storage, collection, and disposal of potential pollutants.
- Ensuring proper storage and handling of petroleum products.
- Providing sanitary facilities and disposal facilities for construction workers.
- Using wheel wash or rumble strips and sweeping paved surfaces to remove tracked soil.
- Implementing LID methods, such as bioswales, to manage stormwater runoff.

If groundwater is encountered during microtunneling or trenching, it would be discharged as guided by the Dewatering Plan prepared by the Band (**Appendix D**). As explained further in **Appendix D**, the water would be sampled and test in a laboratory, and specific actions would be dictated by testing results, with the primary means of disposal to discharge into a golf course pond or use as irrigation water if the water meets quality standards. Direct discharge to the San Jacinto River is an alternative method of that would only occur after obtaining all appropriate permits, including a Discharge Authorization Letter under RWQCB Order No. R8-2020-0006 for *de minimis* discharges (see **Section 2.2.3**). This Discharge Authorization Letter is only available for *de minimis* discharges that would not have a significant impact on water quality, and therefore if this dewatering option is necessary it would only occur under conditions where it would not cause a significant impact. As described in **Table 2.3-1**, the Proposed Project will implement specific BMPs, adhere to project-specific SWPPPs, and implement erosion control measures to ensure no significant impacts occur due to the proposed earthmoving, grading, and trenching activities in upland areas.

Three drainages were delineated in the ARD (**Appendix F-3**) as potentially meeting the jurisdictional criteria for federal waters of the U.S. These were identified as the San Jacinto River channel, Juaro Canyon channel, and an unnamed channel. These three drainages may also meet the criteria to be considered waters of the State. However, while the Juaro Canyon channel and the unnamed channel may otherwise meet the definition of waters of the State, their location on the Soboba Reservation is not within the State's jurisdiction. The San Jacinto River is not on the Reservation and therefore could be waters of the U.S. and waters of the State. The two culverted waters of the U.S. channels (Juaro Canyon and unnamed)

would not be impacted by project construction activities because the proposed sewer pipelines would be drilled below the culverts within the roadway using jack-and-bore technique, and no direct or indirect impacts to the channels would occur.

On the Band's Reservation, there are additional stormwater ditches or streams that do not meet the definition of waters of the U.S. or waters of the State. Regardless of jurisdiction, construction within or adjacent to these ditches and natural channels could result in significant water quality impacts should sediment or construction materials be carried downstream to receiving waters. **Mitigation Measure HYD-1** will reduce potential water quality impacts to other non-jurisdictional waters on the Reservation. **Mitigation Measure HYD-1** requires that any work adjacent to an existing drainage ditch or non-jurisdictional stream occurs when the channel is dry; that the channel and/or culvert (if culverted in its existing condition) are avoided to the maximum extent feasible and restored to its original condition immediately after construction concludes; and that if the channel is culverted and the culvert must be cut or otherwise altered for construction to occur, that the culvert be cleaned, repaired, and reinstalled immediately after construction. With implementation of **Mitigation Measure HYD-1**, water quality impacts due to work within jurisdictional and non-jurisdictional channels are reduced to less-than-significant levels.

Approximately 1,640 feet of the proposed 15-inch mainline will be microtunneled below the San Jacinto River. While the potential for frac-out to occur during the microtunneling operations under the San Jacinto River is low, it is an inherent risk when conducting horizontal directional drilling or microtunneling operations. A frac-out occurs when pressurized drilling fluids escape through fractures in the subsurface, potentially contaminating nearby water bodies and sensitive environments. **Mitigation Measure HYD-2** requires implementation of a detailed Frac-Out Contingency Plan that includes:

- Continuous monitoring of drilling pressures and return flows.
- Visual inspections along the drill path, especially near waterbodies.
- Immediate cessation of drilling activities if a frac-out is detected.
- Deployment of containment structures to prevent the spread of drilling fluids.
- Immediate notification to relevant regulatory agencies and execution of clean-up procedures.

A Preliminary Frac-Out Contingency Plan has been prepared and is included as **Appendix I**. Pursuant to **Mitigation Measure HYD-2**, this Frac-Out Contingency Plan shall be finalized prior to construction of the portion of the Proposed Project that involves microtunneling below the San Jacinto River. Although a frac-out is not expected, **Mitigation Measure HYD-2** will ensure that impacts are reduced to less-than-significant levels should it occur.

Operational Impacts

The long-term operation of the centralized sewer system is anticipated to provide significant benefits to water quality and public health by eliminating potential sources of pollution from failing septic systems. The sewer system will convey wastewater to the EMWD treatment facilities, ensuring it meets regulatory standards before discharge.

Potential operational issues or maintenance challenges are not anticipated due to the project's design and the planned maintenance agreements with EMWD. The elimination of septic systems will reduce biological contamination and improve the overall safety and hygiene of the community.

Additionally, the project's shift from septic systems to a centralized sewer system will significantly reduce the potential for groundwater contamination. Therefore, with adherence to BMPs and regulatory standards, the project will not violate any water quality standards or substantially degrade surface or ground water quality, making the impact less than significant.

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

Less than Significant. The Proposed Project would not require the use of or interfere with groundwater supplies. The construction and operation of the Proposed Project would not require the use of groundwater, and no significant change in impervious surfaces would occur that would impair groundwater recharge. The installation of sewer lines and underground lift stations is proposed primarily within existing paved roadways and therefore is not expected to significantly alter groundwater recharge rates. Consequently, the Proposed Project will not substantially decrease groundwater supplies or interfere with groundwater recharge, and the impact is less than significant.

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

i. Result in substantial erosion or siltation on- or off-site?

Less than Significant. Construction activities have the potential to cause erosion and siltation, but these impacts would be avoided or reduced to less-than-significant levels through conformance with the NPDES Construction General Permits. As described in **Table 2.3-1**, the Proposed Project will implement specific BMPs, adhere to project-specific SWPPPs, and implement erosion control measures to ensure no significant impacts occur due to the proposed earthmoving, grading, and trenching activities. When construction is complete, the existing surfaces will be restored; as a result, there will be no change in drainage patterns and no streams or rivers will be altered. Therefore, with these measures in place, the risk of substantial erosion or siltation is less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less than Significant. As discussed above and within **Table 2.3-1**, the Proposed Project must implement a SWPPP and stormwater BMPs to control stormwater runoff during construction activities. During project operations, surface runoff would not change substantially as there would be negligible change to impervious surfaces. Therefore, impacts would be less than significant.

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

Less than Significant. Based upon above discussions, the Proposed Project would not increase the amount of impervious surface and would not increase the amount or rate of stormwater runoff. **Table 2.3-1** includes the development of a SWPPP to manage stormwater runoff effectively. By implementing BMPs, the project will ensure that runoff water does not exceed the capacity of existing or planned stormwater drainage systems and does not provide substantial additional sources of polluted runoff. Therefore, the impact is less than significant.

iv. Impede or redirect flood flows?

Less than Significant. The Proposed Project is designed to avoid impacts on floodway zones and maintain natural hydrological functions. The alignment and depth of the sewer lines, particularly where they cross the San Jacinto River, have been carefully planned to withstand variable flow conditions and potential flooding events. No permanent above-ground structures are proposed. Consequently, the Proposed Project will not impede or redirect flood flows, ensuring the impact is less than significant.

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

Less than Significant. The Project Site and staging areas are partially located within Zone A, as illustrated in **Figure 3-9**. However, the Proposed Project includes measures to protect water quality, such as BMPs and compliance with floodplain management regulations, during construction. There are no long-term risks of pollutant release because no above-ground structures are proposed. The Project Site is not located in a tsunami or seiche zone. The risk of pollutant release due to project inundation in flood hazard zones is less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. The Proposed Project will comply with federal, state, and local regulations designed to protect stormwater quality. The Proposed Project would not use groundwater and therefore would not impact the ongoing management of the underlying groundwater basin. The Proposed Project's design, BMPs, and mitigation measures will ensure compliance with water quality control and sustainable groundwater management plans. Therefore, the impact is less than significant.

3.10.3 Mitigation Measures

HYD-1: Avoid Channels

Through contractual obligations with the contractor, the Band shall ensure that the following measures are enacted during the entire construction phase:

- Any and all construction activities adjacent to or within 50 feet of waters of the U.S. and waters of the State, an existing drainage ditch, and/or non-jurisdictional stream on the Reservation shall occur when the channel is dry;
- Existing drainage ditches and/or non-jurisdictional stream channels shall be avoided to the maximum extent feasible and restored to their original condition immediately after construction concludes; and
- Any culverts that must be cut or otherwise altered for construction shall be cleaned, repaired, and reinstalled immediately after construction.

HYD-2: Frac-Out Contingency Plan

Prior to microtunneling operations, the Band or its contractor shall prepare and implement a Frac-Out Contingency Plan that includes, but is not limited to, the following minimum standards for frac-out prevention and response:

- **Monitoring:** Continuously monitor drilling pressures and return flows, with visual inspections along the drill path, especially near waterbodies.
- **Immediate Response:** Halt drilling activities immediately if a frac-out is detected and deploy containment structures to prevent the spread of drilling fluids.
- **Notification:** Notify relevant regulatory agencies immediately and execute clean-up procedures as outlined in the Frac-Out Contingency Plan.

3.11 LAND USE AND PLANNING

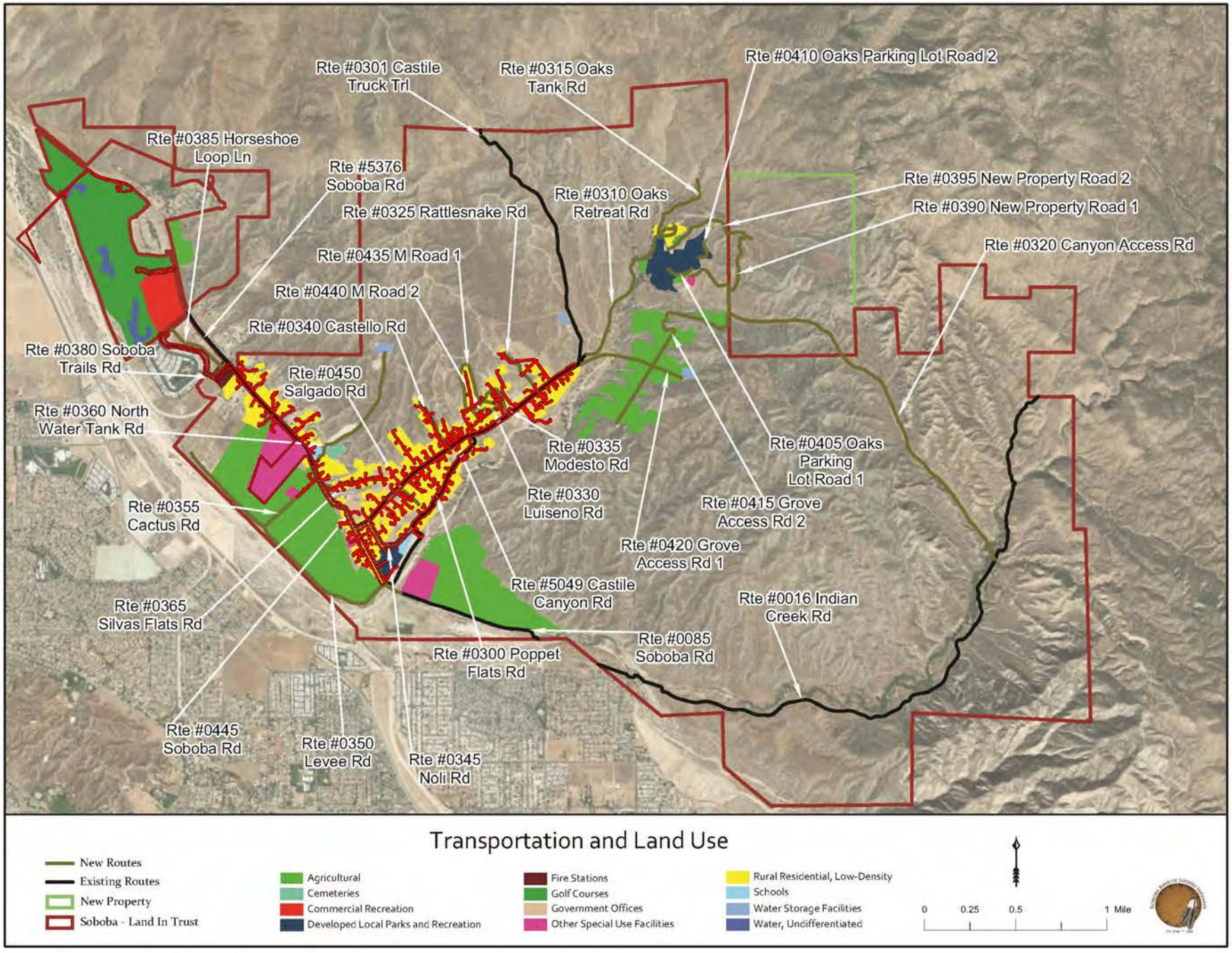
Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☒	☐
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

3.11.1 Environmental Setting

On-Reservation Land Uses

The Project Site is located primarily within the Band's 8,320-acre Reservation, with small portions in unincorporated Riverside County and within the City of San Jacinto, California. The Project Site is currently developed with roadways, driveways to private residences, and a golf course. The Project Site is bordered by mountainous terrain to the north and east; and residences and commercial buildings to the west and south. The Project Site crosses the San Jacinto River. Regional access to the Project Site is provided by I-74 and SR 79, while local access is provided by Soboba Road and Lake Park Drive.

As shown in **Figure 3-11**, the Reservation includes a mix of residential, public institutional, recreational, and agricultural land uses, and the Project Site is located primarily within roadways providing access between these uses. The area surrounding local roadways, such as Castille Canyon Road and Poppet Flats Road, which extend into the foothills, as well as along Soboba Road, is designated as low-density rural residential. This designation supports the development of rural-oriented residences while preserving natural resources and the scenic value of the foothills, particularly in areas where natural hazards like hillsides and slope limit development potential. Soboba Road functions as a major transportation corridor through the Reservation and connects to the City of San Jacinto. Due to their significance, Tribal facilities, including schools, fire stations, water facilities, government offices, and other special-use facilities, are clustered along the main roadway of Soboba Road. The northwestern portion of the Project Site is designated for recreational use, which includes both passive and active recreational spaces like the golf course operated by the Band and other commercial recreation areas, including the Band's Casino Resort. Areas southwest of Soboba Road are designated agricultural lands, acting as a buffer between built land uses and the San Jacinto River.



Source: Soboba Tribe; Acorn Environmental, 8/22/2024

FIGURE 3-11
TRIBAL LAND USE

Off-Reservation Surrounding Land Uses and Zoning

While City and County land use policies and zoning do not apply to the Band's Reservation, they do provide the regional context governing off-Reservation land use in the vicinity and the small portions of the Project Site totaling approximately 5.2 acres that are not within the Reservation. As shown in **Figure 3-12**, the small 0.69-acre portion of the Project Site off the Reservation within the County's jurisdiction is within Soboba Road. The off-Reservation portion of the Project Site within the City limits is Water and Public/Institutional (both of which are within the San Jacinto River channel) and Mixed Use (southwest of the river) which allow for medium to high density residential development and retail, office and service uses (**Figure 3-12**). Surrounding County land uses to the north and east include Very Low Density Residential and Open Space Rural, while surrounding City land uses to the south and west are a range of low- to high-density residential, commercial, and mixed use (**Figure 3-12**).

As shown in **Figure 3-13**, the small 0.69-acre portion of the Project Site off the Reservation within the County's jurisdiction is within Soboba Road. The off-Reservation portion of the Project Site within the City limits is primarily Open Space (San Jacinto River channel) and Mixed Use zoning (southwest of the river). Open Space allows for areas appropriate for passive recreational activities and conservation of natural and scenic resources. The Mixed Use zone allows for medium to high density residential development and retail, office and service uses (**Figure 3-13**). Surrounding County land use zoning includes R-R (rural residential), W-2 (controlled development zone) and R-3 (multi-family residential) to the north and east (Riverside County, 2023). Surrounding City land use zoning to the north and east includes rural residential, medium density residential, and very low density residential, while to the south and west are a range of low density residential to high density residential. The City of San Jacinto has surrounding land uses off-Reservation of mixed use, open space recreation, specific plan, and low density residential (San Jacinto, 2024).

Additional environmental setting information is found in **Section 3.2.1** and **Section 4.9.1**.

3.11.2 Regulatory Setting

Local

Riverside County General Plan

The Riverside County General Plan is the comprehensive planning document that guides future growth land uses in the unincorporated portion of the County of Riverside. The Land Use Element of the General Plan functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development. It designates the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public/quasi-public uses. The Land Use Element also discusses the standards of residential density and non-residential intensity for the various land use designations.

Riverside County Zoning Ordinance

The Riverside County Zoning Ordinance establishes land use zones and the allowable uses within those zones. It regulates development by defining development standards and designating lawful permitted uses and uses that may be approved through the permit process.

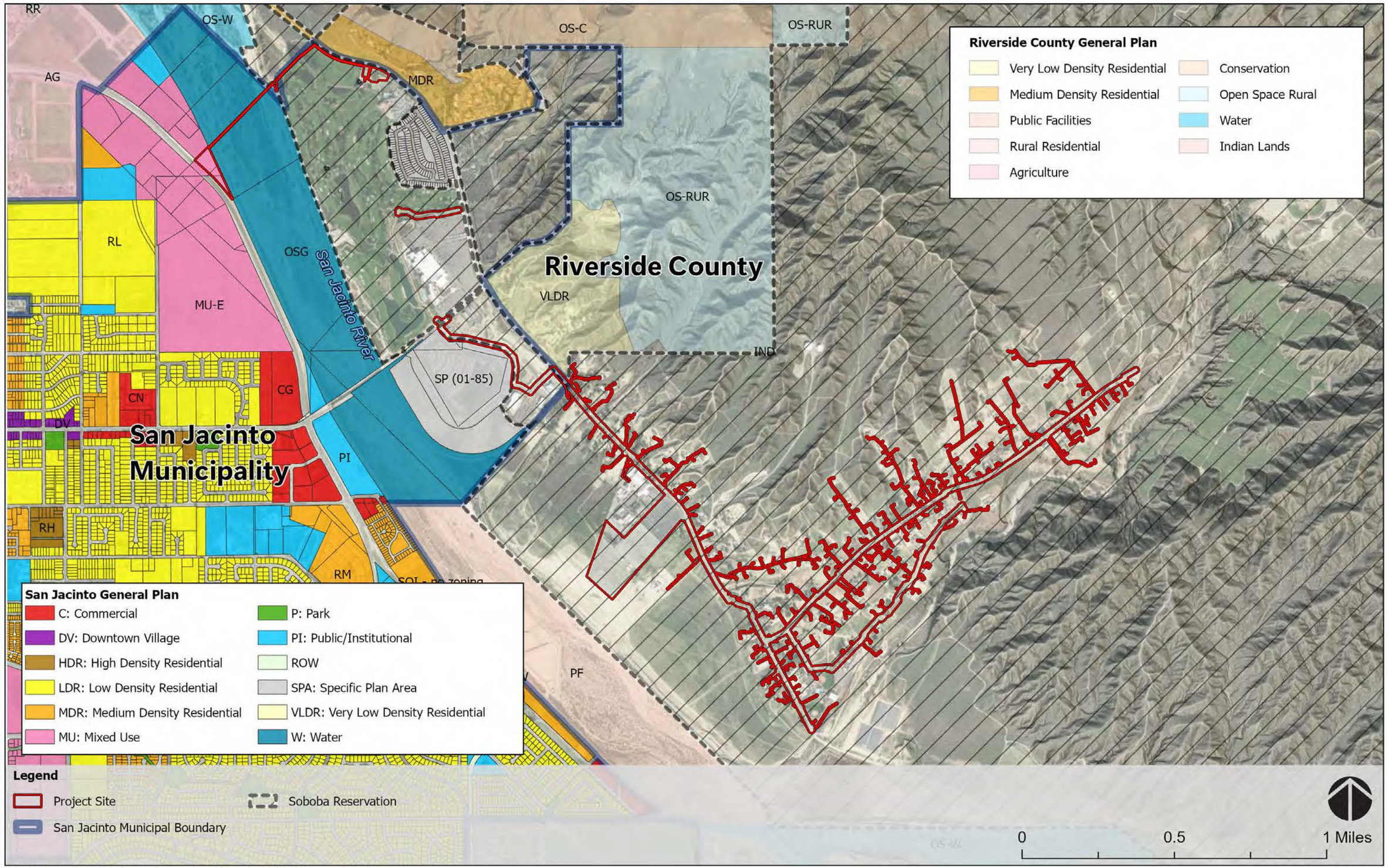


FIGURE 3-12
CITY AND COUNTY GENERAL PLAN

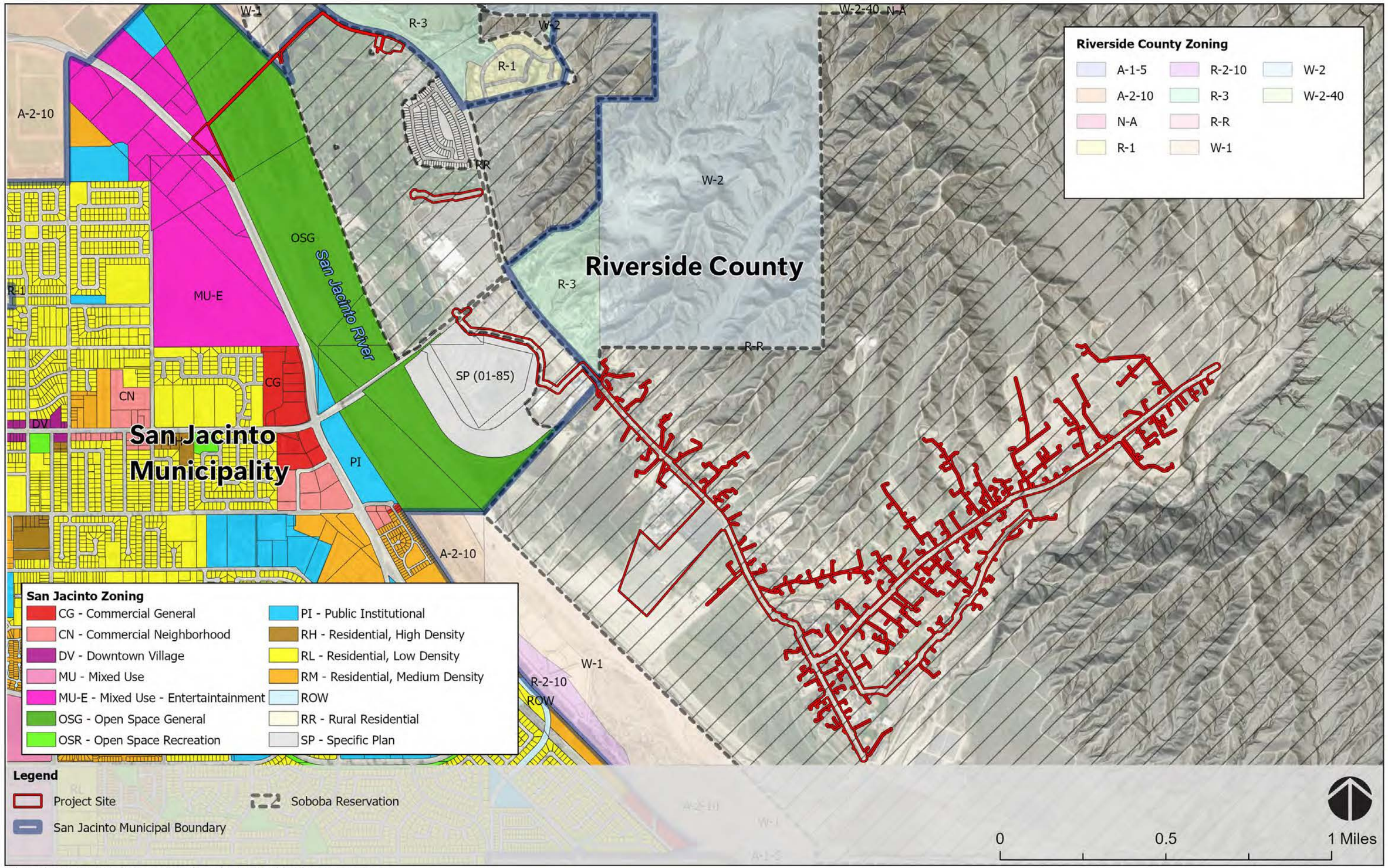


FIGURE 3-13
CITY AND COUNTY ZONING

San Jacinto General Plan

The General Plan is a set of long-term goals and policies that decision makers use to guide growth and development in the City of San Jacinto for the future. The goals and policies of the general plan are used as a basis on which to make land use decisions. The plan addresses issues including: housing, land use, mobility, economic development, resource management, public safety, and environmental justice.

San Jacinto Zoning/Development Code

The City of San Jacinto Zoning/Development Code establishes land use zones and the allowable uses within those zones. It regulates development by setting zone-specific standards as per Article 2 and designating allowable land uses. Development can be approved through the City's permit procedures.

3.11.3 Impact Assessment

a) Would the Project physically divide an established community?

Less than Significant. Projects that have the potential to physically divide an established community typically include new freeways and highways, major arterial streets, and railroad lines. However, construction of the Proposed Project would involve temporary lane closures for pipeline installation within roadways that could inhibit access between established communities. To ensure continued access, traffic management plans will be implemented during construction to minimize disruptions as discussed in **Table 2.3-1**. Further, the Proposed Project would include development of new sewer pipelines to support the surrounding established residential neighborhoods. These pipelines would be constructed in existing roadway rights-of-way or in pre-disturbed areas and would temporarily affect adjacent land uses through increased dust, noise, and traffic, but impacts would only be temporary and would end upon completion of construction. All roadways would be restored to pre-construction conditions once completed. The Proposed Project would not physically divide an established community and a less-than-significant impact would occur.

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

No Impact. The Proposed Project would be constructed in existing roadway rights-of-way or in pre-disturbed areas to the maximum extent feasible. The Proposed Project falls within three different jurisdictions: the Soboba Reservation, the City of San Jacinto, and Riverside County. The Proposed Project would not change any existing land uses. Project implementation would not interfere with, preclude, or conflict with existing land uses adjacent to the project area. Therefore, these sewer upgrades under the Proposed Project would have no impact.

3.12 MINERAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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?	☐	☐	☐	☒

3.12.1 Environmental Setting

CGS is responsible for the classification and designation of areas within California containing or potentially containing significant mineral resources. The CGS classifies lands into Aggregate and Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geologic Board, as mandated by the Surface Mining and Reclamation Act of 1975. Lands classified as MRZ-1 are areas where geologic information indicates no signification mineral deposits are present; MRZ-2 indicates areas that contain identified mineral resources; MRZ-3 indicates areas of undetermined mineral resources significance; and MRZ-4 indicates areas of unknown mineral resource potential. Lead agencies are required to incorporate identified MRZs resource areas delineated by the State into their general plans.

The Project Site is located within the San Bernadino Planning and Conservation (P-C) Region, which is generally classified as MRZ-2, and recognized by CGS as having significant sand and gravel deposits that are suitable as sources of Portland cement concrete aggregate. However, the Project Site itself is not classified as MRZ-2 (DOC, 1987; CGS, 2022). While the Riverside County General Plan designates the Project Site as MRZ-3, indicating that the significance of mineral deposits is unknown, the San Jacinto Valley Area Plan does not identify any mineral resources on the Project Site (Riverside County, 2015; Riverside County, 2021). Therefore, the Project Site does not contain any known State or locally designated mineral resources.

3.12.2 Regulatory Setting

State

Surface Mining and Reclamation Act of 1975

The Surface Mining and Reclamation Act (PRC Chapter 9, Division 2) provides a comprehensive surface mining and reclamation policy to ensure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. MRZs are applied to sites determined by the CGS as being a resource of regional significance and are intended to help maintain mining resources and protect them from encroachment of incompatible uses.

Local

The Riverside County General Plan

The Riverside County General Plan includes the following policies that apply to the Proposed Project:

Land Use Element

Policy LU 9.6: If any area is classified by the State Geologist as an area that contains mineral deposits and is of regional or statewide significance, and Riverside County either has designated that area in its general plan as having important minerals to be protected pursuant to subdivision (a) of Section 2761 of the Surface Mining and Reclamation Act, or has otherwise not yet acted pursuant to subdivision (a), then prior to permitting a use which would threaten the potential to extract minerals in that area, Riverside County shall prepare, in conjunction with its project CEQA documentation, a statement specifying its reason for permitting the proposed use, and shall forward a copy to the State Geologist and the State Mining and Geology Board for review.

Policy LU 9.7: Protect lands designated by the State Mining and Geology Board as being of regional or statewide significance from encroachment of incompatible land uses, such as high-density residential, low-density residential with high values, sensitive public facilities, institutions (e.g., schools, hospitals), etc., by requiring incorporation of buffer zones or visual screening into the incompatible land use.

Multipurpose Open Space Element

Policy OS 14.2: Restrict incompatible land uses within the impact area of existing or potential surface mining areas.

Policy OS 14.3: Restrict land uses incompatible with mineral resource recovery within areas designated Open Space-Mineral Resources and within areas designated by the State Mining and Geology Board as being of regional or statewide significance.

City of San Jacinto General Plan

The City of San Jacinto General Plan (Resource Management Element) includes the following policies that apply to the Proposed Project:

Policy RM-5.10: Ensure that any future mining activities be in compliance with the State Mining Reclamation Act, federal and state environmental regulations, and local ordinances.

City of San Jacinto Municipal Code

Chapter 8.56 of the City of San Jacinto Municipal Code regulates surface mining operations within the City limits, ensuring the continued availability of mineral resources and the reclamation of mined lands to a usable condition suitable for alternative land uses. Specifically, Chapter 8.56.200 outlines mineral resource protection for the City.

3.12.3 Impact Assessment

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

No Impact. While the region encompassing the Project Site is generally classified as MRZ-2, the Project Site itself is not identified as containing any mineral resources according to the DOC and CGS. The proposed pipeline routes are primarily within existing roadways and other developed areas. Construction of the Proposed Project would not change existing land uses of the Project Site. Therefore, the Proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. As such, there would be no impact.

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

No Impact. The Riverside County General Plan and San Jacinto Area Plan do not identify any mineral resources of significant value in the County. Therefore, the Proposed Project would not 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. As such, there would be no impact.

3.13 NOISE

Would the project result in:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 ground borne vibration or ground borne 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?	☐	☐	☐	☒

3.13.1 Environmental Setting

The Project Site is located in western Riverside County, mostly on the Band's Reservation and small portions sited within the City of San Jacinto limits and unincorporated Riverside County. The surrounding area includes a mix of residential, commercial, institutional, and recreational land uses as discussed further in **Section 3.10**. The existing noise environment is influenced by several factors, including traffic on local roadways, commercial activities, and natural ambient sounds. Ambient noise levels in the project area are typical of suburban and semi-rural environments. The primary sources of ambient noise are vehicular traffic from nearby roads, such as West Ramona Expressway, residential activities, and commercial activities, such as from the Soboba Casino Resort and Soboba Springs Golf Course. The noise levels can vary depending on the time of day, with higher levels typically occurring during daytime hours due to increased traffic and human activities.

To estimate the ambient noise environment, typical ambient noise levels for suburban and semi-rural areas, as well as any available data from noise measurements conducted in similar environments, can be used. Typical ambient noise levels in residential areas typically range from 45 to 55 A-weighted decibels (dBA) during the daytime and from 35 to 45 dBA during the nighttime (Caltrans, 2013). In commercial areas, ambient noise levels are usually higher, ranging from 55 to 65 dBA during the daytime and from 45 to 55 dBA during the nighttime (Caltrans, 2013). Noise levels from local roadways can vary depending on traffic volume and speed, but roadways near the Project Site do not have high traffic volumes. Therefore, roadway noise is estimated to be approximately 50 to 60 dBA over a 24-hour average based on data from the National Transportation Noise Map by the U.S. Department of Transportation (2023).

Based on these typical noise levels, the ambient noise environment for different parts of the Project Site can be estimated as follows:

- Residential Areas Adjacent to the Project Site:
  - Daytime Noise Levels: Approximately 50 to 55 dBA
  - Nighttime Noise Levels: Approximately 40 to 45 dBA
- Commercial Areas Near the Project Site:
  - Daytime Noise Levels: Approximately 55 to 65 dBA
  - Nighttime Noise Levels: Approximately 45 to 55 dBA
- Areas Near Major Local Roadways:
  - 24-Hour Average Noise Levels: Approximately 50 to 60 dBA (National Transportation Noise Map, 2023).

Sensitive Receptors

The nearest sensitive receptors to the Project Site include Soboba Preschool, Noli Indian School, St. Joseph's Catholic Church, Kut Poki Church, and residential neighborhoods, all located adjacent to the Project Site. Most of the sensitive receptors adjacent to the Project Site are located outside of City limits and within the unincorporated County or on the Reservation. Existing land uses are shown in **Figure 3-11.**

On the Reservation, single family residences, schools, and churches are considered sensitive receptors, and the Project Site extends immediately adjacent to these residences to accommodate the proposed sewer lateral connections to each home.

Within the City limits, the nearest sensitive receptor is the Soboba Springs Lake Park mobile home community along Lake Park Drive; this residential neighborhood is located approximately 25 feet from the

pipeline alignment in the vicinity of Lake Park Drive, although a sound wall is located between the pipeline route and the residential community. The residential neighborhood adjacent to the Soboba Springs Golf Course that is accessed via Chabela Drive off of Soboba Road is also within City limits, although it is over 425 feet from the nearest construction area and a portion of the golf course could provide limited noise reduction between the homes and the pipeline alignment.

The nearest sensitive receptor within the County is a residence approximately 660 feet northeast of the pipeline within Soboba Road that is within the County right-of-way.

3.13.2 Regulatory Setting

Local

County of Riverside Code of Ordinances - Noise Control

The purpose of the Riverside County Municipal Code is to provide a comprehensive set of regulations to govern various aspects of life within the county, ensuring the health, safety, and general welfare of its residents. Chapter 9.52, Noise Control, aims to set county-wide standards for noise regulation. However, it does not aim to define thresholds of significance for any analysis required by CEQA, and therefore no such thresholds have been established.

9.52.020 - Exemptions.

Sound emanating from the following sources is exempt from the provisions of this chapter:

A Private construction projects located one-quarter of a mile or more from an inhabited dwelling;
B Private construction projects located within one-quarter of a mile from an inhabited dwelling, provided that:
    1 Construction does not occur between the hours of 6 pm and 6 am during the months of June through September, and
    2 Construction does not occur between the hours of 6 pm and 7 am during the months of October through May;

9.52.040 - General sound level standards.

No person shall create any sound, or allow the creation of any sound, on any property that causes the exterior sound level on any other occupied property to exceed the sound level standards set forth in Table 1 of Section 9.52.040, Sound Level Standards (dB Lmax). For example, the Rural Residential zone has 45 dB Lmax for both daytime and nighttime hours.

City of San Jacinto Municipal Code – Chapter 8.40, Noise Control

The City of San Jacinto has established noise standards in its Municipal Code to protect residents and sensitive receptors from excessive noise. The following sections are applicable to the Proposed Project:

- **Section 8.40.030**: Establishes land use compatibility standards for noise.
- **Section 8.40.040**: Establishes maximum allowable exterior noise levels for mobile noise sources in community noise equivalent level (CNEL):
    - Residential Properties: 65 dBA exterior, 45 dBA interior.

- Transient lodging, hotels, motels, nursing homes, hospitals, assisted care facilities: 65 dBA exterior, 45 dBA interior.
- Private offices, churches, libraries, theaters, concert halls, meeting halls, schools: 65 dBA exterior, 45 dBA interior.
- General Commercial: 65 dBA exterior, 45 dBA interior.
- Parks and Playgrounds: 65 dBA exterior, 50 dBA interior.

- **Section 8.40.050**: Establishes maximum allowable noise levels for stationary noise sources for exterior and interior. The lowest permittable allowed equivalent noise level (Leq) for residential development is listed below with daytime being defined as hours of 7am to 10pm and nighttime as the hours between 10pm to 7am:
  - Exterior noise levels for residential properties: 65 dBA daytime, 45 dBA nighttime.
  - Interior noise levels for residential properties: 45 dBA daytime, 40 dBA nighttime.
  - Residential properties located within mixed use locations (e.g., intermixed with commercial) are permitted higher noise levels:
    - Exterior noise levels for residential properties: 70 dBA daytime, 70 dBA nighttime.
    - Interior noise levels for residential properties: 45 dBA daytime, 40 dBA nighttime.
- **Section 8.40.070**: Provides exemptions for certain activities. Relevant examples are listed below:
  - Public safety personnel in the course of executing their official duties, including, but not limited to, sworn peace officers, emergency personnel and public utility personnel. This exemption includes, without limitation, sound emanating from all equipment used by such personnel, whether stationary or mobile.
  - Noise sources associated with construction, repair, remodeling, demolition or grading of any real property. Such activities shall instead be subject to the provisions of Section 8.40.090.
  - Property maintenance, including, but not limited to, the operation of lawnmowers, leaf blowers, etc., provided such maintenance occurs between the hours of 7am and 7pm;
- **Section 8.40.090**: Regulates construction activity noise.

A The erection (including excavation), demolition, alteration or repair of any building shall occur between the hours of 7:00 am and 7:00 pm on weekdays and Saturdays, and between 9:00 am and 6:00 pm on Sundays and holidays, except when such work complies with the terms of a temporary use permit which may be issued by the community development director or his or her designee, upon a showing of sufficient need due to hot or inclement weather, or the use of an unusually long process material, or other circumstances of unusual and compelling nature.

B No landowner, construction company owner, contractor, subcontractor, or employer shall permit or allow any person or persons working under their direction and control to operate any tool, equipment, or machine in violation of the provisions of this section.

C Exceptions.

1 The provisions of this section shall not apply to emergency construction work performed by a private party when authorized by the city manager or his or her designee;

2 The maintenance, repair or improvement of any public work or facility by public employees, by any person or persons acting pursuant to a public works contract, or by any person or persons performing such work or pursuant to the direction of, or on behalf of, any public agency; provided, however, this exception shall not apply to the City of San Jacinto, or its employees, contractors or agents, unless:

a The city manager or a department head determines that the maintenance, repair or improvement is immediately necessary to maintain public services; or
b The maintenance, repair or improvement is of a nature that cannot feasibly be conducted during normal business hours; or
c The city council has approved project specifications, contract provisions, or an environmental document that specifically authorizes construction during hours of the day that would otherwise be prohibited pursuant to this section;

3 Any construction that complies with the noise limits specified in Section 8.40.040 or 8.40.050.

3.13.3 Impact Assessment

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?

Less than Significant. The Proposed Project involves the construction of sewer pipelines, lift stations, and associated infrastructure, which will generate temporary noise during construction and operational noise from the new facilities. Depending on the location of the sensitive receptor, either the City of San Jacinto Municipal Code or County Code of Ordinances would be applicable for assessing the severity of an impact. There are no Tribal ordinances specific to noise standards during construction. As illustrated in **Figures 1-3** and **3-12**, the majority of the Project Site is located within the Reservation, while the northern portion lies within the City of Jacinto boundary and a small amount within the County. Consequently, sensitive receptors potentially affected by the Proposed Project would be subject to either County or City noise regulations/guidelines depending on which jurisdiction they are located within (refer to **Section 3.13-2** for further regulatory details). For on-Reservation sensitive receptors, the Band has not adopted a noise ordinance, and therefore County and City thresholds were used as guidance depending on the receptor's location.

Construction

Construction activities associated with the Proposed Project would include grading, excavation, filling, and the installation of sewer pipelines, lift stations, and associated infrastructure. This would require the use of work trucks, graders, earthmovers, backhoes, excavators, water trucks, vibratory compactors, and welding equipment along with other supporting equipment. For example, construction of much of the proposed sewer pipelines would involve trenching in roadways on the Reservation using a conventional cut-and-cover technique. This technique includes noise-generating activities such as saw cutting of the pavement, trench excavation, trench backfill and compaction, and site restoration/pavement replacement. Although the entire construction duration is estimated to require three years, the majority of construction activities would be brief and temporary in any given location, and the proposed facilities will be located within public rights-of-way or areas just adjacent to them. For example, the installation of pipelines would occur within public rights-of-way or nearby areas, with typical pipeline installation advancing along roadways at an average rate of 50 feet per day (ESA, 2019). As a result, construction noise near any single residence would be temporary, is expected to require a few days but would last no more than a week at any one given location, and would diminish as the work moves along the roadway. The exception to the way equipment would move along a roadway is the location of the microtunneling boring pits where stationary equipment will be running on either side of the San Jacinto River. While these areas

would have a longer construction duration that generates noise and does not move along a linear path, there are no nearby sensitive receptors that would be affected. On the southwest side of the river, the nearest neighborhood is over 1,400 feet away and on the northeast side of the river, the nearest sensitive receptor (single-family home) is over 1,700 feet. At these distances, the noise of the microtunneling operations would attenuate to an unnoticeable level and would therefore not cause a significant impact on the ambient noise environment. Other sensitive receptors, including Soboba Preschool, Noli Indian School, St. Joseph's Catholic Church, Kut Poki Church, and residential neighborhoods, are located along the rest of the Project Site alignments, and would therefore be exposed to construction noise for brief periods. **Table 3.13-1** shows typical maximum noise levels associated with various types of construction equipment. Construction activities could generate noise levels that could reach 74 to 90 dBA Lmax at a distance of 50 feet.

Table 3.13-1: Construction Equipment Noise Levels

Construction Equipment	Typical Maximum Noise Levels (dBA) at 50 feet	Typical Maximum Noise Levels (dBA) at 25 feet with 6 dBA Attenuation
Backhoe	80	86
Compactor	82	88
Concrete Mixer	85	91
Pavement Saw	90	96
Excavator	81	87
Generator Set	82	88
Grader	85	91
Paver	85	91
Truck	84	90
Dozer	85	91
Roller	85	91
Scraper	85	91
Tractors/Loaders	80	86
Welders	74	80

Sources: FTA, 2018; FHWA, 2006

There are no Tribal ordinances limiting construction noise on the Reservation, and given the overarching goal of the Proposed Project is to connect Tribal residences to the regional sewer treatment plant, the noise impacts of construction are considered to be less than significant to on-Reservation sensitive receptors with the inclusion of BMPs in **Table 2.3-1**. These BMPs encourage the use of mufflers and lower-noise equipment wherever possible, locating stationary equipment (such as pumps or generators) as far as practicable from sensitive receptors, and to designate a Tribal disturbance coordinator during construction. As discussed above, the majority of the City and County sensitive receptors are over 400 and 600 feet away from the Project Site, respectively, with the exception of the Soboba Springs Lake Park mobile home community. This neighborhood is approximately 25 feet from a proposed mainline, although there is a wall providing an acoustical barrier between the neighborhood and the Project Site, reducing construction related noise by approximately 5 dBA given that the wall blocks the line-of-sight of the proposed construction (Federal Highway Administration [FHWA], 2001). However, part of the proposed

construction is located uphill of the neighborhood and subsequently above the wall, therefore reducing the sound reduction of the wall at these locations. Instead, construction noise could be reduced due to the hill partially obscuring the line-of-sight between construction activities and the houses.

Given that off-Reservation sensitive receptors are adjacent to the Project Site and could be as close as 25 feet to construction activities, they could be exposed to noise levels ranging from 80 to 96 dBA Lmax from construction activities, raising the ambient noise environment significantly from the current levels of 50 to 60 dBA while high noise generating equipment is being used. For sensitive receptors within the City boundary, this increase would exceed the standards set forth within Section 8.40.050 of City Municipal Code: 65 dBA during daytime hours and 45 dBA during nighttime hours. However, construction activities associated with the Proposed Project would comply with the City's noise regulations as outlined in Section 8.40.090, which restrict construction activity to the hours of 7:00 AM to 7:00 PM on weekdays and Saturdays, and 9:00 AM to 6:00 PM on Sundays and holidays. For sensitive receptors located within the unincorporated County, construction activities within a quarter mile of an inhabited dwelling are exempt under Section 9.52.020 if confined to the hours of 6 am to 6 pm during June through September and 7 am to 6 pm through the remainder of the year. With BMPs to further reduce potential noise levels, as described in **Table 2.3-1**, construction noise impacts would be less than significant.

Operation

The proposed lift stations would generate some noise, but they would be located below ground level and therefore the noise from the pumps would not exceed existing ambient noise levels. The underground pipelines would not generate noise. Periodic monitoring and maintenance would be required, but would occur during daytime hours and would be of short duration. Therefore, noise generation would be minimal and is not anticipated to be in exceed local standards. This impact is less than significant.

b) Generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant with Mitigation. The Proposed Project involves construction activities that could generate ground-borne vibration, including excavation, use of heavy machinery such as pavement saw cutters and jackhammers, compactors, and microtunneling operations. Sensitive receptors, such as Soboba Preschool, Noli Indian School, St. Joseph's Catholic Church, Kut Poki Church, and residential neighborhoods, are adjacent to the Project Site and subsequently could experience construction-related vibrations. However, neither the City nor County have specific vibration standards. According to the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment, humans notice vibration at approximately 65 vibration decibels (VdB). The threshold for annoyance occurs approximately at 80 VdB while damage for typical buildings may start to occur at vibration levels of 100 VdB. **Table 3.13-2** provides the vibration levels for equipment commonly used in construction projects at a reference distance of 25 feet.

All construction vibrations would be below the structural damage threshold (100 VdB) at this distance or greater. However, the majority of the equipment listed exceeds the human annoyance threshold (80 VdB) at 25 feet (FTA, 2018). Given that sensitive receptors are adjacent to the Project Site, vibration could be an issue when high-vibration equipment is used. Construction activities within 100 feet of sensitive receptors could cause potential annoyance. This is a potentially significant impact. BMPs in **Table 2.3-1** require locating stationary equipment as far as practicable from sensitive receptors and the designation of a Tribal disturbance coordinator during construction. In addition, **Mitigation Measures NOI-1** requires the use of equipment with vibrations at or below 100 VdB within 100 feet of buildings or employing setbacks or buffers. With incorporation of mitigation, the impacts would be less than significant.

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?

Table 3.13-2: Vibration Source Levels for Construction Equipment

Equipment	Maximum Vibration Level at 25 feet [VdB (rms)]
Vibratory Roller	94
Hoe Ram	87
Large bulldozer	87
Loaded trucks	86
Jackhammer	79
Small bulldozer	58

Source: FTA, 2018
rms: root mean square

No Impact. The Project Site is not located within the vicinity of a private airstrip or within an airport land use plan. It is also not within two miles of a public airport or public use airport. The nearest airport is Hemet-Ryan Airport, located approximately 8 miles southwest of the Project Site. As the Proposed Project is primarily focused on upgrading sewer infrastructure and would not introduce new noise sources that would exacerbate existing airport noise, there will be no impact.

3.13.4 Mitigation Measures

The following mitigation measures are recommended for reducing potential construction vibration impacts to sensitive receptors:

NOI-1: Minimize Vibrational Equipment

The use of vibrational construction equipment shall be restricted such that vibration levels will not exceed 100 VdB within 100 feet of any buildings adjacent to the Project Site. Should any vibrational construction equipment be required that results in vibration decibel levels that would exceed 100 VdB within 100 feet of any building, a buffer or set back will be utilized and/or equipment that generates lower vibration levels will be used.

3.14 POPULATION AND HOUSING

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

Census tracts are designed to be relatively homogeneous units with respect to population characteristics, economic status, and living conditions. Therefore, statistics of census tracts provide a more accurate representation of the racial and economic composition of a community than other geographic areas. Block groups are a further division of census tracts; however, at this scale less data is available, and data can have a very high margin of error (e.g., exceeding 50 percent). The census tracts that were analyzed include Census Tracts 513.02, 9415, 435.09, and 435.13, which includes the Project Service Area. In addition, data was analyzed for the City, County, and State.

Population

Small portions of the Project Site are located within the city of San Jacinto and Riverside County, while the majority of the Project Site is located on the Band's reservation. The U.S. Census Bureau estimates the 2021 population of the City, County, and State were 53,097; 2,369,118; and 38,701,352 respectively (**Table 3.14-1**). Between 2020 and 2021, the City experienced annual population growth of 8.1 percent, while the County and State experienced an overall decline of 2.9 and 1.7 percent, respectively. Currently, the Soboba Band has an enrollment of over 1,600 tribal members, which includes both on and off-Reservation members. In 2021, the Project Service Areas had populations of 2,009; 2,342; 905; and 3,358 people, respectively. Between 2020 and 2021, three tracts in the service area experienced annual population growth and one experienced an overall decline.

Table 3.14-1: Population and Housing Data

Census Data	City of San Jacinto	Riverside County	State of California	Project Service Area			
				Census Tract (CT) 513.02	CT 9415	CT 435.09	CT 435.13
Population							
Estimated Population (2021)[1]	53,097	2,369,118	38,701,352	2,009	2,342	905	3,358
Estimated Population (2020)[2]	48,786	2,437,864	39,346,023	1,723	2,402	871	3,232
Population growth (2020 to 2021)	8.1%	-2.9%	-1.7%	14.2%[3]	-2.6%	3.8%[3]	3.7%
Housing[4]							
Housing units	15,406	851,646	14,424,442	685	632	313	969
Vacant units	980	101,670	1,108,620	135	44	0	26
Vacancy rate	6.4%	11.9%	7.7%	19.7%	6.7%	0.0%	2.7%
Persons Per Household (2022)	3.73	3.19	2.89	-	-	-	-

Source: [1]U.S. Census Bureau, 2021; [2]U.S. Census Bureau, 2020b; [3]based on population growth from 2016 to 2021; [4]Based off 2022 ACS data, 5-year. U.S. Census Bureau, 2022a, 2022b

Housing

In 2022, the City was estimated to have approximately 15,406 housing units, of which 6.4 percent were vacant (**Table 3.14-1**). There were approximately 851,646 housing units in Riverside County, of which approximately 11.9 percent were vacant. There were approximately 14,424,442 housing units in the State, of which 7.7 percent were vacant. Project Services Areas had between 313 and 969 housing units and vacancy rates between 0 and 19.7 percent.

3.14.2 Regulatory Setting

Local

Riverside County General Plan

The Housing Element of the Riverside County General Plan identifies and establishes the County's policies to meet the housing needs of the population in unincorporated Riverside County. Policies applicable to the Proposed Project include:

> **Policy H 1.2:** Encourage innovative housing development that promotes and facilitates development of new affordable housing.
>
> **Policy H 1.4:** Strive to remove barriers to new housing production, including advancing adaptive policies, regulations, and procedures.

City of San Jacinto General Plan

The Housing Element of the City of San Jacinto General Plan outlines policies that focus on the maintenance and provision of housing in terms of type, affordability, and style. The following policies apply to the Proposed Project:

> **Policy 1.1:** Develop and foster activities to increase the health, safety, and property values of the City's existing housing stock.
>
> **Policy 1.4:** Encourage continued and new investments in established communities.
>
> **Policy RM-9.4:** Prioritize the placement of new infrastructure in areas targeted for near-term development and in areas designated as disadvantaged communities through the orderly extension of infrastructure.

3.14.3 Impact Assessment

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

Less than Significant. The Proposed Project would not directly induce unplanned population growth because no new housing or permanent employment are proposed. The Proposed Project would, however, support gradual future planned growth on the Reservation. The Proposed Project involves construction of new sewer laterals on-Reservation and mainline pipelines both on- and off-Reservation. The on-Reservation laterals would accommodate the replacement of septic tanks and seepage pits within existing neighborhoods and would result in new customers being served by EMWD's regional wastewater treatment facilities, but these new customers do not represent new or unplanned population.

The replacement of the existing, temporary forcemain below the San Jacinto River would serve existing non-Tribal communities in addition to the on-Reservation land uses, which would maintain local wastewater service to EMWD's existing customers. No new off-Reservation sewer lateral connections are proposed. The Proposed Project is designed to meet the local service needs of existing and planned residential, commercial, and administrative developments on the Reservation. This would accommodate existing wastewater demand and planned growth on the Reservation.

Therefore, the Proposed Project would not directly or indirectly induce unplanned population growth, and impacts would be less than significant.

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

No Impact. Construction and operation of all Proposed Project components will occur primarily within existing roadways and driveways or within developed areas such as the existing golf course. The Proposed Project would not displace existing people or houses or require construction of replacement housing. No impact would occur.

3.15 PUBLIC SERVICES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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:				
I. Fire protection?	☐	☐	☐	☒
II. Police protection?	☐	☐	☐	☒
III. Schools?	☐	☐	☒	☐
IV. Parks?	☐	☐	☒	☐
V. Other public facilities?	☐	☐	☐	☒

3.15.1 Environmental Setting

The Soboba Fire Department (SFD) is responsible for providing fire and emergency services to the Soboba Reservation and is located directly adjacent to the Project Site. SFD employs a total of 26 staff members working in three shifts to ensure round-the-clock coverage. The department responds to approximately 1,430 incidents annually (Soboba Band of Luiseno Indians, 2024). The SFD has a mutual aid agreement with the RCFD. The RCFD, in cooperation with Cal Fire, is responsible for providing fire and emergency services in the County in addition to hazardous material emergency services. The RCFD responds to more than 150,000 service calls per year (RCFD, 2021). Station 72 is the nearest County fire station to the Project Site, approximately 1.1 miles southeast.

Public safety on the Soboba Reservation is ensured through the joint efforts of the Soboba Department of Public Safety and the Riverside County Sheriff's Office. The Soboba Department of Public Safety provides law enforcement and first responder services to the Project Site (Soboba Band of Luiseño Indians, 2024b). Additionally, the Soboba Band of Luiseño Indians contracts with the Riverside County Sheriff's Office for patrol services. The Hemet Station, located 3.5 miles southwest, provides County service to the Project Site. The San Jacinto Police Department contracts with the Riverside County Sheriff's Department to provide law enforcement services to the off-Reservation portions of the Project Site, with the nearest police station located 1 mile southwest.

The Project Site is served by the San Jacinto Unified School District (SJUSD), which oversees fifteen schools with approximately 10,276 students (National Center for Education Statistics, 2024). In addition, there are two schools located on the Soboba Reservation adjacent to the Project Site: Soboba Preschool and Noli

Indian School. Soboba Preschool serves exclusively Native American students but falls under the jurisdiction of the SJUSD. Noli Indian School is tribally controlled and operates under the jurisdiction of the Bureau of Indian Education (Bureau of Indian Education, 2024). Noli Indian School serves exclusively Native American students grades 6 through 12 and represents approximately 27 tribes (JCJ Architecture, 2024).

The Soboba Parks and Recreation Department offers a variety of services and recreational opportunities, including the Soboba Springs Golf Course, which the Proposed Project crosses through (Soboba Band of Luiseno Indians, 2024c). Additional recreational opportunities are provided by the Riverside County Recreation and Park District. The Valley-wide Recreation and Park District serves the area near the Project Site. Recreational resources near the Project Site include Durango Park, Rancho Park, Belicia Park, Mistletoe Park, and Salee park, among others. The San Bernadino National Forest lies to the east of the Project Site.

3.15.2 Regulatory Setting

Local

Riverside County General Plan

The Riverside County General Plan includes the following policies that apply to the Proposed Project:

Policy OS 20.3: Discourage the absorption of dedicated park lands by non-recreational uses, public or private. Where absorption is unavoidable, replace park lands that are absorbed by other uses with similar or improved facilities and programs.

Policy OS 20.4: Provide for the needs of all people in the system of the County recreation sites and facilities, regardless of their socioeconomic status, ethnicity, physical capabilities, or age.

Policy OS 20.5: Require that development of recreation facilities occurs concurrent with other development in an area.

Policy OS 20.6: Require new development to provide implementation strategies for the funding of both active and passive parks and recreational sites.

City of San Jacinto General Plan

The City of San Jacinto General Plan includes the following policies that apply to the Proposed Project:

Policy LU-1.5: Public Services for Quality of Life. Maintain appropriate sites for institutional and public facility uses that can accommodate the infrastructure and facilities needed to serve the community.

Policy RM-7.3: New Facilities. Encourage the use of less developable or undevelopable lands such as utility corridors, fault zones, flood control facilities, channels, and easements for recreational uses, when feasible.

Policy RM-7.5: Maintenance. Require that parks and recreational facilities be well-maintained by the responsible agency.

3.15.3 Impact Assessment

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:

i. Fire Protection?

No Impact. The Project Site is served through the joint efforts of SFD and RCFD. The SFD station is located adjacent to the Project Site, while the nearest RCFD station is located 1.1 miles southeast. The construction and operation of the Proposed Project would not result in increases in the need for fire protection services. The Proposed Project is not expected to impact fire protection services. Wildfire BMPs are outlined in **Table 2.3-1** and would be employed during construction to minimize potential risks of fire ignition and reduce the need for fire protection services.

ii. Police Protection?

No Impact. The Project Site is served through the joint efforts of the Soboba Department of Public Safety, the Riverside County Sheriff's Office, and the San Jacinto Police Department. The construction and operation of the Proposed Project are expected to result in no need for police services. There are no significant impacts related to police protection or service anticipated with implementation of the Proposed Project.

iii. Schools?

Less than Significant. The Proposed Project would replace the use of existing septic systems on the Reservation. Over time, the Proposed Project will facilitate new housing and population growth on the Reservation. This growth is expected to be gradual and does not represent unplanned growth that will require new school facilities. The Proposed Project will not result in new housing or population growth off-Reservation that would generate increased demand for school services. Accordingly, implementation of the Proposed Project would not result in the need for construction of additional school facilities and impacts would be less than significant.

iv. Parks?

Less than Significant. The Proposed Project crosses through the Soboba Springs Golf Course. As a result, construction activities would temporarily affect the golf course. However, surface restoration techniques would be employed after segments of pipeline construction are completed to restore all surfaces and roadways to pre-project conditions, including repaving golf cart pathways. Operation of the Proposed Project would not affect existing park facilities or increase the demand for additional recreational facilities. Any future growth on the Reservation would not be expected to significantly increase demand for parks. Given the temporary nature of construction impacts, the Proposed Project is expected to have a less than significant impact on parks.

v. Other Public Facilities?

No Impact. The Proposed Project would not result in a need for additional or other public facilities. Therefore, the Proposed Project would have no impact.

3.16 RECREATION

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

As described in **Section 3.15**, the Soboba Parks and Recreation Department offers a variety of services and recreational opportunities, including the Soboba Springs Golf Course, which the Proposed Project crosses through. In addition, the Reservation includes ball fields and extensive areas of open space that provide for recreational activities. Additional recreational opportunities are provided by the Riverside County Recreation and Park Districts. The Valley-wide Recreation and Park District serves the area near the Project Site. Recreational resources near the Project Site include Durango Park which is located approximately 0.29 miles south of existing EMWD sewer lines; Rancho Park, which is located approximately 1.55 miles west of the Project Site; Belicia Park, which is located approximately 0.79 miles west of the Project Site; Mistletoe Park, which is located approximately 1.24 miles west of the Project Site; and Sallee park, which is located approximately 1.13 miles west of the Project Site among others. The San Bernadino National Forest lies to the east of the Project Site.

3.16.2 Regulatory Setting

Local

Riverside County General Plan

The Riverside County General Plan includes the following policies that apply to the Proposed Project: Policy OS 20.3, OS 20.4, OS 20.5, and OS 20.6. Refer to **Section 3.15.2** for a discussion of these policies.

City of San Jacinto General Plan

The City of San Jacinto General Plan includes the following policies that apply to the Proposed Project: Policy LU 1.5, RM 7.3, and RM 7.5. Refer to **Section 3.15.2** for a discussion of these policies.

3.16.3 Impact Assessment

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

No Impact. The Proposed Project would not directly induce population growth because no new housing or permanent employment are proposed. The Proposed Project would, however, support gradual future planned growth on the Reservation. No new off-Reservation sewer laterals or new connections are proposed that could result in unplanned population growth. Employment opportunities would be temporary during the construction period. Therefore, uses of the existing recreational facilities would be negligible. Although the Proposed Project crosses through the Soboba Springs Golf Course Park, the Park will only be temporarily affected during construction activities. Once construction is completed all areas will be brought back to pre-project conditions.

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

No Impact. The Proposed Project would not include recreational facilities. Operation of the Proposed Project would not increase the use of existing parks or recreation facilities or require expansion of existing recreational facilities.

3.17 TRANSPORTATION

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

Traffic and Circulation

The Project Site is situated at the northern end of the San Jacinto Valley in western Riverside County. The majority is within the Band's Reservation, and small portions are within the City of San Jacinto and

unincorporated Riverside County. Primary local roadways are Soboba Road, Poppet Flats Road, Castile Canyon Road, and Silvas Flat Road. Lake Park Drive contains a bridge across the San Jacinto River that provides the main access point between the City of San Jacinto and the developments on the eastern side of the river, including the Soboba Reservation. The primary roadway providing regional access to the Project Site is SR-79. SR-79 is a major north-south highway in Riverside County that connects with Interstate 10 (I-10) to the north and Interstate 15 (I-15) to the south.

The traffic patterns in the area are typical of a semi-rural setting, featuring a mix of local residential and commercial traffic. Peak traffic times are primarily influenced by local commuting patterns. Roads within the project area vary in capacity, with some categorized as major arterials and others as local streets. While the existing traffic volume is generally at acceptable levels, certain periods may see congestion, particularly during peak hours or special events in the region.

Public Transport, Bicycle, and Pedestrian Facilities

Public transit services in the area are provided by regional agencies such as the Riverside Transit Agency (RTA). RTA offers two bus routes, Route 31 and Route 28, in the San Jacinto area but neither provides direct access to the Project Site. These routes service the broader San Jacinto area and offer connections between San Jacinto and nearby cities like Hemet and Perris, facilitating access to regional transit hubs like the Perris Transit Center and the Metrolink rail service for commuters.

Future improvement projects for non-motorized facilities in the City of San Jacinto include enhancements to bicycle and pedestrian infrastructure. The City plans to develop additional bike lanes and improve pedestrian pathways to encourage alternative modes of transportation and ensure safer routes for non-motorized traffic. These projects are part of a broader effort to create a more integrated and sustainable transportation network (City of San Jacinto, 2022).

3.17.2 Regulatory Setting

Federal

Federal Highway Administration

FHWA regulates the construction, maintenance, and operation of the nation's roadways. FHWA guidelines ensure that transportation projects funded or overseen by the federal government comply with safety standards, minimize environmental impacts, and enhance mobility. Compliance with FHWA standards is required for any project impacting federal highways or receiving federal transportation funds.

Manual on Uniform Traffic Control Devices

The Manual on Uniform Traffic Control Devices (MUTCD), administered by the FHWA, sets forth standards for traffic signs, signals, and pavement markings in the United States. These guidelines ensure uniformity in traffic control devices, enhancing road safety and efficiency. Adherence to MUTCD standards is mandatory for all public roads.

State

California Department of Transportation

Caltrans is responsible for the design, construction, maintenance, and operation of the California state highway system. Caltrans regulations and guidelines govern traffic management, road safety, and environmental protection for projects affecting state highways. Any roadwork or infrastructure improvements within state highway right-of-way must comply with Caltrans standards.

Local

Riverside County Transportation Department

The Riverside County Transportation Department oversees the planning, construction, and maintenance of the County's transportation infrastructure. County regulations and guidelines ensure that projects meet safety standards, minimize traffic disruptions, and enhance overall mobility. Compliance with these standards is required for any transportation-related projects within Riverside County.

Riverside County Encroachment Ordinance - Ordinance 499.16

The Riverside County Encroachment Ordinance establishes requirements for obtaining permits to construct, install, or maintain any encroachments (e.g., pipelines, driveways, poles) on County Highways. The ordinance ensures that such activities protect public safety, highway integrity, and travel efficiency. Examples of policies applicable to encroachment permits include, but are not limited to, the following:

- Permit Requirement: Any person or entity must obtain a permit before making any excavation or installing structures on County Highways or within County rights-of-way.
- Application Process: Written applications must be submitted with all necessary documentation and fees. Permits will only be issued to public utility companies, agencies, or other entities with legal rights to use the highway or right-of-way.
- Emergency Work: In emergencies, work may begin without a permit, but a formal application must be submitted within two business days.
- Safety Conditions: Permits include conditions to ensure public safety and the restoration of highways and rights-of-way to their original condition.
- Bond and Security: Applicants may be required to post surety bonds or deposits to secure the restoration of roads after work is completed.
- Exemptions: Certain public entities and utility projects are exempt from permit and inspection fees.

City of San Jacinto General Plan Circulation Element

The City of San Jacinto's General Plan Circulation Element outlines policies and standards for the development and maintenance of the City's transportation network, including roadways, transit, bicycle, and pedestrian facilities. Projects within the City must align with the General Plan's objectives to ensure a safe, efficient, and integrated transportation system.

3.17.3 Impact Assessment

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

Less than Significant. The Proposed Project involves the construction of approximately 19.6 miles of new sewer pipeline primarily on-Reservation with limited development off-Reservation. This construction will occur primarily within existing roadways and driveways or within developed areas, such as the Soboba Springs Golf Course. Project construction activities would generate a temporary contribution of additional vehicle trips to the local circulation system. Specifically, project construction traffic would be associated with ingress/egress for applicable construction equipment (e.g., backhoes/trenchers), daily trips for construction workers and support vehicles (pickups and water/haul trucks), and material/equipment deliveries. Ample staging areas have been identified throughout the Project Site so that materials can be delivered to the site during off-peak traffic hours and equipment not in use can be temporarily parked within the staging areas, minimizing the number of truck and haul trips required. Minor congestion may occur due to the partial road closures that will be necessary during construction of pipelines within the roadways. The vast majority of the Project Site (over 96 percent) is located on the Reservation, and therefore the temporary road closures would occur primarily on the Reservation. The Proposed Project will implement necessary traffic management plans during construction to minimize disruptions and ensure the safety and efficiency of the circulation system, including provisions for maintaining pedestrian and bicycle access, as discussed in **Table 2.3-1**.

Construction vehicles would likely use Lake Park Drive, Soboba Road, and West Ramona Expressway to access various points of the alignment. Lake Park Drive has four lanes at the Project Site and serves as an arterial roadway while Soboba Road and West Ramona Expressway have two to four and four lanes, respectively. The addition of project construction trips to these roadways would not disrupt the circulation system. Construction would occur over approximately three years and would occur over the linear layout of the project. Construction trips would be spread over time and area and would not be concentrated at any one location.

Construction of the portion of the proposed pipeline alignment across Lake Park Drive would necessitate closure of one lane of Lake Park Drive at a time with access in both directions maintained through implementation of a traffic control plan, as identified in **Table 2.3-1**. Construction of the approximately 65 feet of pipeline across this portion of the roadway would take approximately 1 to 2 weeks and would be completed in accordance with an encroachment permit obtained from the City. Per the requirements of the City's encroachment permit, the Band would submit a complete set of plans, including traffic control measures, to the Public Works Engineering Department. Additionally, per other conditions of the permit, the City would be notified 48 hours prior to any construction, and a road closure application would be submitted 48 hours before any lane reductions or closures. The implementation of a traffic control plan will ensure the main roadway providing access to the Reservation and non-Tribal residential neighborhoods on the east side of the San Jacinto River will have at least one lane open during construction of the Proposed Project.

Similarly, a short stretch of proposed pipeline totaling less than 400 feet is proposed within a County-controlled portion of Soboba Road off the Reservation and would require an encroachment permit from the County. Construction of this pipeline may also require temporary lane closures on Soboba Road at the main entrance to the Reservation. The Band would comply with the County's encroachment permit

process as detailed in Ordinance 499.16, which regulates any encroachment, excavation, or construction on County-maintained highways. This includes may not be limited to the following:

- Pay any required permit fees as outlined in the ordinance.
- Comply with the conditions set by the Director of Transportation, including ensuring the safety of the traveling public and restoring the road to its original condition after construction. If the Director of Transportation deems it necessary, a surety bond or monetary deposit may also be required to ensure compliance and proper restoration
- Notify the County at least 48 hours in advance of starting any work within the County right-of-way.

While Ordinance 499.16 does not specifically mention traffic control plans, the Band will implement a traffic control plan throughout the construction process, including for the affected portion of Soboba Road within the County's jurisdiction.

The Proposed Project would not result in long-term traffic generation, with operational traffic to be limited to minimal trips related to periodic sewer line inspection and maintenance. With inclusion of BMPs in **Table 2.3-1** and obtaining required encroachment permits, traffic-related impacts during construction and operation of the proposed project would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less than Significant. CEQA Guidelines section 15064.3(b) relates to evaluating the transportation impacts of land use and transportation project based on vehicle miles traveled (VMT). The Proposed Project does not include any changes in land use that would significantly increase VMT. Over time, the Proposed Project will facilitate additional housing on the Reservation; however, this growth is expected to occur with or without the Proposed Project and such growth would be limited and not expected to significantly increase VMT. Instead, the Proposed Project is aimed at upgrading existing sewer infrastructure, and will not lead to increased development off the Reservation or a significant increase in traffic volumes. Temporary increases in traffic due to construction activities will be managed through traffic control measures, minimizing any potential impact. Therefore, the project would not conflict with CEQA Guidelines section 15064.3(b), and the impact is less than significant.

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

Less than Significant. The construction and installation of new sewer pipelines will involve excavation and trenching activities along existing roadways, which would be repaved to existing conditions after pipeline installation. No permanent alteration to the roadway geometry would occur. Additionally, construction activities will be managed to avoid creating dangerous conditions or introducing incompatible uses. Therefore, the Proposed Project is not expected to substantially increase hazards due to geometric design features or incompatible uses, resulting in a less than significant impact.

d) Result in inadequate emergency access?

Less than Significant. During construction, temporary lane closures and detours may be required, which could affect emergency access. However, the Proposed Project will incorporate traffic management plans that include coordination with local emergency service providers to ensure that emergency access is maintained at all times, as described in **Table 2.3-1**. These plans will include measures such as notifying

emergency service providers of construction schedules, providing alternative routes, and ensuring that access to all inhabited properties is preserved. Consequently, the Proposed Project will not result in inadequate emergency access, and impacts are expected to be less than significant.

3.18 TRIBAL CULTURAL RESOURCES

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
I. Listed or eligible for listing in the CRHR, or in the local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☒	☐	☐
II. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐

3.18.1 Environmental Setting

On May 29, 2024, project notification letters with invitations to consult on the project were sent by email to representatives of the eight tribes on the SWRCB's Assembly Bill (AB) 52 list for Riverside County: the Torres-Martinez Desert Cahuilla Indians, San Manuel Band of Mission Indians, San Luis Rey Band of Mission Indians, Rincon Band of Luiseño Indians, Quechan Tribe of the Fort Yuma Reservation, Pala Band of Mission Indians, Morongo Band of Mission Indians, and the Colorado River Indian Tribes. None of the contacted tribes requested consultation. Because the Soboba Band is the project proponent, an AB 52 letter was also sent to their representatives on May 29, 2024.

Consultation, including numerous meetings, emails, and phone calls, between the SWRCB and the Soboba Band's Tribal Historic Preservation Officer, Joseph Ontiveros, occurred between May 2024 and February 2025. Representatives of the Soboba Band's Cultural Resources Department also participated in the field

visits in February and March 2024, and assisted in preparation of the cultural resources report (EnviroPros 2025). The SWRCB also consulted with the Soboba Band during preparation of the mitigation measures proposed in this document. The Soboba Band Tribal Historic Preservation Officer has reviewed and approved the mitigation measures.

3.18.2 Regulatory Setting

State

Assembly Bill 52

AB 52, the Native American Historic Resource Protection Act, (PRC Section 21080.3.1) sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American tribes and development interests. Projects subject to AB 52 are those that file a Notice of Preparation for an EIR or Notice of Intent to adopt a Negative or Mitigated Negative Declaration on or after July 1, 2015. AB 52 adds tribal cultural resources (TCRs) to the specific cultural resources protected under CEQA. Under AB 52, a TCR is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register, or included in a local register of historical resources. A Native American tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB 52 also mandates lead agencies to consult with Native American tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

3.18.3 Impact Assessment

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)? or

ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less than Significant with Mitigation. Two TCRs were identified in the project area: the S-Curve Site and the Fiesta Site. During construction, excavation will be limited to the previously disturbed portion of the S-Curve Site within an existing roadway. The known boundaries of the Fiesta Site are also located outside of the proposed excavation areas. Therefore, the intact portions of both sites will be avoided during construction of the project. With the implementation of **Mitigation Measures CR-1** through **CR-5**, the Proposed Project will not significantly impact these two resources.

3.19 UTILITIES AND SERVICE SYSTEMS

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

3.19.1 Environmental Setting

Water Supply and Wastewater

EMWD is the primary provider of water, wastewater service, and recycled water services for its 558-square mile service area in western Riverside County and northern San Diego County. EMWD uses several sources of water to serve its customers, including surface water from the Colorado River and the State Water Project (SWP), as well as local groundwater resources. The Project Site is within the East Valley Service Area and is among the eastern communities served by a system of deep groundwater wells. Groundwater is pumped from the Hemet/San Jacinto and West San Jacinto areas of the San Jacinto Groundwater Basin (EMWD, 2023a).

The Hemet/San Jacinto Basin is currently facing groundwater overdraft. The Hemet-San Jacinto (HSJ) Management Plan, overseen by the Hemet-San Jacinto Watermaster, aims to ensure groundwater sustainability and protect the Soboba Band of Luiseño Indians' water rights. To enhance groundwater reliability, EMWD and other producers are reducing native groundwater use and supplementing with

imported water. EMWD's long-term adjusted base production right is 7,303 acre-feet per year (AFY), and any excess production requires basin replenishment. The Soboba Settlement Agreement, made between EMWD and the Metropolitan Water District of Southern California (MWD), guarantees an average delivery of 7,500 AFY from MWD for 50 years to fulfill the Soboba Band's water rights (EMWD, 2023b). Unused water is allocated among these entities, allowing carryover of unused replenishment water and production rights to future years. EMWD also purchases carry-over credits, with a balance of over 25,000 acre-feet at the end of 2020 (EMWD, 2021a).

The EMWD 2020 Urban Water Management Plan (UWMP) was prepared in compliance with the Department of Water Resources requirements to submit a UWMP every five years. The UWMP relies on Southern California Association of Governments population, household, and employment forecasts, which are based on adopted General Plans. The 2020 UWMP identifies the available water supply and demand through the year 2045, which is summarized in **Table 3.19-1.**

Table 3.19-1: EMWD Projected Future Water Demands and Supply (Acre Feet per Year)

Future	2025	2030	2035	2040	2045
Water Demand	102,600	108,300	114,400	118,900	123,000
Water Supply	208,900	214,700	228,600	240,400	251,000

Source: EMWD, 2021a

EMWD determined it will have sufficient water supply in normal years, a single dry year, and in multiple-dry years scenarios. As a result, EMWD expects to have adequate water supply through 2045, during all scenarios (EMWD, 2021a).

EMWD currently provides wastewater services to approximately 268,000 customers within its service area and currently treats approximately 49 million gallons per day (gpd) of wastewater at its four active regional water reclamation facilities through 1,813 miles of sewer pipelines (EMWD, 2024). The Project Site is served by the San Jacinto Valley Regional Water Reclamation Facility, located approximately 5 miles west of the Project Site. Typical daily flows for this facility are 7 million gpd with a current capacity of 14 million gpd (EMWD, 2021b).

EMWD currently operates a temporary 8-inch forcemain below the San Jacinto River that conveys untreated wastewater from customers within its local service area on the east side of the San Jacinto River to the San Jacinto Valley Regional Water Reclamation Facility. This existing forcemain is adequately sized to accommodate the additional proposed on-Reservation connections as it currently has an additional 300 EDU of capacity (see **Section 1.3**), but was never intended to be a permanent connection. A deeper gravity mainline is part of EMWD's long-term planning for this area. The existing forcemain connects to a mainline within Ramona Expressway.

Solid Waste

The Project Site is serviced by CR&R and Waste Management, Inc. for solid waste services (Riverside County Department of Waste Resources [RCDWR], 2024a). RCDWR operates five landfills serving Riverside County residents (RCDWR, 2024b). The closest landfills to the Project Site are Lamb Canyon, located approximately 6 miles north, and Badlands, located approximately 13 miles northwest. The capacities and acceptance rates of these landfills are detailed in **Table 3.19-2.**

Table 3.19-2: Landfill Capacity and Acceptance Rate

Name	Maximum Permit Capacity	Remaining Capacity	Maximum Permitted Throughput	Estimated Closure Year
Badlands Sanitary Landfill[1]	82,300,000	7,800,000	5,000	2059
Lamb Canyon Sanitary Landfill[2]	39,681,513	19,242,950	5,000	2032

Source:
[1] CalRecycle, 2024a
[2] CalRecycle, 2024b

Electricity and Natural Gas

SoCalGas is the nation's largest natural gas distribution utility, serving over 21.1 million users in more than 500 communities across a service territory of approximately 24,000 square miles. SoCalGas provides service to the Project area, and the nearest SoCalGas transmission pipeline to the Project Site is located about 1 mile southwest (SoCalGas, 2024).

SCE maintains electrical facilities and infrastructure within Riverside County and surrounding areas and provides service to the Project area. SCE delivers power to approximately 15 million people across 50,000 square miles in California, operating around 125,000 miles of distribution and bulk transmission lines, 91,375 miles of distribution lines, and 1.4 million electric poles (SCE, 2024).

3.19.2 Regulatory Setting

Federal

Safe Drinking Water Act

SDWA of 1974 is a U.S. federal law that ensures the safety of public drinking water by setting standards for contaminant levels, requiring regular water testing and reporting, and mandating treatment processes. It provides funding for water infrastructure improvements and protects sources of drinking water. The USEPA enforces these standards and has the authority to address immediate risks to water safety.

Clean Water Act

The CWA establishes environmental discharge requirements for wastewater treatment by regulating pollutant discharges into surface waters. It mandates that facilities obtain permits through NPDES to control and limit the amount of pollutants released into rivers, lakes, and other water bodies. The act ensures that wastewater treatment processes meet specified standards to protect water quality and aquatic ecosystems.

State

Assembly Bill 939

AB 939, the Integrated Waste Management Act of 1989, requires California cities and counties to divert at least 50 percent of their waste from landfills through recycling and composting. It mandates the development of Integrated Waste Management Plans (IWMPs), implementation of source reduction and

recycling programs, and annual reporting to CalRecycle. The act aims to reduce landfill use and promote sustainable waste management practices.

Local

Eastern Municipal Water District 2020 UWMP

The EMWD 2020 UWMP outlines how the district will manage its water resources over the long term. It assesses current and future water supplies, including groundwater and imported water, and predicts future water needs based on factors like population growth. The plan includes strategies for conserving water and improving efficiency, as well as plans for upgrading infrastructure and handling emergencies. It ensures compliance with state laws requiring regular updates and incorporates public feedback to address community needs.

Hemet-San Jacinto Management Plan

The Hemet-San Jacinto Water Management Plan is a strategic framework for managing water supply and infrastructure in Riverside County's Hemet and San Jacinto areas, and was prepared by EMWD, the Lake Hemet Municipal Water District (LHMWD), and the cities of Hemet and San Jacinto. It aims to ensure a reliable water supply by addressing water sources, demand management, infrastructure needs, and water quality, while complying with regulations and considering environmental impacts. The plan involves collaboration with local agencies and stakeholders to meet the community's water needs sustainably.

3.19.3 Impact Assessment

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

Less than Significant. The Proposed Project is the extension of new wastewater facilities to replace existing septic systems of the existing homes and facilities on the Reservation. The Proposed Project would support the planned future development of approximately 533 new homes on the Reservation. Currently, the estimated population of the Reservation is 2,000 with a potential population increase of 1,250 people. The proposed gravity mainline below the San Jacinto River is required to provide a permanent conveyance pipeline for existing development on- and off-Reservation and to accommodate future planned development on the Reservation. However, no off-Reservation laterals or new sewer connections are proposed, and no off-Reservation growth is anticipated to occur as a result of the Proposed Project. The EMWD wastewater treatment plant capacity is sufficient to handle the flows conveyed by the proposed pipeline as this growth has been considered in EMWD's planning documents. Additionally, the nature and scope of the Proposed Project will not necessitate the relocation or construction of water pipelines, stormwater drainage, electric power, natural gas, or telecommunications facilities. Consequently, impacts are expected to be less than significant.

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

Less than Significant. As described in **Section 3.19.1** and shown in **Table 3.19-1**, EMWD is projected to have sufficient water supplies during normal, dry, and multiple dry years until 2045, even with the anticipated future population growth in its service area. The Proposed Project is not a water-demand generating project, as it is related entirely to wastewater treatment; furthermore, the Proposed Project

could allow for future development of 533 homes on the Reservation that is planned growth that would not exceed regional population growth estimates. Minimal water may be needed during construction, but this would be limited to short-term (construction-related) uses such as dust suppression. Given the minor nature of these uses and prior consideration of future population growth on the Reservation, it is anticipated that the project's water requirements would be met through existing capacity or recycled water, resulting in less-than-significant impacts.

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?

No Impact. EMWD, which provides wastewater services to the project area, is actively involved in the planning of the Proposed Project, including providing plan checks to the proposed system design and has approval authority over the proposed tie-in. The new sewer system will connect to the EMWD regional sewer system, and sewage will be directed to the San Jacinto Valley Regional Water Reclamation Facility, which has a current capacity of 14 million gpd. The Proposed Project involves primarily short-term construction activities and future population growth on the Reservation has been considered throughout the planning process and does not increase the population. Furthermore, the wastewater treatment plant has sufficient capacity to handle the flows from the completed pipeline. Therefore, existing wastewater treatment plant capacity is adequate for the anticipated current and future flows, and no significant impacts related to wastewater treatment are expected.

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?

Less than Significant. Waste generation and disposal requirements for the Proposed Project would be limited to minor quantities from construction activities. Solid waste from the Project would likely be disposed of at either the Badlands Sanitary Landfill, located 13 miles from the Project Site, or the Lamb Canyon Sanitary Landfill, located 6 miles from the Project Site. The Badlands Landfill has a remaining capacity of 7,800,000 cubic yards and a maximum permitted throughput of 5,000 tons per day, while the Lamb Canyon Landfill has a remaining capacity of 19,242,950 cubic yards and a maximum permitted throughput of 5,000 tons per day (CalRecycle, 2024a; CalRecycle, 2024b). Both of these landfills have sufficient capacity to accommodate the minimal amount of project-related waste. Therefore, associated impacts from project implementation would be less than significant.

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

Less than Significant. Construction and operation of the Proposed Project would generate minimal solid waste and would not affect landfill capacity. During construction, debris such as excavated soil and asphalt would be produced. This solid waste would be delivered to a recycling facility or disposed of at a permitted landfill. Although the Band is not required to comply with the State's AB 939, the Integrated Waste Management Act, which mandates that cities and counties divert a minimum 50 percent for solid waste disposal in landfills, in recognition of the importance of waste reduction a BMP has been added to **Table 2.3-1** ensuring that materials are recycled to the maximum extent feasible and that landfill disposal is minimized throughout the construction period. Consequently, at least half of the potential construction waste would be diverted from landfills. The remaining waste is expected to be within the capacity of the

permitted landfills serving the project area. Therefore, less-than-significant impacts related to solid waste would occur.

3.20 WILDFIRE

If located in or near SRA or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	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 uncontrollable spread of wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Environmental Setting

Wildfire risk is determined by vegetation types and fuel loads, topography, climate, and weather patterns. The Project Site is situated at the northern end of the San Jacinto Valley, in the foothills of the San Jacinto Mountains. This location features a mix of river terraces and fan-shaped deposits of sediment from canyons and gullies that flow into the river. Elevation ranges at the project site from approximately 1,800 feet to 1,900 feet above mean sea level with the land gently sloping westward toward the San Jacinto River floodplain. While flatter areas along the San Jacinto River may slow the spread of fires, natural canyons and steeper slopes can direct fire movement, potentially posing challenges for wildfire management (Riverside County, 2009).The surrounding off-Reservation areas to the north and northwest of the Project Site are designated as high and very high fire hazard severity zones (FHSZ), indicating a significant risk for wildfires as depicted in **Figure 3-14**.

Historically, the Project Site and its surroundings have been susceptible to wildfires. In 2006, the Esperanza Fire burned 41,173 acres in the hills north of the Project Site, illustrating the potential for large-scale fire events in the region (USDA, 2006). Both natural causes, such as lightning, and human activities contribute to the occurrence of wildfires in this area (Riverside County, 2009).

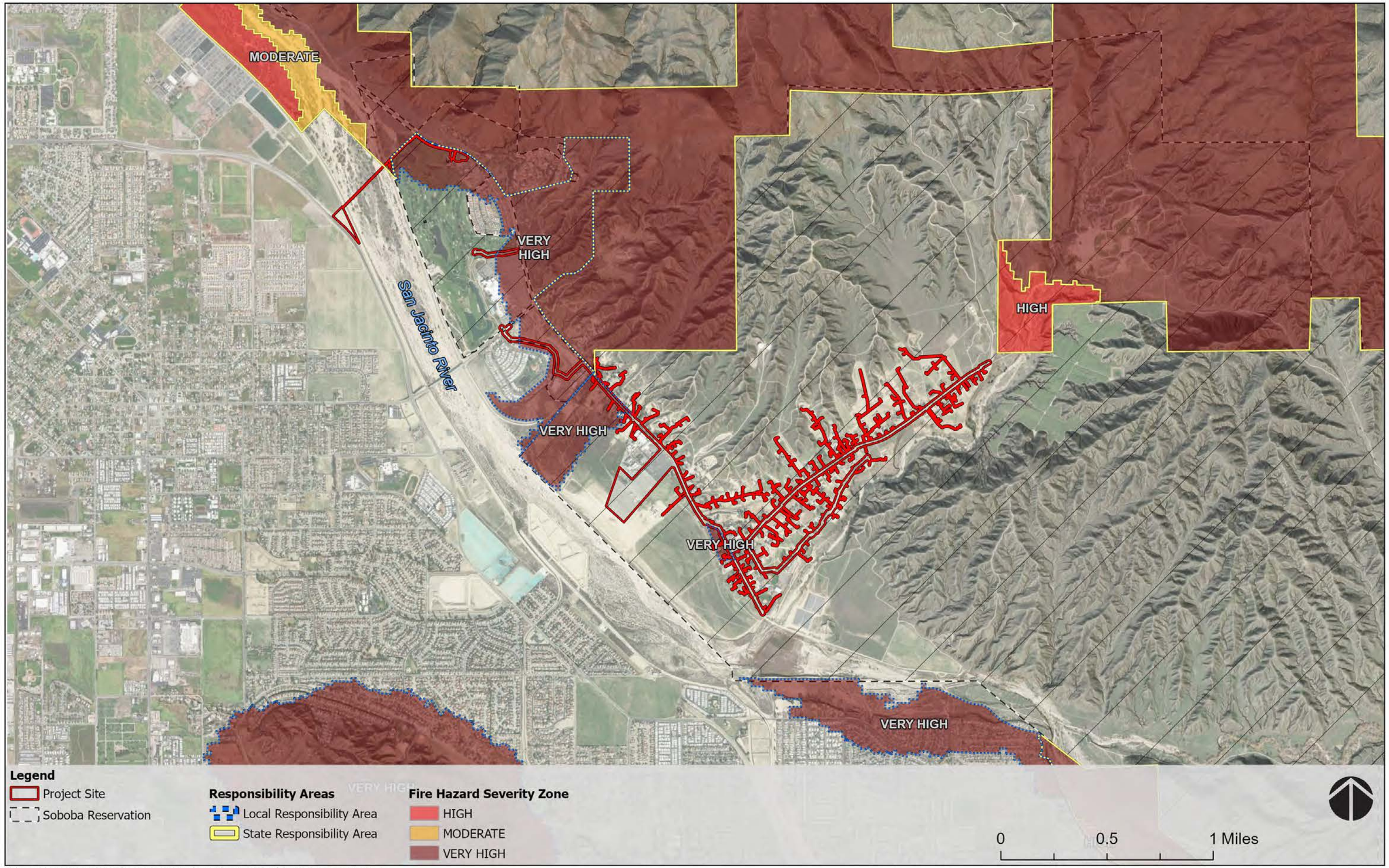


FIGURE 3-14
FIRE HAZARD SEVERITY ZONES

Climate and weather patterns also play a crucial role in wildfire risk. The Middle San Jacinto River watershed averages 12.5 inches of annual rainfall, with temperatures averaging 75°F. Seasonal variations include mild winters with average temperatures around 52.3°F and hot summers averaging 97.8°F (City of San Jacinto, 2024). These hot, dry summers increase the risk of wildfires by drying out vegetation, making it more susceptible to ignition. Wind conditions can further exacerbate wildfire spread.

Fire protection services for the project area include the SFD and the RCFD, which respond to incidents in cooperation with CAL FIRE. The nearest Riverside County fire station, Station 72, is located approximately 1.1 miles southeast of the Project Site, ensuring a rapid response time to the project area (see **Section 3.15, Public Services**). These fire protection agencies have established response protocols for wildfire incidents and participate in mutual aid agreements to ensure comprehensive coverage.

3.20.2 Regulatory Setting

The regulatory framework for wildfire management at the project site is designed to ensure the protection of public health and the environment through comprehensive oversight and enforcement of federal, state, and local regulations. This framework mandates specific measures for wildfire risk reduction, including the creation of defensible space, vegetation management, and the use of fire-resistant building materials.

Federal Regulations

USDA Forest Service and FEMA

Federal guidelines set by the USDA Forest Service and FEMA provide overarching principles for wildfire management, including fire prevention, emergency response, and post-fire recovery efforts. These guidelines emphasize the importance of community preparedness, interagency cooperation, and public education to reduce wildfire risks.

State Regulations

California Department of Forestry and Fire Protection

CAL FIRE enforces state regulations related to wildfire prevention and management. Key regulations include the California Fire Code (Title 24, Part 9), which outlines requirements for building construction, fire prevention, and vegetation management in fire-prone areas. PRC Sections 4290 and 4291 mandate defensible space requirements and landowner responsibilities to reduce fire hazards around structures.

Local Regulations

Riverside County Fire Department

RCFD enforces local fire codes and ordinances that complement State regulations. These local regulations focus on specific measures tailored to the unique wildfire risks in the county, such as vegetation clearance requirements, firebreaks, and community wildfire protection plans.

City of San Jacinto Fire Codes and Wildfire Mitigation Plan

The City of San Jacinto has adopted fire codes and land use policies aimed at reducing wildfire risk within city limits. These policies include zoning ordinances that restrict development in high fire hazard areas and building codes that mandate fire-resistant construction practices.

In addition, the City of San Jacinto's Wildfire Mitigation Plan outlines strategies for reducing wildfire risk through proactive measures such as public education, fuel reduction projects, and enhanced emergency response capabilities. This plan emphasizes the importance of community involvement and interagency cooperation to effectively mitigate wildfire hazards.

3.20.3 Impact Assessment

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The Proposed Project involves constructing sewer lines, lift stations, and associated infrastructure, much of which would be located within roadways and would result in lane closures. Full road closures are not anticipated, and the rights-of-way would remain open to traffic in both directions during construction. However, traffic diversions and detours may result from temporary lane closures. Therefore, implementation of a traffic management for the Proposed Project as discussed in **Table 2.3-1** would allow for maintained access to hospitals, emergency response centers, school locations, communication facilities, highways and bridges, or airports. Therefore, the impact on emergency response and evacuation plans will be less than significant.

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 uncontrollable spread of wildfire?

Less than Significant. The Project Site's topography, with its gently sloping terrain and natural drainage channels, can influence the behavior and spread of wildfires. Activities such as welding, grinding, and the use of motorized equipment increase the risk of accidental fire ignitions, especially during the hot, dry summer months. However, existing fire protection service providers are stationed nearby and implementation of BMPs in **Table 2.3-1** would reduce the probability of igniting a fire during construction. These BMPs include the prevention of fuel being spilled and putting spark arresters on equipment having the potential to create sparks. Operational activities are minimal, the proposed pipelines are underground, and therefore they would not pose a significant fire risk. Consequently, the risk of exposing project occupants to pollutant concentrations from a wildfire or the uncontrollable spread of wildfire is less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant. The construction activities will require the establishment of temporary staging areas, but no additional infrastructure such as roads, fuel breaks, emergency water sources, power lines, etc. would be required for the Proposed Project. The Proposed Project would result in underground pipelines and would not require infrastructure that may exacerbate fire risk, and this impact is less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant. After completion of construction, the Project Site would be returned to existing conditions via surface restoration techniques that will include restoring all surfaces and roadways to pre-project conditions by planting grasses and native vegetation in unpaved areas and repaving roadways or

golf cart pathways. Therefore, no alterations in runoff or drainage characteristics are anticipated. The Proposed Project would not result in the construction of new residences that could expose persons to post-fire slope instability occurring outside of the Project Site. Therefore, the impact of exposing people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes is less than significant.

3.21 CEQA MANDATORY FINDINGS OF SIGNIFICANCE

Would the project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) 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) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

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

Less than Significant with Mitigation. With the implementation of mitigation measures, the Proposed Project would have a less-than-significant impact on the environment. Although the BMPs from the AQMP would not be legally binding on the Reservation and would only be applicable to off-Reservation areas served by the Proposed Project, the Band has committed to and **Mitigation Measure AQ-1** ensures these measures are implemented consistently across the entire Project Site to reduce potential air quality impacts to less than significant. Due to high levels of existing disturbance, low habitat quality, and habitat

fragmentation, there is low probability of impacting biological resources. However, some proposed pipeline alignments will be near or below sensitive riparian habitat or special-status wildlife habitat. As such, **Mitigation Measures BIO-1 through BIO-7** would be implemented during construction to reduce impacts to biological resources to less than significant. Portions of the Project Site overlies Pliocene and Pleistocene deposits which are considered to have high paleontological sensitivity, and therefore **Mitigation Measures GEO-1 and GEO-2** would be implemented during construction of the Proposed Project to reduce impacts to less-than-significant levels. Various stream channels (federally jurisdictional, state jurisdictional, and non-jurisdictional) and storm drainage ditches exist on or near the Project Site, and work near these drainages could lead to significant water quality impacts. Therefore, **Mitigation Measure HYD-1** ensures work will occur when the channels are dry. Although risk of a frac-out from microtunneling operations is low, **Mitigation Measure HYD-2** ensures that a frac-out contingency plan is developed and implemented. With mitigation, potential impacts to water resources are reduced to less-than-significant levels.

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

Less than Significant. CEQA Guidelines Section 15064(i) states that a Lead Agency shall consider whether the cumulative impact of a project is significant and whether the effects of a project are cumulatively considerable. The Proposed Project would have the potential to result in impacts to the environment, but these impacts, in addition to being fully mitigated, are primarily related to construction and are therefore short-term and temporary. There are no significant long-term operation impacts of the Proposed Project and existing ordinances and regulations exist to ensure that compliance with statutory and regulatory standards is maintained throughout the operational life of the Project. Where applicable, the Initial Study identifies mitigation measures to potential environmental impacts resulting from implementation of the Proposed Project. Potential cumulative impacts resulting from the Proposed Project are therefore considered less than significant with incorporation of mitigation measures.

c) Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less than Significant with Mitigation. The analyses of environmental issues contained in this Initial Study indicate that the Proposed Project is not expected to have substantial impact on human beings, either directly or indirectly, with the exception of short-term impacts related to construction. **Mitigation Measure AQ-1** will be enacted to ensure that fugitive dust during the construction period is managed and minimized, reducing this potential impact to less than significant. Although the use of hazardous materials during construction is not anticipated to be greater than other construction sites, due to the proximity of sensitive receptors, **Mitigation Measure HAZ-1** requires preparation and implementation of an ERP. With mitigation, potential impacts to sensitive receptors are reduced to less than significant. Finally, although noise impacts would be less-than-significant there are potentially significant vibrational impacts associated with the temporary construction activities. **Mitigation Measure NOI-1** will reduce potential vibrational impacts to sensitive receptors to less than significant.

The impacts of the Proposed Project have been analyzed in accordance with the CEQA Guidelines; each topic has been found to have either no impact, a less than significant impact, or a less than significant impact with mitigation incorporated. Therefore, with the implementation of the mitigation measures

noted above, the Proposed Project would not result in any environmental effects that would cause substantial adverse effects on human beings either directly or indirectly.

Section 4 | Affected Environment and Environmental Consequences under NEPA

4.1 AIR QUALITY

4.1.1 Environmental Setting

Environmental settings pertaining to Air Quality and GHG are discussed in **Sections 3.3.1** and **3.8.1**, respectively. Additional NEPA-specific environmental setting details are provided below:

NAAQS Designations

As shown in **Table 4.1-1**, the SCAQMD portion of the County is classified as serious nonattainment for federal $PM_{2.5}$ standards, extreme nonattainment for federal Ozone standards and attainment (maintenance) for federal Carbon Monoxide, Nitrogen Oxide, and PM_{10} standards. The SCAQMD portion of the County is designated as attainment or unclassified for all other Federal ambient air quality standards.

Table 4.1-1: NAAQS Designations for Western Riverside County

Pollutant	Federal Standard
Ozone	Nonattainment (Extreme)
CO	Attainment (Maintenance)
NO_X	Attainment (Maintenance)
SO_X	Attainment
PM_{10}	Attainment (Maintenance)
$PM_{2.5}$	Nonattainment (Serious)

Source: USEPA, 2024a

Federal Class I Areas

The Project Site is not located within or adjacent to a federal Class I area. The nearest federal Class I area is the San Jacinto Wilderness, located approximately 14 miles east (USEPA, 2011).

4.1.2 Regulatory Setting

A description of federal, State, and local regulatory policies pertaining to Air Quality and GHG are discussed in **Sections 3.3.2** and **3.8.2**, respectively. Additional regulatory frameworks and policies pertaining specifically to NEPA are described below.

Federal

The USEPA is responsible for implementing and enforcing the federal CAA and developing the NAAQS. As part of its implementation responsibilities, the USEPA requires each state to prepare and submit a SIP that demonstrates the means to attain and/or maintain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in nonattainment areas, using a combination of performance standards and market-based programs. USEPA responsibilities under the CAA include regulating mobile sources, such as cars, trucks, buses, and planes. The provisions of Title II of the CAA have resulted in tailpipe emission standards for vehicles, which have generally strengthened over time to improve air quality.

General Conformity

The 1990 Amendment to CAA Section 176 requires the federal USEPA to promulgate rules to ensure that federal actions conform to state efforts to control emissions of pollutants. These rules, known as the General Conformity Rule (40 C.F.R. Parts 51.850–51.860 and 93.150–93.160), require any federal agency responsible for an action in a federal nonattainment/maintenance area to demonstrate conformity to the applicable SIP, by either determining that the action is exempt from the General Conformity Rule requirements or subject to a formal conformity determination.

Actions would be exempt, and thus conform to the SIP, if an applicability analysis shows that the total direct and indirect emissions of nonattainment/maintenance pollutants from project construction and operation activities would be less than specified emission rate thresholds, known as *de minimis* levels. If not determined exempt, a formal conformity determination would be required. The General Conformity Rule is applicable only for project criteria pollutants and their precursors for which an area is designated nonattainment or that is covered by a maintenance plan.

4.1.3 Environmental Consequences

Assessment Criteria

Significant impacts to ambient air quality could result if either construction or operation would result in violations of the CAA provisions, or if emissions would impede the ability of the State to meet NAAQSs. The effects of proposed federal actions on SCAQMD air quality management are assessed below as required under the CAA.

Methodology

Adverse impacts to ambient air quality could result if construction activities would result in violations of the CAA provisions, or if emissions would impede the ability of a state to meet NAAQSs. Construction emissions were calculated using the USEPA-approved CalEEMod.

Conformity regulations apply to federal actions that would cause emissions of CAPs above certain levels to occur in locations designated as nonattainment or maintenance areas for the emitted pollutants. As discussed in **Section 4.1.1**, the Project Site is in an area that is classified as serious nonattainment for federal $PM_{2.5}$ standards, extreme nonattainment for federal Ozone standards, and attainment (maintenance) for federal CO, NO_X, and PM_{10} standards. The SCAQMD portion of the County is designated as attainment or unclassified for all other NAAQS. Based on the extreme nonattainment status for ozone, the *de minimis* levels for VOCs and NO_X are 10 tons per year. For $PM_{2.5}$, classified as serious nonattainment,

the *de minimis* level is 70 tons per year. Given the attainment (maintenance) status for CO and PM_{10}, the least stringent *de minimis* levels of 100 tons per year are used as significance thresholds.

Because the Proposed Project is a wastewater conveyance system, the project would have negligible operational emissions. Most of the mainlines are gravity-fed, with only 11 pump stations required across nearly 20 miles of pipeline. The primary function of the sewer pipeline, which is transporting wastewater with minimal mechanical processes or energy use, results in no significant ongoing operational emissions. Further, the change to regional wastewater treatment associated with the Proposed Project would also have negligible impact on indirect operational emissions. Operational emissions are therefore not analyzed further.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed. The existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. However, over time, the aging septic infrastructure could fail, leading to potential negative impacts on air quality. A failing septic system could release harmful gases which contribute to odors and GHG emissions. Additionally, it can emit VOCs and PM, potentially affecting respiratory health and contributing to smog formation.

Proposed Action

The Proposed Project would result in construction emissions during demolition of the existing golf course lift station, pipeline trenching, pipe installation and backfill, microtunneling, and repaving. These emissions would be limited and short term. The Proposed Project's construction emissions would include those associated with off-road heavy equipment operation, worker vehicle commutes, and haul truck activity for import of construction materials. Fugitive dust, the dominant source of PM_{10} and $PM_{2.5}$ emissions, is generated when vehicles and equipment disturb soil and other friable materials. Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby. Off-road construction equipment is often diesel-powered and can be a substantial source of NO_X emissions, in addition to PM_{10} and $PM_{2.5}$ emissions. Worker commute trips and asphalt paving are dominant sources of VOC emissions. However, such air quality effects generally would be temporary and localized. Construction emissions were estimated using CalEEMod and results are detailed in **Table 4.1-2**.

Table 4.1-2: Estimated Construction Emissions (tons/year)

Summary Report	CO	NO_X	VOC	SO_2	PM_{10}	$PM_{2.5}$
2025	0.70	0.56	0.07	< 0.005	0.08	0.03
2026	2.66	2.09	0.29	0.01	0.33	0.11
2027	2.63	2.00	0.29	0.01	0.32	0.10
2028	0.38	0.23	0.03	< 0.005	0.03	0.01
Maximum Emissions	2.66	2.09	0.29	0.01	0.33	0.11
De minimis level	100	10	10	n/a	100	70
Exceed level?	No	No	No	No	No	No

Source: **Appendix E**

As shown in **Table 4.1-2**, emissions of criteria pollutants from construction of the Proposed Project would not exceed applicable *de minimis* levels; therefore, a conformity determination is not required. Construction of the Proposed Project would not result in significant effects to regional air quality.

Hazardous Air Pollutants

Construction activities would result in short-term emissions of DPM from off-road heavy-duty diesel equipment exhaust and diesel-fueled haul trucks. Health risks associated with exposure of sensitive receptors to HAP emissions are typically based on the concentration of a substance or substances in the environment (dose) and the duration of exposure to the substance(s). Dose is positively correlated with time, meaning that a longer exposure period would result in a higher exposure level. Thus, the risks estimated for a maximally exposed individual are higher if a fixed exposure occurs over a long period of time. According to the California Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to HAP emissions, should be based on a 70-year exposure period. Project construction, however, would occur over a much shorter period. Use of off-road heavy-duty diesel equipment would be limited and temporary, and DPM emissions would disperse rapidly with distance from the source. **Mitigation Measure AQ-1** includes construction BMPs that would further reduce HAP emissions. Because HAP emissions would be limited in duration and amount, the project would result in a less-than-significant impact.

Carbon Monoxide Hotspots

Carbon monoxide hotspots are areas of localized increased carbon monoxide concentrations caused by severe vehicle congestion on major roadways, typically near intersections. The Proposed Project would generate vehicle trips during construction in the form of haul trucks and worker commute vehicles; however, the number of vehicles generated would be limited and would not result in congestion on nearby roadways. Construction vehicle generation would also be temporary. The project would not result in increased vehicle trips during operation, aside from the occasional maintenance worker vehicle trip. Therefore, the Proposed Project would not result in the exposure of sensitive receptors to carbon monoxide hotspots, and impacts would be less than significant.

Greenhouse Gas Emissions

Development of the Proposed Project would result in an increase in GHG emissions from construction activities, mobile sources (trips generated), stationary and area sources (components that directly emit GHG), and indirect sources related to energy production. GHG emissions were estimated using CalEEMod, and total construction GHG emissions for the three-year construction duration are estimated at 1,620.5 metric tons (MT) of carbon dioxide equivalent (CO_2e) (see **Table 3.8-1**). Since the majority of Project GHG emissions would be indirect and occur over a short period, no additional mitigation measures are warranted.

4.1.4 Mitigation Measures

The mitigation measures presented in **Section 3.3.4** will ensure no adverse impacts occur. No additional mitigation measures are required.

4.2 WATER RESOURCES

4.2.1 Environmental Setting

The environmental setting for water resources, including surface water hydrology, water quality, and groundwater resources, is discussed in **Section 3.10.1**. Additional NEPA-specific environmental setting details are provided below:

As described in additional detail in **Section 3.10.1**, the San Jacinto River is the major drainage feature in the area and Poppet Creek, Castille Canyon, and Juaro Canyon are major tributaries that drain the hillsides above and through the Reservation before joining the San Jacinto River. In addition to these larger channels, the Band maintains a network of drainage ditches, culverts, and pipelines to move stormwater around built components on the Reservation. Existing pipe culverts within the Project Site are displayed on **Figure 3-10**; the presence of culverts does not indicate natural channels or imply jurisdiction. An ARD prepared for the Project Site (**Appendix F-3**) indicates that three channels appear to fall under the jurisdiction of USACE as waters of the U.S. Within the Project Site, these channels are the mainstem San Jacinto River and two culverted drainages labeled as C1 and C4 on **Figure 3-10**. The remaining smaller or disconnected drainages, stormwater ditches, ornamental ponds on the golf course, and stormwater basins do not appear to meet the criteria to fall under the jurisdiction of USACE.

The North Fork San Jacinto River is designated a Wild and Scenic River from its source at Deer Springs in Mount San Jacinto State Park to the northern boundary of Section 17, Township 5 South, Range 2 East, which is approximately 6 miles east of the Project Site (Wild and Scenic Rivers System, 2024).

4.2.2 Regulatory Setting

The regulatory framework guiding water resource management and protection is detailed in **Section 3.10.2**. Additional regulatory frameworks and policies pertaining specifically to NEPA are described below.

Federal

Clean Water Act

CWA (33 U.S. Code [USC] § 1251-1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The objective of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The USEPA is delegated as the administrative agency under the CWA. Relevant sections of the CWA are as follows.

- Sections 303 and 304 provide for water quality standards, criteria, and guidelines
- Section 401 (Water Quality Certification) requires an applicant that proposes an activity that may result in a discharge to Waters of the U.S. to obtain certification that the discharge will comply with other provisions of the CWA
- Section 402 establishes NPDES, a permitting system for the discharge of any pollutant (except for dredged or fill material) into Waters of the U.S.
- Section 404 required a permit under the CWA for any activity that results in the discharge of dredged or fill material into waters of the U.S.

Additional details are provided in **Section 3.10.2**, above.

Wild and Scenic Rivers Act

Under 16USC §1271 Section 7(b) and 7(c) (Wild and Scenic Rivers Act), Congress requires that rivers throughout the country designated as Wild or Scenic Rivers be preserved in free-flowing condition and that they and their immediate environments be protected for the benefit and enjoyment of present and future generations.

Executive Order 11988 (Floodplain Management)

Executive Order 11988 (Floodplain Management) requires that federal agencies avoid adverse impacts associated with the occupancy and modification of floodplains, to the extent possible. This requires that each federal agency determine whether a project is located within a floodplain and, if so, consider alternatives to avoid adverse effects and incompatible development in the floodplain. If the project must reside within a floodplain, the agency must minimize any potential impacts by conducting the 8-step process outlined in 44 CFR Part 9.

The 8-step process is required whenever a federal action involves a project in a 100-year floodplain (or 500-year floodplain for critical actions) and includes the following steps:

1) Determine if the action is in a floodplain using FEMA Flood Insurance Rate Maps (FIRMs) or other relevant sources.
2) Early public involvement to inform stakeholders and obtain feedback.
3) Identify and evaluate alternative actions that could avoid or minimize floodplain impacts.
4) Assess potential impacts of the proposed action, including flood risks, ecosystem effects, and socio-economic concerns.
5) Minimize adverse impacts and design measures to reduce harm to the floodplain.
6) Reevaluate the proposed action considering alternatives and mitigation measures.
7) Document the findings in an environmental assessment or impact statement.
8) Implement the action with all necessary mitigation measures and continue monitoring as required.
9) By following this process, agencies ensure compliance with EO 11988 and mitigate risks associated with floodplain development.

Executive Order 11990 (Protection of Wetlands)

Executive Order 11990 (Protection of Wetlands) requires an examination of impacts to wetlands. Policies of the federal government call for "no net loss" of the acreage and values of the nation's wetlands. Four federal agencies are directly responsible for the identification of wetlands as part of the implementation of a variety of federal laws and policies. These agencies are USACE, USEPA, USFWS, and NRCS.

4.2.3 Environmental Consequences

Assessment Criteria

Impacts to water resources would be significant if runoff from the Project Site causes localized flooding resulting in adverse environmental impacts or introduces additional contaminants to stormwater runoff that leaves the Project Site. Groundwater impacts would be significant if the Proposed Project adversely affects local water supply by reducing the availability of potable water. Water quality would be significantly affected if wastewater or runoff generated adversely impacts water quality standards of receiving waterbodies or groundwater.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed. The existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Over time, this aging septic infrastructure could fail, leading to potentially significant water quality issues. These issues could adversely impact water quality on the Project Site and downstream.

Proposed Action

Surface Water Impacts

Construction activities would include ground disturbing activities that could lead to erosion. Erosion from construction sites can increase sediment discharge to surface waters during storm events, thereby degrading downstream water quality. Construction activities would also include the routine use of potentially hazardous construction materials, such as concrete washings, oil, and grease that could spill onto the ground and dissolve into stormwater. Discharges of pollutants, including grease, oil, fuel, and sediments, to surface waters from construction activities and accidents are a potentially significant impact. The staging areas where equipment and chemicals will be stored have been intentionally sited away from surface waters to minimize the potential for accidental releases, should they occur, to enter receiving waters. To minimize the potential for construction activities to result in water quality impacts, the Band will implement BMPs in compliance with the NPDES 2022 Construction General Permit from the USEPA for the approximately 134 acres of the Project Site on the Reservation. Approximately 5 acres of off-Reservation Project Site would obtain separate coverage through the SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (General Permit; Order No. 2022-0057-DWQ). As discussed in **Table 2.3-1**, coverage under the USEPA and SWRCB NPDES permits will require preparation and implementation of federal and State-level SWPPPs to minimize adverse impacts to surface waters from construction activities.

Approximately 1,640 feet of the proposed 15-inch mainline will be microtunneled below the San Jacinto River. No direct impacts to the bed or banks of the San Jacinto River are anticipated, and therefore a CWA Section 404 Permit is not necessary. While the potential for frac-out occur during the microtunneling operations under the San Jacinto River is low, it is an inherent risk when conducting horizontal directional drilling or microtunneling operations. As such, consultation with USACE and obtaining a CWA Section 404 permit may be required. A frac-out occurs when pressurized drilling fluids escape through fractures in the subsurface, potentially contaminating nearby water bodies and sensitive environments. **Mitigation Measure HYD-2** within **Section 3.10.4** requires implementation of a detailed Frac-Out Contingency Plan. A Preliminary Frac-Out Contingency Plan has been prepared and is included as **Appendix I**. Pursuant to **Mitigation Measure HYD-2**, this Frac-Out Contingency Plan shall be finalized prior to construction of the portion of the Proposed Project that involves microtunneling below the San Jacinto River. Although a frac-out is not expected, **Mitigation Measure HYD-2** will ensure that impacts are reduced to less-than-significant levels should it occur.

No operational impacts are anticipated; long-term benefits of the Proposed Project include the reduction of nutrient and pathogen loads from failing septic systems, leading to improved water quality in the San Jacinto River basin.

Drainage and Flooding

The majority of the Proposed Project would be constructed outside of the FEMA-designated 100-year and 500-year floodplains, however a small portion of the Project Site occurs within the Zone A and shaded Zone X (Reduced Flood Risk due to Levee) (see **Figure 3-9**). One staging area occurs within the 100-year floodplain and the portion of the Proposed Project that would be microtunneled below the San Jacinto River would be below, but technically within, the floodplain. To ensure compliance with EO 11990 and EO 11988, the 8-Step Floodplain Decision-Making Process has been initiated and is provided in **Appendix J**. As assessed further in **Appendix J**, these project components would not result in any permanent above-ground structures that would impede flood flows or alter the floodplain, and no adverse impacts were identified. Alternatives for these project components were investigated but no alternatives exist that would reduce the already minimal impacts expected due to the temporary staging within and drilling below the floodplain. No adverse impacts to floodplains are expected.

The Proposed Project would not result in an increase in impervious surfaces or changes to topography that would alter drainage patterns and runoff rates. All disturbed areas would be returned to pre-project conditions after the completion of the pipeline trenching and installation. No adverse impacts to drainage patterns would occur.

Groundwater

The Proposed Project will not involve groundwater extraction, and therefore will not deplete groundwater supplies. The introduction of impervious surfaces can reduce groundwater recharge in areas where surface percolation accounts for a large percentage of natural recharge. As discussed above, no new impervious surfaces are proposed. BMPs and mitigation measures to protect surface water quality during construction would similarly be protective of groundwater quality. Therefore, impacts to groundwater would be less than significant.

4.2.4 Mitigation Measures

The mitigation measures presented in **Section 3.10.4** are designed to ensure that no adverse impacts occur to water resources as a result of the Proposed Project. No additional mitigation measures are required beyond those already outlined in **Section 3.10.4**, as these measures are sufficient to address all identified potential impacts under NEPA.

4.3 SOILS AND GEOLOGIC RESOURCES

4.3.1 Environmental Setting

The environmental setting pertaining to soils and geology is discussed in **Section 3.7.1,** while the environmental setting pertaining to mineral resources is discussed in **Section 3.12.1**.

4.3.2 Regulatory Setting

The regulatory setting pertaining to soils and geology is discussed in **Section 3.7.2**, while the regulatory setting pertaining to mineral resources is discussed in **Section 3.12.2**.

4.3.3 Environmental Consequences

Assessment Criteria

Impacts to soils and geologic resources would be significant if the Proposed Action substantially alters the topography of a site or causes an adverse effect, such as landslides. Seismic conditions would be adversely affected if the project substantially increases the occurrence of seismic events or substantially increases the risks from seismic events. Impacts to soils would be significant if the project resulted in rapid or uncontrolled soil erosion during storms, wind, or water application. Mineral resources would be significantly affected if the project reduces the regional availability of commercial mineral resources or increases the cost of extracting mineral resources.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed. The existing temporary facilities below the San Jacinto River would continue to operate to serve EMWD's non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Over time, this aging septic infrastructure could fail, leading to soil contamination. These issues may adversely impact the soils on the Project Site.

Proposed Action

Topography

The installation of the proposed sewer pipeline will require excavating trenches to accommodate the sewer pipelines. Furthermore, a new gravity mainline will be trenched through the golf course and microtunneled beneath the San Jacinto River, requiring the temporary excavation of boring pits on both sides of the River. However, construction would be temporary in nature and surface restoration techniques will be employed after segments of pipeline construction are completed and the boring pits would be filled after completion of the microtunneling. The surface restoration will include restoring all surfaces and roadways to pre-project conditions by filling trenches and bore pits, planting grasses and native vegetation in unpaved areas, and repaving roadways or golf cart pathways. As such, excavation activities would not change the existing topography and a less-than-significant impact to topography would occur.

Soils

Construction can lead to soil erosion as unprotected soils are eroded by wind and/or stormwater runoff. The majority of the soils on the Project Site (73 percent) are classified as hydrologic soil group A. Soils in hydrologic soil group A have low runoff potential and high infiltration rates when thoroughly wet. They are less prone to erosion compared to soils in higher hydrologic groups (B, C, D) due to their ability to quickly absorb water, which will reduce surface runoff and minimize erosion risk on the Project Site. The vast majority of proposed pipelines would be constructed within existing developed roadways, driveways, and golf cart paths using open cut trenching, which has the potential to result in localized and temporary soil erosion. However, construction will be temporary, and surface restoration techniques will be applied after each pipeline segment is completed to stabilize disturbed areas. As detailed in **Section 3.10** and **Table 2.3-1**, BMPs will be implemented to further minimize erosion, dust, and other soil disturbances during construction. Additionally, a SWPPP will be implemented throughout the construction phase, in compliance with NPDES General Construction Permit requirements, and will include measures to control runoff over exposed soils. With the immediate revegetation of disturbed soils and the implementation of BMPs and the SWPPP the area will be stabilized and resistant to soil mobilization and transport soon after

construction. Therefore, the Proposed Action is expected to have less-than-significant impacts on soil erosion and loss of topsoil.

Seismicity

The Project Site is underlain by a combination of alluvial and fluvial deposits ranging from the Holocene to the late Pliocene, including detrital sediments from the Holocene to Pleistocene and bedrock from the Pliocene to Pleistocene. Grading activities have the potential to encounter unweathered bedrock. However, no unstable geologic units or steep slopes have been identified on the site that would present a landslide or subsidence hazard. All construction will comply with the CBC, including seismic design standards. Given the stable geology of the site, adherence to the CBC, and the absence of steep slopes, a less-than-significant impact due to geological hazards would occur.

The Project Site is intersected by the Claremont fault and is in close proximity to three other active faults within the SJFZ. There is the potential for an earthquake to occur that would subject the Project Site to strong seismic shaking, which could consequently cause local ground rupture affecting the proposed sewer system. Although the probability of such an event is low, the potential impacts could be significant due to the site's location and seismic activity of the SJFZ. Portions of Riverside County are susceptible to liquefaction, a secondary effect of strong seismic shaking. The County's 2016 General Plan identified the Project Site as having high liquefaction susceptibility; however, the most recent 2024 General Plan indicates that the site is no longer within a designated liquefaction zone (Riverside County, 2016; Riverside County, 2024). Additionally, the USGS identifies the Project Site as having low liquefaction potential, as well as low landslide potential (USGS, 2024a; USGS, 2024b). Impacts related to the site's proximity to fault zones will be managed through adherence to regulatory and industry standards, including those in the CBC. These standards will involve incorporating seismic considerations into the design, such the use of appropriate materials, the removal of unsuitable soils, and the use of properly engineered fill. Consequently, all proposed development will be designed and constructed to withstand seismic shaking. Furthermore, the installation of pipelines will not increase the likelihood or severity of seismic ground shaking or fault rupture. Seismic hazards are expected to be less than significant.

Mineral Resources

The region containing the Project Site is classified as MRZ-2, which indicates potential mineral resources; however, the Project Site itself is not identified as containing any mineral resources according to the DOC and CGS. The Project Site has not been used for mineral production, and the Proposed Project will be sited primarily within existing roadways, driveways, and golf cart paths. Impacts to mineral resources would be less than significant.

4.4 BIOLOGICAL RESOURCES

4.4.1 Environmental Setting

The environmental setting as it relates to biological resources is discussed in **Section 3.4.1**. Additional information is also available within the BA (**Appendix F-2**).

4.4.2 Regulatory Setting

The biological resources regulatory setting is discussed in **Section 3.4.2**. Additional information is also available within the BA (**Appendix F-2**).

4.4.3 Environmental Consequences

Assessment Criteria

A project would have a significant adverse impact if the development or operation would result in the loss of sensitive or critical habitat; have a substantial adverse effect on species with special status under the FESA; have a substantial adverse effect on habitat necessary for the future survival of such species, including areas designated as critical habitat by the USFWS and areas designated as critical habitat or EFH by NMFS; result in a take of migratory bird species as defined by the MBTA; and/or have a substantial adverse effect on jurisdictional aquatic resources. Consideration is also given to State-listed species.

Methodology

The evaluation of adverse effects to biological resources is based on a comprehensive examination of the Project Site and the extent of habitats, aquatic features, and the presence, absence, or potential occurrence of special status species that would be impacted by the project alternatives. A complete description of the methodology can be found in **Appendix F-2**.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed. The existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Over time, this aging septic infrastructure could fail, leading to potentially significant habitat degradation in the local streams. These issues could adversely impact wildlife and sensitive riparian habitats on the Project Site and downstream.

Proposed Action

Sensitive Habitats and Aquatic Resources

Sensitive habitats within the Project Site include several channels and riparian habitat associated with the San Jacinto River. The proposed pipelines would be routed underneath these habitats and would not result in impacts to these habitats. Therefore, there would be no direct impact to these sensitive habitats. It is noted that portions of the grasslands within the Project Site are considered valuable in the MSHCP for dispersing wildlife. While this habitat is dominated by non-native species adjacent to development and is not considered sensitive and does not support significant wildlife movement, it is noted that impacts to this habitat would be temporary and no loss of function to wildlife would occur.

Construction activities have the potential to indirectly degrade aquatic habitats through the routine use of construction materials and through the exposure of bare soils, thus increasing the risk that stormwater may become impaired by loose soils or chemicals from accidental spills. The Proposed Project would be subject to the NPDES Construction General Permit and a site-specific SWPPP that would contain BMPs to ensure that aquatic habitats are not degraded during construction, as explained in **Table 2.3-1**. No additional impacts under NEPA would occur compared to the analysis presented pursuant to CEQA in **Section 3.4.3**. Therefore, implementation of the Proposed Project would have a less-than-significant impact on sensitive habitats.

Federally Listed Species

Impacts to federally listed species are discussed in detail in **Appendix F-2** and in **Section 3.4.3**. Impacts are summarized in **Table 4.4-1** below. Potentially significant impacts could occur to listed plants, mammals, birds, and reptiles, and mitigation measures have been identified to reduce all impacts to less-than-significant levels. Consultation with the USFWS under Section 7 of the ESA was initiated by IHS on January 29, 2025 and concluded on March 28, 2025 (**Appendix F-4**). With inclusion of the Conservation Measures included in **Table 2.3-1** and mitigation measures discussed in **Section 3.4.4**, USFWS determined the Proposed Project is Not Likely to Adversely Affect (NLAA) federally listed species (**Appendix F-4**).

Table 4.4-1: Impacts to Federally Listed Species

Species	Potential Impact	Mitigation
San Diego Ambrosia	No Effect - suitable habitat within Project Site is avoided.	None necessary.
Slender-horned Spineflower	No Effect - Potential for loss of individuals should they establish within coastal scrub habitat prior to construction.	BIO-1: this measure includes a pre-construction botanical clearance survey for this species prior to construction in suitable habitat. If observed, this measure includes either placing of a buffer to prevent impacts, or implementation of a salvage mitigation program.
San Bernardino Kangaroo Rat	May Effect but Not Likely to Adversely Affect (NLAA) - Impacts to individuals or burrows that may occur in coastal scrub or riparian habitat.	BIO-2, BIO-3, and BIO-4: These measures include worker environmental awareness training, construction protocols (such as a prohibition of work during the night), and a preconstruction clearance survey by a USFWS-approved biologist prior to work in or near coastal scrub or riparian habitat. If observed, either the pipeline would be re-routed to fully avoid this species, or translocation would occur in consultation with USFWS.
Stephens' Kangaroo Rat	No Effect - Impacts to individuals or burrows that may occur in coastal scrub or riparian habitat. Also, potential impacts to individuals that may occur in grasslands.	BIO-2, BIO-3, and BIO-4: These measures include worker environmental awareness training, construction protocols (such as a prohibition of work during the night), and a preconstruction clearance survey by a USFWS-approved biologist prior to work in or near coastal scrub or riparian habitat. If observed, either the pipeline would be re-routed to fully avoid this species, or translocation would occur in consultation with USFWS.
Coastal California Gnatcatcher, Least Bell's Vireo, and Southwestern Willow Flycatcher	No Effect - Construction-phase disturbance of nesting birds. Suitable nesting habitat for this species is limited to the San Jacinto River Channel; therefore impacts would be limited to sensory disturbance.	BIO-6: This measure includes a preconstruction nesting bird survey, should construction commence within the nesting season. Impacts would be avoided through establishment of a buffer, or postponement of work.
Southwestern Pond Turtle and Arroyo Toad	No Effect - Impacts to individuals that may cross through aquatic habitats.	BIO-5: This measure includes a preconstruction clearance survey for construction on or near channel habitat. If observed, USFWS will be consulted on impact avoidance measures such as project re-alignment, translocation of the animals, and/or the erection of exclusionary fence.

With implementation of mitigation and Conservation Measures, adverse impacts to these species would not occur (**Section 3.4.3**; **Appendix F-2**; **Appendix F-4**). No additional impacts under NEPA would occur compared to the analysis presented pursuant to CEQA in **Section 3.4.3**. Therefore, implementation of the Proposed Project would have a less-than-significant impact on federally listed species with consideration of mitigation.

Critical Habitat and Essential Fish Habitat

There is no NMFS critical habitat or EFH within or in close proximity to the Project Site. Therefore, there would be no effect to NMFS critical habitat or EFH. However, the Project Site overlaps critical habitat for San Bernardino kangaroo rat in two locations: on the western end of the Project Site in the San Jacinto River and on the eastern end of the proposed sewer alignments along Poppet Flats Road and Castile Canyon Road as shown in **Figure 3-4**. As discussed in **Section 3.4.3**, no impacts to the San Jacinto River channel would occur as the pipeline would be routed underneath the channel. Impacts to critical habitat along Poppet Flats Road and Castile Canyon Road would be temporary construction-phase impacts primarily in ruderal/developed habitat and some limited areas of coastal scrub habitat. All disturbed areas would be restored to pre-project conditions after installation of the below-ground pipelines. These temporary impacts would not result in loss of critical habitat or long-term alteration of critical habitat, and therefore may affect, but is not likely to adversely affect (NLAA) critical habitat. This would be a less-than-significant impact.

Migratory Birds and Other Birds of Prey

The Project Site and vicinity provides potential nesting habitat for migratory birds and other birds of prey. If active nests are present in these areas, ground-disturbing activities associated with development of Alternative A could adversely affect these species through sensory disturbance of nests. Implementation of **Mitigation Measure BIO-6** identified in **Section 3.4.4**, which includes pre-construction surveys and placement of disturbance-free buffers around active nests, would reduce potential adverse effects to nesting birds during construction to less than significant.

State-Listed Species

Impacts to state-listed species are discussed in detail in **Appendix F-1** and in **Section 3.4.3** under Question A. Impacts are summarized in **Table 4.4-2** below. Although state-listed species are generally not afforded special protections on federal trust land, the Band has committed to implementation of biological resources mitigation consistently across both the on- and off-Reservation aspects of the Project Site. Further, as a project BMP, wildlife observed within a construction area would be allowed to leave unharmed, regardless of status.

With implementation of mitigation, adverse impacts to these species would not occur (**Section 3.4.3**; **Appendix F-2**). No additional impacts under NEPA would occur compared to the analysis presented pursuant to CEQA in **Section 3.4.3**. Therefore, implementation of the Proposed Project would have a less-than-significant impact on state-listed species with consideration of mitigation.

Table 4.4-2: Impacts to State Listed Species

Species	Potential Impact	Mitigation
San Diego Black-Tailed Jackrabbit, San Diego Desert Woodrat, and Los Angeles Pocket Mouse	Impacts to individuals that may pass through scrub habitat.	BIO-2, BIO-3, and BIO-4: These measures include worker environmental awareness training, construction protocols (such as a prohibition of work during the night), and a preconstruction clearance survey by a CDFW-approved biologist prior to work in or near coastal scrub habitat. If observed, work will be delayed until the animal has left on its own.
Southern Grasshopper Mouse	Impacts to individuals or burrows that may occur within scrub habitat.	BIO-2, BIO-3, and BIO-4: These measures include worker environmental awareness training, construction protocols (such as a prohibition of work during the night), and a preconstruction clearance survey by a CDFW-approved biologist prior to work in or near coastal scrub habitat. If observed, either the pipeline would be re-routed to fully avoid this species, or translocation would occur in consultation with CDFW.
White-Tailed Kite	None - no nesting habitat was observed and no impacts to foraging habitat would occur.	None necessary.

4.4.4 Mitigation Measures

The mitigation measures presented in **Section 3.4.4** and the conservation measures includes in **Table 2.3-1** will reduce impacts to less-than-significant levels.

4.5 RECREATION

4.5.1 Environmental Setting

The environmental setting is discussed in **Section 3.16.1**.

4.5.2 Regulatory Setting

The relevant regulatory setting is discussed in **Sections 3.15.2** and **3.16.2**.

4.5.3 Environmental Consequences

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed, the existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, and the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. The No Action Alternative could have a negative impact on recreational facilities if failures in the septic systems disrupt use of recreational facilities.

Proposed Action

The Proposed Project does not include development of new housing, although it would support additional planned development on the Reservation. Over time, the population of the Reservation is anticipated to gradually increase. The Reservation has ample recreational facilities to accommodate population growth, some of which may need future expansion regardless of the Proposed Project. Employment opportunities would be temporary during the construction period. The Band's golf course and ball fields would stay open during construction and would not be impacted by long-term operation of the proposed sewer line. Therefore, the Proposed Project would not directly impact existing recreational facilities, will not increase off-Reservation visitation to local and regional parks, and those facilities would not need to be expanded. Therefore, no adverse impact would occur.

4.6 NOISE

4.6.1 Environmental Setting

The environmental setting is discussed in **Section 3.13.1**.

4.6.2 Regulatory Setting

The relevant regulatory setting is discussed in **Section 3.13.2**, with additional information provided below to supplement that section.

Federal

There are no federal regulations related to noise that apply to the Proposed Project. Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under 40 CFR Part 205, Subpart B. The federal truck pass-by noise standard is 80 dB at 15 meters from the vehicle pathway centerline. These controls are implemented through regulatory controls on truck manufacturers.

State

California does not have a uniform state law or specific criteria for what qualifies as a "substantial increase" in noise levels, but it does provide guidelines for local governments. These guidelines, found in the 2017 General Plan Guidelines published by the Governor's Office of Planning and Research, offer recommendations on how different land uses should be compatible with noise levels. It is at the discretion of the local jurisdictions to adopt and implement these recommendations to manage noise in their areas effectively.

Local

The City of San Jacinto Municipal Code (Chapter 8.40) sets noise standards to protect residents and sensitive receptors, with maximum allowable levels of 65 dBA exterior and 45 dBA interior for residential areas. Construction activities are permitted between 7:00 AM and 7:00 PM on weekdays and Saturdays, and 9:00 AM to 6:00 PM on Sundays and holidays, with exceptions for emergencies or public works. Exemptions also include public safety operations and routine property maintenance during daytime hours. The Riverside County Code of Ordinances (Chapter 9.52) exempts construction projects over 0.25 miles from inhabited dwellings and restricts hours for projects closer to residences, allowing work from 6:00 AM to 6:00 PM (June–September) and 7:00 AM to 6:00 PM (October–May).

4.6.3 Environmental Consequences

Assessment Criteria

The assessment of project effects is based on noise standards established in the City of San Jacinto Municipal Code, Chapter 8.40, and the Riverside County Code of Ordinances, Chapter 9.52, depending on the project location. A significant effect would occur if:

- Construction Noise:
  - Within the City of San Jacinto boundaries, construction activities exceed the allowable noise levels specified in exterior noise limits outlined in Sections 8.40.040 and 8.40.050, such as 65 dBA for residential areas during daytime hours and 45 dBA at night. However, these levels are exempt under Section 8.40.090 if hours are restricted to 7:00 AM to 7:00 PM on weekdays and Saturdays, and 9:00 AM to 6:00 PM on Sundays and holidays.
  - In unincorporated areas of Riverside County, construction within 0.25 miles of inhabited dwellings must follow County Code (Section 9.52.020) and is restricted to 6:00 AM to 6:00 PM (June–September) and 7:00 AM to 6:00 PM (October–May).
- Operational Noise:
  - Within the City of San Jacinto boundaries, project-generated traffic or other operational noise sources would cause noise levels to exceed the maximum allowable levels defined in Section 8.40.040 (e.g., 65 dBA for residential properties) in areas where these thresholds are not currently exceeded. Sensitive receptors, such as residential areas, must maintain compliance with these limits unless located in mixed-use zones, where higher levels (e.g., 70 dBA exterior) may apply.
  - In unincorporated areas of Riverside County, project-generated operational noise would cause noise levels to exceed the maximum allowable limits specified in Section 9.52.040, such as 45 dBA during nighttime hours for rural residential areas, in areas where these levels are not currently exceeded.

No Action Alternative

Under the No Action Alternative, ambient noise levels would not be affected and would remain the same. Therefore, there would be no impact.

Proposed Action

Construction

Construction noise and vibration impacts on nearby sensitive receptors would be similar to those described in **Section 3.13.3**. Noise-generating equipment, including backhoes, excavators, concrete mixers, and pavement saws, could generate noise levels ranging from 74 to 96 dBA Lmax at 50 feet, with sensitive receptors located adjacent to certain construction areas. However, construction activities would be brief and temporary at any given location, typically advancing along the roadway at an average rate of 50 feet per day, limiting exposure to elevated noise levels for only a few days at most for sensitive receptors.

As specified in **Section 2.2.3**, construction activities for the Proposed Project will occur between 7:00 AM and 6:00 PM on weekdays and Saturdays and between 9:00 AM and 6:00 PM on Sundays and holidays, consistent with the noise regulations outlined in the City of San Jacinto Municipal Code (Section 8.40.090) and the Riverside County Code of Ordinances (Section 9.52.020). These hours are consistent with local standards, minimizing disruption to nearby sensitive receptors.

Additionally, the implementation of BMPs listed in **Table 2.3-1**, such as requiring mufflers on equipment, limiting truck haul routes, and positioning stationary noise sources away from sensitive receptors, would further reduce potential noise impacts. These measures, combined with adherence to the specified construction hours, ensure that temporary noise impacts from construction activities would be less than significant.

Similarly, vibration impacts would be significant but temporary (see additional details in **Section 3.13.3**), and would be reduced with the implementation of mitigation measures in **Section 3.13.4.** With implementation of mitigation, the Proposed Project would have a less-than-significant impact on noise and vibration.

Operation

Operation noise impacts would be similar to those described in **Section 3.13.3**. Consequently, during operation, the Proposed Project is not expected to generate a significant quantity of noise during operation, and would therefore have a less-than-significant impact.

4.6.4 Mitigation Measures

The mitigation measures presented in **Section 3.13.4** will ensure no adverse impacts occur. No additional mitigation measures are required.

4.7 VISUAL RESOURES

4.7.1 Environmental Setting

The environmental setting is discussed in **Section 3.1.1**.

4.7.2 Regulatory Setting

The regulatory setting is discussed in **Section 3.1.2**.

4.7.3 Environmental Consequences

Assessment Criteria

Impacts related to visual resources would be considered significant if the alternative were to degrade or diminish the aesthetics of visual resources such as scenic vistas or designated scenic areas, introduce lighting that would substantially increase the nighttime lighting in the area, and/or cast a shadow on private residences or public areas for substantial portions of the day.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed. The existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. In the short run, the No Action Alternative would not have an impact on visual or scenic resources, as no construction would occur, and the existing conditions of the site would remain unchanged.

Proposed Action

Construction

Construction of the Proposed Project would temporarily impact the visual character of the Project Site. Visual resources near the Project Site include the San Jacinto River and Mountains. Soboba Road is designated a County eligible scenic highway by Riverside County, although less than 400 feet of the Project Site is within Soboba Road off-Reservation where County land use policies apply. The Project Site is located approximately 5 miles from the nearest designated State scenic highway, SR 74, and is not visible from this roadway (Caltrans, 2024). As shown in photos 2, 3 and 6 of **Figure 3-1**, views of the surrounding mountains, river floodplains, and Soboba Road are visible from the Project Site. Views along the Project Site would be temporarily altered by construction activities and the presence of construction equipment, excavated materials, and staging areas. However, once construction is completed, the proposed pipelines would be underground and surface restoration techniques would be employed after segments of pipeline construction are completed to restore all surfaces and roadways to pre-project conditions. This would include planting grasses and native vegetation in unpaved areas and repaving roadways or golf cart pathways. The only permanent above-ground impact is the proposed levee ramp which will be consistent with the surrounding developed uses. In the long term, the visual character of the Project Site would remain largely unchanged. Therefore, the Proposed Project would not substantially degrade the existing visual character or quality of the Project Site and its surroundings, and therefore there would be a less-than-significant impact.

Operation

Operationally, the proposed pipelines would not degrade the existing visual character or quality of the Project Site and its surroundings because they would be located below ground and would not be visible.

Lighting and Glare

Section 8.40.090 of the San Jacinto Municipal Code limits the hours of construction to between 7:00 AM and 7:00 PM. Furthermore, section 9.52.020 of the Riverside County Municipal Code prohibits construction from between 6:00 PM and 6:00 AM. As such, temporary construction activities would be limited to daylight hours to avoid nighttime lighted activities. The Proposed Project does not involve the installation of any new sources of light or glare. Therefore, there would be no impact from new sources of substantial light or glare which would adversely affect day or nighttime views in the area. As a result, there would be a less-than-significant impact relating to lighting and glare.

4.8 HISTORIC PROPERTIES

4.8.1 Environmental Setting

The environmental setting is discussed in **Section 3.5.1**.

4.8.2 Regulatory Setting

The regulatory setting is discussed in **Section 3.5.2**. Additional regulatory frameworks and policies pertaining specifically to NEPA are described below.

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA 1966) is the most concise and effective federal law dealing with historic preservation. In addition, applicable State and local requirements have been derived from this legislation. The NHPA established guidelines to "preserve important historic, cultural, and natural aspects of our cultural heritage, and to maintain, wherever possible, an environment that supports diversity and a variety of individual choice." The NHPA includes regulations specifically for federal land-holding agencies but also includes regulations (known as Section 106) that pertain to all projects that are funded, permitted, or approved by any federal agency and which have the potential to affect historic properties. In addition, the NHPA authorizes the Secretary of the Interior to establish a National Register. Additional detail is available in **Section 3.5.2**.

Native American Graves Protection and Repatriation Act

In the event that human remains are encountered at any time during project work, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be Native American and are located on Tribal land, they are subject to the provisions of 43 CFR Part 10 Subpart B of the Native American Graves Protection and Repatriation Act, which stipulates the Indian Tribe (Soboba) will determine the appropriate treatment of remains found on tribal land.

National Register of Historic Places (NRHP)

To determine if a proposed project will impact a historic property, potential resources discovered during identification efforts must be evaluated for significance using qualification criteria for listing a resource in the NRHP (36 CFR 60.4). Resources must normally be over 50 years old, and they must possess integrity. The resource must meet one of the criteria below. A historic property must:

a) Be associated with events that have made a significant contribution to the broad patterns of our history; or
b) Be associated with the lives of persons significant in our past; or
c) Embody the distinctive characteristics of a type, or method of construction, or represent the work of a master, or possess high artistic values, or represent a significant and distinguishable entity whose components may lack individual distinction; or
d) Have yielded, or may be likely to yield, information important in our prehistory.

A property's integrity is grounded in an understanding of the property's physical characteristics and how those characteristics relate to its significance. The NRHP defines seven aspects of integrity: location, design, setting, materials, workmanship, feeling, and association. A cultural resource that meets one of the NRHP significance criteria and has integrity is considered eligible for listing in the NRHP and is a historic property under Section 106 of the NHPA. For properties eligible under Criterion D, setting and feeling may not have direct bearing on the property's ability to yield important information. Evaluation of integrity focuses primarily on the location, setting, design, materials, and perhaps workmanship.

4.8.3 Environmental Consequences

Assessment Criteria

A significant effect would occur if the implementation of a project alternative resulted in physical destruction, alteration, removal, neglect, or change in characteristics or reduction of integrity of historic features of a cultural resource eligible for listing on the NRHP.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed, the existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, and the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Historic Properties would not be affected under the No Action alternative.

Proposed Action

Two historical resources were identified in the vicinity of the Project Site: the S-Curve Site and the Fiesta site. The S-Curve Site is an ethnographic village site that was originally recorded in 1865, while the Fiesta Site is the location of the annual historic Soboba Fiesta. Both sites are recommended as eligible for the NRHP under Criterion D as Traditional Cultural Properties.

- The S-Curve Site is recommended for eligibility in the NRHP under Criterion D because it has already yielded substantial information about settlement and subsistence patterns and holds potential for further insights into its use from 10,000 years ago to the late 1700s.
- The Fiesta Site is recommended for eligibility in the NRHP under Criterion D for its significant contributions to understanding early 20th-century Fiestas and its potential to shed light on the evolution of Southern California tribal gatherings and adaptations to American authority.

During construction, excavation will be limited to the previously disturbed portion of the S-Curve Site within an existing roadway. The known boundaries of the Fiesta Site are outside the proposed excavation areas. Therefore, intact portions of both sites will be avoided during construction of the Proposed Project. With the implementation of **Mitigation Measures CR-1**, **CR-2**, **CR-4,** and **CR-5**, the Proposed Project would not significantly impact these two resources. In the event that human remains are inadvertently unearthed during construction activities, **Mitigation Measure CR-3** will ensure compliance with the Native American Graves Protection and Repatriation Act. Impacts are less than significant with mitigation.

4.8.4 Mitigation Measures

The mitigation measures presented in **Section 3.5.4** will ensure no adverse impacts occur. No additional mitigation measures are required.

4.9 LAND USE

4.9.1 Environmental Setting

The majority of the environmental setting relevant to land use is discussed in **Section 3.2.1** and **Section 3.11.1**.

There are a few airports located in the vicinity of the Project Site. Banning Municipal Airport is located approximately nine miles northeast of the Project Site and Hemet-Ryan Airport is located approximately eight miles southwest of the Project Site. The Project Site is located outside of the Airport Safety Zone for these airports.

The Park Hill Elementary School 1.5 miles south southwest of the Project Site, on the other side of the San Jacinto River; and San Jacinto Elementary is located approximately 1.3 miles west of the Project site crossing point on the San Jacinto River. The Noli Indian School is located on the Reservation, on the southeastern outskirts of the Project Site and St. Jude Missionary School is located just north of St. Joseph's Catholic Church, which is located just east of Soboba Road on the Reservation. There are a few other churches located outside of the Project Site but within a mile.

4.9.2 Regulatory Setting

Any additional relevant regulatory setting is discussed in **Section 3.2.2** and **Section 3.11.2.**

Farmland Protection Policy Act

FPPA is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that federal programs are administered in a matter that is compatible with state and local units of government, and private programs and policies to protect farmland (7 U.S.C. § 4201). NRCS is responsible for the implementation of the FPPA and categorizes farmland in a number of ways. These categories include important farmland such as prime farmland, farmland of statewide importance, and unique farmland. Prime farmland is considered to have the best possible features to sustain long-term productivity. Farmland of statewide importance includes farmland similar to prime farmland, but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique farmland is characterized by inferior soils and, depending on climate, generally needs irrigation.

The NRCS fulfills the directives of the Soil and Water Conservation Act (16 USC § 2001-2009) by identifying significant areas of concern for the protection of national resources. NRCS uses a land evaluation and site assessment system to establish a Farmland Conversion Impact Rating (FCIR) score. The FCIR is completed on form AD-1006. The FCIR form has two components: land evaluation, which rates soil quality up to 100 points, and the site assessment, which measures other factors that affect the property's viability up to 160 points. The total FCIR score is used as an indicator for the project's sponsor to consider alternative sites if the potential adverse impacts on the farmland exceed the allowable level; however, the FPPA does not require federal agencies to alter projects to avoid or minimize farmland conversion. Sites receiving a combined score of less than 160 (out of 260 possible points) do not require further evaluation. For sites with a combined score greater than 160 points, at least two other alternatives are required to be considered and the alternative with the lowest number of points selected unless there are other overriding considerations.

Federal Aviation Administration

In accordance with 14 CFR 77, which provides requirements, standards, and processes for determining obstructions to air navigation, the Federal Aviation Administration's (FAA's) primary objective is to promote air safety and the efficient use of the navigable airspace. In furthering this mission, the FAA conducts aeronautical studies based on information provided on FAA Form 7460-1, Notice of Proposed Construction or Alteration, by proponents of construction or development in the vicinity of airports.

4.9.3 Environmental Consequences

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed, the existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, and the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Land use would not be affected under the No Action alternative.

Proposed Action

The Project Site is located outside of the Airport Safety Zone for the Banning Municipal Airport and the Hemet-Ryan Airport. There are no above-ground project components associated with the Proposed Project, and therefore there would be no impact to airports.

The on-Reservation laterals would accommodate the replacement of septic tanks and seepage pits within existing neighborhoods and would result in new Tribal customers being served by EMWD's regional wastewater treatment facilities, but these new customers do not represent new or unplanned population. The Proposed Project would support gradual future planned growth on the Reservation as it is designed to meet the local service needs of existing and planned residential, commercial, and administrative developments on the Reservation. The Proposed Project involves construction of new sewer laterals on-Reservation and mainline pipelines both on- and off-Reservation. The replacement of the existing, temporary forcemain below the San Jacinto River would serve existing non-Tribal communities in addition to the on-Reservation land uses, which would maintain local wastewater service to EMWD's existing customers. No new off-Reservation sewer lateral connections are proposed. The Proposed Project will not expand services off-Reservation and would not result in changes to land uses off-Reservation. Therefore, the Proposed Project would not directly or indirectly induce unplanned population growth, and impacts would be less than significant.

The DOC has identified the Project Site as a combination of urban and built-up land, farmland of local importance, grazing land, and other land (DOC, 2022), as shown in **Figure 3-1**. The Project Site is located in an urban area, therefore it is not subject to the provisions of the FPPA, as specified in section 523.10 of the FPPA Manual. The Proposed Project would not convert agricultural land or farmland into non-agricultural uses and would thus have a less than significant impact.

Project implementation would not interfere with, preclude, or conflict with existing land uses adjacent to the project area.

4.10 PUBLIC SERVICES AND INFRASTRUCTURE

4.10.1 Environmental Setting

The environmental setting for public services is discussed in **Section 3.15.1,** while the environmental setting for infrastructure is discussed in **Section 3.19.1.**

4.10.2 Regulatory Setting

The regulatory setting for public services is discussed in **Section 3.15.1**, while the regulatory setting for infrastructure is discussed in Section **3.19.2**.

4.10.3 Environmental Consequences

Assessment Criteria

A significant effect would occur if project-related demands on public services would cause an exceedance of system capacities that result in significant effects to the physical environment.

No Action Alternative

Under the No Action Alternative, the proposed sewer collection system would not be developed. The existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Over time, the aging septic infrastructure could fail, potentially impacting both water supply and wastewater management services. Contamination of local groundwater sources from untreated wastewater could pose health risks, necessitating additional treatment and straining the water supply system's capacity. For wastewater management, the overflow of untreated wastewater could create public health hazards and environmental contamination, requiring emergency response and potentially overwhelming treatment facilities, which would be a negative impact. There would be no significant impacts on solid waste, electricity and gas, fire protection, police protection, school, parks, or other public services.

Proposed Action

Water

The population of the Soboba Reservation is expected to increase by approximately 1,250. The Proposed Project would support this planned population growth on the Reservation. However, the Proposed Project would not extend wastewater service or otherwise support additional residential development off Reservation. EMWD is projected to have sufficient water supplies through 2045, even with future population growth, resulting in less-than-significant impacts on water supply.

Wastewater

The new sewer system will connect to the EMWD regional sewer system, and sewage will be directed to the San Jacinto Valley Regional Water Reclamation Facility, which serves the project area and has a current capacity of 14 million gpd and an ultimate capacity of 27 million gpd. The Proposed Action involves short-term construction activities that would indirectly support the planned, gradual future population growth on the Reservation. However, the existing plant capacity is sufficient to accommodate any increased flows

from the proposed pipeline associated with such growth, resulting in less-than-significant impacts on wastewater treatment.

Solid Waste

Construction of the Proposed Action would generate minimal solid waste and would not affect landfill capacity. During construction, debris like excavated soil and asphalt would be disposed of at a recycling facility or a permitted landfill. BMPs provided in **Table 2.3-1** ensure the maximum amount of construction waste that can be recycled would be diverted from landfills. The remaining waste would be within the capacity of local landfills, such as Badlands and Lamb Canyon, which have ample capacity and throughput to accommodate the project-related waste (CalRecycle, 2024a; CalRecycle, 2024b). Therefore, less-than-significant impacts related to solid waste would occur.

Electricity and Gas

The Proposed Action would consist predominantly of short-term construction activities that would indirectly support future population growth on the Reservation. However, the nature and scope of the Proposed Action would therefore not require or result in the relocation or construction of new utility facilities. Less-than-significant impacts would occur.

Fire Protection

The Project Site is served by SFD and RCFD, with the SFD station adjacent to the site and the nearest RCFD station 1.11 miles southeast. The construction and operation of the Proposed Project would not increase the need for fire protection services. Temporary fire protection may be required during construction, but this would not necessitate permanent service increases or affect response times. BMPs included in **Table 2.3-1** include measures to minimize the potential for equipment during construction to spark or increase fire risk, which will further minimize potential impacts to fire protection services. Given the low probability and short-term nature of potential fire protection needs, the Proposed Action is not expected to have a significant impact on fire protection services. Impacts would be less than significant.

Police Protection

The Project Site is served by the Soboba Department of Public Safety and the Riverside County Sheriff's Office. Similar to the low probability and short-term nature of fire protection needs, the Proposed Action is not expected to have an adverse effect on police protection services, resulting in a less than significant impact.

Schools

The Proposed Project will facilitate gradual housing and population growth on the Reservation; however, this growth is not unplanned and will not require new school facilities. Further, the Proposed Project will not result in new housing or population growth off-Reservation that would generate increased demand for school services. Consequently, there would be no need for additional school facilities, and less-than-significant impacts would occur.

Parks

The Proposed Project crosses through the Soboba Springs Golf Course, temporarily affecting the golf course during construction. However, surface restoration techniques, including repaving golf cart pathways and restoring any impacted fairway, would restore all surfaces to pre-project conditions once construction is complete. The operation of the Proposed Project would not impact existing park facilities,

and future population growth on the Reservation would not significantly increase the demand for additional recreational facilities. Given the temporary nature of construction impacts and the planned and gradual nature of future on-Reservation growth, the Proposed Project is expected to have a less-than-significant impact on parks.

Other Public Facilities

The Proposed Project would not result in a need for additional or other public facilities. Therefore, the Proposed Project would have *no impact*.

4.11 HAZARDOUS MATERIALS

4.11.1 Environmental Setting

The environmental setting for hazardous materials is discussed in **Section 3.9.1**, including the historical use, existing hazardous materials conditions, and regulatory context pertaining to the Project Site. As described further above, there are no known hazardous materials sites within the Project Site (DTSC, 2024; USEPA, 2024b).

4.11.2 Regulatory Setting

The regulatory setting, including federal laws pertaining to hazardous materials, is described in **Section 3.9.2**.

4.11.3 Environmental Consequences

Assessment Criteria

Impacts associated with hazardous materials include a release of hazardous materials above a de minimis level and improper hazardous material management that could result in potential health risks to people or wildlife. A project would be considered to have significant hazardous material impacts if the site had existing hazardous materials onsite that would require remediation or mitigation prior to development of a project. Additionally, if a project results in the use, handling, or generation of a controlled hazardous material that the regulated amount would increase the potential risk of exposure that results in the reduction in the quality or loss of life, then the project would have a significant impact.

No Action Alternative

Under the No Action Alternative, no impacts associated with hazards and hazardous materials would occur.

Proposed Action

Construction of the Proposed Project would require the use of hazardous materials such as fuels, lubricants, and solvents. Construction activities would be short-term and one-time in nature, and would involve the limited transport, storage, use, or disposal of hazardous materials. Project operation is not anticipated to require the use of hazardous materials. Hazardous materials would be handled in a manner that complies with federal, state, and local regulations per BMPs in **Table 2.3-1**, thus minimizing potential impacts. Due to the proximity of the Project Site to a school and residential sensitive receptors, **Mitigation Measure HAZ-1** is required pursuant to CEQA and will further reduce any potential adverse impacts

associated with hazardous materials use. The use of BMPs such as spill prevention and control, proper storage and handling, hazard communication, waste management, transportation safety, emergency response planning, water quality protection, inspection and maintenance, and thorough documentation and record-keeping and implementation of **Mitigation Measure HAZ-1** will mitigate risks associated with hazardous materials. The project's adherence to these BMPs ensures that potential environmental impacts are minimized and managed effectively.

4.12 UNAVOIDABLE ADVERSE EFFECTS

No unavoidable adverse effects would occur under the Proposed Action as all potential impacts could be mitigated to less-than-significant levels by the implementation of the project environmental commitments (**Table 2.3-1**) and mitigation measures recommended in this document and summarized in **Section 5**. Adverse effects could occur under the No Action Alternative; however, these would be avoided by implementation of the Proposed Action.

4.13 IRREVERSBILE OR IRRETRIEVABLE COMMITMENTS OF RESOURCES

A commitment of resources is irreversible when the effects of proposed activities result in limiting the future options for resource development or management. An irretrievable commitment refers to the lost production or use of a resource that would cause the resource to be unavailable for use by future generations. Examples include the permanent extraction or alteration of nonrenewable resources, such as minerals and cultural resources, and changes to renewable resources that would then become unavailable for use by future generations.

No irreversible or irretrievable commitments of resources would occur under the No Action Alternative.

Constructing the Proposed Action would require an irretrievable commitment of building materials (e.g., pipe) and energy (e.g., fuel used in construction equipment). With the minor exception of the proposed levee ramp, the Proposed Action will not commit land or mineral resources as there would be no changes in land uses and the ground surface will be restored to pre-existing conditions after construction activities are complete. The Proposed Action includes replacing individual septic systems on the Reservation, which will free up existing commitments of land.

4.14 RELATIONSHIP BETWEEN SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

The No Action Alternative could result in significant adverse long-term effects on the quality of the environment. The existing temporary facilities below the San Jacinto River would continue to operate to serve the EMWD non-Tribal customers and the Tribal casino, while the Tribal residences and administration buildings would continue to rely on aging septic infrastructure. Over time, this aging septic infrastructure could fail, leading to potentially significant water quality issues. These issues could adversely impact water quality on the Project Site and downstream.

The Proposed Action would result in a significant beneficial long-term effect on the quality of the environment, as the EMWD regional wastewater treatment facilities would provide higher level of water treatment that would reduce nutrient and pathogen loads from failing septic systems, leading to improved water quality in the San Jacinto River basin. Furthermore, with the exception of the proposed levee ramp, no permanent above-ground facilities are proposed that would convert land from its existing uses. As a result there would be no short-term land uses that would affect long-term productivity. Additionally, the Proposed Action would not result in any significant long-term adverse effects, as the mitigation measures recommended in **Section 5** would reduce impacts to less-than-significant levels.

Section 5 | Draft Mitigation Monitoring and Reporting Plan

5.1 INTRODUCTION

CEQA requires that a Lead Agency establish a program to report on and monitor measures adopted as part of the environmental review process to mitigate or avoid significant effects on the environment. This draft Mitigation Monitoring and Reporting Program (MMRP) is designed to ensure that the mitigation measures identified in the IS/EA for the Proposed Project are fully implemented.

The MMRP, as presented in **Table 5.1-1**, describes the implementation and timing of mitigation responsibilities and standards, and verification of compliance for the mitigation measures identified in this environmental document. Monitoring responsibilities have been distributed between the Band and IHS under this MMRP. All monitoring actions, once completed, would be reported (in writing) to the IHS staff, which would maintain mitigation monitoring records for the Proposed Project.

The components of the MMRP table are described below.

- **Mitigation Measure:** The mitigation measures are taken verbatim from the 2020 EIR. Mitigation measures are assigned the same number as in the EIR.
- **Implementation and Timing:** Identifies the timing for the implementation of each action.
- **Responsibility for Implementation:** Identifies the authority responsible for implementing the mitigation measure.
- **Responsibility for Monitoring:** Identifies the authority responsible for monitoring implementation of the mitigation measure.

Table 5.1-1: Draft Mitigation Monitoring and Reporting Program

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	Air Quality (IS Section 3.3, EA Section 4.1)			
AQ-1	**Best Available Control Measures** Project contractors shall ensure that the relevant SCAQMD Basic Control Emission Control Practices (also known as BMPs) shall be implemented during project construction for all project activities whether on- or off-Reservation. BMPs include: ▪ Control of fugitive dust consistent with best available control measures identified within Table 1 of SCAQMD District Rule 403. ▪ Water all exposed surfaces two times daily. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. ▪ Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. ▪ Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. ▪ Limit vehicle speeds on unpaved roads to 15 mph. ▪ The following practices describe exhaust emission control from diesel powered fleets working at a construction site. California regulations limit idling from both on-road and off-road diesel-powered equipment. CARB enforces idling limitations and compliance with diesel fleet regulations. o Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [CCR, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. o Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [CCR, Title 13, sections 2449 and 2449.1]. ▪ Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	Biological Resources (IS Section 3.4, EA Section 4.4)			
BIO-1	**Pre-Construction Botanical Survey** Prior to any construction activities that would disturb coastal scrub habitat, a qualified biologist or botanist shall perform a pre-construction botanical survey within these areas to ensure that slender-horned spineflower is not present in work areas. Although this species is conspicuous year-round, the botanical survey would ideally be performed in the blooming period (from April to July). The pre-construction botanical survey shall be valid for no more than three years; if construction within coastal scrub habitat is not initiated within three years after the botanical surveys, the survey shall be repeated, during the appropriate blooming period if possible. If slender-horned spineflower is detected, these plants shall be avoided and demarcated with exclusion fencing and signage. Where avoidance is not possible, a plant salvage and mitigation program shall be implemented. Project activities within 50 feet of the identified plants shall be delayed until after a qualified biologist has prepared a plant salvage and mitigation program, the outline of which is described below. The plant salvage and mitigation program shall be submitted to CDFW and USFWS for approval prior to impacting any listed plants. The plant salvage and mitigation program shall consist of the following: ▪ Identification of the number and locations of impacted plants ▪ Salvage/mitigation options to include collection of seeds and sowing of the seeds in the fall/winter in suitable habitats where construction has been completed ▪ Management actions such as covering with a weed-free mulch like sterile (pasteurized) wheat straw, and removal of weeds or supplemental watering ▪ A monitoring and adaptive management program that outlines success criteria and actions to be taken should such criteria not be met, developed in consultation with USFWS	April through July prior to construction	Qualified Biologist	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
BIO-2	**Worker Awareness Training and Construction Monitoring** Prior to construction, all construction workers shall take part in an environmental awareness program conducted by a qualified biologist. Special-status species to be covered in the program are: San Bernardino kangaroo rat, Stephen's kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, Los Angeles pocket mouse, southwestern pond turtle, arroyo toad, and general nesting birds. This training shall include a description of the listed species with the potential to occur in the work area, their habitat needs, an explanation of the status of the species and protection under federal and/or State law, and a list of the measures being taken to avoid or reduce impacts to the species during project construction. The curriculum shall also identify the limits of the construction areas and restrictions on movement of personnel and equipment and applicable construction BMPs. The awareness program will be conducted at the start of construction and thereafter as required for new construction personnel. The training shall include a handout or video containing all training information. The project manager shall use these training materials to train any additional construction personnel that were not in attendance at the first meeting, prior to starting work on the project. Periodic biological monitoring of the active work areas shall be performed no less than once a week by a qualified biologist familiar with the ecosystems and flora and fauna of the region, or by a designated Tribal monitor who has been trained by the qualified biologist. The biological monitor shall be granted the authority to halt work in the instance of any encroachments into protected habitat or the discovery of any listed species in the Project Site. In the very unlikely circumstance that a listed species is encountered, it shall be immediately relocated out of harm's way by the monitoring biologist.	Prior to and weekly during construction	Qualified Biologist, Band	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
BIO-3	**Special-status Mammal Protection Measures** A pre-construction survey for San Bernardino and Stephen's kangaroo rats shall be conducted within two weeks of groundbreaking in any area containing coastal scrub habitat, grassland habitat, or in the vicinity of the San Jacinto River channel that will be subject to ground-disturbing activities. The pre-construction surveys shall also survey for San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse. The survey shall be performed by a Service-approved biologist. If no individuals or sign of kangaroo rats or other special-status mammals are detected, work may begin immediately. If individuals, active burrows, or fresh signs of kangaroo rats are detected, protocol trapping surveys shall be conducted. If San Bernardino or Stephen's kangaroo rats are present, the USFWS shall be consulted and avoidance measures implemented. This may consist of project re-alignment or the translocation of kangaroo rats. If special-status mammals including San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse are detected, avoidance measures should be implemented in consultation with CDFW. This may consist of project re-alignment or the translocation of the special-status mammals. These actions are summarized below. San Bernardino kangaroo rat ▪ Pre-construction Survey Requirement o Within two weeks of construction on or within 100 feet of the San Jacinto River channel, riparian habitat, or coastal scrub habitat o Surveying biologist shall be USFWS-approved feet of coastal scrub, grassland, or riparian habitat o Surveying biologist shall be USFWS-approved ▪ Protocol if Observed o Halt work and allow the animal to leave unharmed o Consult with USFWS. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with USFWS consultation Stephen's kangaroo rat ▪ Pre-construction Survey Requirement	Prior to and during construction	Qualified Biologist	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	○ Within two weeks of construction on or within 100 feet of coastal scrub, grassland, or riparian habitat ○ Surveying biologist shall be USFWS-approved ▪ Protocol if Observed: ○ Halt work and allow the animal to leave unharmed ○ Consult with USFWS. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with USFWS consultation San Diego black-tailed jackrabbit ▪ Pre-construction Survey Requirement ○ Within two weeks of construction on or within 100 feet of coastal scrub habitat ○ Surveying biologist shall be CDFW-approved ▪ Protocol if Observed ○ Halt work and allow the animal to leave unharmed San Diego desert woodrat ▪ Pre-construction Survey Requirement ○ Within two weeks of construction on or within 100 feet of coastal scrub habitat ○ Surveying biologist shall be CDFW-approved ▪ Protocol if Observed ○ Halt work and allow the animal to leave unharmed Southern grasshopper mouse ▪ Pre-construction Survey Requirement ○ Within two weeks of construction on or within 100 feet of coastal scrub habitat ○ Surveying biologist shall be CDFW-approved ▪ Protocol if Observed ○ Halt work and allow the animal to leave unharmed ○ Consult with CDFW. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with CDFW consultation			

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	Los Angeles pocket mouse ▪ Pre-construction Survey Requirement o Within two weeks of construction on or within 100 feet of coastal scrub habitat of the San Jacinto River channel o Surveying biologist shall be CDFW-approved ▪ Protocol if Observed: o Halt work and allow the animal to leave unharmed o Consult with CDFW. If burrows are present within an impact area, either re-align the pipeline, or conduct translocation efforts with CDFW consultation			
BIO-4	**Construction Procedures** The following construction procedures shall be followed: ▪ Because kangaroo rats are nocturnal, no construction activity shall take place at night in those areas where these species have potential to occur. In particular, trenching, backfilling, compacting, and other ground-disturbing activities are restricted to daylight hours. ▪ Trenches shall be filled or tightly covered at the end of each work day. For trenches that must remain open, animal escape mechanisms shall be installed. This may consist of putting boards in trenches or creating shallow slopes at the ends of trenches so that animals may crawl out. ▪ Ensure that there are no animals present before trenches are filled or pipes are used. ▪ Pipe openings shall be covered so that no animals are able to enter pipes. ▪ Do not feed animals; do not litter; ensure that trash receptacles are closed tightly. ▪ Before any ground disturbance begins, the contractor will delineate and mark all limits of construction to be clearly visible to all personnel. All construction-related activities by contractors, subcontractors, or their agents and equipment (including staging, materials storage, and personnel parking areas) will be restricted to the designated limits of construction and staging areas. ▪ All disturbed areas will be restored to their original condition. Trenches will be backfilled and compacted, and the original ground contours restored. Paved areas will be repaved. Unpaved areas will be reseeded with a native	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	seed mix and mulch applied (or other similar soil stabilization measures will be implemented).			
BIO-5	**Aquatic Animal Protection During Construction** To ensure that southwestern pond turtle and arroyo toad are not present in construction areas, pre-construction clearance surveys shall be conducted by a qualified biologist where construction activities occur within 100 feet of a channel. These surveys shall be conducted within 14 days of the commencement of ground-disturbing activities in or near any channel. If either of these species is discovered during the survey, project activities shall not begin until USFWS has been consulted and avoidance and minimization measures established and then implemented. This may consist of project re-alignment, translocation of the animals, and/or the erection of exclusionary fence at that location.	Prior to and during construction	Qualified Biologist	Band, IHS
BIO-6	**Protection of Nesting Birds During Construction** If construction activities occur during the nesting season (February 15 to August 31), pre-construction survey for the presence of nesting birds shall be conducted within seven days of construction activities by a qualified biologist on and within 500 feet of proposed construction areas. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed. Avoidance measures shall include establishment of a buffer zone using construction fencing or the postponement of construction until after the nesting season, or until after a qualified biologist has determined the young have fledged and are independent of the nest. Avoidance buffers may vary in size depending on the species' life history requirements, habitat characteristics, project-related activities, and disturbance levels.	Measure included in contract documents and incorporated into design specifications	Qualified Biologist	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
BIO-7	**MSHCP Consistency Measures** The following measures are identified by the MSHCP as construction BMPs that would be applicable to the Proposed Project and were not previously identified as recommended measures: ▪ Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements. ▪ The footprint of disturbance shall be minimized to the maximum extent feasible. Access to site shall be via pre-existing access routes to the greatest extent possible. ▪ The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of channels shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work. ▪ Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas. ▪ Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible. ▪ To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s). ▪ Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	Cultural Resources (IS Section 3.5, EA Section 4.8)			
CR-1	**Avoid Impacts Where Feasible** The Proposed Project shall, where feasible, avoid impacts to cultural resources. If during construction, it is determined that there is a potential for impacts to cultural resources, further cultural resources analysis, as defined in Mitigation Measures CR-2 and CR-4, may be required by the State Water Resources Control Board.	Measure included in contract documents. Implemented prior to and during construction	Band, Construction Contractor	Band, IHS
CR-2	**Inadvertent Discovery** If significant deposits associated with the S-Curve or Fiesta Site, or other cultural resources (archaeological, historical, or tribal resources), are inadvertently unearthed during excavation or other ground disturbing activities, the contractor shall cease all earth-disturbing activities within a 100-foot radius of the area of discovery. If not already retained due to conditions present pursuant to Mitigation Measures CR-1 or CR-4, the Soboba Band shall retain a tribal monitor and a qualified professional archaeologist to evaluate the significance of the find and appropriate course of action. If avoidance of the resources is not feasible, steps outlined in the Management Plan in CR-4 shall be followed. After the find has been appropriately avoided or mitigated, work in the area may resume.	Measure included in contract documents. Implemented prior to and during construction	Band, Construction Contractor	Band, IHS
CR-3	**Human Remains** In the event that human remains are unearthed during excavation and grading activities, all activity shall cease immediately. Pursuant to State Health and Safety Code Section 7050.5, no further disturbance shall occur until the County coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent and are located on Tribal land, they are subject to the provisions of 43 CFR Part 10 Subpart B of the Native American Graves Protection and Repatriation Act, which stipulates the Indian Tribe (Soboba) will determine the appropriate treatment of remains found on tribal land. If the remains are located outside of Tribal land, the coroner shall within 24 hours notify the Native American Heritage Commission (NAHC). The NAHC shall then contact the most likely descendant of the deceased Native American, who shall serve as consultant on how to proceed with the remains.	Measure included in contract documents. Implemented prior to and during construction	Band, Construction Contractor	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
CR-4	**Cultural Resource Monitoring and Inadvertent Discovery Plan** At least 30 days prior to commencement of any grading, excavation and/or ground disturbing activities taking place, the Soboba Band shall retain a qualified archaeological principal investigator, meeting the Secretary of Interior's Professional Standards for archaeology, with experience and extensive knowledge of cultural resources geographically connected to the Project site. 1. The Project Archaeologist, in consultation with the Soboba Tribal Historic Preservation Officer, shall develop a Cultural Resource Management Plan to address the details, timing, and responsibility of all archaeological and cultural activities that will occur on the project site. Details in the plan shall include: a. Project scheduling; b. Coordination with the Soboba Cultural Resource Department, the Project Archaeologist, and Project Foreman or Construction Supervisor for grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety requirements, duties, scope of work, and Native American Tribal Monitors' and Project Archaeologist's authority to stop and redirect grading activities; c. The protocols and stipulations that will be followed in the event of inadvertent cultural resource discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resource evaluation; d. The protocols and procedures for avoidance and preservation of inadvertently discovered resources will include, at a minimum, to fence and identify the area as an Environmental Sensitive Area (ESA). The Project Foreman or Construction Supervisor will ensure that appropriate temporary fencing is installed (i.e., orange fabric/barrier fencing) to prevent any unintentional disturbances to specific areas of sensitivity during any earthmoving activities associated with the project; e. The protocols and procedures for relocation of cultural resources that cannot be avoided and preserved in place, for permanent preservation in perpetuity; f. The protocols and procedures for treatment and final disposition of any archeological resources and sacred sites, if discovered on the project site; g. Creation of 3-dimensional (3D) models of all unavoidable sites located within the Project area;	Prior to and during construction	Band, Project Archaeologist, Construction Contractor	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	h. The scheduling and timing of the Cultural Sensitivity Training for all lead project personnel.			
CR-5:	**Memorandum of Agreement** A memorandum of agreement (MOA) shall be executed and implemented pursuant to 36 CFR 800.6. The MOA shall be signed by the IHS and the Soboba Tribal Historic Preservation Officer. The IHS may invite additional parties to be signatories. The MOA will incorporate the mitigation measures identified above (CR-1 through CR-4) and govern the undertaking of the Proposed Project with respect to Historic Properties.	Prior to and during construction	Band, IHS	Band, IHS
	Geology and Soils (IS Section 3.7, EA Section 4.3)			
GEO-1	**Paleontological Resource Mitigation and Treatment Plan** A qualified professional paleontologist meeting the minimum standards for a qualified professional paleontologist under Society of Vertebrate Paleontology (SVP) (2010) standards shall be retained prior to the start of earthmoving activities associated with the Project in order to develop and implement a site-specific PRMTP. The PRMTP shall specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project Site. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the qualified paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the lead agency. The plan shall also include a description of the professional qualifications required of key staff, communication protocols to be followed during construction, fossil recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens. This treatment plan will guide all paleontological resources mitigation efforts during Project construction.	Prior to construction	Qualified Paleontologist	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
GEO-2	**Pre-Construction Paleontological Survey** Prior to the start of construction, a qualified professional paleontologist meeting the minimum standards for a qualified professional paleontologist under SVP (2010) shall perform a paleontological survey of the Project Site where it is mapped as underlain by high paleontological potential geologic units, specifically the Pleistocene older alluvial gravel and sand of low terrace remnants (Qoa) and the Bautista beds (QTs). The survey shall verify the geologic mapping of high paleontological potential geologic units and document any fossils observed at the surface of the Project Site. The paleontologist shall document all paleontological resources discovered during the survey using photography, field notes, and GPS mapping. At a minimum, the paleontologist will assign a unique field number to each discovery and will record the date of discovery; GPS coordinates; elevation; geologic unit name and age; detailed stratigraphic, lithologic, and taphonomic data; fossil descriptions(s) and initial taxon and element identifications; paleoenvironmental interpretations; and photographs. Paleontological discoveries shall be evaluated by the qualified professional paleontologist, in consultation with the lead agency, to determine if the discovered paleontological resources are significant using SVP (2010) guidelines. Should significant paleontological resources be discovered, they must be collected prior to the start of construction. Collected fossils shall be consolidated using appropriate modern consolidants (e.g., Paraloid B-72), prepared to the highest level of identification feasible, and deposited in an approved paleontological repository (e.g., Western Science Center). The Band should have the opportunity to review the report before it is submitted to the repository. The results of the paleontological survey shall be documented in a technical report and used to inform the development of the PRMTP (if not developed together as a single document).	Measure included in contract documents and incorporated into design specifications	Qualified Paleontologist	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
	Hazards and Hazardous Materials (IS Section 3.9, EA Section 4.11)			
HAZ-1	**Emergency Response Plan** The Band or the construction contractor shall develop and implement an ERP that includes procedures for hazardous materials incidents. At a minimum, the ERP shall include but not be limited to, the following measures: ▪ Coordinate with local emergency response agencies to ensure a prompt and effective response to incidents. ▪ Conduct regular drills and training sessions to ensure readiness for hazardous materials emergencies. ▪ Conduct regular inspections of storage areas, equipment, and containment systems. ▪ Perform routine maintenance to ensure that all safety measures are functioning correctly. ▪ Keep records of inspections and maintenance activities for regulatory compliance. ▪ Maintain accurate records of hazardous materials inventory, usage, and disposal. ▪ Document all training sessions, inspections, and incident responses. ▪ Ensure that all required reports are submitted to regulatory agencies in a timely manner.	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band, IHS
	Hydrology and Water Quality (IS Section 3.10, EA Section 4.2)			
HYD-1	**Avoid Channels** Through contractual obligations with the contractor, the Band shall ensure that the following measures are enacted during the entire construction phase: ▪ Any and all construction activities adjacent to or within 50 feet of waters of the U.S. and waters of the State, an existing drainage ditch, and/or non-jurisdictional stream on the Reservation shall occur when the channel is dry; ▪ Existing drainage ditches and/or non-jurisdictional stream channels shall be avoided to the maximum extent feasible and restored to their original condition immediately after construction concludes; and ▪ Any culverts that must be cut or otherwise altered for construction shall be cleaned, repaired, and reinstalled immediately after construction.	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band, IHS

	Mitigation Measure	Implementation and Schedule	Responsible for Implementing	Responsibility for Monitoring
HYD-2	**Frac-Out Contingency Plan** Prior to microtunneling operations, the Band or its contractor shall prepare and implement a Frac-Out Contingency Plan that includes, but is not limited to, the following minimum standards for frac-out prevention and response: ▪ **Monitoring:** Continuously monitor drilling pressures and return flows, with visual inspections along the drill path, especially near waterbodies. ▪ **Immediate Response:** Halt drilling activities immediately if a frac-out is detected and deploy containment structures to prevent the spread of drilling fluids. ▪ **Notification:** Notify relevant regulatory agencies immediately and execute clean-up procedures as outlined in the Frac-Out Contingency Plan.	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band, IHS
	Noise (IS Section 3.13, EA Section 4.6)			
NOI-1	**Minimize Vibrational Equipment** The use of vibrational construction equipment shall be restricted such that vibration levels will not exceed 100 VdB within 100 feet of any buildings adjacent to the Project Site. Should any vibrational construction equipment be required that results in vibration decibel levels that would exceed 100 VdB within 100 feet of any building, a buffer or set back will be utilized and/or equipment that generates lower vibration levels will be used.	Measure included in contract documents and incorporated into design specifications	Band, Construction Contractor	Band, IHS

Section 6 | Consultation and Coordination

This section lists agencies and organizations consulted during the preparation of this IS/EA.

Agencies, Organizations, and Individuals Consulted	Summary of Consultation and Coordination
Soboba Band of Luiseño Indians, Tribal Historic Preservation Officer (THPO)	The cultural resources study for the Proposed Project was reviewed by the THPO and the THPO concurred with the findings of the studies.
Soboba Band of Luiseño Indians	Numerous Tribal departments were consulted throughout the environmental assessment process, including the Department of Public Safety, Fire Department, and Parks and Recreation.
U.S. Fish & Wildlife Service (USFWS)	The USFWS was consulted to obtain a list of federally listed special-status species with the potential to occur in the Vicinity of the Project Site. Additionally, the USFWS National Wetlands Inventory was consulted to identify potential wetlands and waters in the vicinity of the Project Site. The BIA may initiate informal consultation with USFWS regarding the potential for the project alternatives to impact federally listed species in accordance with the Federal Endangered Species Act (FESA).
U.S. Army Corps of Engineers (USACE)	USACE manuals and guidance were reviewed during preparation of the Aquatic Resources Delineation (included in **Appendix F-3**).
National Oceanic and Atmospheric Administration, Fisheries Service (NOAA Fisheries)	The NOAA Fisheries website was reviewed for information concerning special-status fish species and EFH. The BIA may initiate informal consultation with NOAA Fisheries regarding the potential for the project alternatives to impact federally managed marine fish in accordance with the federal Magnuson-Stevens Act.
U.S. Environmental Protection Agency (USEPA)	The USEPA website was reviewed for information regarding NAAQS Attainment status.
U.S. Geological Survey (USGS)	The USGS website was reviewed for information concerning geological and hydrological information in addition to geological hazards, such as volcanic information.
U.S. Census Bureau	The U.S. Census Bureau website was reviewed for information concerning demographical data.
U.S. Department of Health and Human Services	The U.S. Department of Health and Human Services website was reviewed for information concerning federal poverty guidelines to determining poverty.
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS)	The NRCS was consulted for data concerning farmland and soil characteristics information.

Agencies, Organizations, and Individuals Consulted	Summary of Consultation and Coordination
Federal Highway Administration (FHWA)	FHWA construction and transit noise manuals were consulted during the noise analysis.
California Department of Conservation (DOC)	DOC databases were reviewed for mineral resources, designated farmland and agricultural resources, and important farmland.
California Department of Toxic Substances Control (DTSC)	DTSC databases were reviewed to determine if the Project Site was on or near any designated hazardous waste sites.
California Department of Fish and Wildlife (CDFW)	The CDFW online California Natural Diversity Database was reviewed to obtain a list of threatened, endangered, and sensitive species with the potential to occur in the vicinity of the Project Site. The CDFW online database was also consulted to obtain maps of sensitive habitat and sensitive species' ranges. The results are summarized in **Appendix F-1**.
California Department of Water Resources (DWR)	DWR publications and online portals were consulted regarding groundwater basins and groundwater characterization in the vicinity of the Project Site.
California Geologic Survey (CGS)	CGS maps and websites were reviewed for earthquake and seismic hazards, as well as other geologic features in the region of the Project Site.
Eastern Municipal Water District (EMWD)	EMWD was consulted throughout the design and environmental review process, provided plan-check reviews of **Appendix A** and **Appendix C**, and its consultant prepared **Appendix B**.
San Jacinto Groundwater Basin Groundwater Sustainability Agency (GSA)	The San Jacinto Groundwater Basin GSA website and the Groundwater Sustainability Plan were reviewed.
South Coast Air Quality Management District (SCAQMD)	The SCAQMD significance thresholds and Air Quality Management Plan were utilized during the air quality emissions assessment.
Riverside County (County)	The County's strategic plans, General Plan, and ordinances were assessed. Specific County departments whose websites or guiding documents were reviewed include the Riverside County Department of Water Resources, the Planning Department, the County Assessor, the Fire Department, and the Emergency Management Department.
City of San Jacinto (City)	The City of San Jacinto website was reviewed for encroachment permit requirements, as well as zoning and land use guidance.

Section 7 | List of Preparers and Reviewers

7.1 LEAD AGENCIES

Agency	Reviewer
Soboba Band of Luiseño Indians	Steven Estrada, Tribal Executive Officer Christian Aceves, Environmental Director Joseph Ontiveros, THPO
State Water Resources Control Board	Ahmad Kashkoli, Environmental Program Manager Brian Cary, Senior Environmental Scientist Chi-Hai Duffy, Environmental Scientist Lisa Machado, Senior Cultural Resources Officer
Indian Health Service	Donna Meyer, Environmental Protection Specialist Zachary Ruylemeyer, Environmental Engineer

7.2 CEQA AND NEPA CONSULTANTS

Name	Qualifications	Participation
Acorn Environmental – Environmental Assessment		
Ryan Sawyer, AICP	BA; 19 years of experience	Principal
Josh Ferris	BA; 23 years of experience	Project Director
Annalee Sanborn	BS, 12 years of experience	Project Manager
Daniel Schack	BS; 14 years of experience	Environmental Analyst
Emma Miller	BA, 2 years of experience	Environmental Analyst
Kristen Miner	BS, MS; 9 years of experience	Environmental Analyst
G.O. Graening	MS, PhD; 27 years of experience	Senior Biologist
Kelli Raymond	BS; 9 years of experience	Senior Biologist
Bargas Environmental Consultants – Paleontology		
Joseph El Adli	PhD, M.S.; 16 years of experience	Principal Investigator
Courtney Richards	M.S.; 18 years of experience	Report Author

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Appendix A

Soboba Septic-to-Sewer Gravity System 95% Plans

IN THE COUNTY OF RIVERSIDE, CALIFORNIA

SOBOBA BAND OF LUISEÑO INDIANS

SOBOBA SEPTIC TO GRAVITY SEWER SYSTEM

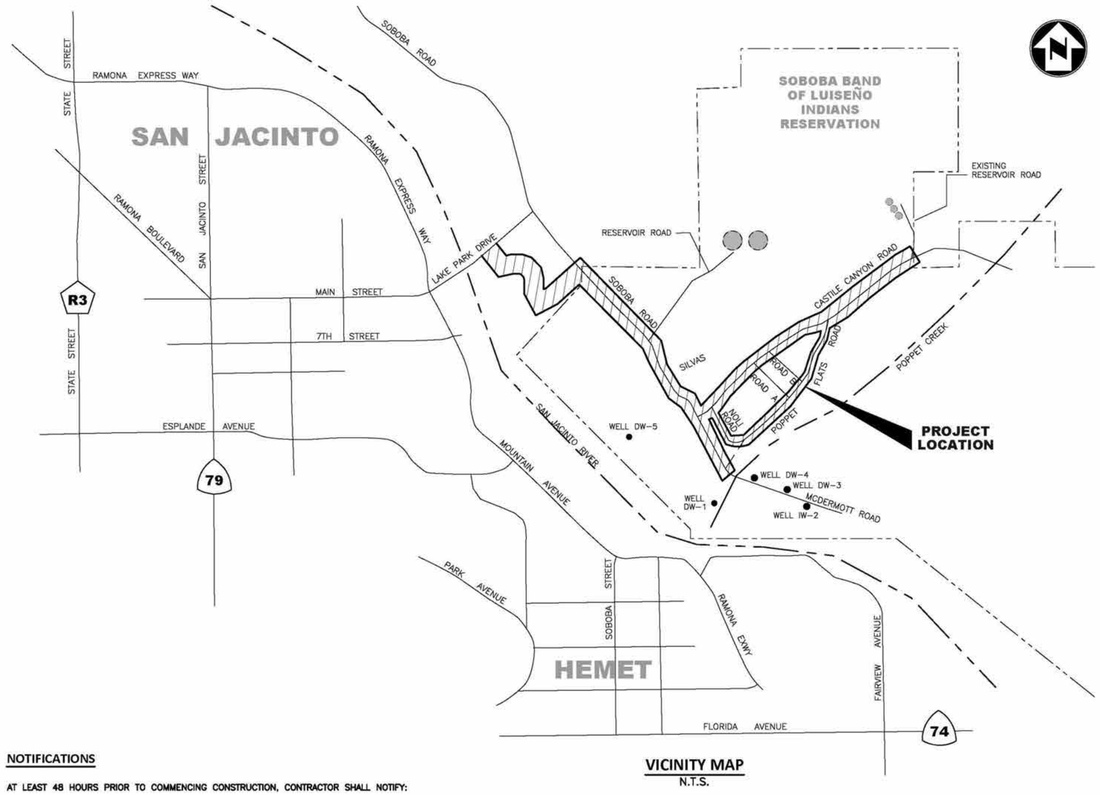
SOBOBA ROAD, CASTILE CANYON ROAD, POPPET FLATS ROAD
NOLI ROAD

EMWD SEWER NOTES

1. SEWER SYSTEM CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH EMWD'S STANDARDS AND SPECIFICATIONS.
2. GRAVITY SEWER PROFILE ELEVATIONS ARE TO FLOW LINE (CONDUIT INVERT). FORCE MAIN PROFILE ELEVATIONS ARE TO CENTIGRADE (C.G.).
3. CONTRACTOR SHALL INSTALL PVC SEWERS, EXCEPT WHERE SPECIFICALLY DESIGNATED ON PLANS PER EMWD STANDARDS AND SPECIFICATIONS. PVC PIPE SHALL BE COLORED GREEN AS MANUFACTURED.
4. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWINGS SB-53, SB-58 AND SB-61, AS APPLICABLE. SEWER MAINS MAY BE LAID THROUGH THE MANHOLES AND USED AS A FORM FOR THE INVERT. GRIND EMWD LETTERING ON MANHOLE COVER
5. MANHOLES OF DEPTHS LESS THAN FIVE FEET FROM FINISH STREET GRADE TO SEWER PIPE SHELF ARE TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING SB-30.
6. MAINLINE CLEANOUTS, WHERE CALLED FOR ON THE PLANS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING SB-52.
7. PRIOR TO CONSTRUCTION OF SEWER, CONTRACTOR SHALL EXPOSE EXISTING SEWER AND VERIFY ITS EXISTING ELEVATION AND LOCATION. WHERE CONNECTING TO EXISTING MANHOLES AND INLET STUB OF PROPER SIZE EXISTS, NO ALTERATIONS SHALL BE MADE TO EXISTING MANHOLE BASE OR STUB EXCEPT AS SPECIFICALLY AUTHORIZED BY EMWD.
8. ALL SEWER INLETS AT THE MANHOLE SHALL BE SUCH THAT ITS CROWN SHALL BE LEVEL WITH THE CROWN OF THE OUTLET PIPE, AT THEIR PROJECTIONS TO THE MANHOLE CENTERLINE.
9. RECONSTRUCTION OF EXISTING MANHOLES SHALL BE SCHEDULED AT THE CONVENIENCE OF EMWD AND SHALL BE COMPLETED WITHIN FIVE WORKING DAYS FOLLOWING ITS COMMENCEMENT.
10. THE CONTRACTOR IS ADVISED THAT THE WORK ON THIS PROJECT MAY INVOLVE WORKING IN A CONFINED AIR SPACE. CONTRACTOR SHALL BE RESPONSIBLE FOR "CONFINED AIR SPACE" ARTICLE 108, TITLE 8, CALIFORNIA ADMINISTRATIVE CODE.
11. BACKWATER VALVES SHALL BE INSTALLED PER SECTION 710.1 OF THE UNIFORM PLUMBING CODE.
12. SEWER PIPE ZONE BACKFILL SHALL BE PER DETAIL 2A IF THE DEPTH OF COVER IS BETWEEN 4' AND 9'. IF THE DEPTH OF COVER IS BETWEEN 9' AND 20'. SEWER PIPE ZONE BACKFILL SHALL BE PER DETAIL 2B. IF THE DEPTH OF COVER IS BETWEEN 20' AND 30'. SEWER PIPE ZONE BACKFILL SHALL BE PER DETAIL 2C.
13. WHERE CALLED OUT: ALL CONCRETE INSIDE THE MANHOLE (SHAFT AND CHANNEL) SHALL BE COATED WITH 100% SOLID EPOXY POLYMER, SAUEREISEN SEWERGARD GLAZE No. 210G. SURFACE PREPARATION INCLUDING SAUEREISEN UNDERLAYMENT No. F-120 OR No. 209 FILLER COMPOUND, ABRASIVE BLASTING, MIXING APPLICATION, AND CURING SHALL BE AS RECOMMENDED BY MANUFACTURER. MINIMUM THICKNESS SHALL BE 20 MILS.
14. WHERE CALLED OUT: INSTALL SIKA HYDROPHILIC LEAKMASTER WATERSTOP, AND SEAL OPENING WITH SIKA TOP 122 PLUS MORTAR.

NOTES TO CONTRACTOR

1. STORAGE OF MATERIALS AND EQUIPMENT
   CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT ON PRIVATE OR PUBLIC PROPERTY WITHOUT WRITTEN PERMISSION APPROVING SUCH USE. UPON REQUEST, CONTRACTOR MAY USE SOBOBA'S PROPERTY SHOWN ON THE CONSTRUCTION DRAWINGS FOR STORAGE OF MATERIALS.
2. CONTRACTOR'S EQUIPMENT
   ALL EQUIPMENT SHALL BE REMOVED FROM PUBLIC RIGHT-OF-WAY AND PLACED IN THE CONTRACTOR'S CONSTRUCTION YARD AT THE END OF EACH WORK DAY.
3. UTILITIES
   CONTRACTOR SHALL "POTHOLE" ALL UTILITIES CROSSING THE PROPOSED WATERLINE AND SEWER LINE FOUR WEEKS PRIOR TO CONSTRUCTION.
   CONTRACTOR SHALL HAVE A SUFFICIENT SUPPLY OF REPAIR OR REPLACEMENT MATERIALS ON THE JOB SITE TO REPAIR OR REPLACE DAMAGED OR DESTROYED FACILITIES INCLUDING, BUT NOT LIMITED TO, SEWER LATERALS AND SEWER MAINS. REPAIRS SHALL BE MADE WITH LIKE MATERIALS AND SAID REPAIRS SHALL BE APPROVED BY THE OWNER AND UTILITY COMPANY PRIOR TO BACKFILL.
4. WATER AND SEWER CROSSINGS
   CONTRACTOR IS ADVISED THAT EXISTING SEWER MAINS AND LATERALS MAY BE SHALLOW AND THAT THE PROPOSED PIPELINE MAY BE REQUIRED TO CROSS BENEATH SAID SEWER LINES BECAUSE MINIMUM PIPE COVER CANNOT BE OBTAINED. WHEN SUCH SITUATION IS ENCOUNTERED, CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, FURNISH AND INSTALL PIPELINE AS SPECIFIED BELOW.
   PIPE HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH STATE DEPARTMENT OF HEALTH SERVICES STANDARDS. CONTRACTOR SHALL PROTECT ALL SEWERS IN PLACE. ALL SEWERS SHALL BE MAINTAINED IN CONTINUOUS OPERATION DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN 1' MINIMUM CLEARANCE (OUTSIDE TO OUTSIDE) AT WATER AND SEWER LATERAL CROSSINGS (OVER AND UNDER SEWERS). IF THE PIPELINE IS INSTALLED BELOW SEWER LATERALS, CONTRACTOR SHALL NOT INSTALL PIPE JOINTS A MINIMUM OF 10 FEET, MEASURED HORIZONTALLY, FROM THE CENTERLINE OF SAID SEWER LATERAL CROSSING. IF THE PIPELINE IS INSTALLED OVER SEWER LATERALS, CONTRACTOR SHALL INSTALL THE PIPE SO THAT THERE ARE NO JOINTS A MINIMUM OF 8 FEET, MEASURED HORIZONTALLY FROM THE OUTSIDE OF SAID SEWER LATERAL CROSSING.
5. PIPELINE APPURTENANCES (VALVES AND CONNECTIONS)
   TWO WEEKS PRIOR TO CONSTRUCTION OF AIR VALVES, AND PRIOR TO FABRICATION AND CONSTRUCTION OF CONNECTION PIPING, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING UTILITIES AND REQUIRED CONNECTION POINTS TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL) AND SIZE OF EACH. FOR EACH APPURTENANCE AND EACH CONNECTION, CONTRACTOR SHALL DETERMINE ALL PIPING AND FITTINGS REQUIRED TO COMPLETE THE CONNECTION INCLUDING ALL HORIZONTAL AND VERTICAL BENDS. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS REQUIRED FOR FIELD INSTALLATIONS NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND TO CONNECT TO EXISTING FACILITIES, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS AND ALL AT NO ADDITIONAL COST.



VICINITY MAP
N.T.S.

NOTIFICATIONS

AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL NOTIFY:

EASTERN MUNICIPAL WATER DISTRICT FIELD ENGINEERING DEPARTMENT	(951) 928-3777, EXT 4291
CITY OF SAN JACINTO	(951) 654-7337
UNDERGROUND SERVICE ALERT	(800) 227-2600
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	(951) 955-1200
SOBOBA BAND OF LUISEÑO INDIANS PLANNING DEVELOPMENT & OPERATIONAL DIRECTOR KATHIE BRENNAN	(951) 654-5544, EXT 4126

DECLARATION OF ENGINEER OF RECORD

I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY EASTERN MUNICIPAL WATER DISTRICT (EMWD) IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THAT THE PLANS COMPLY WITH EMWD PROCEDURES, APPLICABLE POLICES AND ORDINANCES. THE PLAN CHECK IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT, THEREFORE, RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS. AS ENGINEER OF RECORD, I AGREE TO INDEMNIFY AND HOLD EMWD, IT'S OFFICERS, AGENTS, AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES OR INJURIES TO ANY PERSON OR PROPERTY WHICH MIGHT ARISE FROM THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF RECORD. I HAVE READ AND INFORMED THE PROJECT APPLICANT/DEVELOPER THAT APPROVAL OF THESE PLANS DO NOT RELIEVE THEM FROM THE REQUIREMENTS OF THE DESIGN CONDITIONS.

BY _____ _____
NAME P.E. # DATE

ENGINEER'S CERTIFICATION

I CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE COUNTY OF RIVERSIDE FIRE DEPARTMENT.

BY _____ _____
NAME P.E. # DATE

UNDERGROUND UTILITIES NOTE

ALL UNDERGROUND STRUCTURES OR UTILITIES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT.

THE OWNER, BY ACCEPTING THESE PLANS OR PROCEEDING WITH THE IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD THE UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON THE RECORDS EXAMINED.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-227-2600 OR 811 AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION.

REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AHMAD YAZEN — No.C 58784 — CIVIL — STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

SOBOBA CULTURAL MONITORING
ANY SOIL DISTURBANCE CONTACT SOBOBA CULTURAL COMITORING 48 HOURS IN ADVANCE
JESSICA VALDEZ (951) 654 5444, EXT 4139

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

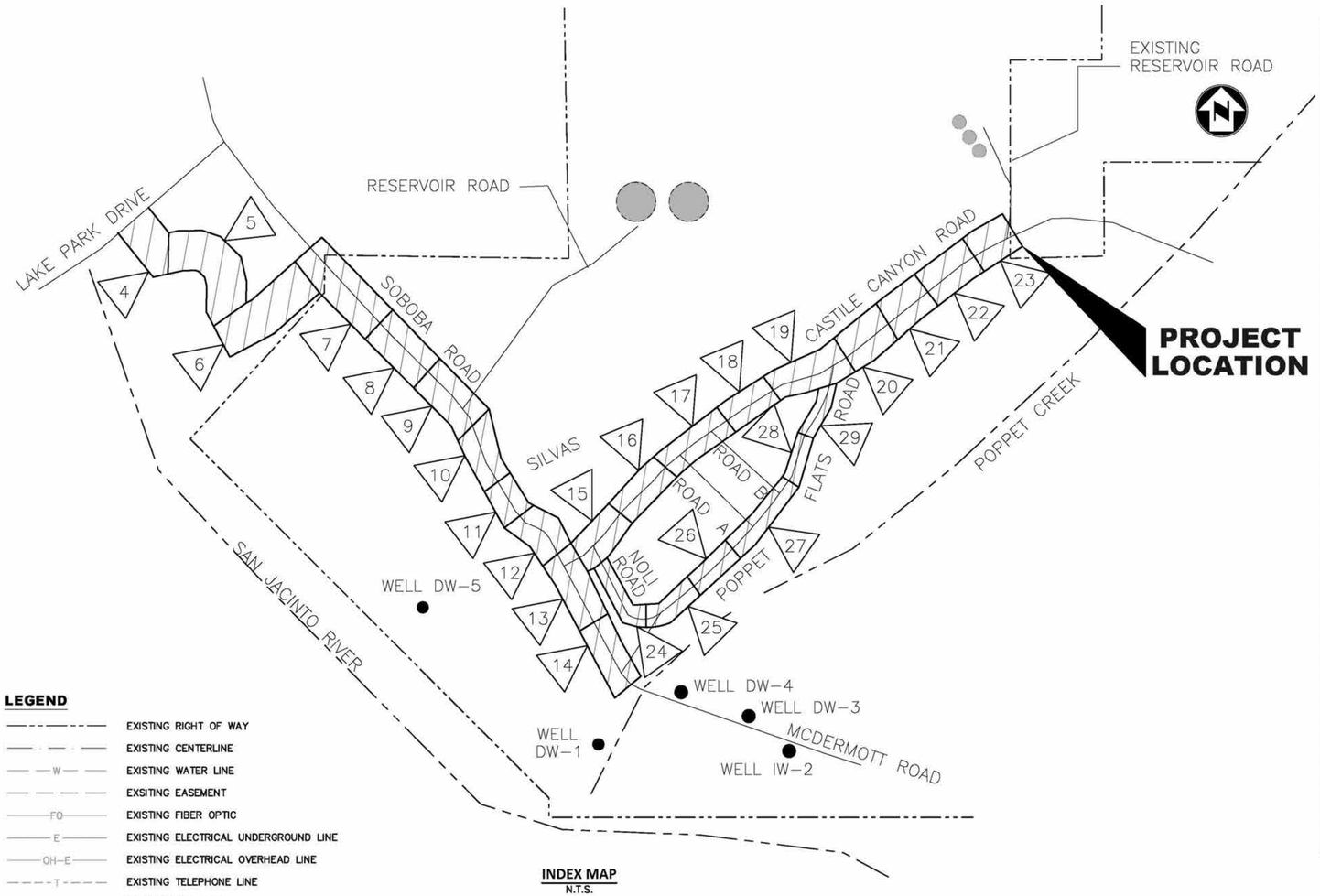
APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH/MP Job No. 96019.040

ERSG INC. Engineering Resources of Southern California
1861 West Redlands Blvd, Building 218, Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
TITLE SHEET

SHEET 1 OF 77 SHEETS
DWG. NO.



INDEX MAP
N.T.S.

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING CENTERLINE
- EXISTING WATER LINE
- EXSITING EASEMENT
- EXISTING FIBER OPTIC
- EXISTING ELECTRICAL UNDERGROUND LINE
- EXISTING ELECTRICAL OVERHEAD LINE
- EXISTING TELEPHONE LINE
- EXISTING GAS LINE
- EXISTING POWER POLE
- PROPOSED SEWER LINE
- PROPOSED MANHOLE
- EXISTING SEWER LINE
- EXISTING FENCE LINE
- EXISTING GUTTER EDGE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING MANHOLE
- FUTURE 12" WATER LINE
- EXISTING 10" IRRIGATION LINE
- APRON
- PROPOSED MANHOLE PER LAKE PARK PLANS
- PROPOSED SEWER LINE PER LAKE PARK PLANS

ABBREVIATIONS

ABAN	ABANDONED
AC	ASBESTOS CONCRETE
BC	BEGIN CURVE
BOT	BOTTOM
CF	CUBIC FOOT
C&G	CURB AND GUTTER
℄	CENTER LINE
CML&C	CONCRETE MORTAR LINED & COATED
CMP	CORRUGATED METAL PIPE
CY	CUBIC YARD
EA	EACH
EC	END OF CURVE
EL	ELEVATION
ELECT	ELECTRICAL
E.M.W.D.	EASTERN MUNICIPAL WATER DISTRICT
EP	EDGE OF PAVEMENT
EXIST	EXISTING
FO	FIBER OPTIC
FUT	FUTURE
HDPE	HIGH DENSITY POLYETHYLENE
HORZ	HORIZONTAL
INV	INVERT ELEVATION
IRR	IRRIGATION
LF	LINEAR FOOT
MH	MANHOLE
MIN	MINIMUM
No.	NUMBER
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
RCB	REINFORCED CONCRETE BOX
ROW	RIGHT OF WAY
S	SLOPE
SCE	SOCAL EDISON
SF	SQUARE FOOT
STA	STATION
STD. DWG.	STANDARD DRAWING
SWR	SEWER
TC	TOP OF CURB
TEL	TELECOMMUNICATIONS
TOR	TOP OF RIM
UNK	UNKNOWN
W/	WITH
WTR	WATER
VERT	VERTICAL
X-ING	CROSSING

REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AHMADI YAZDEN — No.C 58784 — C.IV.IL — STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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2	--	INDEX SHEET
3	--	DETAIL SHEET
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5	HORSESHOE PROPERTY	STA. 20+00.00 TO STA. 30+00.00
6	HORSESHOE PROPERTY	STA. 30+00.00 TO STA. 38+02.00
7	SOBOBA ROAD	STA. 40+00.00 TO STA. 50+00.00
8	SOBOBA ROAD	STA. 50+00.00 TO STA. 60+00.00
9	SOBOBA ROAD	STA. 60+00.00 TO STA. 70+00.00
10	SOBOBA ROAD	STA. 70+00.00 TO STA. 80+00.00
11	SOBOBA ROAD	STA. 80+00.00 TO STA. 90+00.00
12	SOBOBA ROAD	STA. 90+00.00 TO STA. 100+00.00
13	SOBOBA ROAD	STA. 100+00.00 TO STA. 110+00.00
14	SOBOBA ROAD	STA. 110+00.00 TO STA. 118+17.85
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16	CASTILE CANYON	STA. 20+00.00 TO STA. 30+00.00
17	CASTILE CANYON	STA. 30+00.00 TO STA. 40.00.00
18	CASTILE CANYON	STA. 40+00.00 TO STA. 50+00.00
19	CASTILE CANYON	STA. 50+00.00 TO STA. 60+00.00
20	CASTILE CANYON	STA. 60+00.00 TO STA. 70+00.00
21	CASTILE CANYON	STA. 70+00.00 TO STA. 80+00.00
22	CASTILE CANYON	STA. 80+00.00 TO STA. 90+00.00
23	CASTILE CANYON	STA. 90+00.00 TO STA. 92+15.77
24	POPPET FLATS	STA. 20+01.99 TO STA. 30+00.00
25	POPPET FLATS	STA. 30+00.00 TO STA. 40+00.00
26	POPPET FLATS	STA. 40+00.00 TO STA. 50+00.00
27	POPPET FLATS	STA. 50+00.00 TO STA. 60+00.00
28	POPPET FLATS	STA. 60+00.00 TO STA. 70+00.00
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77	--	PUMP DETAIL SHEET

SEWER QUANTITY TABLE			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	16" FUSIBLE PVC SEWER	8941	LF
2	12" FUSIBLE PVC SEWER	6945	LF
3	10" FUSIBLE PVC SEWER	8090	LF
4	8" FUSIBLE PVC SEWER	381	LF
5	48" PRECAST REINFORCED CONCRETE MANHOLE	103	EA
9	60" PRECAST REINFORCED CONCRETE MANHOLE	14	EA
12	CDF	86	CF
13	CURB TO REMOVE	851	LF
14	2 1/2" THICK ASPHALT CONCRETE PAVING AROUND MANHOLE	10	TONS
15	6" CLASS 2 CRUSHED AGGREGATE	744	CY
16	28" CONCRETE ENCASEMENT	11	LF
17	24" CONCRETE ENCASEMENT	10	LF
18	20" CONCRETE ENCASEMENT	9	LF
19	2"x4" REDWOOD HEADER	6123	LF
20	4" DECOMPOSED GRANITE	23050	CY

NOTE

ALL FENCES IMPACTED DURING CONSTRUCTION WILL BE REMOVED AND REPLACED/RE-INSTALLED AS DIRECTED BY THE SOBOBA PUBLIC WORKS DIRECTOR ROR REPRESENTATIVE

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH/MP Job No. 96019.040

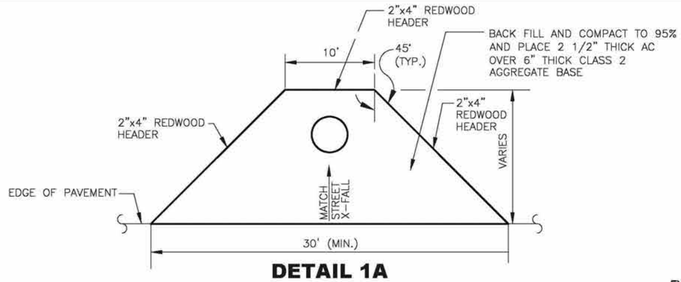
ERSG INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-19
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

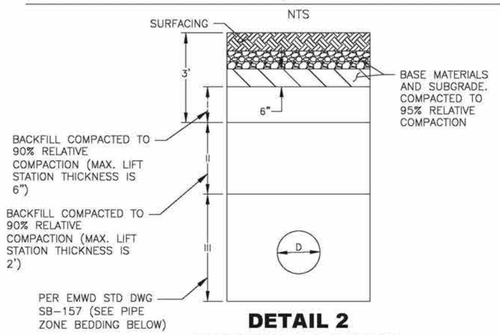
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

INDEX SHEET

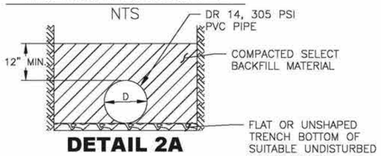
SHEET 2 OF 77 SHEETS
DWG. NO.



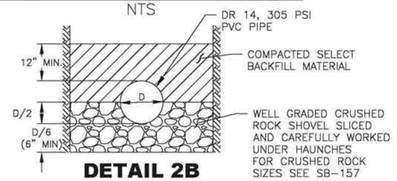
DETAIL 1A
TYPICAL MANHOLE ALONG SOBOBA ROAD, CASTILE CANYON, AND POPPET FLATS



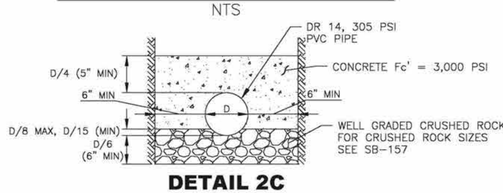
DETAIL 2
TRENCH BACKFILL



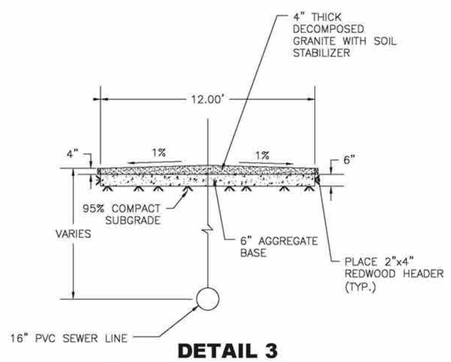
DETAIL 2A
CLASS D
4' ≤ DEPTH OF COVER ≤ 9'



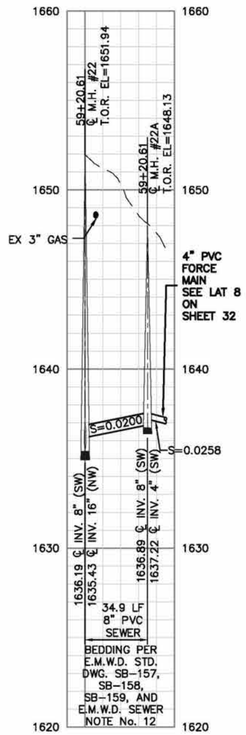
DETAIL 2B
CLASS B
9' < DEPTH OF COVER ≤ 20'



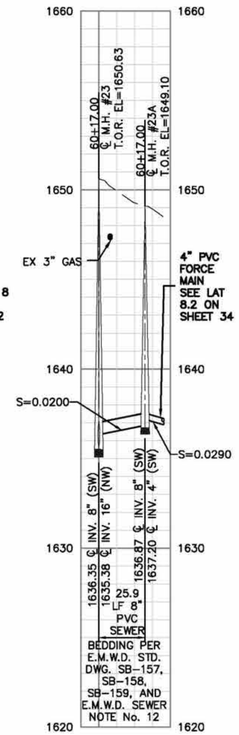
DETAIL 2C
CONCRETE ENCASMENT NO. 2
20' < DEPTH OF COVER ≤ 30'



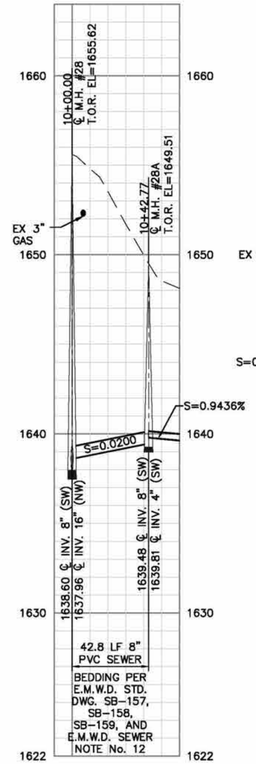
DETAIL 3
TYPICAL ACCESS ROAD
NTS



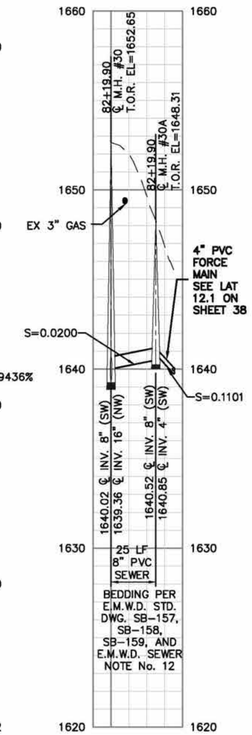
SOBOBA ROAD
STA 59+20.61
SEE SHEET 8



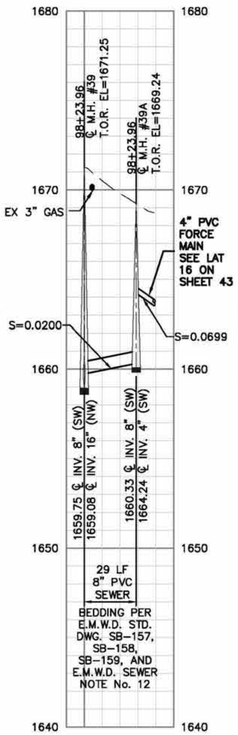
SOBOBA ROAD
STA 60+17.00
SEE SHEET 9



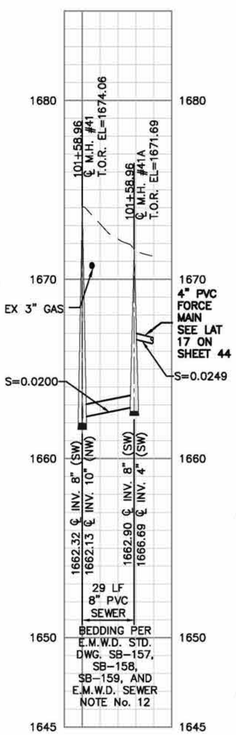
SOBOBA ROAD
STA 74+43.78
SEE SHEET 10



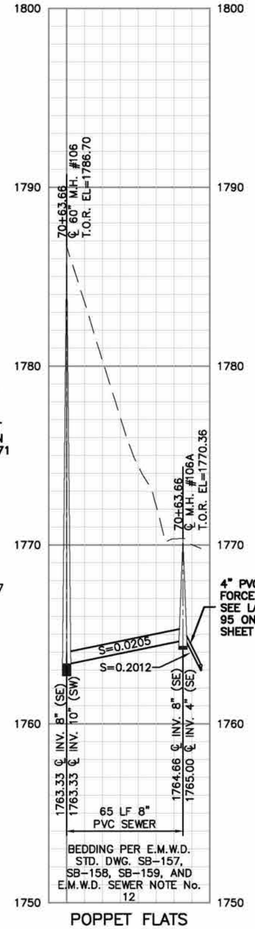
SOBOBA ROAD
STA 82+19.90
SEE SHEET 11



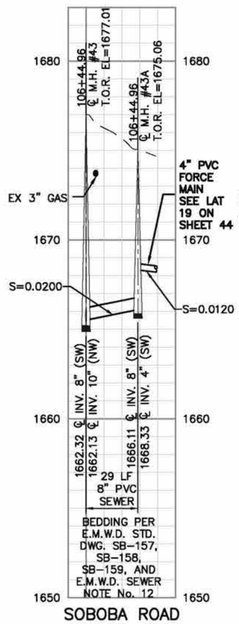
SOBOBA ROAD
STA 98+23.96
SEE SHEET 12



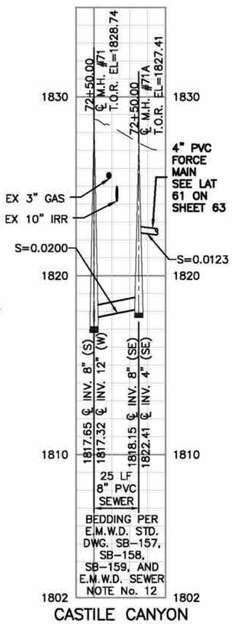
SOBOBA ROAD
STA 101+58.96
SEE SHEET 13



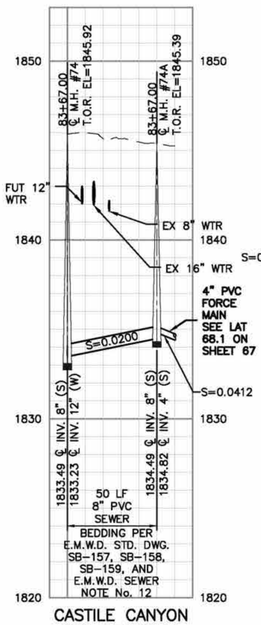
POPPET FLATS
STA 70+63.66
SEE SHEET 29



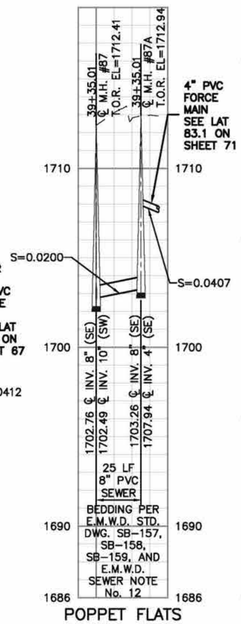
SOBOBA ROAD
STA 106+44.96
SEE SHEET 13



CASTILE CANYON
STA 72+50.00
SEE SHEET 21



CASTILE CANYON
STA 83+67.00
SEE SHEET 22



POPPET FLATS
STA 39+35.01
SEE SHEET 25

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI YASEEN No.C 58784 CIVIL STATE OF CALIFORNIA

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale:

1861 West Redlands Blvd, Building 7-8
Redlands, California 92373-3119
(909) 890-1255
ERSC
Engineering Resources of Southern California

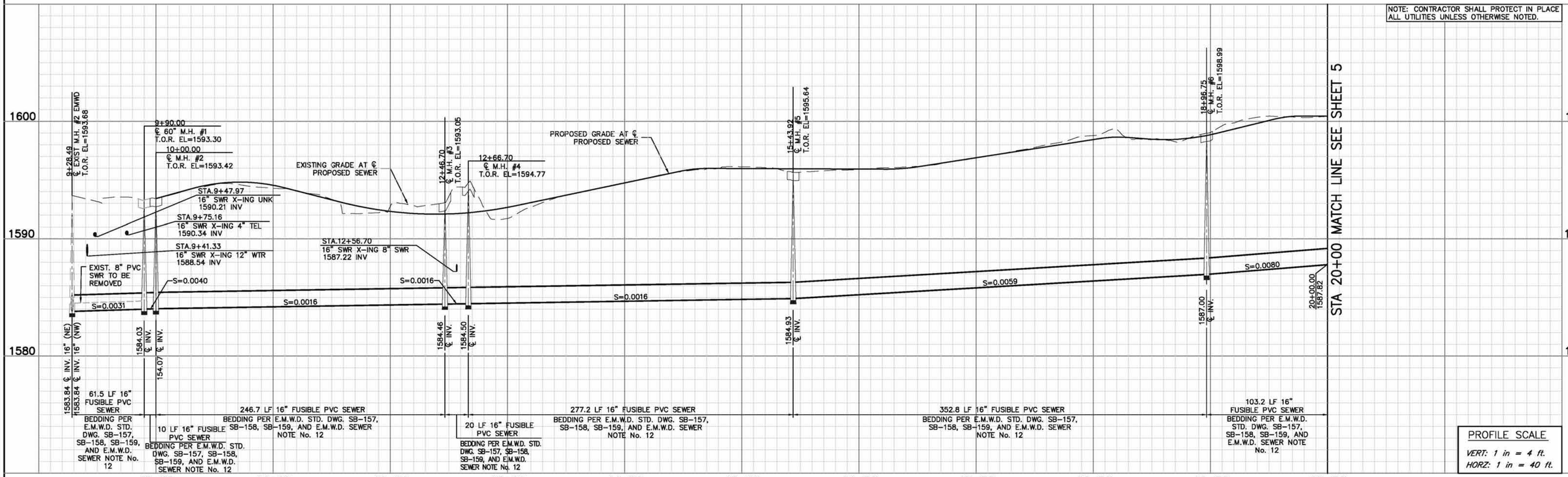
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

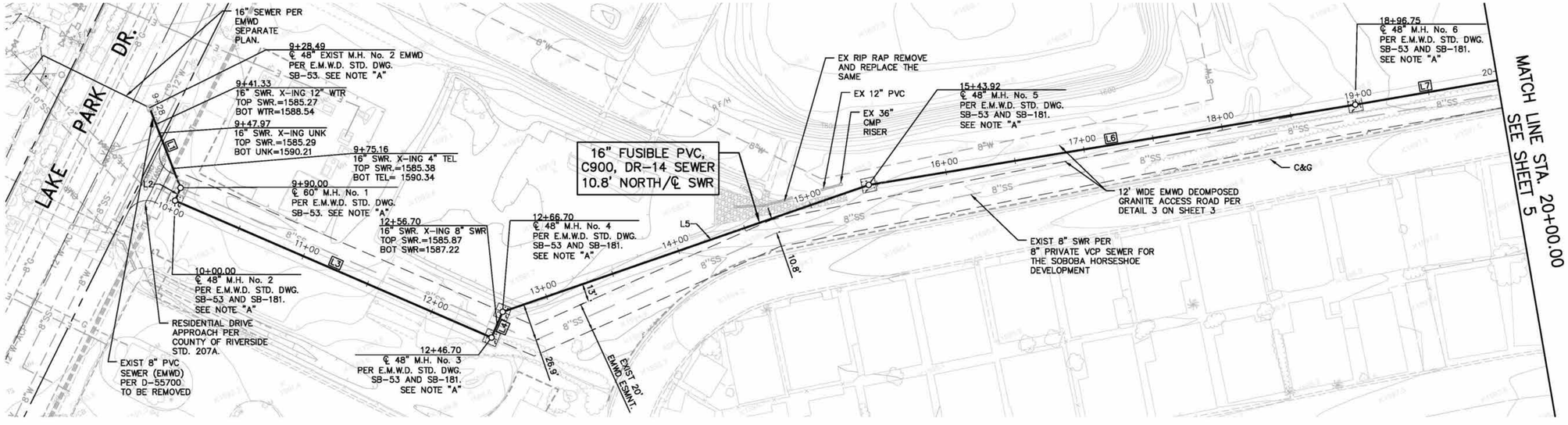
DETAIL SHEET

SHEET 3 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L1	61.5	S2° 55' 26.33"W
L2	10.0	S47° 24' 59.91"W
L3	246.7	S42° 35' 00.09"E
L4	20.0	N47° 24' 59.91"E
L5	277.2	S85° 06' 01.65"E
L6	352.8	S75° 20' 22.69"E
L7	103.2	S75° 42' 46.49"E

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARSH No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER		DATE
		INITIAL / DATE
APPROVALS	PROJECT ENG.	

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

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APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

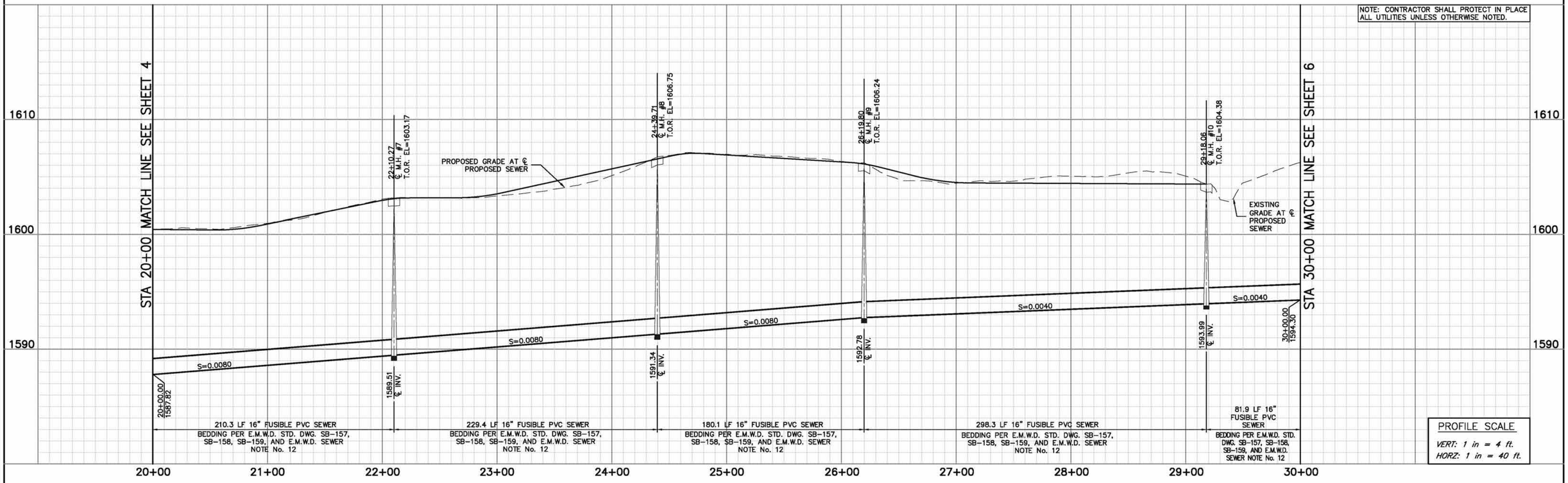
ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-9 Redlands, California 92373-3119 (909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

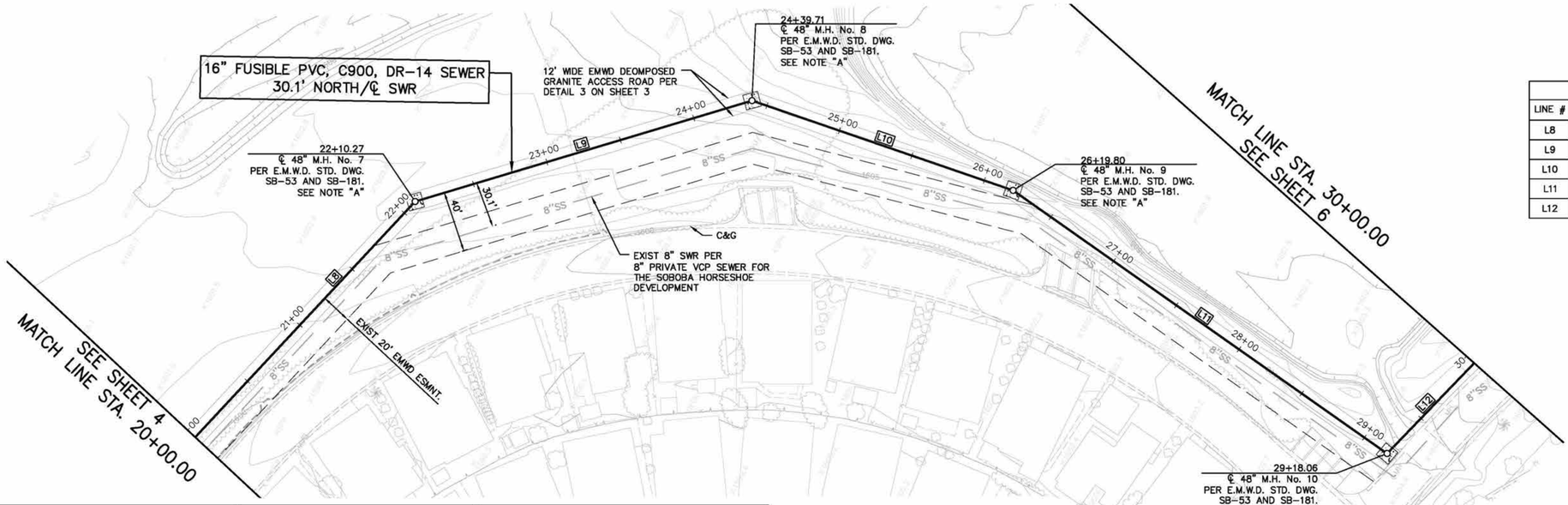
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 9+28.49 TO STA. 20+00.00

SHEET 4 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L8	210.3	S75° 42' 46.49"E
L9	229.4	S45° 23' 49.89"E
L10	180.1	S9° 45' 12.63"E
L11	298.3	S6° 23' 45.68"W
L12	81.9	S74° 45' 08.22"E

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI ASHEH No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER ____ DATE ____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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APPROVED
RCE ____ Date ____
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Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 20+00.00 TO STA. 30+00.00

SHEET 5 OF 77
SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 20+00 MATCH LINE SEE SHEET 5

30+36.98 ℄ M.H. #11 T.O.R. EL=1607.30

STA.32+07.49 16" SWR X-ING 3" GAS 1609.79 INV

STA.31+97.40 16" SWR X-ING 8" WTR 1607.62 INV

EXISTING GRADE AT ℄ PROPOSED SEWER

PROPOSED GRADE AT ℄ PROPOSED SEWER

STA.31+78.31 16" SWR X-ING ELECT. 1606.47 INV

STA.32+67.50 16" SWR X-ING ELECT. 1609.79 INV

32+38.37 ℄ M.H. #12 T.O.R. EL=1611.62

STA 32+73.95 16" SWR X-ING 3" GAS 1612.48 INV

IDENTICAL POINTS

S=0.0472

33+00.00 1605.28

S=0.0409

1602.52 ℄ INV.

S=0.0040

STA.32+28.41 16" SWR X-ING 8" SWR 1599.68 INV

30+00.00 1594.30

1594.46 ℄ INV.

37 LF 16" FUSIBLE PVC SEWER

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

201.4 LF 16" FUSIBLE PVC SEWER

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

61.7 LF 16" FUSIBLE PVC SEWER

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

33+99.84 ℄ M.H. #13 T.O.R. EL=1623.10

1610.14 ℄ INV.

99.8 LF 16" FUSIBLE PVC SEWER

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

PROPOSED GRADE AT ℄ PROPOSED SEWER

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.35+39.46 16" SWR X-ING 3" GAS 1629.13 INV

STA.35+99.73 16" SWR X-ING ELECT. 1627.47 INV

STA.35+97.41 16" SWR X-ING 8" SWR 1622.36 INV

STA.34+21.53 16" SWR X-ING 8" WTR 1618.78 INV

S=0.0472

38+02.00 ℄ M.H. #14 T.O.R. EL=1638.82

STA.37+80.53 16" SWR X-ING 3" GAS 1634.17 INV

STA.37+89.96 16" SWR X-ING 16" WTR 1632.77 INV

1629.14 ℄ INV. 16" (SW)
1629.14 ℄ INV. 16" (NW)

402.2 LF 16" FUSIBLE PVC SEWER

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

1610 1600 1590

1630 1620 1610

30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00 41+00

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

SEE SHEET 5 MATCH LINE STA. 30+00.00

30+36.98 ℄ 48" M.H. No. 11 PER E.M.W.D. STD. DWG. SB-53 AND SB-181. SEE NOTE "A"

EXIST 8" SWR PER 8" PRIVATE VCP SEWER FOR THE SOBOBA HORSESHOE DEVELOPMENT

31+78.31 16" SWR. X-ING ELECT TOP SWR.=1601.51 BOT ELECT.=1606.47

31+97.40 16" SWR. X-ING 8" WTR TOP SWR.=1602.27 BOT WTR=1607.62

32+07.49 16" SWR. X-ING 3" GAS TOP SWR.=1602.68 BOT GAS=1609.79 "CAUTION"

32+28.41 16" SWR. X-ING 8" SWR BOT 16" SWR.=1602.06 TOP 8" SWR=1600.35

32+38.37 ℄ 48" M.H. No. 12 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

32+67.50 16" SWR. X-ING ELECT. TOP SWR.=1605.29 BOT ELECT.=1609.79

32+73.95 16" SWR. X-ING 3" GAS TOP SWR.=1605.59 BOT GAS=1612.48 "CAUTION"

34+21.53 16" SWR. X-ING 8" WTR TOP SWR.=1612.56 BOT WTR=1618.78

16" FUSIBLE PVC, C900, DR-14 SEWER 11.1' WEST/℄ SWR

33+99.84 ℄ 48" M.H. No. 13 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

35+97.41 16" SWR. X-ING 8" SWR TOP SWR.=1620.87 BOT SWR=1622.36

35+99.73 16" SWR. X-ING ELECT. TOP SWR.=1620.98 BOT ELECT.=1627.47

35+39.46 16" SWR. X-ING 3" GAS TOP SWR.=1618.13 BOT GAS=1629.13 "CAUTION"

37+80.53 16" SWR. X-ING 3" GAS TOP SWR.=1629.52 BOT GAS=1634.17 "CAUTION"

37+89.96 16" SWR. X-ING 16" WTR TOP SWR.=1629.96 BOT WTR=1632.77

38+02.00 ℄ 48" M.H. No. 14 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

38+02.00 ℄ SWR HORSESHOE =40+00.00 ℄ SWR SOBOBA ROAD

SOBOBA ROAD
SEE SHEET 7

SEWER DATA		
LINE #	DISTANCE	BEARING
L13	37.0	S74° 45' 08.22"E
L14	201.4	S58° 54' 56.76"E
L15	161.5	N40° 33' 04.41"E
L16	402.2	N47° 14' 27.40"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMAD YASEEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER ____ DATE ____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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APPROVED ____ RCE ____ Date ____ Date ____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

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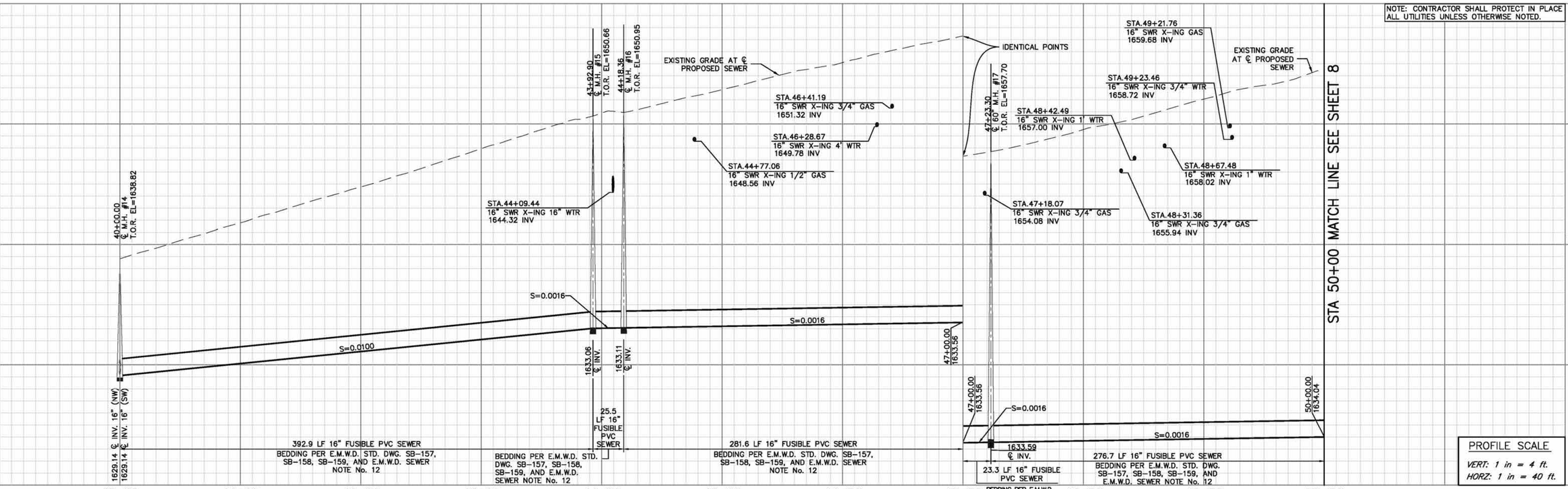
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

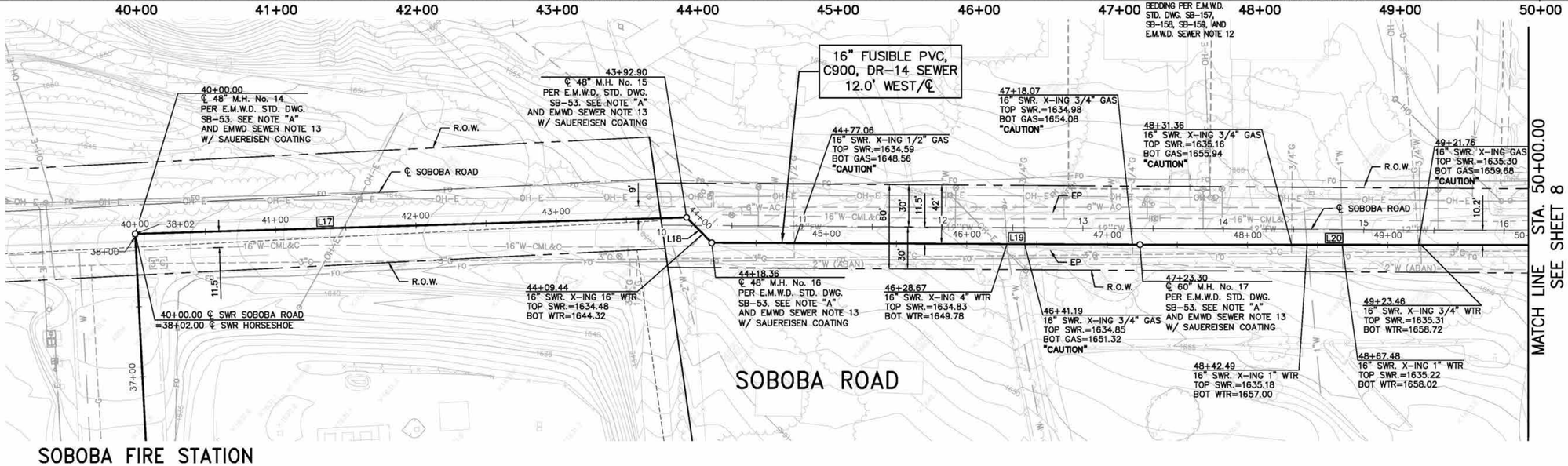
STA. 30+00.00 TO STA. 38+02.00

SHEET 6 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L17	392.9	S41° 31' 37.02"E
L18	25.5	S5° 29' 43.54"W
L19	304.9	S39° 34' 32.47"E
L20	276.7	S39° 45' 47.42"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI KASEH No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER	DATE

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED

RCE Date

Date

Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH/MP Job No. 96019.040 1"= 40'

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Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-B
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER
PLAN AND PROFILE
STA. 40+00.00 TO STA. 50+00.00

SHEET 7 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 50+00 MATCH LINE SEE SHEET 7

STA 60+00 MATCH LINE SEE SHEET 9

50+23.61
℄ 60" M.H. #18
T.O.R. EL=1665.07

51+25.01
℄ 60" M.H. #19
T.O.R. EL=1665.98

54+61.88
℄ 60" M.H. #20
T.O.R. EL=1660.00

57+83.64
℄ 60" M.H. #21
T.O.R. EL=1654.56

59+20.61
℄ 48" M.H. #22
T.O.R. EL=1651.94

STA.51+35.04
16" SWR X-ING 1" WTR
1659.44 INV

STA.52+48.41
16" SWR X-ING 3/4" GAS
1659.66 INV

STA.52+53.85
16" SWR X-ING 1" WTR
1660.98 INV

STA.50+75.19
16" SWR X-ING 64" X 43" PIPE
1658.43 INV
REMOVE AND REPLACE
EXIST 64" X 34" PIPE

STA.54+51.20
16" SWR X-ING 1/2" GAS
1656.53 INV

STA.54+96.99
16" SWR X-ING 1" WTR
1655.49 INV

EXISTING GRADE AT ℄
PROPOSED SEWER

STA.57+31.18
16" SWR X-ING 1" WTR
1650.25 INV

STA.57+61.63
16" SWR X-ING 1" WTR
1649.37 INV

STA.58+73.39
16" SWR X-ING 3/4" GAS
1650.76 INV

STA.58+69.93
16" SWR X-ING 1" WTR
1648.26 INV

STA.59+65.26
16" SWR X-ING 8" WTR
1645.24 INV

1660 1650 1640 1630 1626

S=0.0016 S=0.0018 S=0.0015 S=0.0016 S=0.0016 S=0.0016

50+00.00
1634.04 ℄ INV.
1634.07

1634.25 ℄ INV.

1634.76 ℄ INV.

1635.29 ℄ INV.

1635.43 ℄ INV. 16" (NW)
1636.19 ℄ INV. 8" (SW)

60+00.00
1635.66

101.4 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

23.6 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

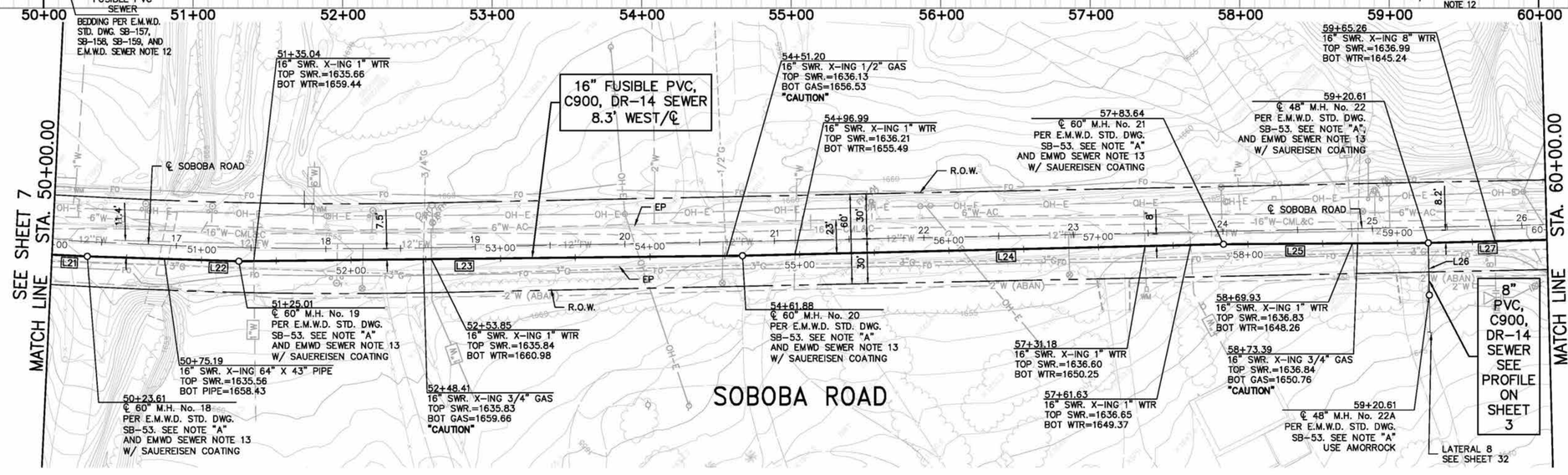
336.9 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

321.8 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

137 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

79.4 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L21	23.6	S39° 45' 47.42"E
L22	101.4	S40° 38' 27.73"E
L23	336.9	S43° 06' 54.82"E
L24	321.8	S43° 51' 06.46"E
L25	137.0	S42° 51' 22.63"E
L26	34.9	S46° 21' 52.60"W
L27	79.4	S43° 59' 22.58"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASER
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

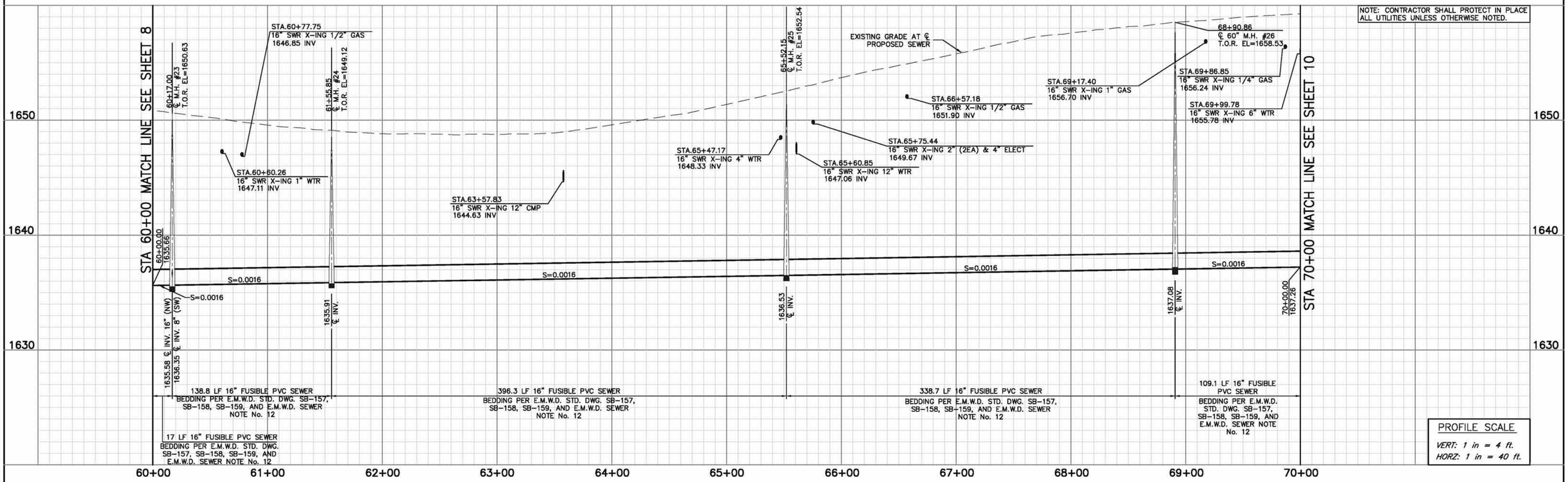
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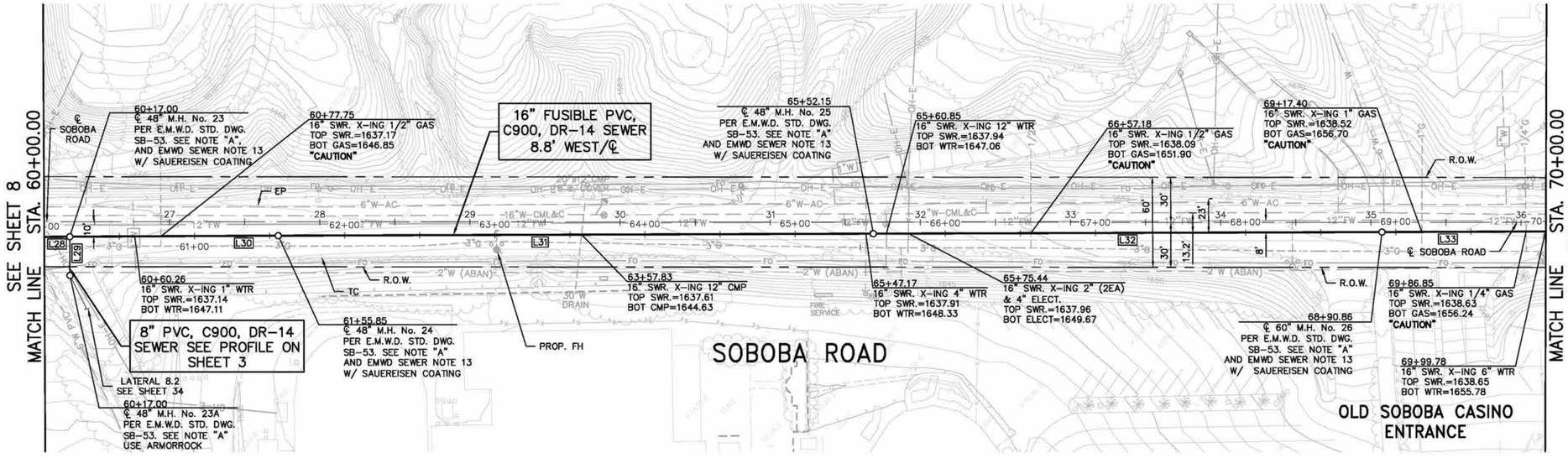
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

STA. 50+00.00 TO STA. 60+00.00

SHEET 8 of 77 SHEETS
DWG. NO.





SEWER DATA		
LINE #	DISTANCE	BEARING
L28	17.0	S43° 59' 22.59"E
L29	25.9	S46° 00' 37.42"W
L30	138.8	S43° 59' 22.58"E
L31	396.3	S43° 53' 37.10"E
L32	338.7	S43° 53' 35.63"E
L33	109.1	S43° 53' 35.63"E

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARSH No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER		DATE
		INITIAL / DATE
APPROVALS	PROJECT ENG.	

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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

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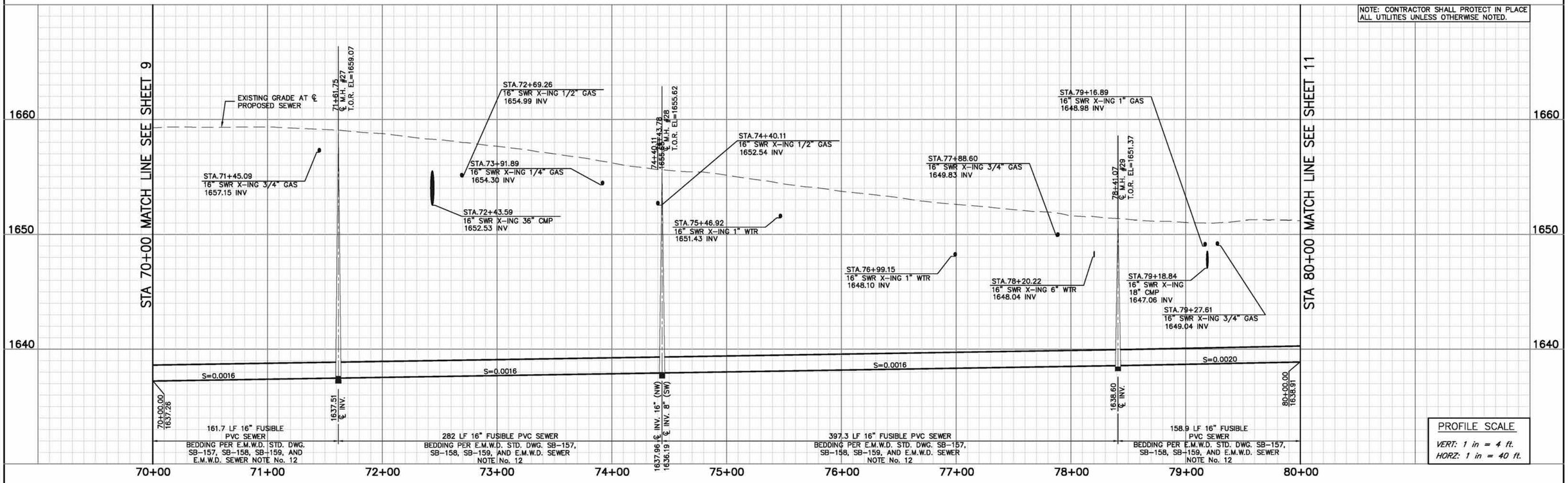
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

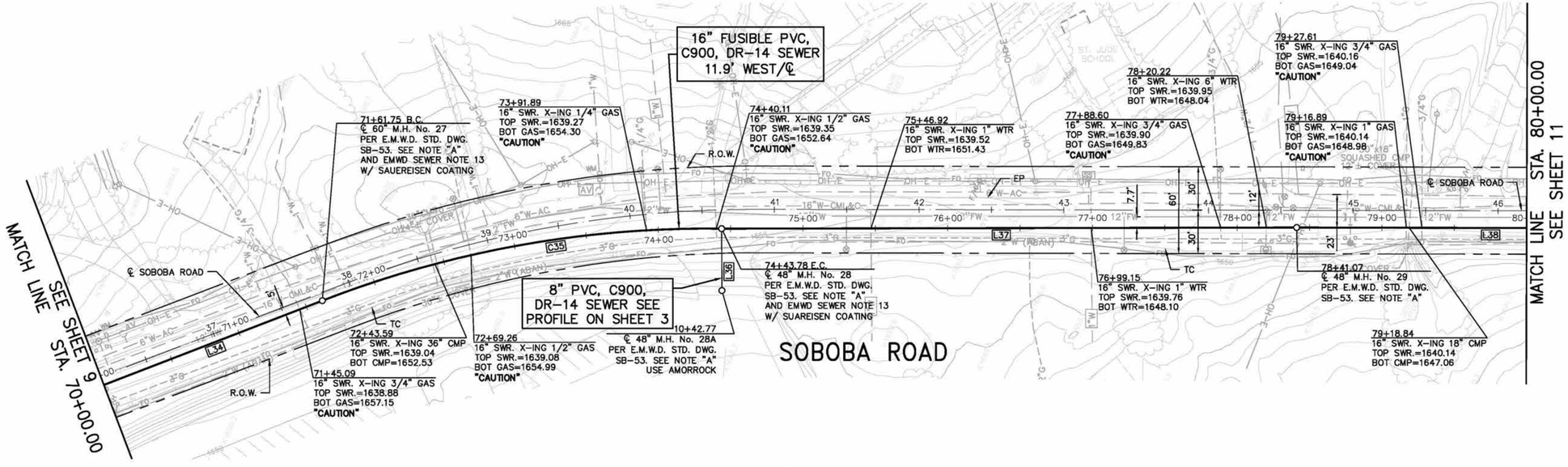
STA. 60+00.00 TO STA. 70+00.00

SHEET 9 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L34	161.7	S43° 53' 35.63"E
L36	42.8	S66° 55' 40.82"W
L37	397.3	S22° 55' 08.74"E
L38	158.9	S22° 41' 45.62"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C35	282.0	735.8	282.0



GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI KASHEH No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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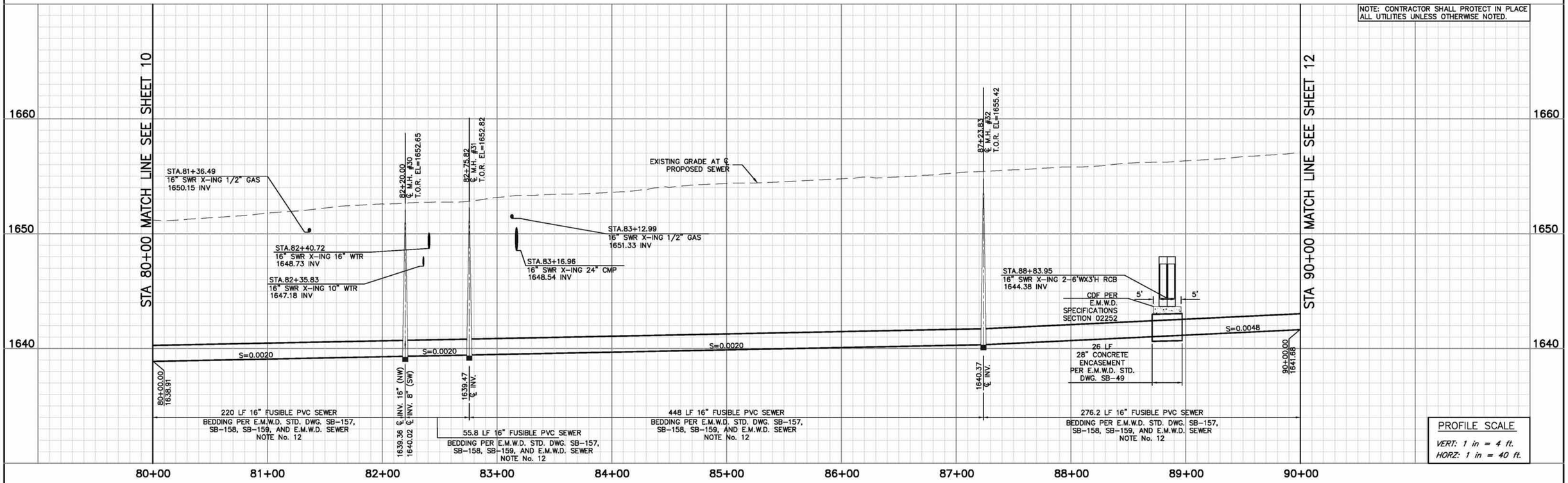
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SOBOBA BAND OF LUISEÑO INDIANS

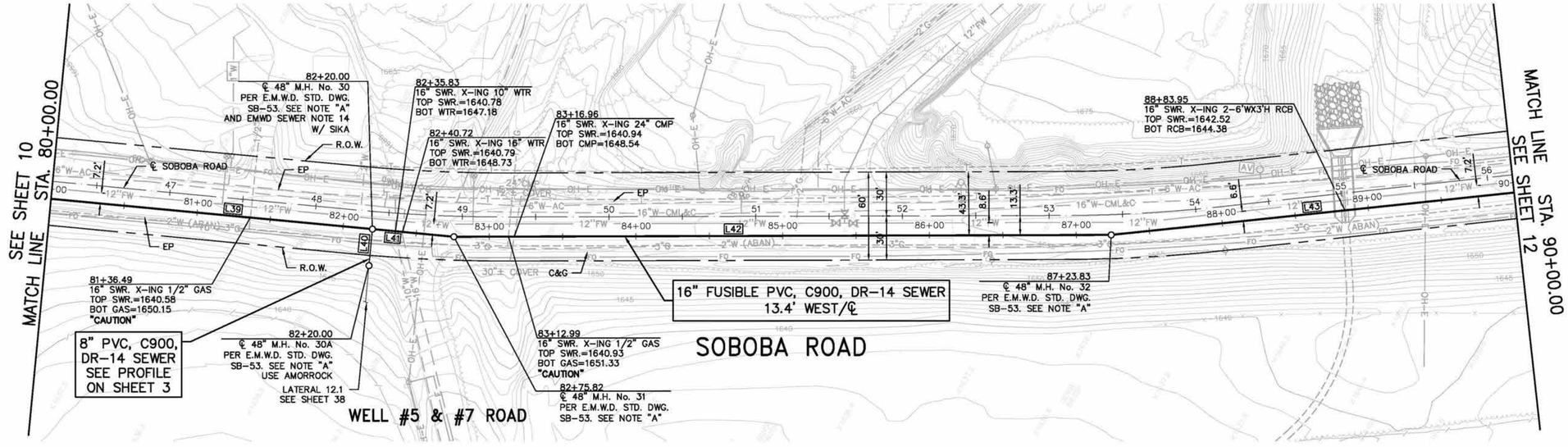
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER
PLAN AND PROFILE
STA. 70+00.00 TO STA. 80+00.00

SHEET 10 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L39	220.0	S22° 41' 45.62"E
L40	25.0	S67° 18' 14.38"W
L41	55.8	S22° 41' 45.62"E
L42	448.0	S28° 13' 51.13"E
L43	276.2	S34° 04' 24.32"E

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARSHI No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

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ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-9 Redlands, California 92373-3119 (909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 80+00.00 TO STA. 90+00.00

SHEET 11 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 90+00 MATCH LINE SEE SHEET 11

STA 100+00 MATCH LINE SEE SHEET 13

EXISTING GRADE AT ℄ PROPOSED SEWER

IDENTICAL POINTS

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.90+76.93
16" SWR X-ING
3/4" GAS
1654.77 INV

91+28.90
℄ M.H. #33
T.O.R. EL=1658.35

92+55.39
℄ M.H. #34
T.O.R. EL=1660.70

94+33.85
℄ M.H. #35
T.O.R. EL=1664.56

95+06.33
℄ M.H. #36
T.O.R. EL=1666.11

95+87.46
℄ M.H. #37
T.O.R. EL=1667.33

96+98.81
℄ M.H. #38
T.O.R. EL=1669.08

98+23.96
℄ M.H. #39
T.O.R. EL=1671.25

STA.95+22.12
16" SWR X-ING GAS
1663.34 INV

STA.97+06.27
16" SWR X-ING
1" WTR
1663.85 INV

STA.97+30.08
16" SWR X-ING 1" WTR
1663.91 INV

STA.98+64.92
16" SWR X-ING 1" WTR
1666.08 INV

STA.98+32.63
16" SWR X-ING
3/4" GAS
1665.74 INV

STA.98+30.55
16" SWR X-ING
1" WTR
1666.89 INV

STA.98+68.91
16" SWR X-ING 1" GAS
1668.87 INV

STA.99+35.96
16" SWR X-ING 1/2" GAS
1669.67 INV

STA.99+41.32
16" SWR X-ING
1" WTR
1669.73 INV

90+00.00
1641.68

92+00.00
1644.57

92+00.00
1644.57

100+00.00
1660.49

1642.29 ℄ INV.

1646.34 ℄ INV.

1652.02 ℄ INV.

1654.37 ℄ INV.

1656.97 ℄ INV.

1658.08 ℄ INV.

1659.08 ℄ INV. 16" (NW)
1659.75 ℄ INV. 8" (SW)

S=0.0048

S=0.0320

S=0.0320

S=0.0320

S=0.0320

S=0.0320

S=0.0100

S=0.0080

S=0.0080

128.9 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

71.1 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

55.4 LF 16" FUSIBLE PVC SEWER

178.5 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

72.5 LF 16" FUSIBLE PVC SEWER

81.1 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

111.4 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

125.1 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

176 LF 16" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

90+00 91+00 92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00

1660 1650 1640 1670 1660 1650

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

16" FUSIBLE PVC, C900, DR-14 SEWER 23.3' EAST/℄

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

95+06.33
℄ 48" M.H. No. 36
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

94+33.85
℄ 48" M.H. No. 35
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

92+55.39
℄ 48" M.H. No. 34
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

90+76.93
16" SWR. X-ING 3/4" GAS
TOP SWR.=1643.43
BOT GAS=1654.77
"CAUTION"

91+28.90
℄ 48" M.H. No. 33
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

℄ SOBOBA ROAD

R.O.W.

EP

C&G

95+22.12
16" SWR. X-ING GAS
TOP SWR.=1656.27
BOT GAS=1663.34
"CAUTION"

95+87.46
℄ 48" M.H. No. 37
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

96+98.81
℄ 48" M.H. No. 38
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

97+06.27
16" SWR. X-ING 1" WTR
TOP SWR.=1659.53
BOT WTR=1663.85

97+30.08
16" SWR. X-ING 1" WTR
TOP SWR.=1659.72
BOT WTR=1663.91

98+23.96
℄ 48" M.H. No. 39
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"
AND EMWD SEWER NOTE 14
W/ SIKA

98+23.96
℄ 48" M.H. No. 39A
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"
USE ARMORROCK

98+30.55
16" SWR. X-ING 1" WTR
TOP SWR.=1660.52
BOT WTR=1666.89

98+32.63
16" SWR. X-ING 3/4" GAS
TOP SWR.=1660.54
BOT GAS=1665.74
"CAUTION"

98+64.92
16" SWR. X-ING 1" WTR
TOP SWR.=1660.80
BOT WTR=1666.08

98+68.91
16" SWR. X-ING 1" GAS
TOP SWR.=1660.83
BOT GAS=1668.87
"CAUTION"

99+35.96
16" SWR. X-ING 1/2" GAS
TOP SWR.=1661.37
BOT GAS=1669.67
"CAUTION"

99+41.32
16" SWR. X-ING 1" WTR
TOP SWR.=1661.41
BOT WTR=1667.48

℄ SOBOBA ROAD

R.O.W.

L44 L45 L46 L47 L48 L49 L50 L51 L52

LATERAL 16 SEE SHEET 43

8" PVC SEWER, C900, DR-14 SEE PROFILE ON SHEET 3

SOBOBA ROAD

SEE SHEET 11 MATCH LINE STA. 90+00.00

MATCH LINE STA. 100+00.00 SEE SHEET 13

SEWER DATA		
LINE #	DISTANCE	BEARING
L44	128.9	S34° 04' 17.25"E
L45	126.5	S58° 17' 10.06"E
L46	178.5	S72° 42' 13.19"E
L47	72.5	S47° 03' 32.23"E
L48	81.1	S25° 16' 08.08"E
L49	111.4	S27° 17' 37.99"E
L50	125.1	S27° 19' 33.18"E
L51	29.0	S62° 40' 26.82"W
L52	176.0	S27° 19' 33.04"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YAZDEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER ____ DATE ____

APPROVALS	INITIAL	DATE
PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED

RCE ____ Date ____

Date ____

Designed SH/RT/MA Checked RT/MA

Drawn SH/MP Job No. 96019.040

Scale: 1"= 40'

ERSG INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 2-19
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

STA. 90+00.00 TO STA. 100+00.00

SHEET 12 OF 77 SHEETS

DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 100+00 MATCH LINE SEE SHEET 12

STA 110+00 MATCH LINE SEE SHEET 14

STA.101+11.66
10" SWR X-ING 3" GAS
1670.48 INV

STA.101+11.60
10" SWR X-ING 2" WTR
1669.82 INV

STA.101+04.01
10" SWR X-ING 18" CMP
1670.29 INV

STA.105+51.02
10" SWR X-ING 6" WTR
1673.27 INV

STA.105+80.43
10" SWR X-ING 1" WTR
1671.54 INV

STA.106+47.18
16" SWR X-ING 6" IRR ABAN
1673.51 INV

STA.108+50.60
10" SWR X-ING 1" WTR
1675.99 INV

100+64.36
℄ 60" M.H. #40
T.O.R. EL=1673.62

101+58.96
℄ M.H. #41
T.O.R. EL=1674.06

105+03.97
℄ M.H. #42
T.O.R. EL=1676.52

106+44.96
℄ M.H. #43
T.O.R. EL=1677.01

109+17.95
℄ M.H. #44
T.O.R. EL=1679.82

STA.103+36.60
15" SWR X-ING FO
1673.74 INV

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.106+88.55
10" SWR X-ING 1/2" GAS
1672.96 INV

STA.102+99.33
10" SWR X-ING 2" WTR
1671.53 INV

STA.103+02.67
16" SWR X-ING 6" WTR
±1671.96 INV

STA.102+79.43
10" SWR X-ING 1/2" GAS
1671.28 INV

STA.104+27.31
10" SWR X-ING 1/2" GAS
1672.44 INV

STA.105+07.25
10" SWR X-ING 1/2" GAS
1672.14 INV

STA.107+57.61
10" SWR X-ING 4" WTR
1673.11 INV

STA.107+22.64
10" SWR X-ING 1" WTR
1673.87 INV

STA.106+49.26
10" SWR X-ING 1/2" GAS
1673.00 INV

STA.100+79.99
10" SWR X-ING 3" WTR
1671.64 INV

STA.102+22.36
10" SWR X-ING 1" WTR
1669.38 INV

STA.100+47.38
16" SWR X-ING 18" CMP
1669.51 INV

STA.101+46.16
10" SWR X-ING 1" WTR
1669.35 INV

STA.100+27.05
16" SWR X-ING 18"CMP
1668.52 INV

S=0.0080
S=0.0069
S=0.0060
S=0.0060
S=0.0032

100+00.00
1660.49

1661.00 ℄ INV. 16" (NW)
1661.50 ℄ INV. 10" (NW)
1661.33 ℄ INV. 12" (W)

1662.13 ℄ INV. 16" (NW)
1662.32 ℄ INV. 8" (SW)

1664.52
℄ INV.

1665.37 ℄ INV. 10" (NW)
1665.53 ℄ INV. 8" (SW)

1667.01
℄ INV.

110+00.00
1667.27

64.4 LF 16" FUSIBLE PVC SEWER

94.6 LF 10" FUSIBLE PVC SEWER

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

345 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

141 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

273 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

82.1 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00 108+00 109+00 110+00

1680 1670 1660

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

CASTILE CANYON
SEE SHEET 15

℄ CASTILE CANYON

12" FUSIBLE PVC, C900, DR-14 SEWER 10.2' WEST/℄

℄ SOBOBA ROAD

100+79.99
10" SWR. X-ING 3" WTR
TOP SWR.=1662.46
BOT WTR=±1671.64

67+09.22 ℄ SOBOBA ROAD
=20+00.00 ℄ CASTILE CANYON ROAD

101+11.60
10" SWR. X-ING 2" WTR
TOP SWR.=1662.68
BOT WTR=±1669.82

101+11.66
10" SWR. X-ING 3" GAS
TOP SWR.=1662.68
BOT GAS=1670.48
"CAUTION"

101+46.16
10" SWR. X-ING 1" WTR
TOP SWR.=1662.92
BOT WTR=1669.35

102+79.43
10" SWR. X-ING 1/2" GAS
TOP SWR.=1663.84
BOT GAS=1671.28
"CAUTION"

103+02.67
16" SWR. X-ING 6" WTR
TOP SWR.=1664.00
BOT WTR=1671.96

104+27.32
10" SWR. X-ING 1/2" GAS
TOP SWR.=1664.85
BOT GAS=1672.44
"CAUTION"

105+51.02
10" SWR. X-ING 6" WTR
TOP SWR.=1665.66
BOT WTR=1673.27

105+80.43
10" SWR. X-ING 1" WTR
TOP SWR.=1665.84
BOT WTR=1671.54

106+44.96
℄ 48" M.H. No. 43
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" AND EMWD SEWER NOTE 14 W/ SIKA

106+47.18
16" SWR. X-ING 6" IRR ABAN
TOP SWR.=1666.24
BOT IRR=1673.51

106+49.26
10" SWR. X-ING 1/2" GAS
TOP SWR.=1666.25
BOT GAS=1673.00
"CAUTION"

107+22.64
10" SWR. X-ING 1" WTR
TOP SWR.=1666.69
BOT WTR=1673.87

108+50.60
10" SWR. X-ING 1" WTR
TOP SWR.=1667.46
BOT WTR=1675.99

R.O.W.

EP

℄ SOBOBA ROAD

℄ SOBOBA ROAD

10" FUSIBLE PVC, C900, DR-14 SEWER 14.4' WEST/℄

8" PVC, C900, DR-14 SEWER SEE PROFILE ON SHEET 3

8" PVC, C900, DR-14 SEWER SEE PROFILE ON SHEET 3

SOBOBA ROAD

100+47.37
16" SWR. X-ING
18" CMP
TOP SWR.=1662.26
BOT CMP=1669.51

100+27.05
16" SWR. X-ING
18" CMP
TOP SWR.=1662.09
BOT CMP=1668.52

101+04.01
10" SWR. X-ING
18" CMP
TOP SWR.=1662.63
BOT CMP=1670.29

LATERAL 17
SEE SHEET 44

100+64.36
℄ 60" M.H. No. 40
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

100+64.35 ℄ SWR SOBOBA ROAD
=9+96.81 ℄ SWR CASTILE CANYON ROAD

102+22.36
10" SWR. X-ING 1" WTR
TOP SWR.=1663.45
BOT WTR=1669.38

101+58.96
℄ 48" M.H. No. 41A
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"
USE ARMORROCK

103+36.60
15" SWR. X-ING FO
TOP SWR.=1664.23
BOT FO=1673.74
"CAUTION"

102+99.34 ℄ WTR
TOP SWR.=1663.97
BOT WTR=1671.53

101+58.96
℄ 48" M.H. No. 41
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"
AND EMWD SEWER NOTE 14 W/ SIKA

105+03.97
℄ 48" M.H. No. 42
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

105+07.25
10" SWR. X-ING 1/2" GAS
TOP SWR.=1665.40
BOT GAS=1672.14
"CAUTION"

LATERAL 19
SEE SHEET 44

106+44.96
℄ 48" M.H. No. 43A
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

106+88.55
10" SWR. X-ING 1/2" GAS
TOP SWR.=1666.49
BOT GAS=1672.96
"CAUTION"

107+57.60
10" SWR. X-ING 4" WTR
TOP SWR.=1666.90
BOT WTR=1673.11

109+17.95
℄ 48" M.H. No. 44
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

SEE SHEET 12 MATCH LINE STA. 100+00.00

MATCH LINE STA. 110+00.00 SEE SHEET 14

SEWER DATA		
LINE #	DISTANCE	BEARING
L53	64.4	S27° 19' 30.11"E
L54	94.6	S27° 18' 54.17"E
L55	29.0	S62° 41' 07.86"W
L56	345.0	S27° 18' 52.14"E
L57	141.0	S27° 20' 28.67"E
L58	29.0	S62° 39' 31.33"W
L59	273.0	S27° 20' 31.41"E
L60	82.1	S27° 18' 31.97"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI TAGHI No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 95019.040

ERSC INC.com Engineering Resources of Southern California

1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 890-1255

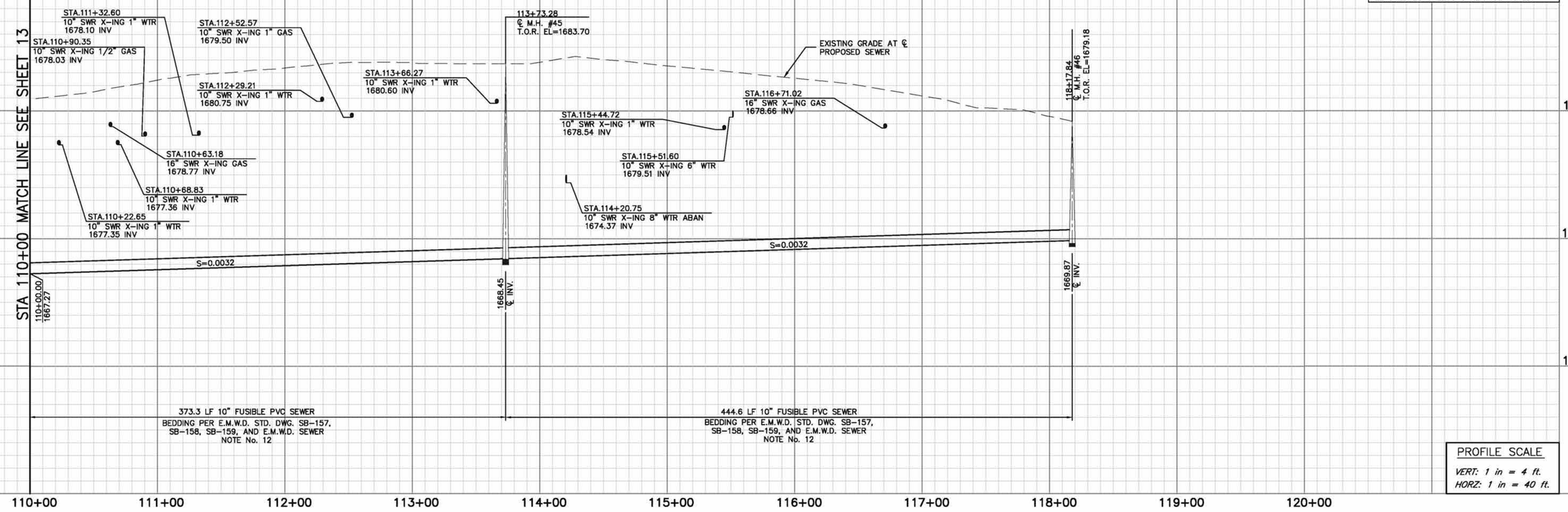
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

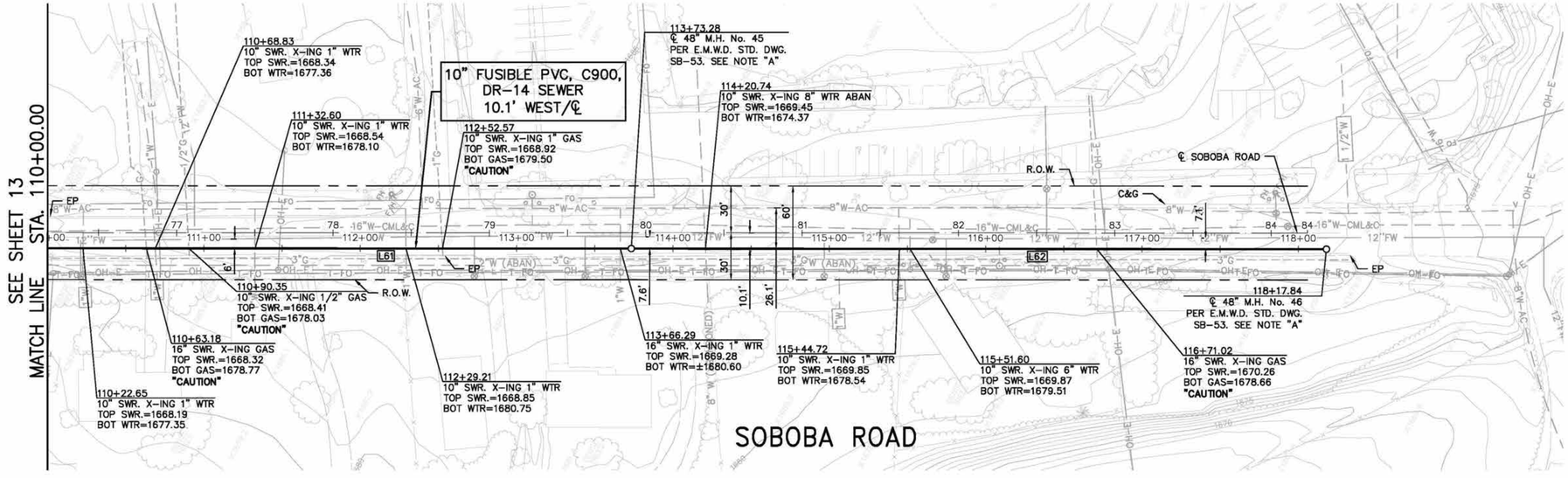
STA. 100+00.00 TO STA. 110+00.00

SHEET 13 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L61	373.3	S27° 18' 41.07"E
L62	444.6	S27° 17' 08.25"E

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-B
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

10 PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER
PLAN AND PROFILE
STA. 110+00.00 TO STA. 118+17.85

SHEET 14 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA.10+11.47
12" SWR X-ING TEL
1671.59 INV

STA.10+02.16
12" SWR X-ING 12" FUT WTR
1664.37 INV

STA.10+17.39
12" SWR X-ING 6" WTR
1668.88 INV

STA.12+68.71
12" SWR X-ING 1" WTR
1676.28 INV

14+58.21
℄ 60" M.H. #50
T.O.R. EL=1685.77

13+47.78
℄ M.H. #49
T.O.R. EL=1682.49

STA.14+69.99
12" SWR X-ING 6" WTR
1680.71 INV
"FIELD VEIRFY"

STA.14+73.97
12" SWR X-ING 12" FUT WTR
1679.99 INV

S=0.0360

IDENTICAL POINTS

STA.18+23.02
12" SWR X-ING 1" WTR
1694.91 INV

18+50.00
℄ M.H. #51
T.O.R. EL=1698.28

9+96.81
℄ 60" M.H. #46
T.O.R. EL=1673.62

10+58.22
℄ M.H. #47
T.O.R. EL=1672.53

10+79.83
1674.52

10+92.35
℄ M.H. #48
T.O.R. EL=1674.38

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.10+38.29
12" SWR X-ING FO 3 EA
1668.81 INV

STA.10+82.17
12" SWR X-ING FO 3 EA
1670.33 INV

S=0.0272

STA.10+74.34
12" SWR X-ING 16" WTR
1668.87 INV

S=0.0322

S=0.0274

STA.10+68.66
12" SWR X-ING 8" WTR
1668.62 INV

STA.10+79.83
12" SWR X-ING 12" FUT WTR
1666.67 INV

S=0.0335

1672.56
℄ INV.

1675.56 ℄ INV. 12" (SW)
1675.73 ℄ INV. 10" (NW)

15+00.00
1677.07

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.17+95.45
12" SWR X-ING 1/2" GAS
1693.70 INV

STA.15+97.92
12" SWR X-ING 6" WTR
1686.97 INV

S=0.0333

20+00.00
1694.65

1689.65
℄ INV.

STA.15+25.19
12" SWR X-ING 1" GAS
1684.25 INV

S=0.0360

1663.39
℄ INV.

1664.32
℄ INV.

1661.33 ℄ INV. 12" (W)
1661.00 ℄ INV. 16" (NW)
1661.50 ℄ INV. 10" (NW)

STA.10+12.70
12" SWR X-ING 16" WTR
1665.73 INV

61.4 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

34.1 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

255.4 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

110.4 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

41.8 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

350 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

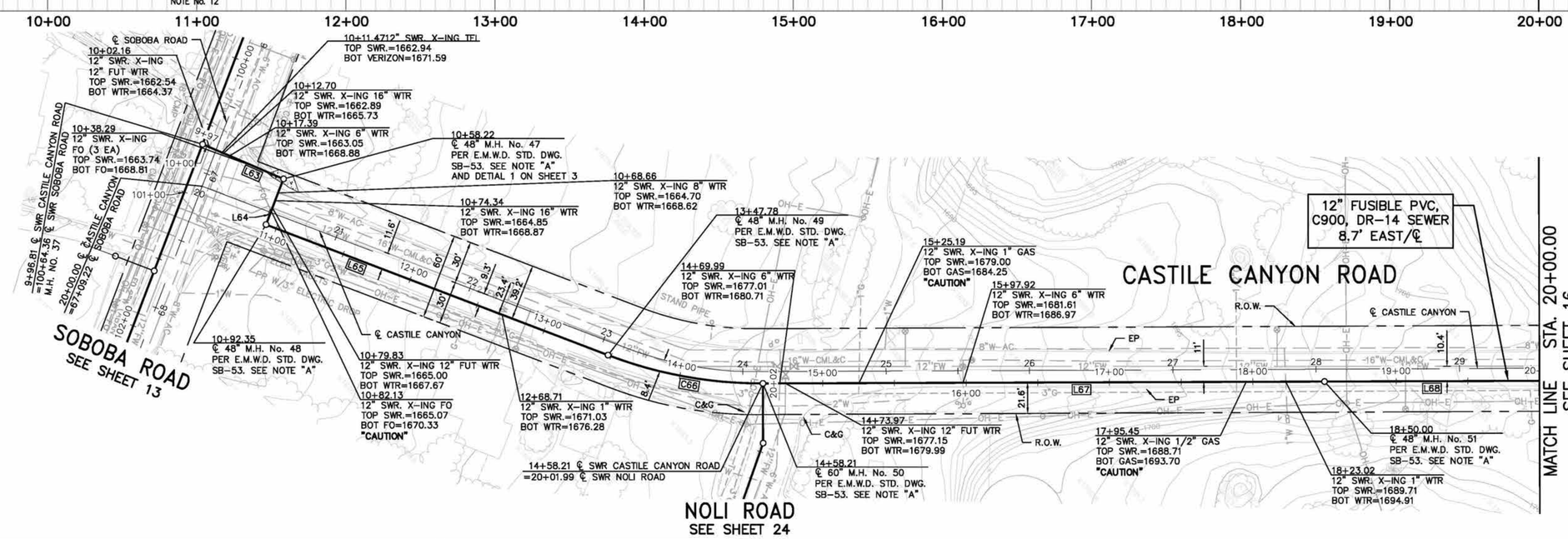
150 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

MATCH LINE STA 20+00 SEE SHEET 16

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

1660 1670 1680 1690 1700



SEWER DATA		
LINE #	DISTANCE	BEARING
L63	61.4	N65° 00' 45.37"E
L64	34.1	S27° 17' 17.92"E
L65	255.4	N62° 41' 54.91"E
L67	391.8	N41° 36' 28.72"E
L68	150.0	N41° 36' 28.72"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C66	110.4	300.0	110.4

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-B
Redlands, California 92373-3119
(909) 880-1255

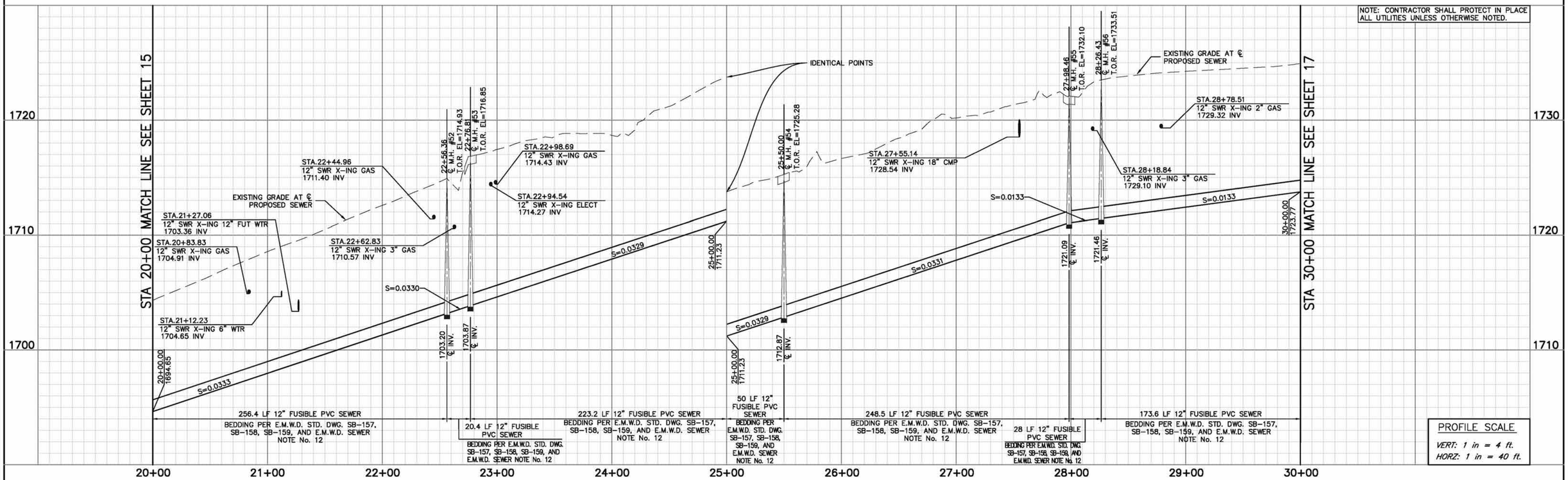
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

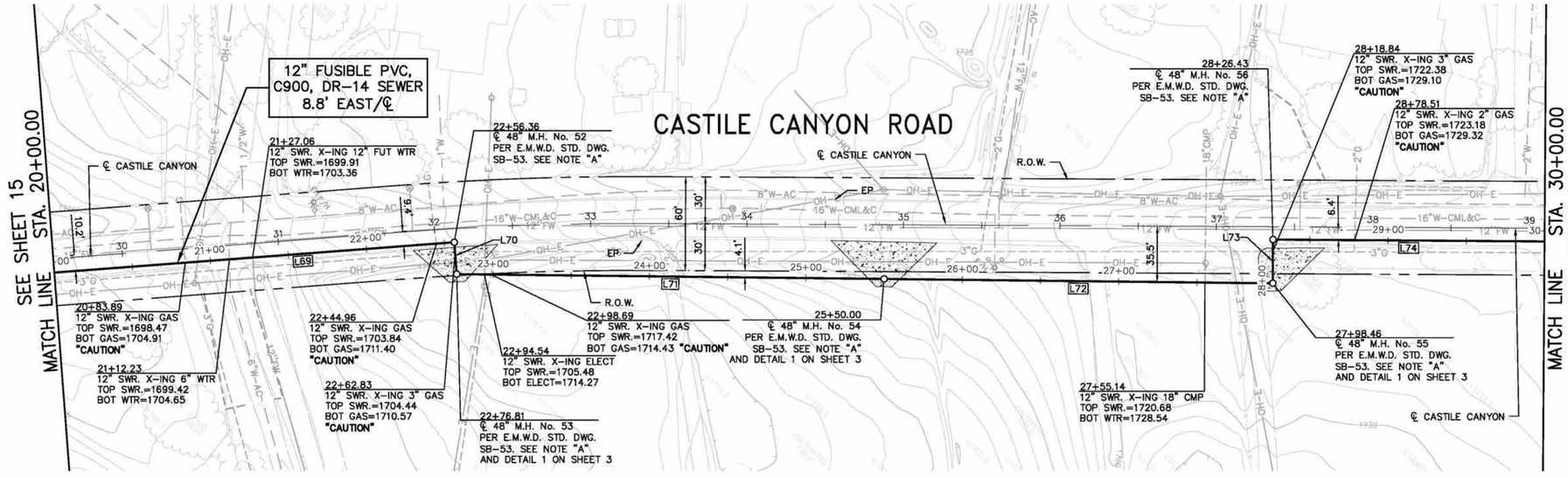
STA. 9+96.81 TO STA. 20+00.00

SHEET 15 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L69	256.4	N41° 36' 28.72"E
L70	20.4	S48° 23' 31.28"E
L71	273.2	N46° 35' 31.44"E
L72	248.5	N46° 35' 31.44"E
L73	28.0	N43° 41' 46.60"W
L74	173.6	N46° 19' 58.32"E

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FASEH No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER ____ DATE ____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED ____ RCE ____ Date ____ Date ____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-9 Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 20+00.00 TO STA. 30+00.00

SHEET 16 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 30+00 MATCH LINE SEE SHEET 16

STA 40+00 MATCH LINE SEE SHEET 18

30+00.00
1723.77

STA.31+95.69
12" SWR X-ING 3/4" GAS
1734.36 INV

STA.31+63.78
12" SWR X-ING 4" WTR
1732.43 INV

STA.31+76.00
12" SWR X-ING 12" FUT WTR
1730.42 INV

STA.31+48.15
12" SWR X-ING 6" WTR
1730.58 INV

STA.32+95.44
12" SWR X-ING 1/2" GAS
1736.24 INV

STA.33+17.78
12" SWR X-ING 1" WTR
1736.56 INV

33+23.75
℄ M.H. #57
T.O.R. EL=1739.39

1728.07
℄ INV.

S=0.0133

STA.34+60.69
12" SWR X-ING 1" WTR
1739.97 INV

STA.35+21.19
12" SWR X-ING 1/2" GAS
1741.07 INV

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.36+42.26
12" SWR X-ING 4" WTR
1743.03 INV

STA.36+15.14
12" SWR X-ING 4" WTR
1743.41 INV

STA.36+32.70
12" SWR X-ING 12" FUT WTR
1739.66 INV

36+73.45
℄ M.H. #58
T.O.R. EL=1747.59

1736.82
℄ INV.

S=0.0250

STA.38+15.68
12" SWR X-ING GAS
1747.93 INV

STA.38+32.59
12" SWR X-ING GAS
1748.30 INV

STA.39+15.67
12" SWR X-ING 1" WTR
1750.26 INV

40+00.00
1744.97

323.7 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

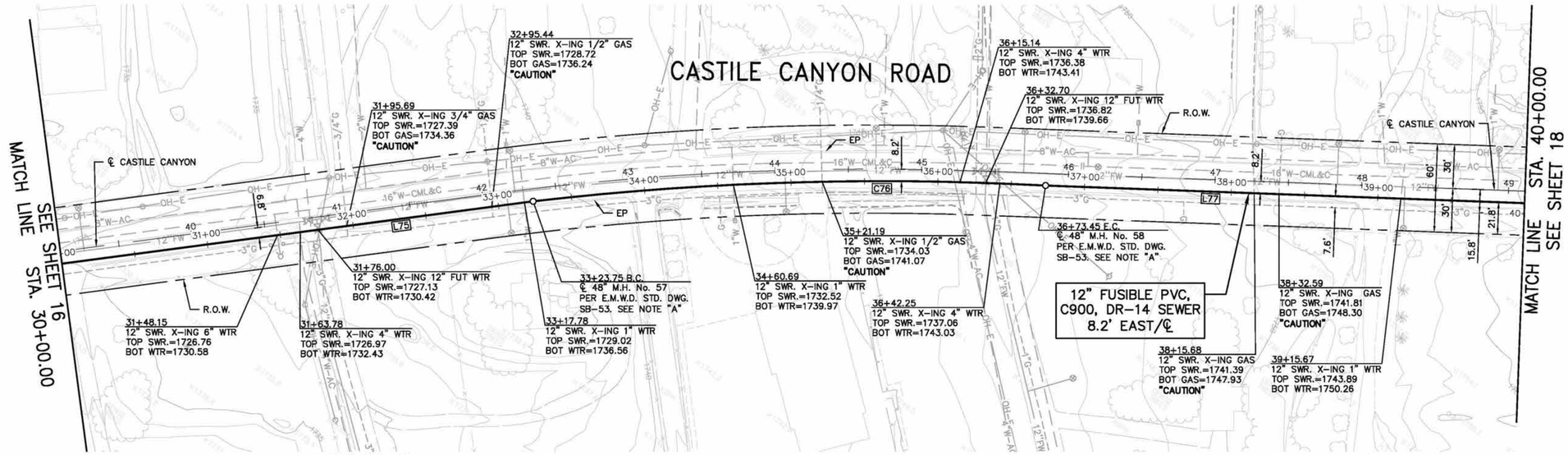
349.7 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

326.6 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

1750
1740
1730

30+00 31+00 32+00 33+00 34+00 35+00 36+00 37+00 38+00 39+00 40+00

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L75	323.7	N46° 19' 58.32"E
L77	326.6	N55° 58' 15.64"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C76	349.7	2064.5	349.7

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADY YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-118
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

STA. 30+00.00 TO STA. 40.00.00

SHEET 17 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 40+00 MATCH LINE SEE SHEET 17

STA 50+00 MATCH LINE SEE SHEET 19

EXISTING GRADE AT ℄ PROPOSED SEWER

IDENTICAL POINTS

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.40+74.22
12" SWR X-ING 1" WTR
1754.17 INV

STA.40+74.63
12" SWR X-ING GAS
1753.82 INV

41+00.00
℄ M.H. #59
T.O.R. EL=1757.86

STA.41+84.13
12" SWR X-ING 6" WTR
1757.18 INV

STA.43+12.40
12" SWR X-ING 1" WTR
1760.06 INV

STA.43+73.00
12" SWR X-ING 2" WTR
1761.95 INV

STA.44+47.89
12" SWR X-ING 1" WTR
1763.66 INV

45+00.00
℄ M.H. #60
T.O.R. EL=1768.48

STA.45+85.54
12" SWR X-ING GAS
1767.73 INV

STA.46+60.32
12" SWR X-ING GAS
1769.69 INV

STA.47+04.91
12" SWR X-ING 1" WTR
1770.58 INV

STA.48+65.45
12" SWR X-ING GAS
1775.03 INV

STA.49+10.45
12" SWR X-ING 1" WTR
1776.23 INV

STA.49+29.74
12" SWR X-ING 1" GAS
1776.77 INV

49+46.25
℄ M.H. #61
T.O.R. EL=1780.27

40+00.00
1744.97

41+00.00
1747.47 ℄ INV.

45+00.00
1757.47 ℄ INV.

48+00.00
1761.07

48+00.00
1761.07

50+00.00
1763.53

1762.83 ℄ INV.

S=0.0250

S=0.0250

S=0.0120

S=0.0120

S=0.0130

1770 1760 1750

1780 1770 1760

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00

100 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

400 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

300 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

146.2 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

53.8 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

SEE SHEET 17 MATCH LINE STA. 40+00.00

MATCH LINE STA. 50+00.00 SEE SHEET 19

CASTILE CANYON ROAD

℄ CASTILE CANYON

℄ CASTILE CANYON

EP

EP

R.O.W.

R.O.W.

8.2'

30'

60'

30'

8.2'

L78 L79 L80 CB1

40+74.22
12" SWR. X-ING 1" WTR
TOP SWR.=1747.85
BOT WTR=1754.17

40+74.63
12" SWR. X-ING GAS
TOP SWR.=1747.86
BOT GAS=1753.82
"CAUTION"

41+00.00
℄ 48" M.H. No. 59
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

41+84.13
12" SWR. X-ING 6" WTR
TOP SWR.=1750.60
BOT WTR=1757.18

43+12.40
12" SWR. X-ING 1" WTR
TOP SWR.=1753.80
BOT WTR=1760.06

43+73.00
12" SWR. X-ING 2" WTR
TOP SWR.=1755.32
BOT WTR=1761.95

44+47.89
12" SWR. X-ING 1" WTR
TOP SWR.=1757.19
BOT WTR=1763.66

45+00.00
℄ 48" M.H. No. 60
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

12" FUSIBLE PVC, C900, DR-14 SEWER
8.2' EAST/℄

45+85.54
12" SWR. X-ING GAS
TOP SWR.=1759.52
BOT GAS=1767.73
"CAUTION"

46+60.32
12" SWR. X-ING GAS
TOP SWR.=1760.42
BOT GAS=1769.69
"CAUTION"

47+04.91
12" SWR. X-ING 1" WTR
TOP SWR.=1760.95
BOT WTR=±1770.58

48+65.45
12" SWR. X-ING GAS
TOP SWR.=1762.88
BOT GAS=1775.03
"CAUTION"

49+10.45
12" SWR. X-ING 1" WTR
TOP SWR.=1763.42
BOT WTR=1776.23

49+29.74
12" SWR. X-ING 1" GAS
TOP SWR.=1763.65
BOT GAS=1776.77
"CAUTION"

49+46.25 B.C.
℄ 48" M.H. No. 61
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

SEWER DATA		
LINE #	DISTANCE	BEARING
L78	100.0	N55° 58' 15.64"E
L79	400.0	N55° 58' 15.64"E
L80	446.2	N55° 58' 15.64"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C81	53.8	1333.1	53.8

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARSH No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER DATE

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED

RCE Date

Date

Designed SH/RT/MA Checked RT/MA

Drawn SH/MP Job No. 96019.040

Scale: 1"= 40'

1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 890-1255

ERSC INC.com Engineering Resources of Southern California

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

STA. 40+00.00 TO STA. 50+00.00

SHEET 18 OF 29 SHEETS

DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 50+00 MATCH LINE SEE SHEET 18

STA 60+00 MATCH LINE SEE SHEET 20

EXISTING GRADE AT ℄ PROPOSED SEWER

IDENTICAL POINTS

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.50+77.33
12" SWR X-ING 1" WTR
1780.72 INV

STA.51+00.36
12" SWR X-ING GAS
1781.26 IN

STA.51+57.17
12" SWR X-ING 16" WTR
1779.37 INV

STA.51+49.89
12" SWR X-ING 12" FUT WTR
1777.50 INV

51+42.73
℄ 60" M.H. #62
T.O.R. EL=1785.34

51+76.03
℄ 60" M.H. #63
T.O.R. EL=1785.39

STA.51+63.39
12" SWR X-ING 8" WTR
1780.94 INV

STA.53+63.97
12" SWR X-ING 1" WTR
1787.03 INV

STA.53+66.32
12" SWR X-ING GAS
1786.83 INV

STA.54+22.29
12" SWR X-ING 1" WTR
1788.19 INV

STA.53+98.72
12" SWR X-ING 1" WTR
1787.44 INV

54+67.91
℄ 60" M.H. #64
T.O.R. EL=1792.17

STA.54+88.58
12" SWR X-ING 18" CMP
1790.03 INV

STA.56+49.86
12" SWR X-ING 1" WTR
1793.09 INV

STA.56+28.77
12" SWR X-ING 1/2" GAS
1793.22 INV

57+31.34
℄ M.H. #65
T.O.R. EL=1797.60

57+55.91
1798.12

60+00.00
℄ M.H. #66
T.O.R. EL=1804.60

STA.57+55.91
12" SWR X-ING GAS
1795.12 INV

STA.58+66.19
12" SWR X-ING 1/2" GAS
1797.25 INV

STA.58+03.08
12" SWR X-ING 1" WTR
1795.77 INV

STA.57+68.60
12" SWR X-ING 1" WTR
1795.70 INV

FUTURE CDF PER E.M.W.D. SPECIFICATIONS SECTION 02252

STA.52+54.12
12" SWR X-ING FUTURE 12'WX8'H RCB
APPROX DEPTH 1770.09 INV

5' 5'

S=0.0130

S=0.0130

S=0.0130

S=0.0418

S=0.0418

S=0.0417

50+00.00
1763.53

1765.38
℄ INV.

1765.82
℄ INV.

1769.61
℄ INV.

57+00.00
1778.30

57+00.00
1778.30

1780.61
℄ INV.

1791.81
℄ INV.

26 LF FUTURE 24" CONCRETE ENCASEMENT PER E.M.W.D. STD. DWG. SB-49

291.9 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

232.1 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

31.3 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

268.7 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

1790 1780 1770

1800 1790 1780

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

142.7 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

33.3 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE 12

52+54.12
12" SWR. X-ING FUTURE 12'Wx8'H RCB
TOP SWR.=1767.86
BOT RCB=1770.09

12" FUSIBLE PVC, C900, DR-14 SEWER
23.3' WEST/℄

CASTILE CANYON ROAD

MATCH LINE SEE SHEET STA. 50+00.00

MATCH LINE SEE SHEET STA. 60+00.00

51+63.39
12" SWR. X-ING 8" WTR
TOP SWR.=1766.68
BOT WTR=1780.94

50+77.33
12" SWR. X-ING 1" WTR
TOP SWR.=1765.56
BOT WTR=1780.72

51+76.03 B.C.
℄ 60" M.H. No. 63
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" AND DETAIL 1 ON SHEET 3

51+57.17
12" SWR. X-ING 16" WTR
TOP SWR.=1766.60
BOT WTR=1779.37

53+63.97
12" SWR. X-ING 1" WTR
TOP SWR.=1769.28
BOT WTR=1787.03

53+66.32
12" SWR. X-ING GAS
TOP SWR.=1769.31
BOT GAS=1786.83
"CAUTION"

54+67.91 F.C.
℄ 60" M.H. No. 64
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" AND DETAIL 1 ON SHEET 3

56+28.77
12" SWR. X-ING 1/2" GAS
TOP SWR.=1777.35
BOT GAS=1793.22
"CAUTION"

57+31.34 B.C.
℄ 48" M.H. No. 65
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" AND DETAIL 1 ON SHEET 3

60+00.00
℄ 48" M.H. No. 66
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" AND DETAIL 1 ON SHEET 3

57+55.91
12" SWR. X-ING GAS
TOP SWR.=1782.66
BOT GAS=1795.12
"CAUTION"

58+03.08
12" SWR. X-ING 1" WTR
TOP SWR.=1784.62
BOT WTR=1795.77

℄ CASTILE CANYON

R.O.W.

51+42.73 F.C.
℄ 60" M.H. No. 62
PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

51+00.36
12" SWR. X-ING 1" GAS
TOP SWR.=1765.86
BOT GAS=1781.26
"CAUTION"

51+49.89
12" SWR. X-ING 12" FUT WTR
TOP SWR.=1766.50
BOT WTR=1777.50

53+98.72
12" SWR. X-ING 1" WTR
TOP SWR.=1769.74
BOT WTR=1787.44

54+22.29
12" SWR. X-ING 1" WTR
TOP SWR.=1770.04
BOT WTR=1788.19

54+88.58
12" SWR. X-ING 18" CMP
TOP SWR.=1771.50
BOT CMP=1790.03

56+49.86
12" SWR. X-ING 1" WTR
TOP SWR.=1778.23
BOT WTR=1793.09

57+68.60
12" SWR. X-ING 1" WTR
TOP SWR.=1783.19
BOT WTR=±1795.70

58+66.19
12" SWR. X-ING 1/2" GAS
TOP SWR.=1787.25
BOT GAS=1797.25
"CAUTION"

℄ CASTILE CANYON

POPPET FLATS ROAD
SEE SHEET 27

SEWER DATA		
LINE #	DISTANCE	BEARING
L83	33.3	N26° 29' 50.37"W
L85	263.4	N74° 22' 58.23"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C82	142.7	1333.1	142.7
C84	291.9	1471.1	291.9
C86	268.7	1449.0	268.7

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI ASSEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

ERSC INC.com
Engineering Resources of Southern California

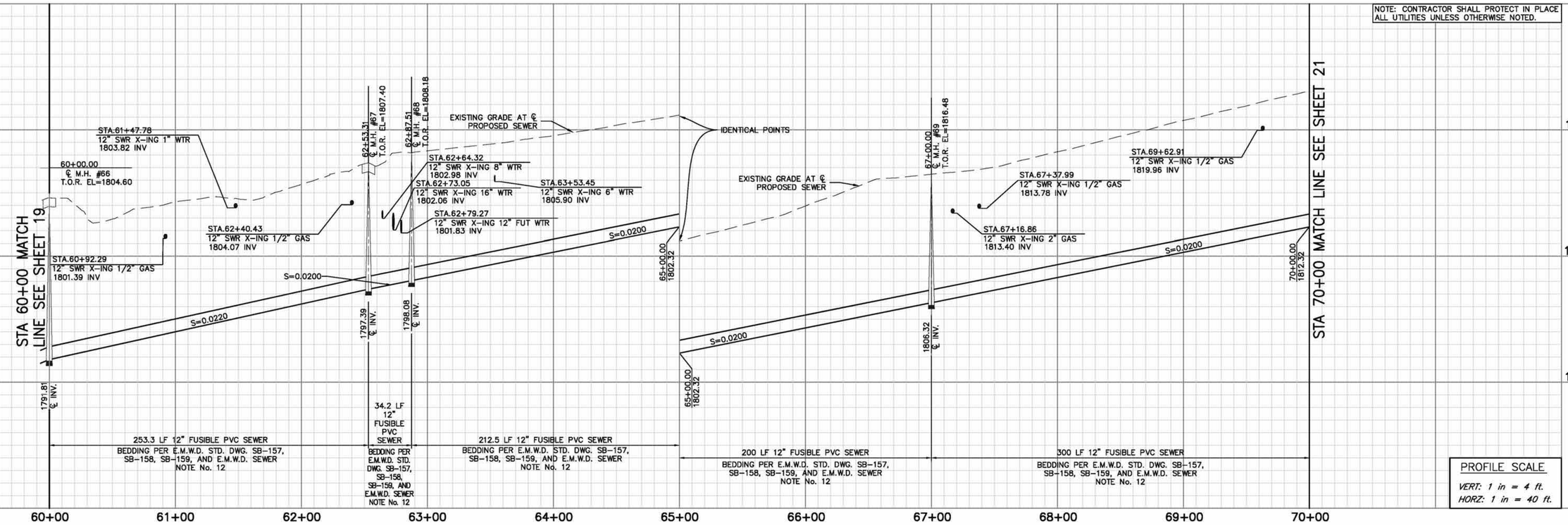
1861 West Redlands Blvd. Building 7-118
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

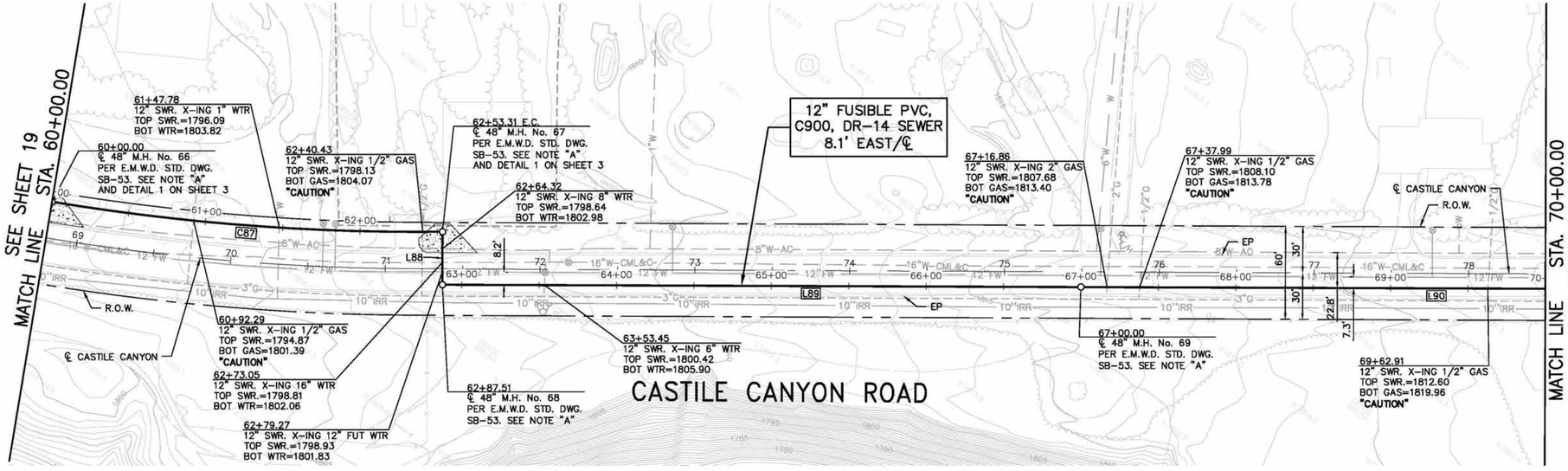
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 50+00.00 TO STA. 60+00.00

SHEET 19 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L88	34.2	S37° 13' 18.16"E
L89	412.5	N52° 46' 41.84"E
L90	300.0	N52° 46' 41.84"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C87	253.3	1449.0	253.3

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER	DATE	
	INITIAL	DATE
APPROVALS PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

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Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-9 Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 60+00.00 TO STA. 70+00.00

SHEET 20 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 70+00 MATCH LINE SEE SHEET 20

STA 80+00 MATCH LINE SEE SHEET 22

EXISTING GRADE AT ℄ PROPOSED SEWER

IDENTICAL POINTS

EXISTING GRADE AT ℄ PROPOSED SEWER

71+00.00 ℄ M.H. #70 T.O.R. EL=1825.47

72+50.00 ℄ M.H. #71 T.O.R. EL=1828.74

75+00.00 ℄ M.H. #72 T.O.R. EL=1833.41

79+42.00 ℄ M.H. #73 T.O.R. EL=1840.60

STA.71+32.99
12" SWR X-ING 1/2" GAS
1823.14 INV

STA.71+36.76
12" SWR X-ING 1" WTR
1822.83 INV

STA.72+01.41
12" SWR X-ING 1" WTR
±1824.71 INV

STA.72+60.57
12" SWR X-ING 6" WTR
1826.02 INV

STA.72+83.05
12" SWR X-ING 2" GAS
1826.20 INV

STA.74+01.96
12" SWR X-ING 1/2" GAS
1828.89 INV

STA.74+43.80
12" SWR X-ING 6" WTR
1827.69 INV

STA.75+76.75
12" SWR X-ING 2" WTR
1832.18 INV

STA.75+87.10
12" SWR X-ING 1" WTR
1832.00 INV

STA.76+25.46
12" SWR X-ING 1" WTR
1832.58 INV

STA.77+77.18
12" SWR X-ING GAS
1835.10 INV

STA.77+46.81
12" SWR X-ING 18" CMP
1834.92 INV

STA.78+20.54
12" SWR X-ING 1" WTR
1836.61 INV

STA.79+00.70
12" SWR X-ING 1/2" GAS
1836.24 INV

STA.79+21.40
12" SWR X-ING 1" WTR
1837.17 INV

STA.79+24.07
12" SWR X-ING 1" WTR
1837.17 INV

S=0.0200

S=0.0200

S=0.0200

S=0.0125

S=0.0125

1814.32 ℄ INV.

1817.32 ℄ INV. 12" (W)
1817.65 ℄ INV. 8" (S)

1822.32 ℄ INV.

1827.84 ℄ INV. 12" (W)
1828.01 ℄ INV. 10" (W)

70+00.00
1812.32

73+00.00
1818.32

80+00.00
1828.74

100 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

150 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

50 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

200 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

442 LF 12" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

58 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

1830 1820 1810

1840 1830 1820

70+00 71+00 72+00 73+00 74+00 75+00 76+00 77+00 78+00 79+00 80+00

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

SEE SHEET 20 MATCH LINE STA. 70+00.00

MATCH LINE STA. 80+00.00 SEE SHEET 22

12" FUSIBLE PVC, C900, DR-14 SEWER 9.4' EAST/℄

8" PVC, C900, DR-14 SEWER SEE PROFILE ON SHEET 3

10" FUSIBLE PVC SEWER 8.6' EAST/℄

CASTILE CANYON ROAD

℄ CASTILE CANYON

71+00.00 ℄ 48" M.H. No. 70 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

72+50.00 ℄ 48" M.H. No. 71A PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" USE ARMORROCK

72+50.00 ℄ 48" M.H. No. 71 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A" AND EMWD SEWER NOTE 14 W/ SIKA

75+00.00 ℄ 48" M.H. No. 72 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

79+42.00 ℄ 48" M.H. No. 73 PER E.M.W.D. STD. DWG. SB-53. SEE NOTE "A"

71+32.99 12" SWR. X-ING 1/2" GAS TOP SWR.=1816.00 BOT GAS=1823.14 "CAUTION"

71+36.76 12" SWR. X-ING 1" WTR TOP SWR.=1816.08 BOT WTR=1822.83

72+01.41 12" SWR. X-ING 1" WTR TOP SWR.=1817.37 BOT WTR=1824.71

72+60.57 12" SWR. X-ING 6" WTR TOP SWR.=1818.55 BOT WTR=1826.02

72+83.05 12" SWR. X-ING 2" GAS TOP SWR.=1819.00 BOT GAS=1826.20 "CAUTION"

74+01.96 12" SWR. X-ING 1/2" GAS TOP SWR.=1821.38 BOT GAS=1828.89 "CAUTION"

74+43.80 12" SWR. X-ING 6" WTR TOP SWR.=1822.22 BOT WTR=1827.69

75+76.75 12" SWR. X-ING 2" WTR TOP SWR.=1824.30 BOT WTR=1832.18

75+87.10 12" SWR. X-ING 1" WTR TOP SWR.=1824.43 BOT WTR=1832.00

76+25.46 12" SWR. X-ING 1" WTR TOP SWR.=1824.91 BOT WTR=1832.58

77+77.18 12" SWR. X-ING GAS TOP SWR.=1826.81 BOT GAS=1835.10 "CAUTION"

77+46.81 12" SWR. X-ING 18" CMP TOP SWR.=1826.43 BOT CMP=1834.92

78+20.54 12" SWR. X-ING 1" WTR TOP SWR.=1827.35 BOT WTR=1836.61

79+00.70 12" SWR. X-ING 1/2" GAS TOP SWR.=1828.35 BOT GAS=1836.24 "CAUTION"

79+21.40 12" SWR. X-ING 1" WTR TOP SWR.=1828.61 BOT WTR=±1837.17

79+24.07 12" SWR. X-ING 1" WTR TOP SWR.=1828.64 BOT WTR=1837.17

LATERAL 61 SEE SHEET 63

R.O.W.

SEWER DATA		
LINE #	DISTANCE	BEARING
L91	100.0	N52° 46' 41.84"E
L92	150.0	N52° 46' 41.84"E
L93	25.0	S37° 13' 18.16"E
L94	250.0	N52° 46' 41.84"E
L95	442.0	N52° 46' 41.84"E
L96	58.0	N52° 46' 41.84"E

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD ZAHER
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER ____ DATE ____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED ____ RCE ____ Date ____ Date ____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

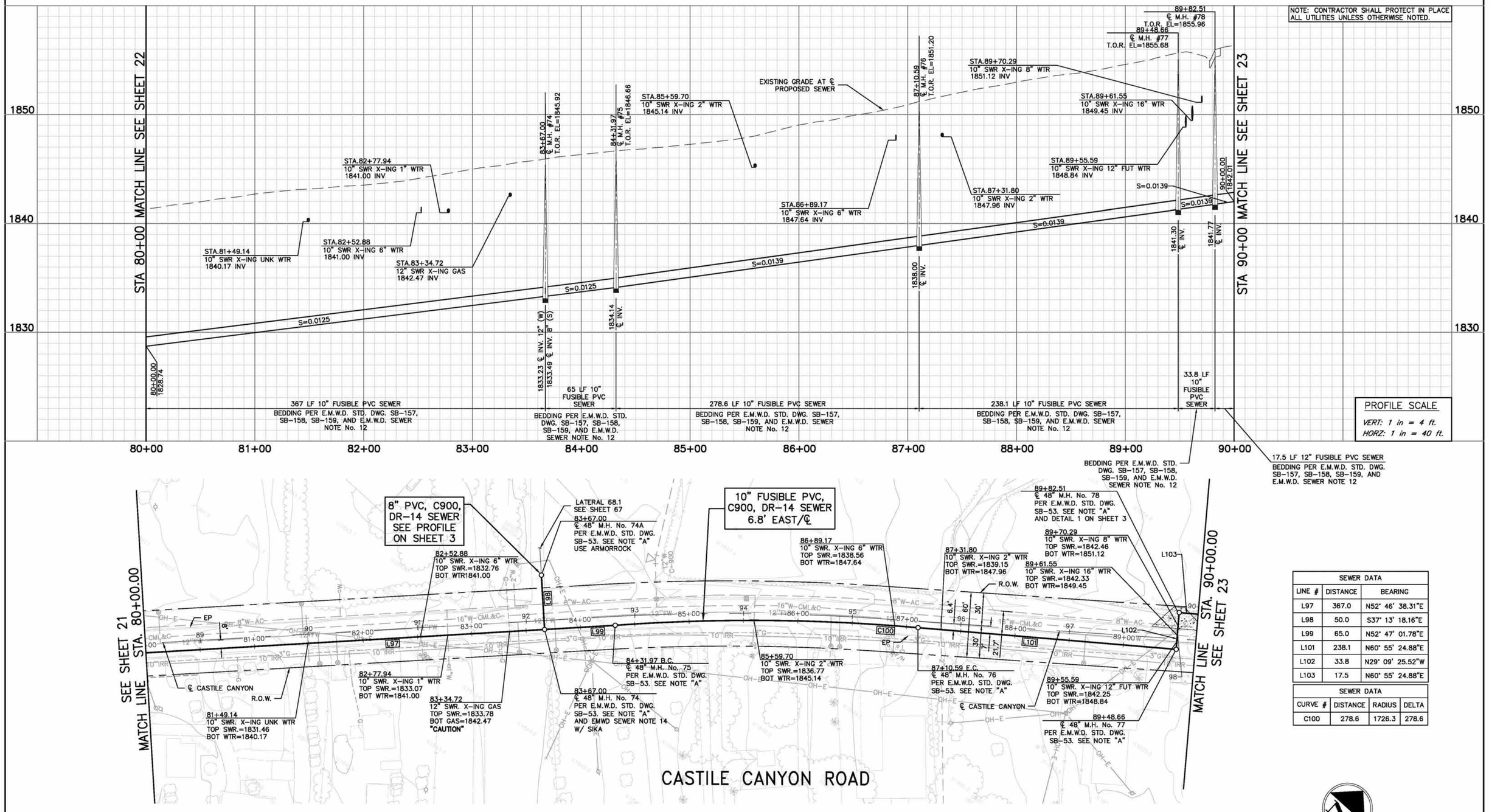
ERSC INCORPORATED
Engineering Resources of Southern California

1861 West Redlands Blvd. Building 7-118 Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 70+00.00 TO STA. 80+00.00

SHEET 21 OF 29 SHEETS
DWG. NO.



SEWER DATA		
LINE #	DISTANCE	BEARING
L97	367.0	N52° 46' 38.31"E
L98	50.0	S37° 13' 18.16"E
L99	65.0	N52° 47' 01.78"E
L101	238.1	N60° 55' 24.88"E
L102	33.8	N29° 09' 25.52"W
L103	17.5	N60° 55' 24.88"E

SEWER DATA			
CURVE #	DISTANCE	RADIUS	DELTA
C100	278.6	1726.3	278.6

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMAD HAMDEH No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER ____ DATE ____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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GRIND EMWD LETERING ON MANHOLE COVER

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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED ____ RCE ____ Date ____ Date ____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 95019.040

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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 80+00.00 TO STA. 90+00.00

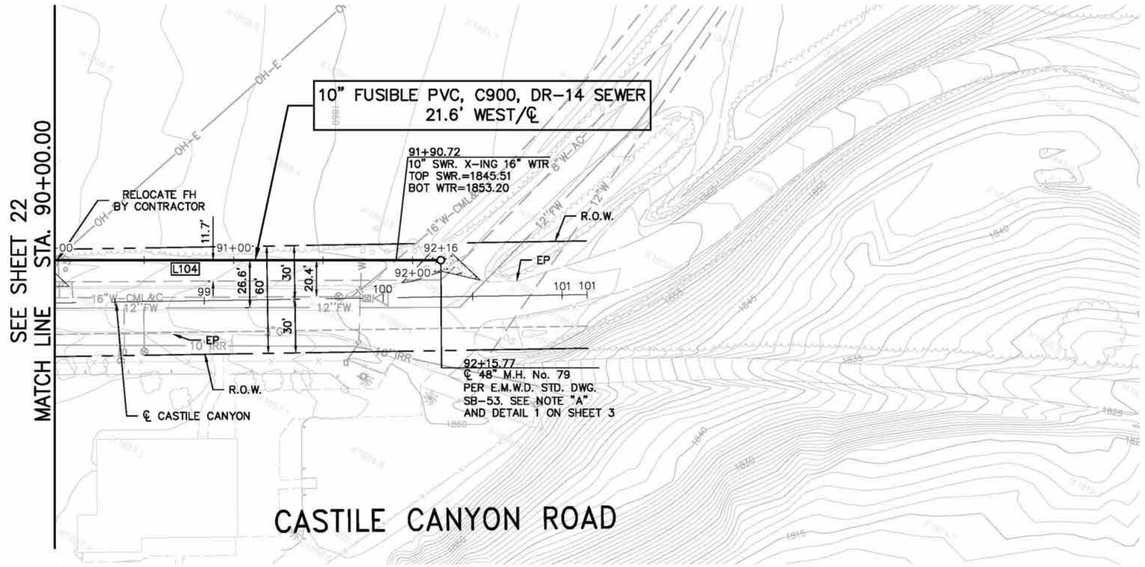
SHEET 22 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE

VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L104	215.8	N60° 55' 24.88"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AHMADI YASEEN — No.C 58784 — CIVIL — STATE OF CALIFORNIA

BENCH MARK:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED

_____ RCE _____ Date

_____ Date

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'

Drawn SH/MP Job No. 96019.040

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Engineering Resources of Southern California

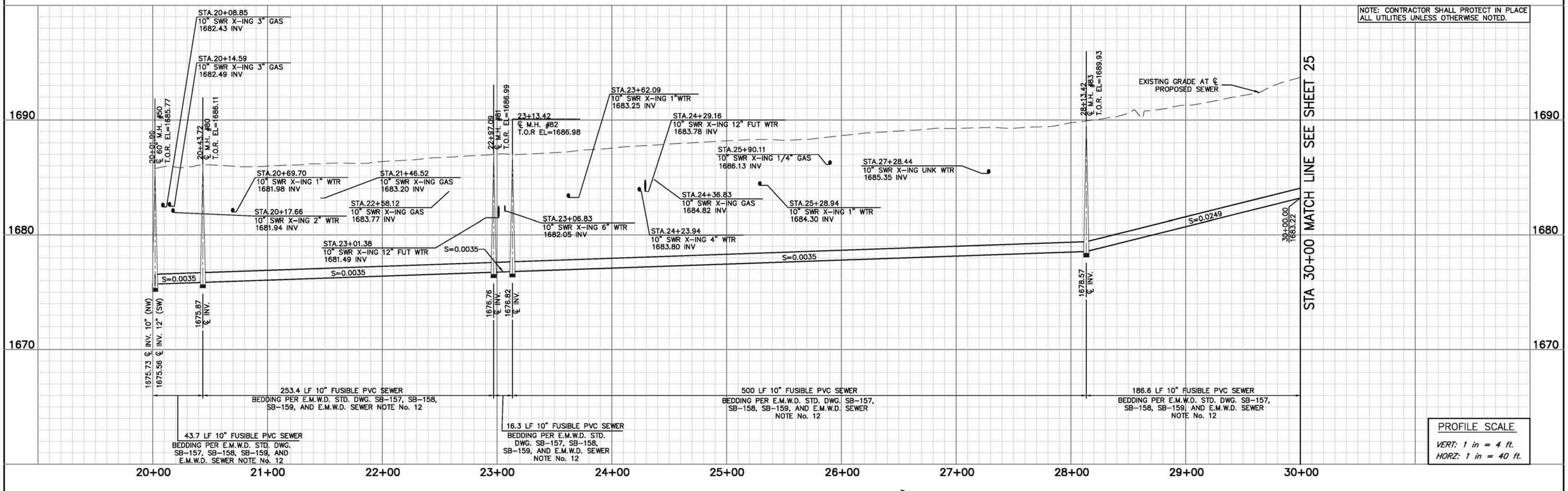
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Building 7-118
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

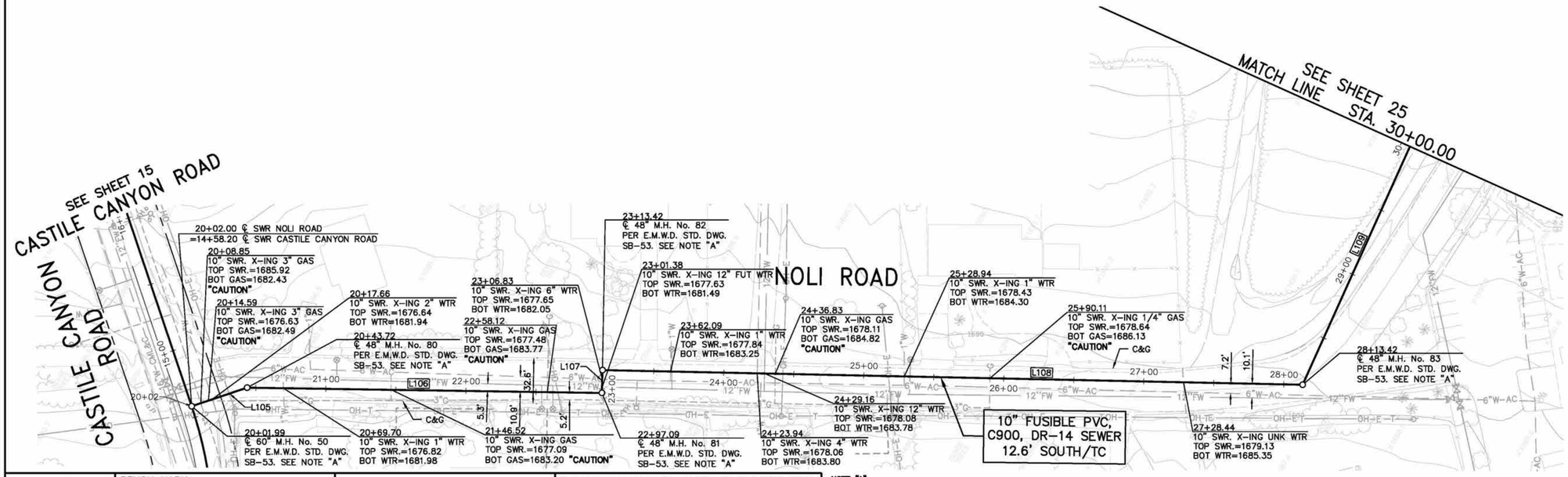
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER
PLAN AND PROFILE
STA. 90+00.00 TO STA. 92+15.77

SHEET 23 OF 29 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L105	41.7	S48° 23' 31.28"E
L106	253.4	S28° 58' 28.09"E
L107	16.3	N61° 39' 39.84"E
L108	500.0	S28° 37' 32.96"E
L109	186.6	N84° 26' 03.41"E

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA | Checked RT/MA | Scale: 1"= 40'
Drawn SH/MP | Job No. 96019.040

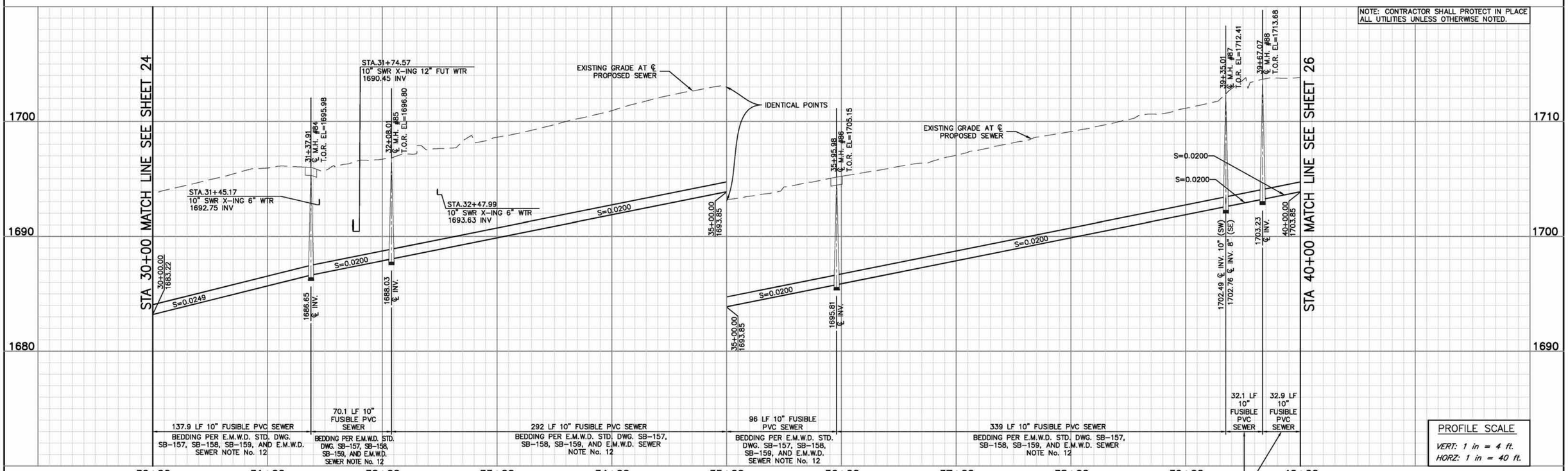
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Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-18
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 20+01.99 TO STA. 30+00.00

SHEET 24 OF 77 SHEETS
DWG. NO.

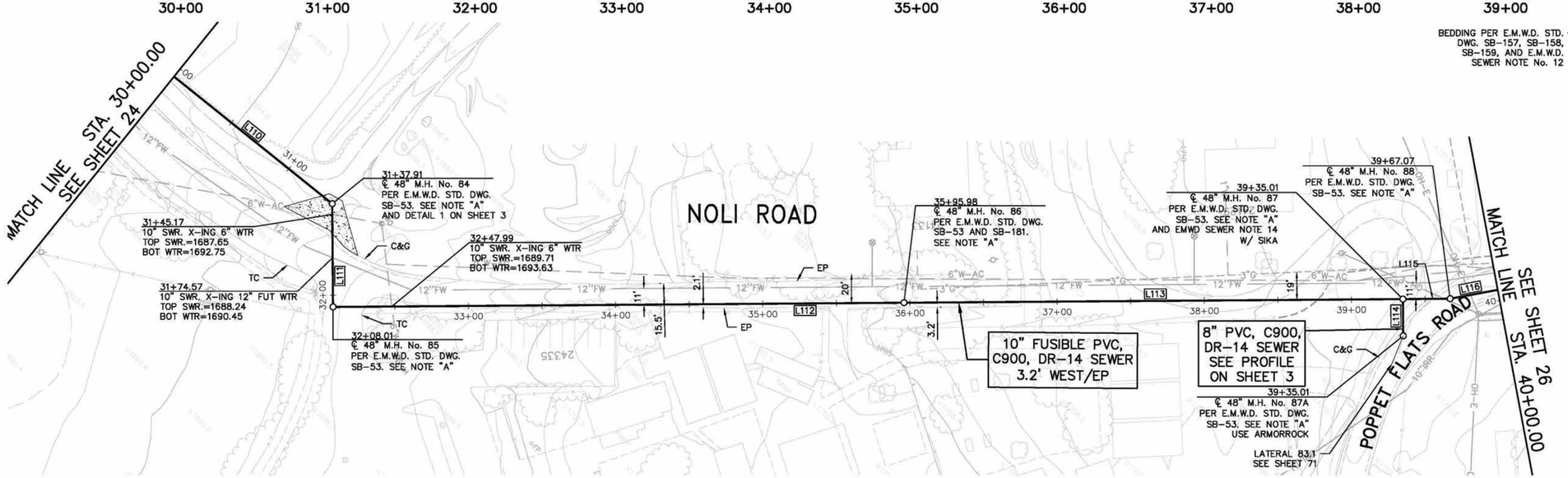
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PROFILE SCALE

VERT: 1 in = 4 ft.

HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L110	137.9	N84° 26' 03.41"E
L111	70.1	S44° 46' 46.21"E
L112	388.0	N45° 13' 13.79"E
L113	339.0	N45° 13' 13.79"E
L114	25.0	S44° 46' 46.21"E
L115	32.1	N45° 13' 13.79"E
L116	32.9	N35° 02' 08.93"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAMOUD AHMADI ASKER No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
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APPROVED

RCE _____ Date _____

_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'

Drawn SH/MP Job No. 96019.040

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Engineering Resources of Southern California

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Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

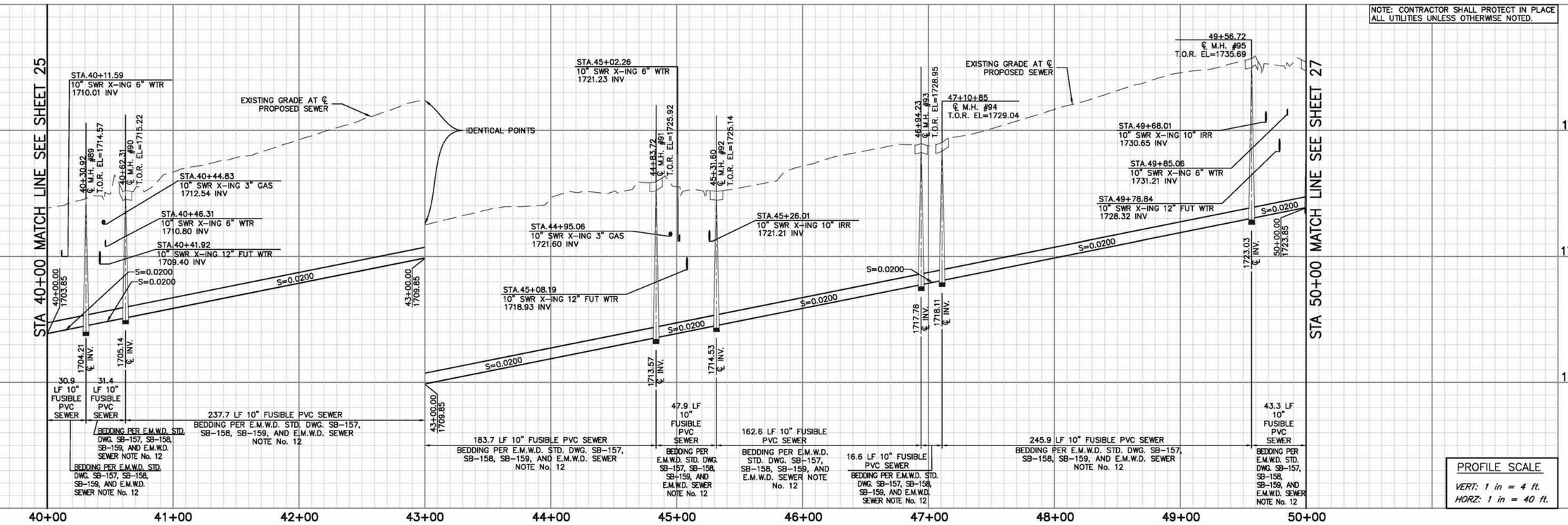
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE

STA. 30+00.00 TO STA. 40+00.00

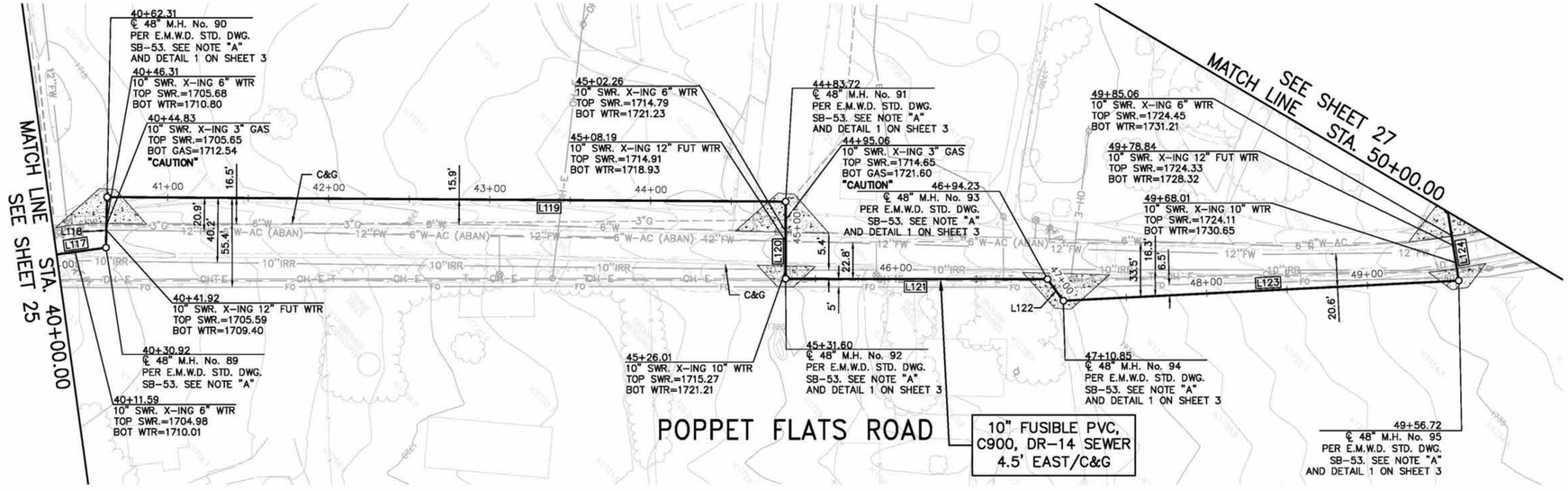
SHEET 25 OF 77 SHEETS

DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L117	30.9	N35° 02' 08.93"E
L118	31.4	N45° 49' 53.89"W
L119	421.4	N43° 15' 51.31"E
L120	47.9	S47° 05' 56.12"E
L121	162.6	N42° 57' 25.71"E
L122	16.6	S83° 23' 34.61"E
L123	245.9	N39° 58' 58.97"E
L124	43.3	N56° 05' 01.97"W



0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARSH No.C 58784 CIVIL STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER		DATE
APPROVALS		INITIAL / DATE
	PROJECT ENG.	

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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 40+00.00 TO STA. 50+00.00

SHEET 26 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

STA 50+00 MATCH LINE SEE SHEET 26

STA 60+00 MATCH LINE SEE SHEET 28

1750
1740
1730

50+01.16
℄ M.H. #96
T.O.R EL=1735.36

EXISTING GRADE AT ℄ PROPOSED SEWER

STA.50+68.07
10" SWR X-ING 3" GAS
1733.25 INV

STA.50+52.00
10" SWR X-ING 4" WTR
1732.53 INV

STA.50+55.22
10" SWR X-ING 12" FUT WTR
1729.77 INV

50+00.00
1723.85

1723.92
℄ INV.

S=0.0200

S=0.0200

STA.53+25.58
10" SWR X-ING 6" WTR
1736.87 INV

52+28.68
℄ M.H. #97
T.O.R. EL=1739.16

1728.47
℄ INV.

STA.53+48.49
10" SWR X-ING 3" GAS
1737.26 INV

53+08.43
℄ M.H. #98
T.O.R. EL=1741.07

1729.66
℄ INV.

STA.53+30.67
10" SWR X-ING 12" FUT WTR
1735.24 INV

STA.53+44.02
10" SWR X-ING 10" IRR
1736.53 INV

53+66.59
℄ 60" M.H. #100
T.O.R. EL=1739.74

1730.53
℄ INV.

S=0.0150
S=0.0150
S=0.0150

55+00.00
1732.50

IDENTICAL POINTS

55+86.55
℄ M.H. #100
T.O.R. EL=1743.86

1733.83
℄ INV.

55+00.00
1732.50

S=0.0150

S=0.0250

59+62.87
℄ M.H. #101
T.O.R. EL=1754.92

1743.24
℄ INV.

S=0.0300

60+00.00
1744.29

1.2 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

227.5 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

79.7 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

58.2 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

133.4 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

86.6 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

376.3 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

37.1 LF 10" FUSIBLE PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

50+00 51+00 52+00 53+00 54+00 55+00 56+00 57+00 58+00 59+00 60+00

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

50+01.16
℄ 48" M.H. No. 96
PER E.M.W.D. STD. DWG.
SB-53. SEE NOTE "A"
AND DETAIL 1 ON SHEET 3

52+28.68
℄ 48" M.H. No. 97
PER E.M.W.D. STD. DWG.
SB-53. SEE NOTE "A"
AND DETAIL 1 ON SHEET 3

10" FUSIBLE PVC, C900, DR-14 SEWER 20.6' WEST/C&G

53+08.43
℄ 48" M.H. No. 98
PER E.M.W.D. STD. DWG.
SB-53. SEE NOTE "A"
AND DETAIL 1 ON SHEET 3

50+52.00
10" SWR. X-ING 4" WTR
TOP SWR.=1725.79
BOT WTR=1732.53

50+55.22
10" SWR. X-ING 12" FUT WTR
TOP SWR.=1725.85
BOT WTR=1729.77

53+25.58
10" SWR. X-ING 6" WTR
TOP SWR.=1730.78
BOT WTR=1736.87

53+30.67
10" SWR. X-ING 12" WTR
TOP SWR.=1730.85
BOT WTR=1735.24

POPPET FLATS ROAD

MATCH LINE STA. 50+00.00 SEE SHEET 26

SEE SHEET 28 STA. 60+00.00 MATCH LINE

L125 L126 L127 L128 L129 L130 L131

C&G

50+68.07
10" SWR. X-ING 3" GAS
TOP SWR.=1726.11
BOT GAS=1733.25
"CAUTION"

53+48.49
10" SWR. X-ING 3" GAS
TOP SWR.=1731.12
BOT GAS=1737.26
"CAUTION"

53+44.02
10" SWR. X-ING 10" WTR
TOP SWR.=1731.05
BOT WTR=1736.53

55+86.55
℄ 48" M.H. No. 100
PER E.M.W.D. STD. DWG.
SB-53. SEE NOTE "A"
AND DETAIL 1 ON SHEET 3

59+62.87
℄ 48" M.H. No. 101
PER E.M.W.D. STD. DWG.
SB-53. SEE NOTE "A"
AND DETAIL 1 ON SHEET 3

53+66.59
℄ 48" M.H. No. 99
PER E.M.W.D. STD. DWG.
SB-53. SEE NOTE "A"
AND DETAIL 1 ON SHEET 3

SEWER DATA		
LINE #	DISTANCE	BEARING
L125	1.2	N56° 05' 01.97"W
L126	227.5	N30° 38' 57.87"E
L127	79.7	N34° 48' 19.20"E
L128	58.2	S54° 07' 35.78"E
L129	220.0	N33° 12' 42.48"E
L130	376.3	N19° 54' 30.27"E
L131	37.1	N29° 56' 12.50"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS	PROJECT ENG.	INITIAL	DATE

NOTE "A"
GRIND EMWD LETERING ON MANHOLE COVER

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

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Engineering Resources of Southern California

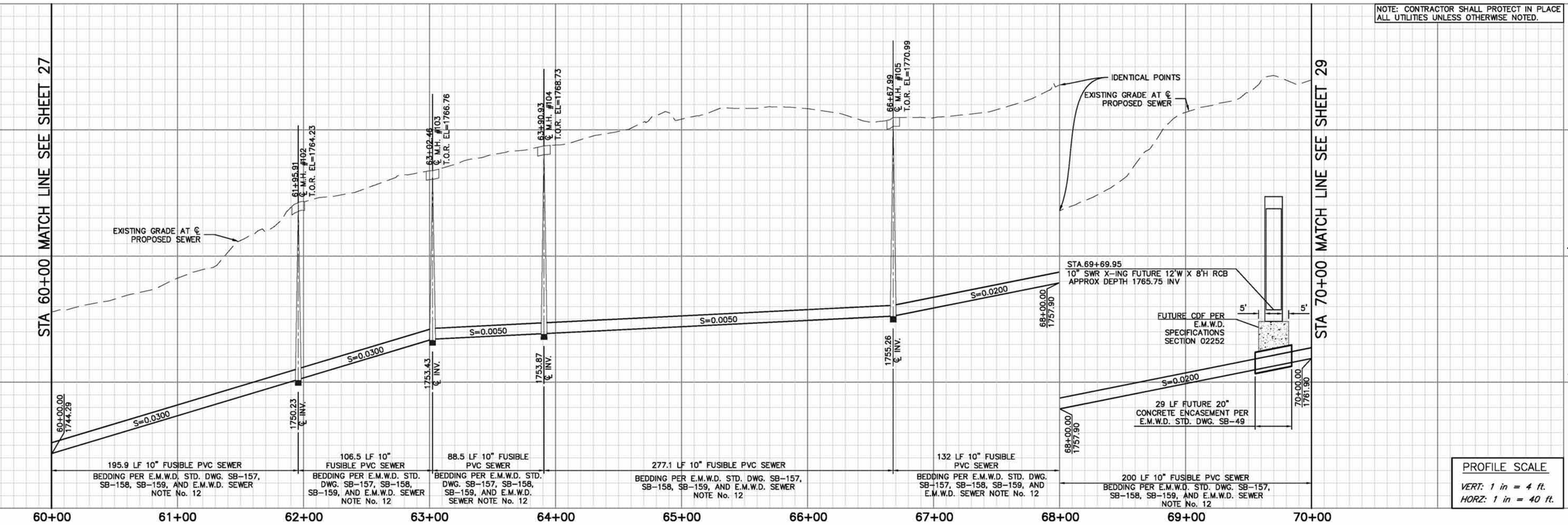
1861 West Redlands Blvd.
Building 3-118
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

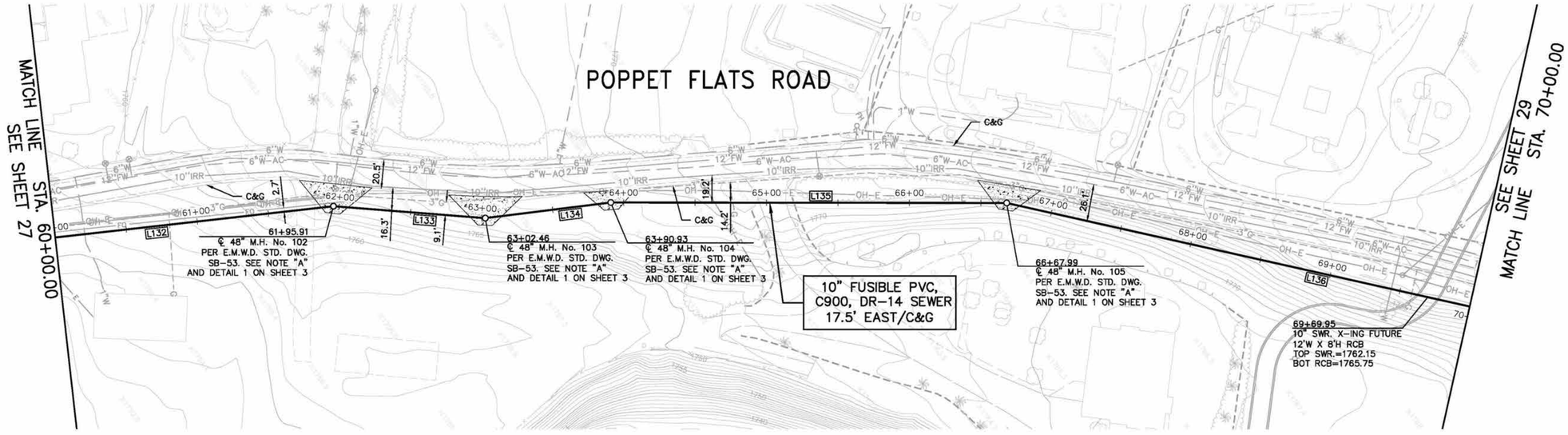
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 50+00.00 TO STA. 60+00.00

SHEET 27 OF 77 SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L132	195.9	N29° 56' 12.50"E
L133	106.5	N40° 47' 36.79"E
L134	88.5	N29° 16' 08.46"E
L135	277.1	N36° 23' 37.07"E
L136	332.0	N48° 55' 57.47"E



GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
C.IV.IL
STATE OF CALIFORNIA

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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

NOTE "A"
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APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA
Drawn SH/MP Job No. 96019.040
Scale: 1"= 40'

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Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-9
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

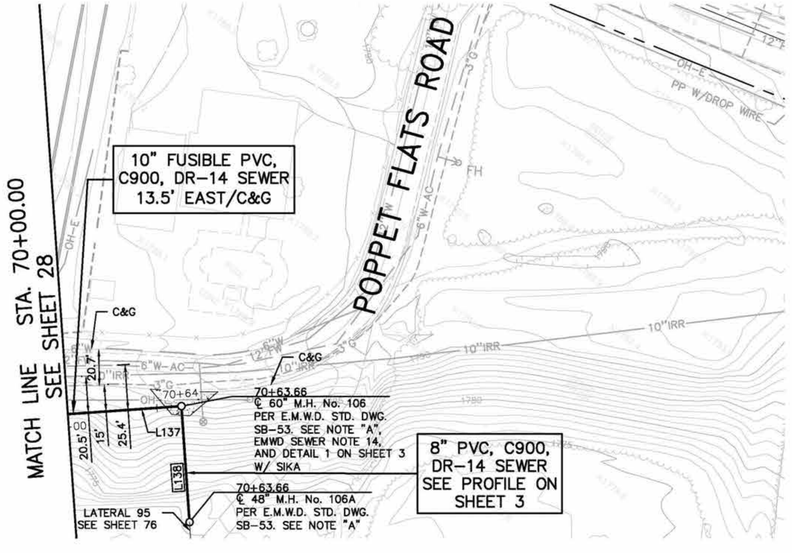
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER PLAN AND PROFILE
STA. 60+00.00 TO STA. 70+00.00

SHEET 28 OF 77
SHEETS
DWG. NO.

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.



SEWER DATA		
LINE #	DISTANCE	BEARING
L137	63.7	N48° 55' 57.47"E
L138	65.0	S41° 04' 07.81"E



GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD I. YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS		INITIAL	DATE
	PROJECT ENG.		

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GRIND EMWD LETERING ON MANHOLE COVER

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Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH/MP Job No. 96019.040

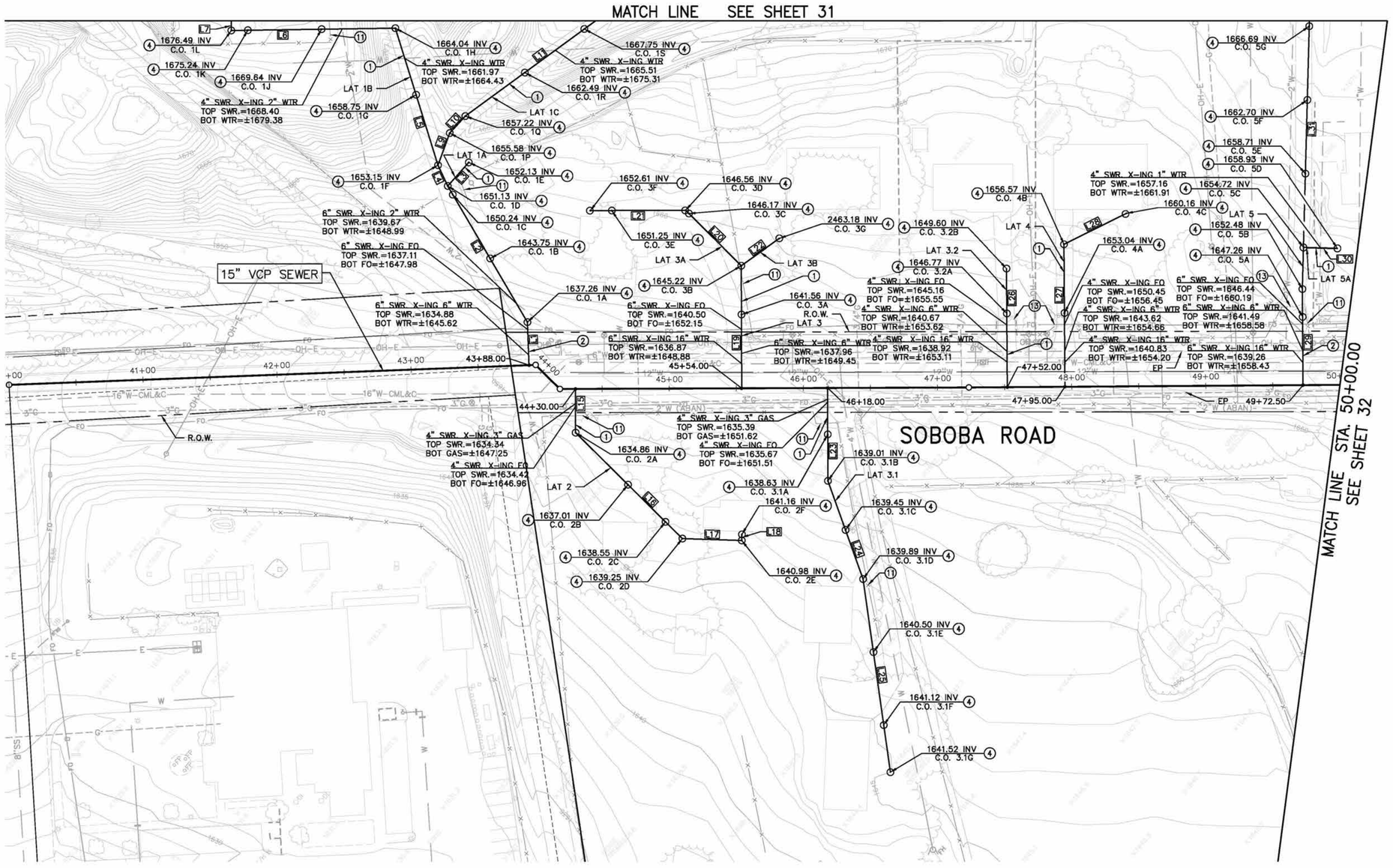
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Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-19
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER
PLAN AND PROFILE
STA. 70+00.00 TO STA. 70+63.66

SHEET 29 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



SEWER DATA		
LINE #	DISTANCE	BEARING
L1	32.1	N48° 28' 22.98"E
L2	117.5	N20° 15' 17.18"E
L3	23.6	S87° 29' 50.43"E
L4	17.1	N25° 40' 22.98"E
L5	107.0	N33° 21' 08.39"E
L6	122.3	N40° 10' 42.38"W
L7	7.3	N49° 55' 21.69"E
L9	25.5	N70° 40' 22.98"E
L10	17.2	S86° 49' 37.02"E
L11	120.5	S75° 34' 37.02"E
L15	32.7	S50° 25' 27.53"W
L16	112.1	S5° 25' 27.53"W
L17	44.3	S37° 36' 50.24"E
L18	4.5	N52° 23' 09.76"E
L19	91.4	N50° 25' 27.53"E
L20	58.5	N5° 25' 27.53"E
L21	71.0	N39° 34' 32.47"W
L22	34.8	S74° 53' 02.59"E
L23	69.3	S50° 25' 27.53"W
L24	77.8	S30° 57' 36.67"W
L25	145.4	S42° 35' 25.32"W
L26	88.5	N50° 14' 12.58"E
L27	106.1	N50° 14' 12.58"E
L28	51.9	S65° 43' 22.35"E
L29	71.6	N50° 14' 12.58"E
L30	25.3	S37° 51' 48.18"E
L31	200.0	N52° 08' 11.82"E

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 1A	589862.93	1795983.59	1651.95
C.O. 1B	589914.53	1796002.64	1655.72
C.O. 1C	589966.13	1796021.68	1658.53
C.O. 1D	589973.17	1796024.27	1658.89
C.O. 1E	589972.14	1796047.82	1660.63

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 1F	589988.61	1796031.70	1659.81
C.O. 1G	590034.55	1796061.93	1664.28
C.O. 1H	590078.02	1796090.54	1672.81
C.O. 1J	590120.04	1796055.06	1684.82
C.O. 1K	590162.06	1796019.57	1685.11

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 1L	590171.47	1796011.63	1685.08
C.O. 1P	589997.03	1796055.71	1662.66
C.O. 1Q	589996.08	1796072.85	1665.32
C.O. 1R	589982.38	1796126.12	1675.45
C.O. 1S	589968.68	1796179.39	1682.75
C.O. 2A	589782.85	1795942.61	1648.80
C.O. 2B	589728.10	1795937.41	1648.24
C.O. 2C	589688.90	1795933.69	1647.09
C.O. 2D	589671.21	1795932.01	1646.68

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 2E	589636.12	1795959.05	1646.34
C.O. 2F	589638.88	1795962.62	1646.62
C.O. 3A	589743.13	1796089.18	1656.56
C.O. 3B	589766.32	1796117.23	1658.57
C.O. 3C	589821.07	1796122.43	1660.39
C.O. 3D	589824.53	1796122.76	1660.66
C.O. 3E	589866.93	1796087.72	1660.62
C.O. 3F	589879.27	1796077.52	1660.56
C.O. 3G	589757.25	1796150.81	1660.47

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 3.1A	589636.69	1796060.87	1653.69
C.O. 31.B	589614.62	1796034.17	1651.83
C.O. 3.1C	589581.25	1796014.15	1649.77
C.O. 3.1D	589547.88	1795994.13	1647.92
C.O. 3.1E	589507.38	1795956.91	1646.95
C.O. 3.1F	589466.89	1795919.69	1645.28
C.O. 3.1G	589440.80	1795895.70	1645.02
C.O. 3.2A	589590.71	1796215.28	1659.13
C.O. 3.2B	589612.13	1796241.02	1660.52

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 4A	589557.65	1796242.79	1660.04
C.O. 4B	589590.34	1796282.07	1662.16
C.O. 4C	589569.00	1796329.38	1663.80
C.O. 5A	589418.53	1796353.10	1663.65
C.O. 5B	589431.86	1796369.12	1664.48
C.O. 5C	589450.81	1796393.50	1665.62
C.O. 5D	589430.84	1796409.02	1658.93
C.O. 5E	589484.57	1796436.92	1668.35
C.O. 5F	589518.33	1796480.34	1670.60

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMAD YASEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

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Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

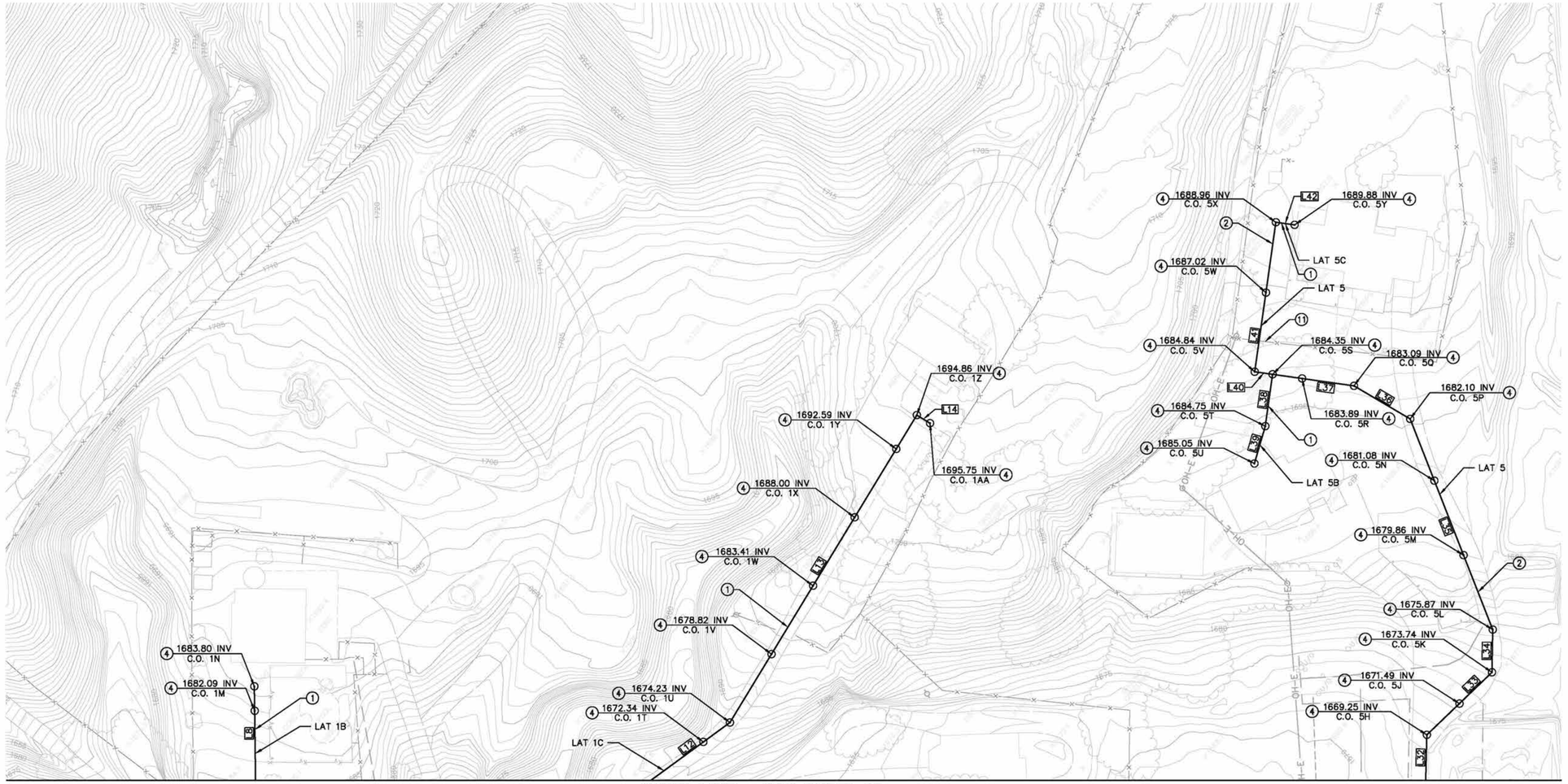
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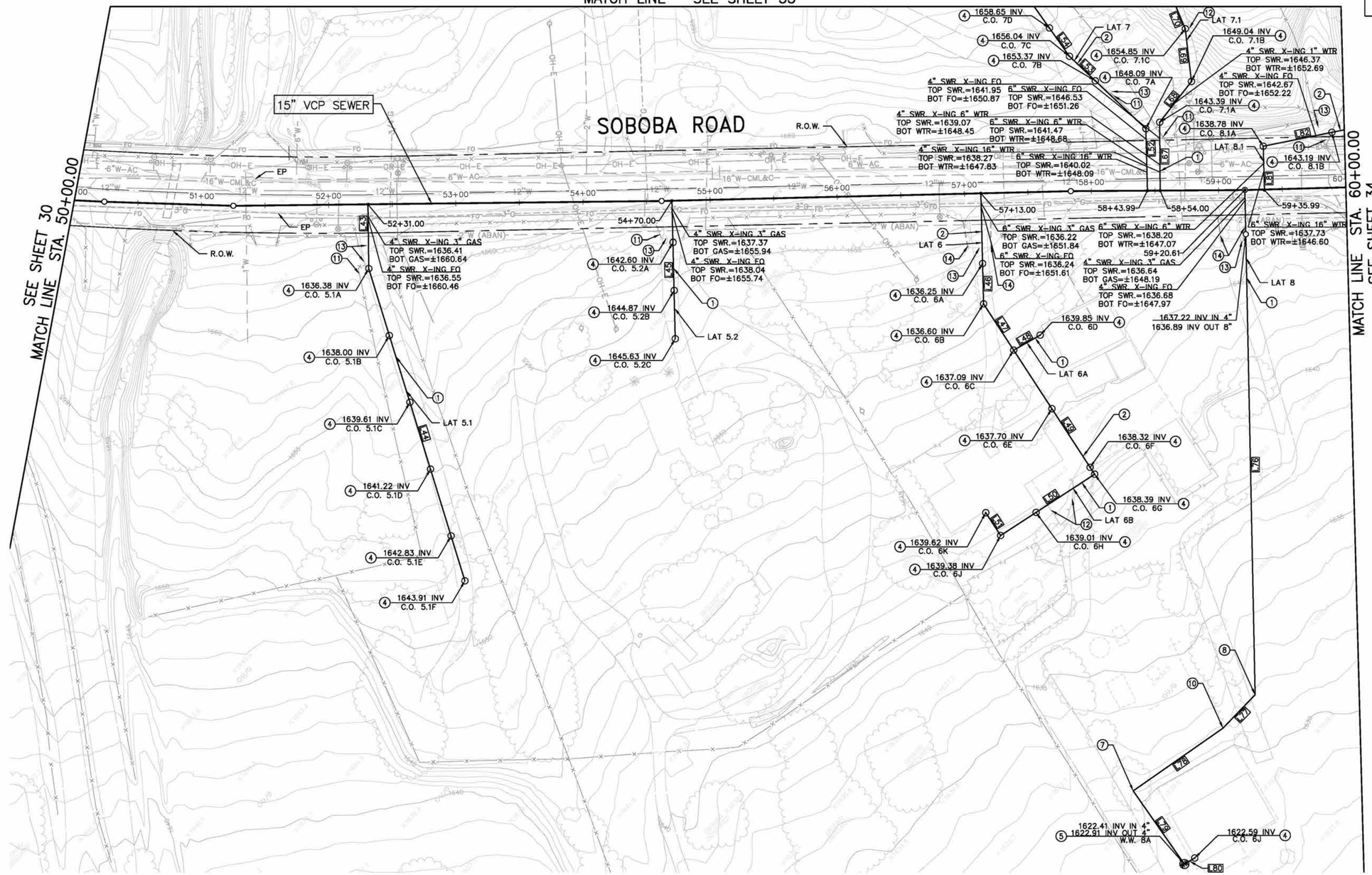
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 40+00.00 TO STA. 50+00.00

SHEET 30 OF 77
SHEETS
DWG. NO.

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13. REMOVE AND RE-INSTALL EXISTING GATE.
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SEWER DATA		
LINE #	DISTANCE	BEARING
L43	50.4	S46° 54' 26.30"W
L44	256.9	S30° 24' 18.93"W
L45	108.4	S46° 08' 53.54"W
L46	86.8	S46° 08' 53.54"W
L47	43.4	S14° 25' 49.33"W
L48	23.9	S72° 07' 39.09"E
L49	116.5	S14° 25' 49.33"W
L50	88.2	N75° 34' 10.67"W
L51	21.4	N14° 25' 49.33"E
L52	48.7	N46° 00' 37.33"E
L53	82.8	N1° 00' 37.33"E
L54	48.0	N12° 15' 37.33"E
L67	53.8	N47° 08' 37.37"E
L68	40.6	N85° 26' 42.20"E
L69	41.8	N40° 53' 51.58"E
L70	19.0	N24° 43' 46.61"E
L76	362.0	S46° 21' 52.60"W
L77	36.4	N88° 38' 07.40"W
L78	86.1	N77° 23' 07.40"W
L79	70.2	S12° 36' 52.60"W
L80	9.5	S72° 31' 35.17"E
L81	34.1	N46° 00' 37.42"E
L82	64.7	S53° 55' 02.49"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 5.1A	589158.00	1796448.42	1661.35
C.O. 5.1B	589110.57	1796420.58	1659.15
C.O. 5.1C	589063.13	1796392.75	1657.15
C.O. 5.1D	589015.70	1796364.91	1655.01
C.O. 5.1E	588968.26	1796337.08	1652.98
C.O. 5.1F	588936.40	1796318.37	1651.41
C.O. 5.2A	588995.43	1796625.20	1657.02
C.O. 5.2B	588969.27	1796597.87	1654.62
C.O. 5.2C	588942.97	1796570.50	1653.47

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 6A	588804.70	1796777.33	1652.55
C.O. 6B	588782.68	1796754.41	1650.70
C.O. 6C	588740.61	1796743.59	1648.51
C.O. 6D	588733.27	1796766.35	1647.35
C.O. 6E	588687.34	1796729.88	1645.38
C.O. 6F	588634.08	1796716.17	1643.75
C.O. 6G	588627.78	1796714.55	1642.73
C.O. 6H	588641.49	1796661.29	1643.88
C.O. 6J	588649.77	1796629.11	1643.85

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 6K	588670.49	1796634.44	1644.40
C.O. 7A	588781.46	1796942.04	1655.35
C.O. 7B	588836.20	1796943.04	1659.83
C.O. 7C	588864.24	1796943.51	1662.38
C.O. 7D	588890.85	1796949.27	1664.80
C.O. 7.1A	588776.85	1796953.19	1655.47
C.O. 7.1B	588780.07	1796993.66	1660.85
C.O. 7.1C	588811.66	1797021.02	1668.24
W.W. 8A	588368.70	1796536.09	1629.02

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 8B	588365.91	1796545.06	1629.49
C.O. 8.1A	588704.04	1796994.28	1652.74
C.O. 8.1B	588671.65	1797038.73	1656.25

REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AHMADI YAZDEN — No.C 58784 — CIVIL — STATE OF CALIFORNIA

BENCH MARK:

THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:

THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date

Designed SH/RT/MA — Checked RT/MA — Scale: 1"= 40'
Drawn SH — Job No. 96019.040

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1861 West Redlands Blvd, Building 7-B, Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

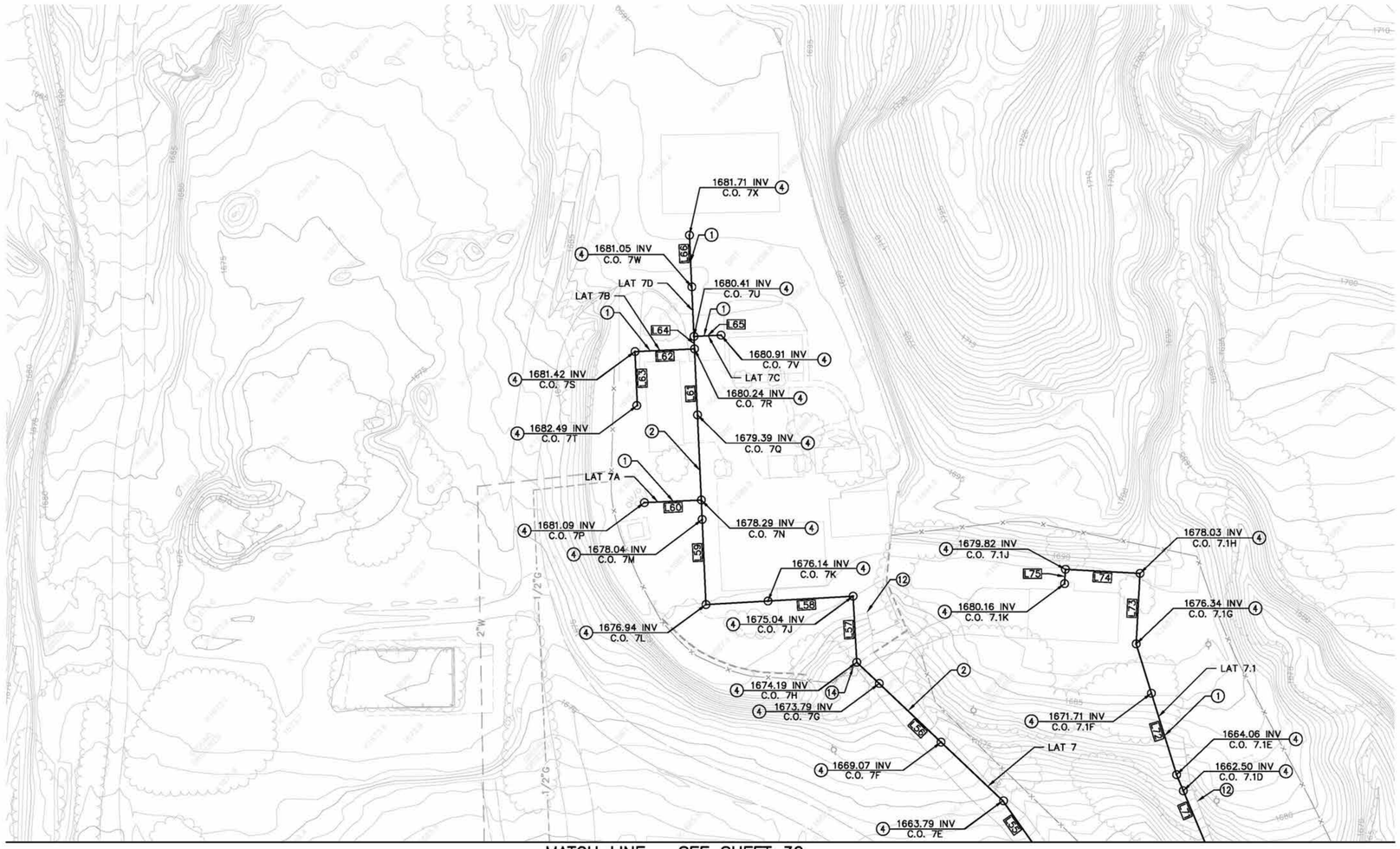
STA. 50+00.00 TO STA. 60+00.00

SHEET 32 OF 77
SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



MATCH LINE SEE SHEET 32

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 7E	588943.13	1796960.65	1669.34
C.O. 7F	588998.12	1796961.60	1674.07
C.O. 7G	589053.12	1796962.59	1678.78
C.O. 7H	589073.02	1796962.95	1680.47
C.O. 7J	589103.58	1796992.76	1686.99
C.O. 7K	589141.98	1796953.38	1687.86
C.O. 7L	589169.93	1796924.73	1688.00
C.O. 7M	589208.85	1796963.59	1688.76
C.O. 7N	589217.71	1796972.43	1688.85
C.O. 7P	589243.70	1796946.40	1688.60

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 7Q	589256.62	1797011.29	1688.59
C.O. 7R	589286.82	1797041.43	1688.51
C.O. 7S	589314.01	1797014.20	1688.51
C.O. 7T	589289.37	1796989.60	1688.63
C.O. 7U	589292.51	1797047.12	1688.36
C.O. 7V	589280.14	1797059.51	1688.33
C.O. 7W	589315.12	1797069.72	1687.82
C.O. 7X	589338.66	1797093.20	1689.21
C.O. 7.1D	588861.62	1797044.03	1675.08
C.O. 7.1E	588871.86	1797048.74	1676.93

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 7.1F	588919.31	1797076.55	1686.20
C.O. 7.1G	588948.06	1797093.40	1687.34
C.O. 7.1H	588976.99	1797128.65	1688.29
C.O. 7.1J	589014.25	1797098.08	1687.85
C.O. 7.1K	589008.34	1797090.88	1687.40

SEWER DATA		
LINE #	DISTANCE	BEARING
L55	32.7	N12° 15' 37.33"E
L56	129.9	N1° 00' 37.33"E
L57	42.7	N44° 17' 03.72"E
L58	95.0	N45° 42' 56.28"W
L59	67.5	N44° 57' 22.37"E
L60	36.8	S45° 02' 37.63"E
L61	97.7	N44° 57' 22.37"E
L62	38.5	N45° 02' 37.63"W
L63	34.8	S44° 57' 22.37"W
L64	8.0	N44° 57' 22.37"E
L65	17.5	S45° 02' 37.63"E
L66	65.2	N44° 57' 22.37"E
L71	47.2	N24° 43' 46.61"E
L72	88.3	N30° 22' 02.66"E
L73	45.6	N50° 37' 50.46"E
L74	48.2	N39° 21' 53.26"W
L75	9.3	S50° 37' 50.46"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

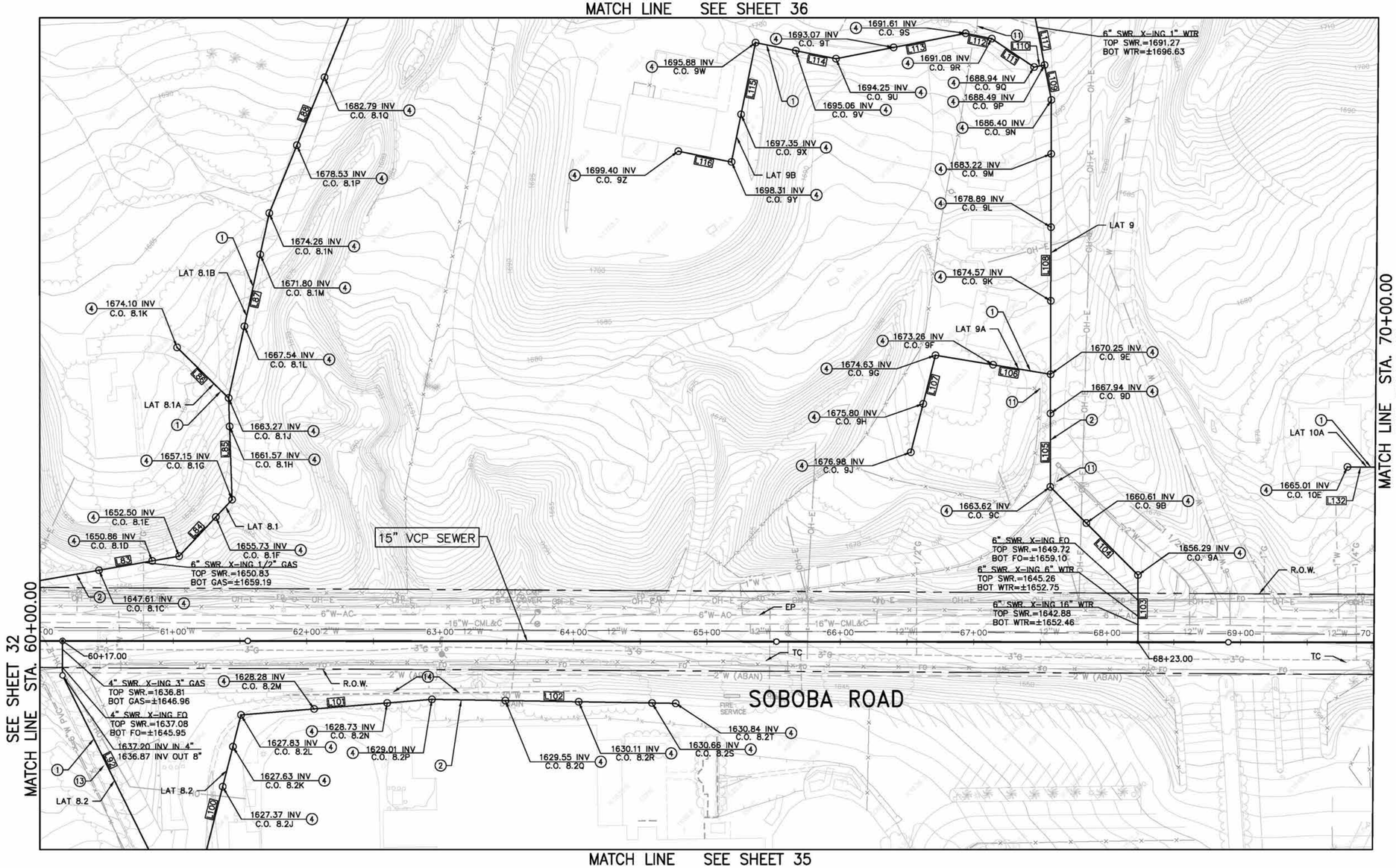
APPROVED _____ RCE _____ Date
_____ Date
Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH Job No. 96019.040 1"= 40'

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PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 50+00.00 TO STA. 60+00.00

SHEET 33 OF 77 SHEETS
DWG. NO.



MATCH LINE SEE SHEET 35

NOTES:

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- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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7. INSTALL 4-INCH 90° ELBOW.
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11. REMOVE AND REPLACE EXISTING FENCE.
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13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L83	106.3	S53° 55' 02.49"E
L84	58.1	N89° 09' 45.16"E
L85	76.2	N44° 04' 52.04"E
L86	54.1	N0° 29' 28.04"E
L87	141.7	N58° 26' 24.35"E
L88	158.1	N68° 09' 20.09"E
L92	145.6	S19° 43' 45.68"W
L100	104.2	N60° 19' 06.82"E
L101	143.6	S48° 37' 37.09"E
L102	182.7	S43° 02' 06.32"E
L103	50.3	N46° 11' 27.54"E
L104	93.3	N1° 11' 27.54"E
L105	84.4	N46° 11' 27.54"E
L106	87.4	S34° 36' 01.25"E
L107	75.1	N60° 16' 33.36"E
L108	205.5	N46° 11' 27.54"E
L109	26.6	N34° 56' 27.54"E
L110	8.0	N55° 03' 32.46"W
L111	38.3	N10° 03' 32.46"W
L112	20.0	N32° 33' 32.46"W
L113	99.0	N55° 03' 32.46"W
L114	61.4	N32° 38' 01.50"W
L115	91.3	S57° 26' 27.54"W
L116	40.7	N32° 26' 46.42"W
L117	36.0	N34° 56' 27.54"E
L132	19.8	S43° 34' 46.68"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 8.1C	588639.25	1797083.18	1659.87
C.O. 8.1D	588615.40	1797115.91	1662.42
C.O. 8.1E	588603.35	1797132.45	1663.75
C.O. 8.1F	588603.94	1797172.71	1666.17
C.O. 8.1G	588604.20	1797190.50	1668.13
C.O. 8.1H	588643.71	1797228.76	1674.75
C.O. 8.1J	588658.97	1797243.54	1677.33

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 8.1K	588713.11	1797244.01	1681.60
C.O. 8.1L	588687.76	1797290.41	1679.02
C.O. 8.1M	588716.55	1797337.28	1681.50
C.O. 8.1N	588733.14	1797364.28	1683.20
C.O. 8.1P	588753.60	1797415.33	1687.49
C.O. 8.1Q	588774.06	1797466.38	1691.97
C.O. 8.2J	588459.86	1797030.75	1635.30

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 8.2K	588475.20	1797057.67	1635.60
C.O. 8.2L	588487.35	1797078.99	1635.60
C.O. 8.2M	588451.00	1797120.26	1635.70
C.O. 8.2N	588414.65	1797161.54	1636.02
C.O. 8.2P	588392.40	1797186.79	1636.92
C.O. 8.2Q	588352.20	1797224.32	1638.04
C.O. 8.2R	588312.00	1797261.86	1638.16
C.O. 8.2S	588271.80	1797299.39	1637.96
C.O. 8.2T	588258.84	1797311.49	1638.02
C.O. 9A	588076.27	1797621.33	1667.29
C.O. 9B	588131.25	1797622.47	1672.52
C.O. 9C	588169.52	1797623.27	1676.30
C.O. 9D	588207.59	1797662.96	1680.40

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 9E	588227.95	1797684.18	1681.79
C.O. 9F	588263.93	1797659.35	1683.26
C.O. 9G	588299.91	1797634.53	1683.43
C.O. 9H	588281.31	1797601.94	1683.08
C.O. 9J	588262.70	1797569.35	1681.98
C.O. 9K	588266.02	1797723.87	1684.13
C.O. 9L	588304.10	1797763.56	1687.94
C.O. 9M	588342.17	1797803.25	1692.26
C.O. 9N	588370.19	1797832.46	1696.03
C.O. 9P	588392.02	1797847.71	1698.26
C.O. 9Q	588396.57	1797841.19	1698.19
C.O. 9R	588434.26	1797834.50	1699.42
C.O. 9S	588451.12	1797823.73	1698.81

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 9T	588482.62	1797778.65	1697.77
C.O. 9U	588507.83	1797742.57	1697.43
C.O. 9V	588533.70	1797726.01	1698.24
C.O. 9W	588559.57	1797709.44	1700.02
C.O. 9X	588530.01	1797663.15	1703.12
C.O. 9Y	588510.43	1797632.56	1703.35
C.O. 9Z	588544.78	1797610.63	1703.40
C.O. 10E	588019.61	1797788.65	1672.51

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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BASIS OF BEARING:
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0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

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Revision	No.	By	Date	Approval

APPROVED
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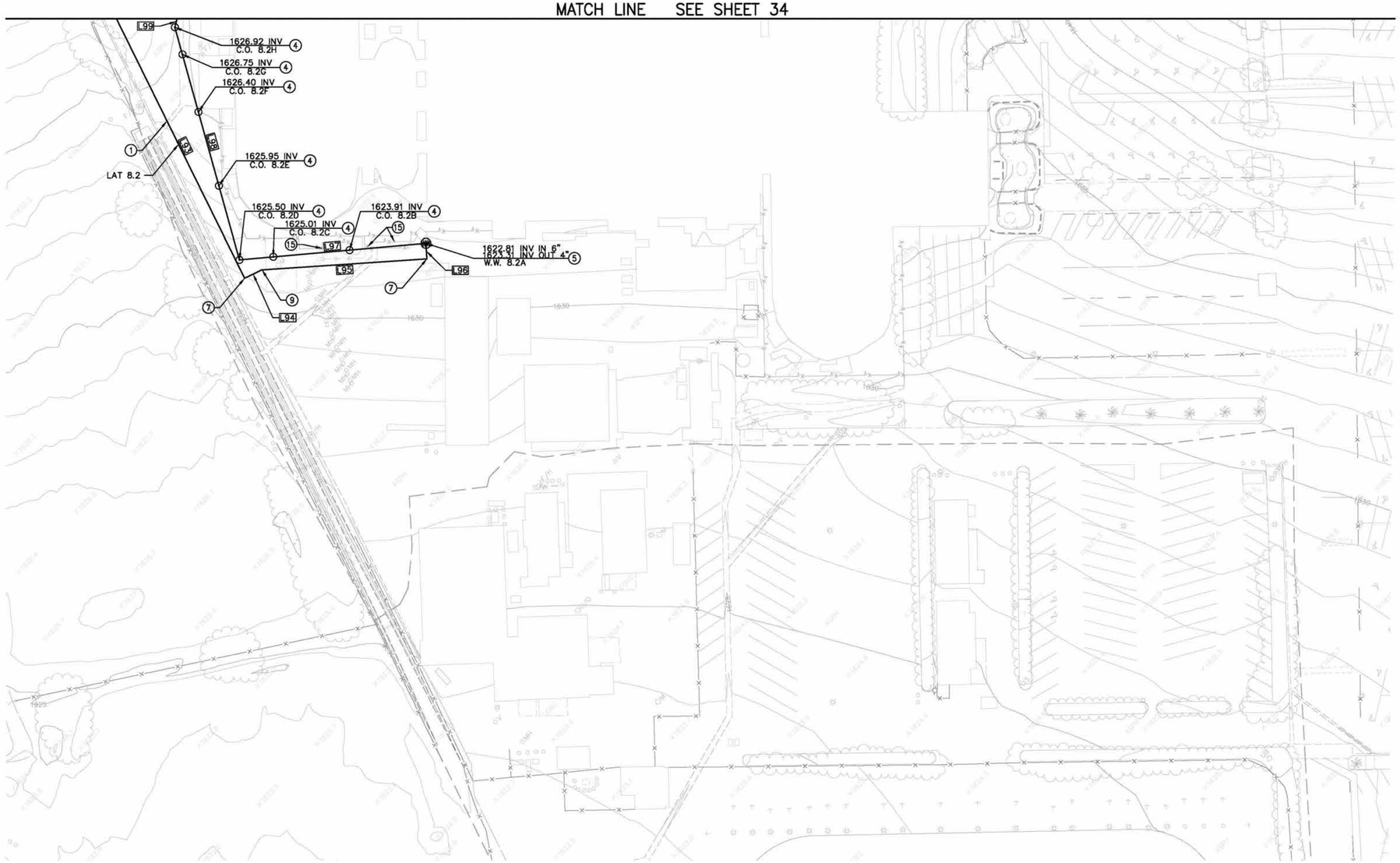
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STA. 60+00.00 TO STA. 70+00.00

SHEET 34 OF 77
SHEETS
DWG. NO.

NOTES:
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- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

MATCH LINE SEE SHEET 34



CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
W.W. 8.2A	588195.42	1796996.51	1631.97
C.O. 8.2B	588231.49	1796954.99	1632.73
C.O. 8.2C	588267.55	1796913.46	1631.62
C.O. 8.2D	588283.50	1796895.10	1631.47
C.O. 8.2E	588330.89	1796923.02	1634.43
C.O. 8.2F	588378.27	1796950.94	1634.98
C.O. 8.2G	588415.21	1796972.71	1634.63
C.O. 8.2H	588432.62	1796982.97	1635.03

SEWER DATA		
LINE #	DISTANCE	BEARING
L93	207.6	S19° 43' 45.68"W
L94	13.6	S70° 16' 14.32"E
L95	118.8	S47° 46' 14.32"E
L96	11.2	N42° 13' 45.68"E
L97	134.3	N49° 01' 33.39"W
L98	173.1	N30° 30' 31.45"E
L99	6.3	N60° 19' 06.82"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADY YAGHEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

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Revision	No.	By	Date	Approval

APPROVED

RCE Date

Date

Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH Job No. 96019.040 1"= 40'

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Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 2-19
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

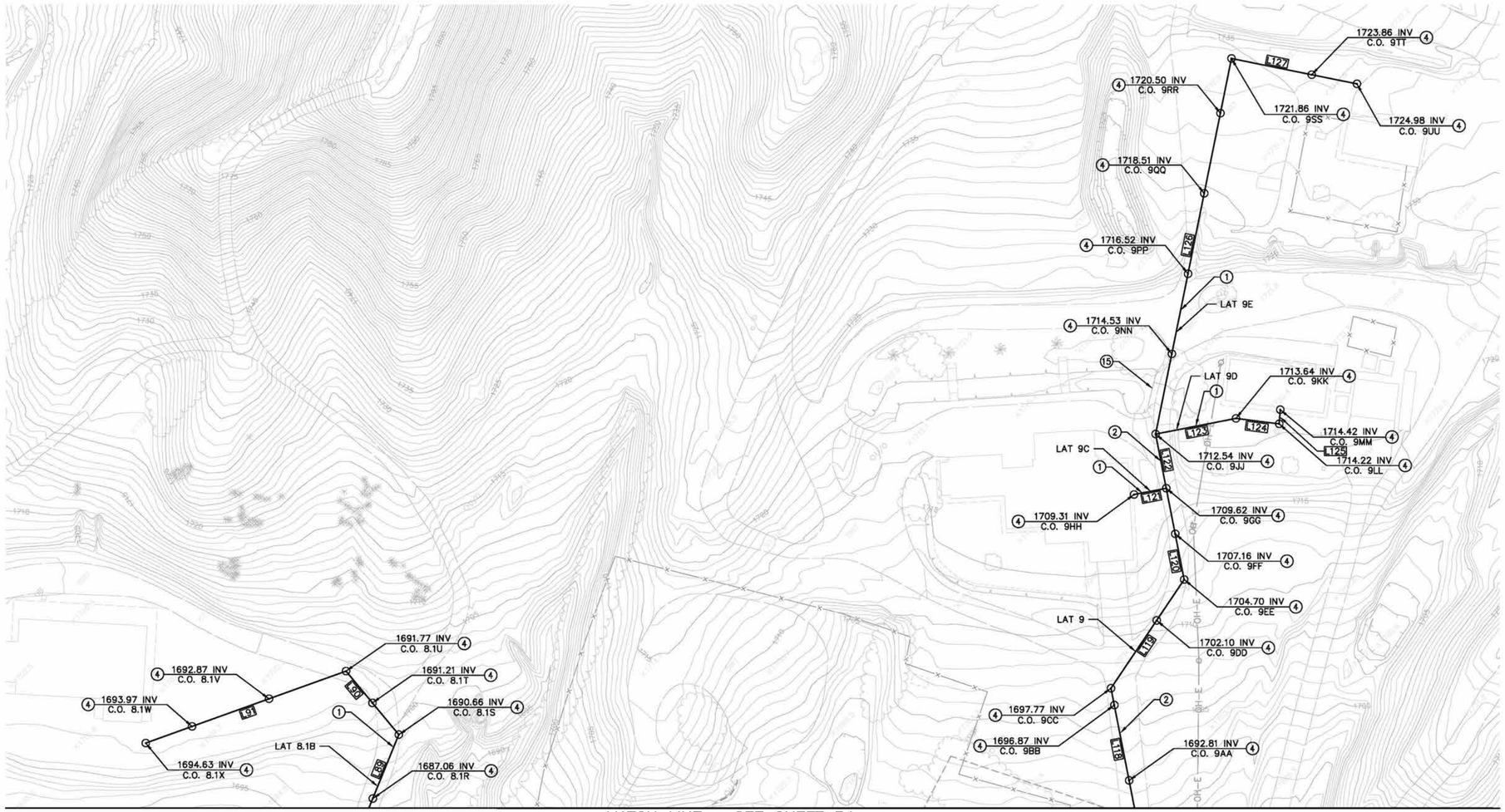
STA. 60+00.00 TO STA. 70+00.00

SHEET 35 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



MATCH LINE SEE SHEET 34

SEWER DATA		
LINE #	DISTANCE	BEARING
L89	53.3	N68° 09' 20.09"E
L90	55.5	N6° 17' 24.94"E
L91	143.0	N63° 44' 11.74"W
L118	82.1	N34° 56' 27.54"E
L119	88.1	N79° 56' 27.54"E
L120	62.6	N34° 56' 27.54"E
L121	22.1	N55° 03' 32.46"W
L122	37.1	N34° 56' 27.54"E
L123	55.0	S55° 03' 32.46"E
L124	29.3	S36° 41' 32.93"E
L125	9.6	N50° 25' 23.41"E
L126	257.5	N57° 26' 27.54"E
L127	86.0	S32° 33' 32.46"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 8.1R	588794.53	1797517.43	1696.11
C.O. 8.1S	588811.70	1797560.40	1699.47
C.O. 8.1T	588839.39	1797563.54	1701.69
C.O. 8.1U	588866.99	1797566.58	1702.32
C.O. 8.1V	588891.32	1797517.26	1702.30
C.O. 8.1W	588915.64	1797467.98	1702.23
C.O. 8.1X	588930.28	1797438.31	1702.13
C.O. 9AA	588437.10	1797879.21	1702.75
C.O. 9BB	588479.43	1797908.78	1705.95
C.O. 9CC	588488.85	1797915.36	1706.66
C.O. 9DD	588498.46	1797969.52	1710.69
C.O. 9EE	588504.24	1798002.14	1712.24
C.O. 9FF	588529.91	1798020.07	1714.06

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 9GG	588555.57	1798038.00	1715.93
C.O. 9HH	588568.22	1798019.90	1715.67
C.O. 9JJ	588585.99	1798059.26	1717.54
C.O. 9KK	588554.49	1798104.34	1720.19
C.O. 9LL	588531.00	1798121.84	1720.06
C.O. 9MM	588537.11	1798129.23	1720.44
C.O. 9NN	588615.59	1798105.61	1720.86
C.O. 9PP	588645.19	1798151.97	1723.21
C.O. 9QQ	588674.79	1798198.32	1729.61
C.O. 9RR	588704.39	1798244.68	1732.62
C.O. 9SS	588724.59	1798276.31	1733.77
C.O. 9TT	588678.23	1798305.91	1733.11
C.O. 9UU	588652.07	1798322.62	1732.29

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI YAZDEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd, Building 2-19, Redlands, California 92373-3119, (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

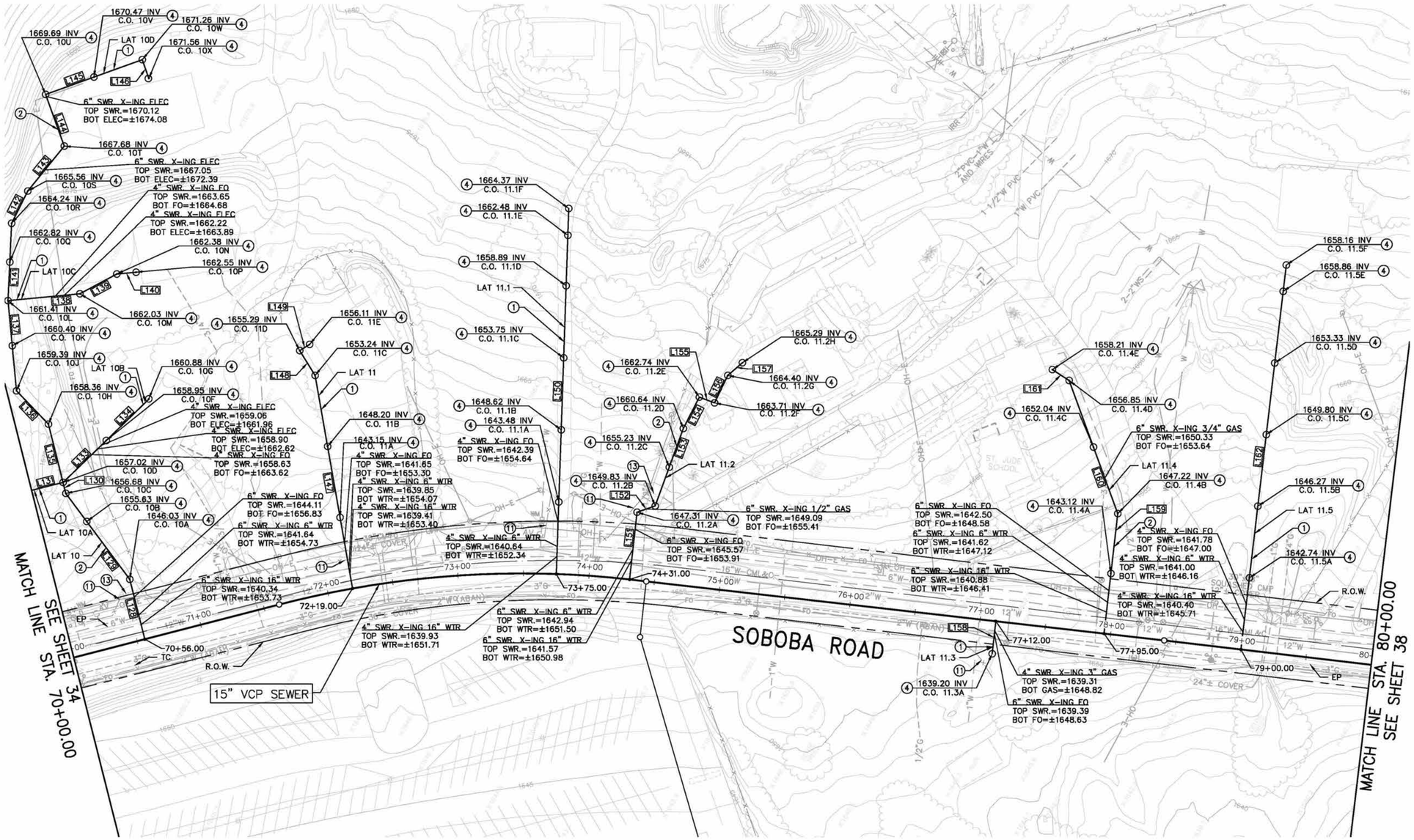
STA. 60+00.00 TO STA. 70+00.00

SHEET 36 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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7. INSTALL 4-INCH 90° ELBOW.
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10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
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13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L128	47.0	N46° 27' 11.61"E
L129	81.7	N23° 57' 11.61"E
L130	8.7	N46° 27' 11.61"E
L131	25.9	S43° 34' 46.68"E
L133	45.8	N73° 34' 20.16"W
L134	45.8	N73° 34' 20.16"W
L135	45.8	N46° 27' 11.61"E
L136	35.1	N16° 52' 58.78"E
L137	69.1	N55° 10' 10.62"E
L138	55.0	S34° 49' 49.38"E
L139	31.9	S57° 39' 15.00"E
L140	14.8	S34° 49' 49.38"E
L141	58.9	N63° 16' 12.15"E
L142	27.5	N87° 11' 17.73"E
L143	44.1	S80° 21' 31.71"E
L144	41.9	N40° 45' 54.73"E
L145	78.3	S49° 14' 05.27"E
L146	15.2	S41° 10' 12.56"W
L147	165.0	N50° 36' 51.36"E
L148	22.3	N28° 45' 40.17"E
L149	8.9	S61° 14' 19.83"E
L150	278.7	N62° 31' 44.52"E
L151	51.5	N66° 53' 49.34"E
L152	14.6	S48° 36' 53.32"E
L153	62.9	N80° 32' 49.78"E
L154	26.9	N87° 40' 24.22"E
L155	12.4	S8° 43' 31.74"E
L156	23.2	N86° 13' 29.31"E
L157	14.8	S70° 18' 52.58"E
L158	25.0	S67° 04' 51.26"W
L159	92.1	N67° 04' 51.26"E
L160	108.1	N40° 32' 37.81"E
L161	15.7	[illegible]

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 10A	587905.94	1797780.66	1661.33
C.O. 10B	587956.20	1797802.99	1665.63
C.O. 10C	587980.59	1797813.82	1667.07
C.O. 10D	587986.55	1797820.11	1667.51
C.O. 10F	587973.59	1797864.05	1665.18

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 10G	587960.97	1797907.67	1665.20
C.O. 10H	588018.14	1797853.33	1670.72
C.O. 10J	588051.76	1797863.53	1672.89
C.O. 10K	588071.49	1797891.89	1673.32
C.O. 10L	588091.22	1797920.25	1673.59

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 10M	588046.08	1797951.66	1667.74
C.O. 10N	588028.99	1797978.64	1667.95
C.O. 10P	588016.85	1797987.09	1667.97
C.O. 10Q	588104.46	1797946.53	1674.00
C.O. 10R	588117.70	1797972.82	1674.58
C.O. 10S	588119.05	1798000.29	1675.41
C.O. 10T	588111.66	1798043.77	1675.90
C.O. 10U	588143.41	1798071.14	1677.90
C.O. 10V	588117.85	1798100.79	1676.29
C.O. 10W	588092.29	1798130.44	1676.19
C.O. 10X	588080.84	1798120.43	1676.32
C.O. 11A	587789.54	1797900.52	1656.24

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 11B	587824.44	1797943.03	1660.68
C.O. 11C	587859.34	1797985.54	1662.83
C.O. 11D	587878.87	1797996.26	1662.85
C.O. 11E	587874.57	1798004.09	1663.10
C.O. 11.1A	587650.13	1797992.69	1658.95
C.O. 11.1B	587675.50	1798041.49	1662.70
C.O. 11.1C	587700.87	1798090.29	1667.04
C.O. 11.1D	587726.24	1798139.09	1670.95
C.O. 11.1E	587744.00	1798173.25	1673.81
C.O. 11.1F	587753.34	1798191.21	1675.57
C.O. 11.2A	587594.33	1798015.15	1658.12
C.O. 11.2B	587584.67	1798026.12	1658.76

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 11.2C	587589.83	1798057.12	1661.41
C.O. 11.2D	587594.99	1798088.12	1664.64
C.O. 11.2E	587596.08	1798114.99	1667.34
C.O. 11.2F	587583.81	1798116.87	1667.71
C.O. 11.2G	587585.34	1798140.03	1668.37
C.O. 11.2H	587580.37	1798153.92	1668.79
C.O. 11.3A	587305.52	1798054.07	1651.12
C.O. 11.4A	587256.74	1798151.82	1652.50
C.O. 11.4B	587274.66	1798194.22	1654.60
C.O. 11.4C	587315.73	1798229.34	1658.46
C.O. 11.4D	587356.65	1798264.35	1661.99
C.O. 11.4E	587372.04	1798265.46	1662.71

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 11.5A	587163.23	1798200.84	1652.78
C.O. 11.5B	587184.45	1798251.58	1653.30
C.O. 11.5C	587205.67	1798302.32	1656.34
C.O. 11.5D	587226.89	1798353.06	1659.77
C.O. 11.5E	587248.11	1798403.80	1664.02
C.O. 11.5F	587255.92	1798422.47	1665.66

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARSEEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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0' 20' 40' 80' 120' 160'
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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

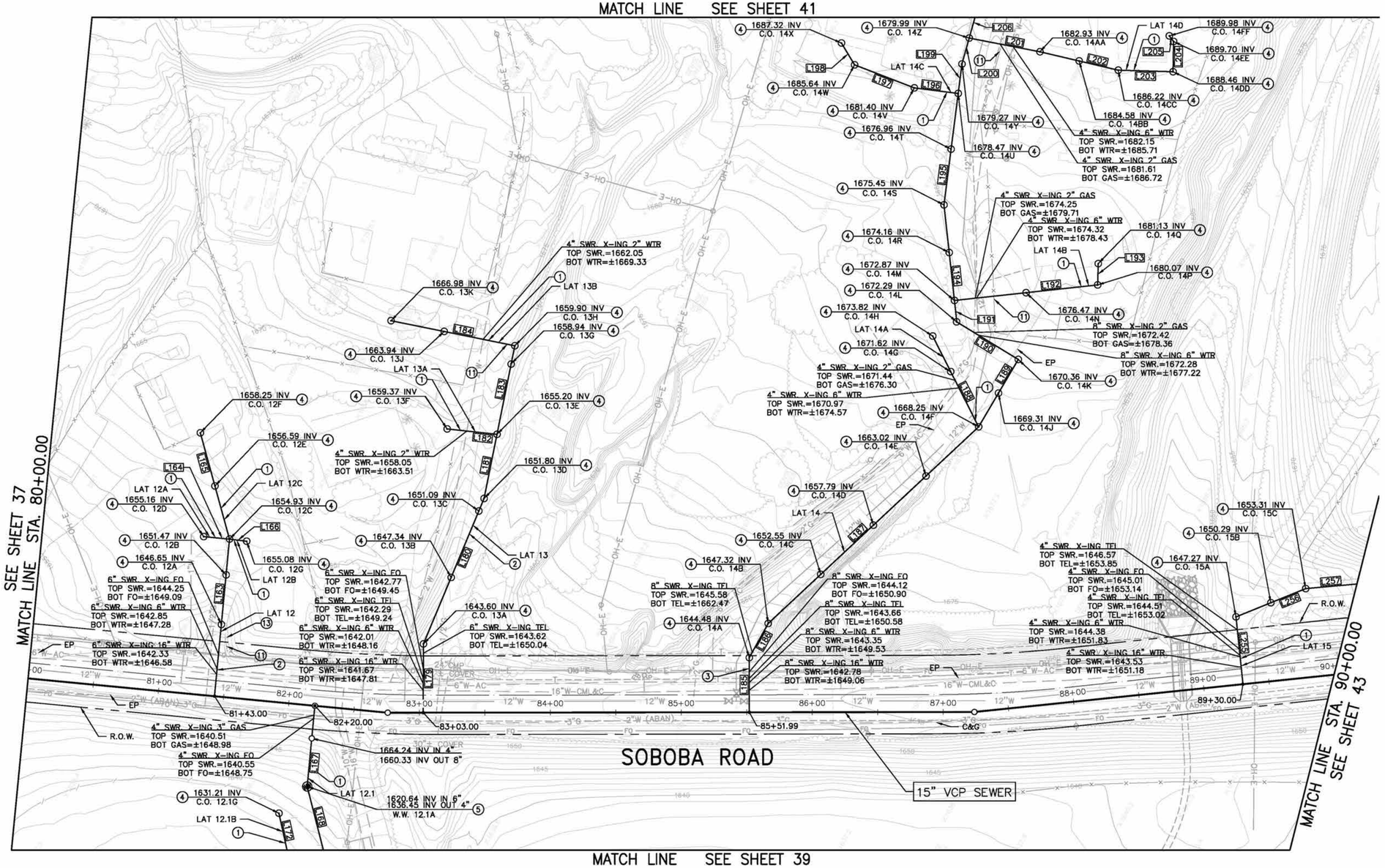
APPROVED _____ RCE _____ Date
_____ Date
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

1861 West Redlands Blvd. Building 7-118 Redlands, California 92373-3119 (909) 880-1255
ERSC INC.COM Engineering Resources of Southern California

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 70+00.00 TO STA. 80+00.00

SHEET 37 OF 77 SHEETS
DWG. NO.



NOTES:

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CONSTRUCTION NOTES

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14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L163	120.5	N67° 18' 14.38"E
L164	19.8	N22° 29' 47.73"W
L165	84.2	N46° 28' 14.39"E
L166	13.1	S21° 11' 57.72"E
L167	37.0	S67° 18' 14.38"W
L168	50.0	S47° 31' 20.41"W
L172	28.9	S49° 20' 03.50"W
L179	52.5	N61° 58' 06.34"E
L180	120.4	N84° 28' 06.34"E
L181	49.9	N73° 13' 06.34"E
L182	38.3	N21° 53' 53.16"W
L183	69.1	N73° 13' 06.34"E
L184	96.4	N16° 44' 59.03"W
L185	41.8	N61° 45' 55.96"E
L186	29.8	S89° 12' 38.39"E
L187	220.0	S71° 13' 17.28"E
L188	77.7	N35° 03' 16.66"E
L189	59.7	S87° 43' 08.39"E
L190	55.0	N3° 17' 26.60"E

SEWER DATA		
LINE #	DISTANCE	BEARING
L191	16.5	N55° 34' 42.38"E
L192	110.0	S34° 20' 08.29"E
L193	16.3	N63° 30' 24.47"E
L194	73.3	N55° 34' 42.38"E
L195	85.8	N69° 08' 07.05"E
L196	33.8	N20° 51' 52.95"W
L197	48.9	N7° 03' 40.86"W
L198	19.4	N30° 53' 03.16"E
L199	22.7	N69° 08' 07.05"E
L200	20.5	N77° 23' 51.12"E
L201	55.0	S17° 13' 10.06"E
L202	61.4	S14° 53' 48.41"E
L203	41.8	S26° 29' 43.25"E
L204	23.2	N62° 51' 37.09"E
L205	5.3	N24° 36' 35.84"E
L206	16.4	N77° 23' 51.12"E
L255	51.7	N55° 55' 35.68"E
L256	57.5	S50° 14' 38.22"E
L257	39.2	S33° 18' 08.18"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12A	586939.04	1798294.60	1654.80
C.O. 12B	586953.74	1798329.75	1660.51
C.O. 12C	586964.33	1798355.05	1661.93
C.O. 12D	586982.65	1798347.47	1661.42
C.O. 12E	586993.32	1798385.58	1662.99

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12F	587022.32	1798416.10	1664.60
C.O. 12G	586952.08	1798359.80	1662.05
W.W. 12.1A	586822.87	1798216.38	1641.45
C.O. 12.1G	586832.31	1798188.25	1638.71
C.O. 13A	586796.02	1798354.32	1653.57

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 13B	586801.32	1798409.06	1657.42
C.O. 13C	586806.63	1798463.81	1662.27
C.O. 13D	586807.63	1798474.15	1662.91
C.O. 13E	586822.05	1798521.97	1668.03
C.O. 13F	586857.59	1798507.69	1668.52
C.O. 13G	586837.82	1798574.41	1670.47
C.O. 13H	586841.99	1798588.11	1671.87
C.O. 13J	586894.66	1798572.26	1673.76
C.O. 13K	586934.34	1798560.32	1672.54
C.O. 14A	586571.73	1798462.53	1655.40
C.O. 14B	586571.32	1798492.28	1658.26
C.O. 14C	586553.61	1798544.36	1663.06

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14D	586535.91	1798596.43	1667.87
C.O. 14E	586518.20	1798648.50	1674.05
C.O. 14F	586500.50	1798700.57	1678.25
C.O. 14G	586539.25	1798727.76	1679.96
C.O. 14H	586564.12	1798745.21	1681.32
C.O. 14J	586499.31	1798730.40	1678.70
C.O. 14K	586498.12	1798760.23	1680.64
C.O. 14L	586553.20	1798763.40	1681.98
C.O. 14M	586562.35	1798776.99	1682.78
C.O. 14N	586516.94	1798808.01	1683.67
C.O. 14P	586471.52	1798839.04	1685.16
C.O. 14Q	586478.78	1798853.60	1685.41

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14R	586583.06	1798807.21	1683.82
C.O. 14S	586603.77	1798837.43	1684.82
C.O. 14T	586619.04	1798877.50	1686.41
C.O. 14U	586634.32	1798917.58	1688.27
C.O. 14V	586665.92	1798905.54	1689.30
C.O. 14W	586714.43	1798899.53	1690.20
C.O. 14X	586731.08	1798909.49	1690.31
C.O. 14Y	586642.41	1798938.82	1689.03
C.O. 14Z	586646.89	1798958.86	1689.75
C.O. 14AA	586594.37	1798975.08	1690.69
C.O. 14BB	586564.67	1798983.04	1691.12
C.O. 14CC	586534.98	1798990.94	1692.14

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14DD	586497.53	1799009.60	1691.90
C.O. 14EE	586508.10	1799030.22	1692.63
C.O. 14FF	586512.94	1799032.44	1692.74
C.O. 15A	586258.75	1798665.34	1657.80
C.O. 15B	586240.37	1798687.43	1659.29
C.O. 15C	586222.00	1798709.52	1662.13

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date
Designed SH/RT/MA
Drawn SH
Checked RT/MA
Job No. 96019.040
Scale: 1"= 40'

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-B
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 80+00.00 TO STA. 90+00.00

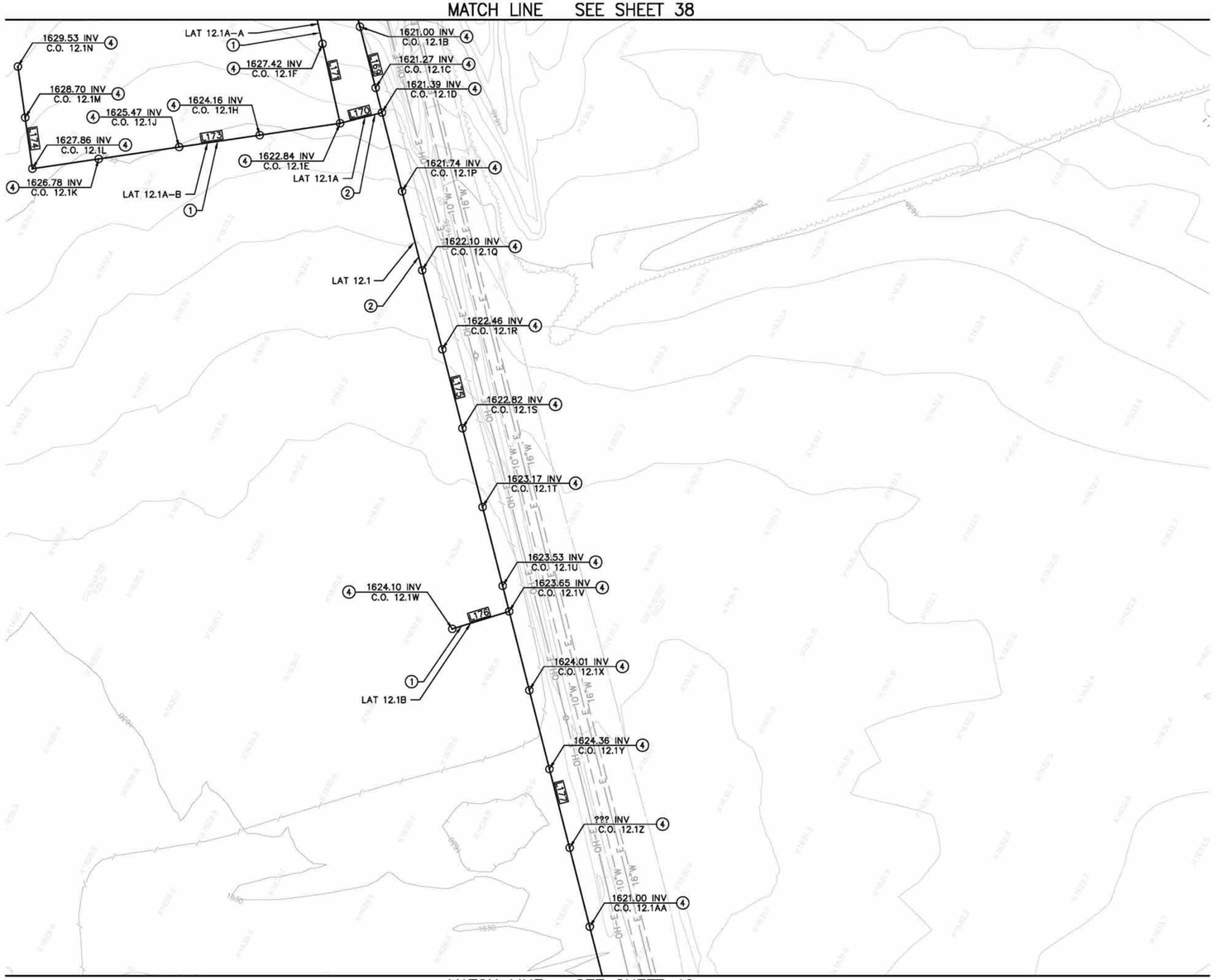
SHEET 38 OF 77
SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

MATCH LINE SEE SHEET 38



MATCH LINE SEE SHEET 40

SEWER DATA		
LINE #	DISTANCE	BEARING
L169	64.9	S47° 31' 20.41"W
L170	29.1	S42° 28' 39.59"E
L171	71.8	S49° 20' 03.50"W
L173	210.2	S36° 33' 19.68"E
L174	69.7	S53° 44' 19.91"W
L175	347.8	S47° 31' 20.41"W
L176	40.3	N45° 16' 11.45"W
L177	254.3	S47° 31' 20.41"W

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12.1B	586785.73	1798175.82	1638.16
C.O. 12.1C	586756.87	1798144.31	1636.49
C.O. 12.1D	586745.24	1798131.58	1635.94
C.O. 12.1E	586766.73	1798111.91	1635.40

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12.1F	586802.57	1798153.63	1637.31
C.O. 12.1H	586810.88	1798079.17	1634.77
C.O. 12.1J	586855.06	1798046.41	1634.98
C.O. 12.1K	586899.24	1798013.66	1634.83

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12.1L	586935.58	1797986.71	1635.46
C.O. 12.1M	586956.20	1798014.82	1636.23
C.O. 12.1N	586976.82	1798042.93	1637.03
C.O. 12.1P	586708.09	1798091.03	1633.77
C.O. 12.1Q	586670.95	1798050.46	1632.69
C.O. 12.1R	586633.81	1798009.90	1632.04
C.O. 12.1S	586596.67	1797969.33	1631.60
C.O. 12.1T	586559.52	1797928.77	1630.90
C.O. 12.1U	586522.38	1797888.20	1630.77
C.O. 12.1V	586510.35	1797875.06	1630.81

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12.1W	586538.68	1797846.46	1630.90
C.O. 12.1X	586473.21	1797834.50	1630.72
C.O. 12.1Y	586436.07	1797793.93	1630.24
C.O. 12.1Z	586398.92	1797753.37	1630.12
C.O. 12.1AA	586361.76	1797712.78	1630.50

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

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0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
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TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

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Engineering Resources of Southern California
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Redlands, California 92373-3119
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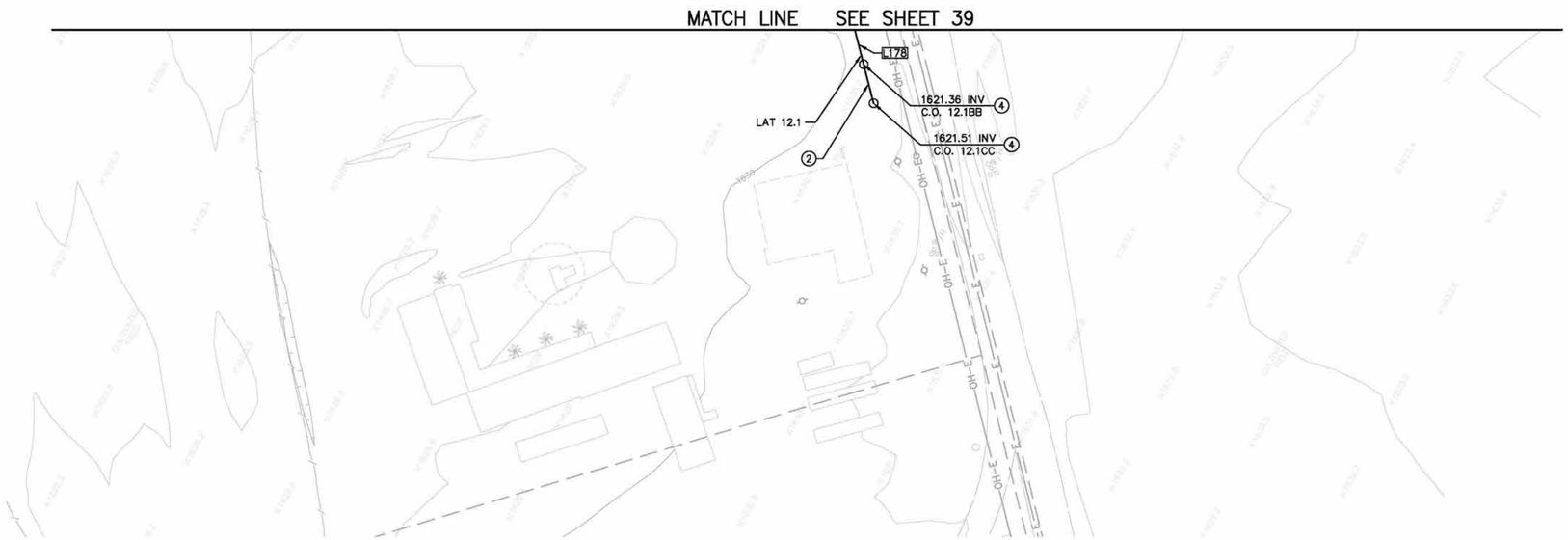
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 80+00.00 TO STA. 90+00.00

SHEET 39 OF 77
SHEETS
DWG. NO.

NOTES:
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CONSTRUCTION NOTES

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14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L178	44.0	S47° 31' 20.41"W

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 12.1BB	586324.64	1797672.24	1630.23
C.O. 12.1CC	586308.92	1797655.07	1630.59

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
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REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
CIVIL
STATE OF CALIFORNIA

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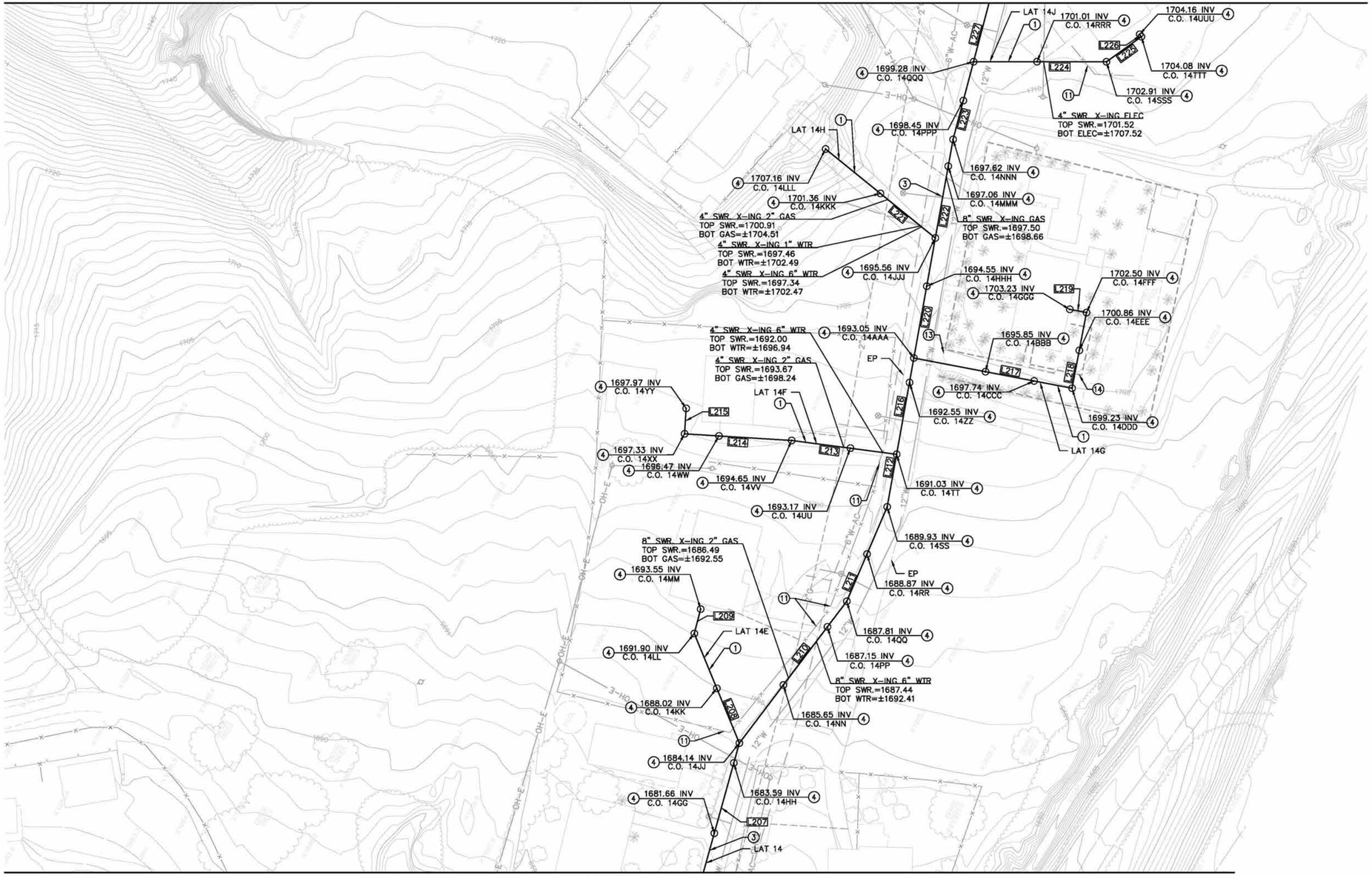
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 80+00.00 TO STA. 90+00.00

SHEET 40 OF 77
SHEETS
DWG. NO.

MATCH LINE SEE SHEET 42



MATCH LINE SEE SHEET 38

NOTES:
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CONSTRUCTION NOTES

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SEWER DATA		
LINE #	DISTANCE	BEARING
L207	101.4	N77° 23' 51.12"E
L208	89.4	N39° 27' 13.12"E
L209	19.1	N76° 34' 18.67"E
L210	134.2	S81° 00' 12.22"E
L211	77.4	N85° 01' 34.93"E
L212	40.3	N72° 00' 06.15"E
L213	79.9	N20° 39' 07.93"W
L214	81.0	N24° 35' 41.32"W
L215	19.2	N65° 24' 18.68"E
L216	73.8	N72° 00' 06.15"E
L217	121.5	S17° 21' 00.29"E
L218	58.1	N72° 36' 47.50"E
L219	13.0	N17° 23' 12.50"W
L220	91.8	N72° 00' 10.05"E
L221	106.6	N10° 52' 00.36"E
L222	75.5	N72° 03' 08.10"E
L223	60.7	N76° 36' 58.10"E
L224	100.2	N28° 06' 19.58"W
L225	32.5	N63° 50' 57.76"W
L226	2.2	S26° 09' 02.24"W
L227	45.9	N76° 36' 58.10"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14GG	586657.20	1799004.94	1691.53
C.O. 14HH	586669.20	1799058.62	1693.72
C.O. 14JJ	586672.60	1799073.84	1694.14
C.O. 14KK	586707.10	1799102.23	1695.01
C.O. 14LL	586741.60	1799130.62	1696.04
C.O. 14MM	586746.02	1799149.17	1697.78
C.O. 14NN	586664.00	1799128.16	1695.55
C.O. 14PP	586655.40	1799182.49	1697.33
C.O. 14QQ	586651.61	1799206.38	1697.94
C.O. 14RR	586654.97	1799244.96	1698.88

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14SS	586658.33	1799283.54	1700.29
C.O. 14TT	586670.79	1799321.90	1701.63
C.O. 14UU	586703.69	1799309.50	1701.40
C.O. 14VV	586745.51	1799293.74	1701.97
C.O. 14WW	586795.52	1799270.85	1702.41
C.O. 14XX	586819.12	1799260.04	1701.91
C.O. 14YY	586827.13	1799277.54	1701.90
C.O. 14ZZ	586687.79	1799374.21	1703.26
C.O. 14AAA	586693.60	1799392.09	1703.94
C.O. 14BBB	586641.09	1799408.46	1704.45

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14CCC	586605.44	1799419.61	1704.72
C.O. 14DDD	586577.58	1799428.34	1704.91
C.O. 14EEE	586586.26	1799456.07	1706.46
C.O. 14FFF	586594.94	1799483.79	1706.58
C.O. 14GGG	586607.20	1799479.95	1706.71
C.O. 14HHH	586710.59	1799444.40	1705.69
C.O. 14JJJ	586721.96	1799479.39	1706.88
C.O. 14KKK	586774.29	1799489.43	1708.04
C.O. 14LLL	586826.62	1799499.48	1714.66
C.O. 14MMM	586738.90	1799531.71	1707.99

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14NNN	586745.21	1799551.18	1708.53
C.O. 14PPP	586752.24	1799580.72	1709.43
C.O. 14QQQ	586759.27	1799610.25	1710.28
C.O. 14RRR	586717.06	1799632.79	1710.93
C.O. 14SSS	586670.85	1799657.47	1711.31
C.O. 14TTT	586656.54	1799686.62	1711.96
C.O. 14UUU	586658.50	1799687.58	1711.90

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AHMAD YASSEN — No.C 58784 — CIVIL — STATE OF CALIFORNIA

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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

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APPROVED _____ RCE _____ Date
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Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
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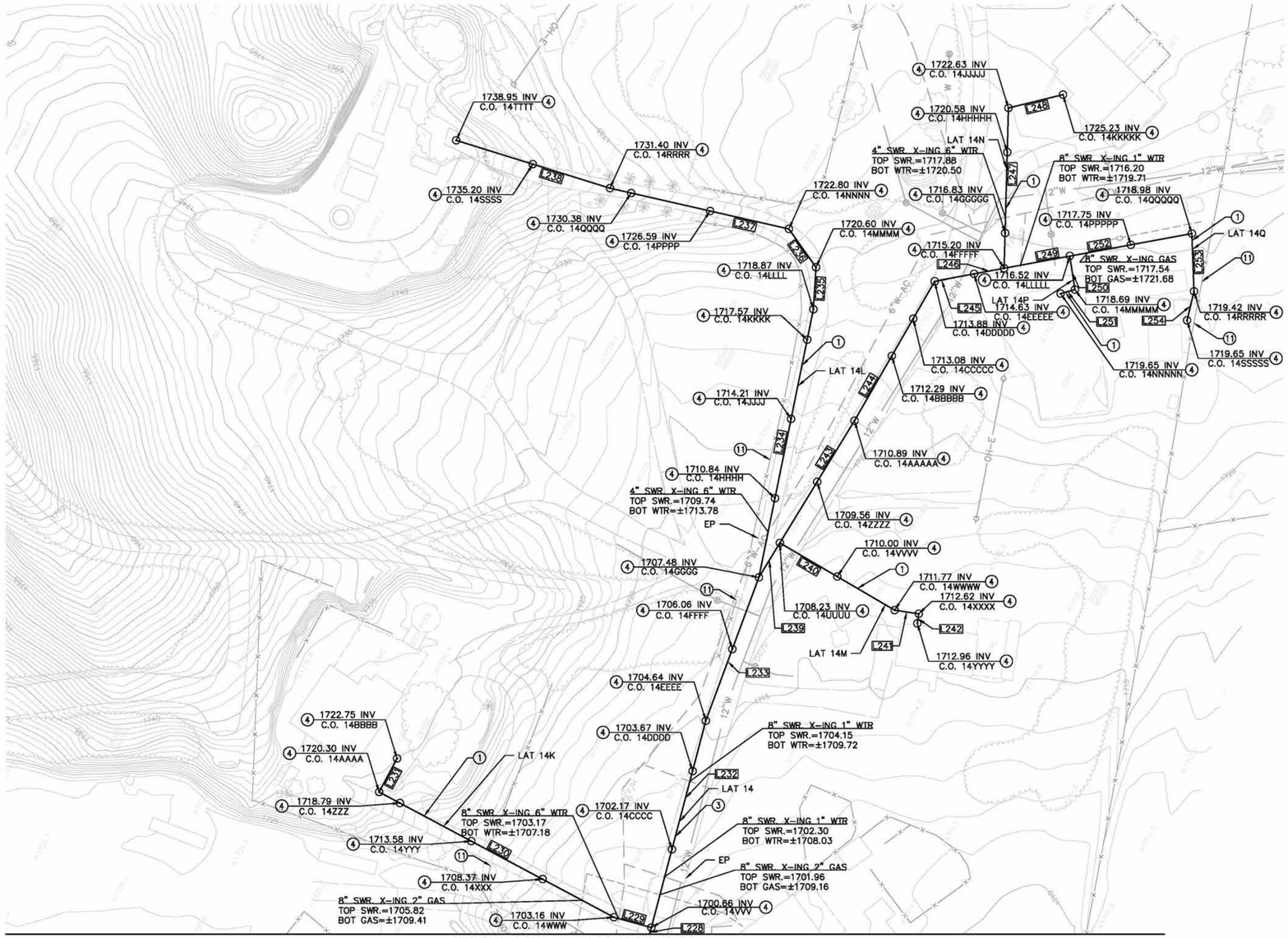
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SHEET 41 OF 77 SHEETS
DWG. NO.



MATCH LINE SEE SHEET 41

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9. INSTALL 4-INCH 22.5° ELBOW.
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12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L228	4.7	N76° 36' 58.10"E
L229	26.4	N12° 51' 16.50"W
L230	181.0	N0° 03' 36.58"W
L231	25.8	N89° 56' 23.42"E
L232	145.5	N76° 36' 58.10"E
L233	103.9	N82° 07' 33.99"E
L234	186.1	N73° 20' 24.52"E
L235	28.5	N65° 24' 07.07"E
L236	31.9	N26° 33' 06.90"E
L237	124.8	N15° 19' 51.53"W
L238	109.5	N10° 52' 05.82"W
L239	27.5	S86° 46' 04.44"E
L240	90.4	N2° 11' 14.10"E
L241	16.6	N19° 33' 34.52"W
L242	6.6	N70° 26' 25.48"E
L243	97.4	S86° 46' 04.44"E
L244	109.3	S88° 14' 56.79"E
L245	27.3	S38° 38' 22.38"E
L246	20.8	S38° 38' 22.38"E
L247	109.0	S63° 22' 14.73"W
L248	38.2	N41° 55' 09.67"W
L249	45.4	S38° 38' 22.38"E
L250	22.9	N53° 11' 19.30"E
L251	10.1	S43° 29' 40.97"E
L252	84.4	S38° 38' 22.38"E
L253	39.1	S59° 41' 00.76"W
L254	20.3	S75° 20' 50.02"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14VVV	586770.96	1799659.42	1711.72
C.O. 14WWW	586796.67	1799653.55	1711.77
C.O. 17XXX	586851.67	1799653.55	1714.79
C.O. 14YYY	586906.67	1799653.44	1719.90
C.O. 14ZZZ	586961.67	1799653.38	1725.54
C.O. 14AAAA	586977.65	1799653.36	1727.99

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14BBBB	586977.67	1799679.19	1730.07
C.O. 14CCCC	586783.69	1799712.92	1713.04
C.O. 14DDDD	586796.43	1799766.43	1714.38
C.O. 14EEEE	586804.64	1799800.94	1715.11
C.O. 14FFFF	586811.75	1799852.38	1716.30
C.O. 14GGGG	586818.87	1799903.83	1717.50

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14HHHH	586834.63	1799956.52	1718.95
C.O. 14JJJJ	586850.40	1800009.21	1720.74
C.O. 14KKKK	586866.17	1800061.90	1722.65
C.O. 14LLLL	586872.22	1800082.13	1723.36
C.O. 14MMMM	586884.07	1800108.01	1724.60
C.O. 14NNNN	586912.61	1800122.27	1726.79
C.O. 14PPPP	586965.65	1800107.73	1731.64
C.O. 14QQQQ	587018.69	1800093.19	1735.54
C.O. 14RRRR	587032.97	1800089.27	1736.33
C.O. 14SSSS	587086.98	1800078.90	1740.98
C.O. 14TTTT	587140.48	1800068.63	1746.45
C.O. 14UUUU	586817.32	1799931.29	1718.13

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14VVVV	586772.13	1799929.56	1716.68
C.O. 14WWWW	586726.94	1799927.83	1716.55
C.O. 14XXXX	586711.31	1799933.39	1716.24
C.O. 14YYYY	586709.10	1799927.15	1716.13
C.O. 14ZZZZ	586814.57	1799979.88	1719.39
C.O. 14AAAAA	586811.83	1800028.48	1721.00
C.O. 14BBBBB	586810.27	1800079.37	1722.41
C.O. 14CCCCC	586809.38	1800108.55	1723.10
C.O. 14DDDDD	586808.49	1800137.72	1723.64
C.O. 14EEEEE	586787.17	1800154.74	1723.65
C.O. 14FFFFF	586770.91	1800167.77	1724.15
C.O. 14GGGGG	586781.65	1800189.19	1724.87

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 14HHHHH	586806.30	1800238.36	1727.21
C.O. 14JJJJJ	586819.78	1800265.24	1727.89
C.O. 14KKKKK	586791.37	1800290.74	1728.93
C.O. 14LLLLL	586735.52	1800196.23	1724.74
C.O. 14MMMMM	586721.74	1800177.82	1723.69
C.O. 14NNNNN	586729.04	1800170.90	1723.45
C.O. 14PPPPP	586702.49	1800222.46	1725.11
C.O. 14QQQQQ	586669.54	1800248.80	1725.17
C.O. 14RRRRR	586649.79	1800215.02	1724.17
C.O. 14SSSSS	586644.64	1800195.35	1723.65

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD ZASER
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date

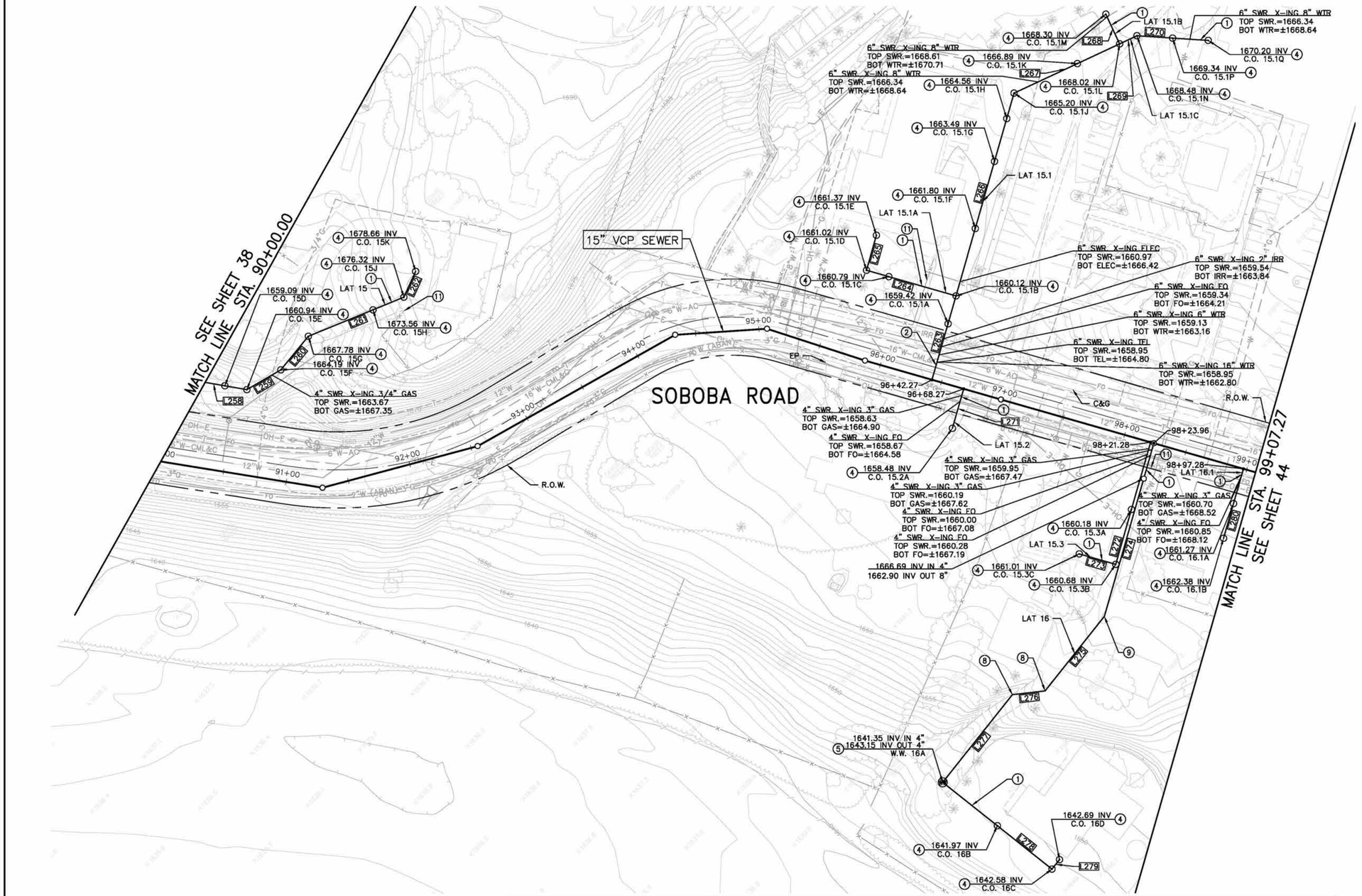
Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 80+00.00 TO STA. 90+00.00

SHEET 42 OF 77 SHEETS
DWG. NO.



NOTES:

- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L258	33.4	S33° 18' 08.18"E
L259	30.9	S73° 34' 38.92"E
L260	34.2	N86° 04' 39.78"E
L261	81.3	S65° 32' 00.43"E
L262	22.3	N71° 12' 52.56"E
L263	68.7	N62° 42' 22.01"E
L264	73.3	S27° 17' 37.99"E
L265	28.4	S62° 42' 22.01"W
L266	165.9	N62° 42' 22.01"E
L267	91.7	S68° 18' 10.30"E
L268	25.8	N21° 41' 49.70"E
L269	15.0	S68° 18' 10.30"E
L270	56.3	S39° 35' 00.80"E
L271	32.3	S62° 42' 22.01"W
L272	99.9	S62° 40' 26.82"W
L273	29.8	N27° 19' 33.18"W
L274	112.7	S62° 40' 26.82"W
L275	75.0	S85° 10' 26.82"W
L276	25.9	N49° 49' 33.18"W
L277	88.2	S85° 10' 26.82"W
L278	109.8	S4° 49' 33.18"E
L279	9.5	N85° 10' 26.82"E
L280	56.9	S62° 40' 26.94"W

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 15D	586176.03	1798739.71	1666.65
C.O. 15E	586161.28	1798749.40	1668.42
C.O. 15F	586152.55	1798779.05	1671.20
C.O. 15G	586154.93	1798813.21	1674.35
C.O. 15H	586132.11	1798863.22	1680.88
C.O. 15J	586121.23	1798887.12	1684.60
C.O. 15K	586128.38	1798908.22	1685.69
C.O. 15.1A	585795.09	1799165.58	1668.89
C.O. 15.1B	585805.55	1799185.84	1669.53

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 15.1C	585854.42	1799160.62	1668.09
C.O. 15.1D	585870.67	1799152.23	1667.79
C.O. 15.1E	585883.71	1799177.49	1668.86
C.O. 15.1F	585830.77	1799234.72	1669.83
C.O. 15.1G	585855.99	1799283.59	1670.18
C.O. 15.1H	585872.08	1799314.78	1671.69
C.O. 15.1J	585881.62	1799333.26	1672.49
C.O. 15.1K	585861.28	1799384.37	1673.99
C.O. 15.1L	585847.70	1799418.50	1674.63

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 15.1M	585871.67	1799428.04	1675.26
C.O. 15.1N	585842.15	1799432.45	1675.15
C.O. 15.1P	585820.47	1799450.37	1675.67
C.O. 15.1Q	585798.79	1799468.30	1676.45
C.O. 15.2A	585736.11	1799107.98	1666.64
C.O. 15.3A	585589.75	1799158.07	1668.51
C.O. 15.3B	585569.12	1799118.15	1667.63
C.O. 15.3C	585595.61	1799104.46	1667.23
W.W. 16A	585550.50	1798899.81	1648.15

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 16B	585495.79	1798904.43	1649.11
C.O. 16C	585441.09	1798909.05	1649.52
C.O. 16D	585441.89	1798918.56	1650.03
C.O. 16.1A	585534.42	1799216.55	1670.73
C.O. 16.1B	585521.37	1799191.29	1669.88

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD ZASEM
No.C 58784
CIVIL
STATE OF CALIFORNIA

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0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

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811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
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Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 90+00.00 TO STA. 100+00.00

SHEET 43 OF 77
SHEETS
DWG. NO.

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 16.2A	585457.92	1799244.94	1670.67
W.W. 17A	585204.26	1799206.79	1667.58
C.O. 17B	585215.70	1799193.25	1667.14
C.O. 17C	585246.26	1799172.48	1667.33
C.O. 17D	585276.81	1799151.70	1667.12
C.O. 17E	585299.09	1799184.46	1667.95
C.O. 17F	585305.55	1799199.89	1668.45
C.O. 17G	585172.53	1799161.87	1666.08
C.O. 17H	585153.15	1799134.44	1665.26
C.O. 17J	585135.74	1799109.80	1663.42
C.O. 17K	585101.22	1799127.63	1664.04
C.O. 17L	585287.69	1799314.12	1670.72
C.O. 17M	585271.29	1799282.37	1669.81
C.O. 17N	585224.38	1799306.60	1669.87

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 17.1A	585179.01	1799463.26	1674.71
C.O. 17.1B	585191.70	1799487.83	1675.11
C.O. 17.2A	585169.34	1799490.31	1675.10
C.O. 17.2B	585194.58	1799539.17	1676.69
C.O. 17.2C	585219.82	1799588.04	1678.24
C.O. 17.2D	585245.06	1799636.91	1679.84
C.O. 17.2E	585270.30	1799685.77	1681.52
C.O. 17.2F	585278.75	1799702.14	1682.08
C.O. 17.2G	585263.65	1799709.94	1682.73
C.O. 17.3A	585113.54	1799404.06	1673.85
C.O. 17.3B	585107.69	1799392.72	1673.40
C.O. 17.3C	585066.53	1799413.97	1673.73
C.O. 17.3D	585025.38	1799435.23	1673.45
C.O. 17.3E	585022.19	1799429.05	1673.36

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 17.3F	585082.45	1799343.85	1672.02
C.O. 17.3G	585057.21	1799294.98	1671.28
C.O. 17.3H	585031.97	1799246.11	1670.71
C.O. 17.3J	585013.88	1799211.07	1670.63
C.O. 17.4A	584958.04	1799484.39	1672.52
C.O. 17.4B	584937.22	1799444.12	1670.52
C.O. 18A	584990.79	1799591.29	1676.82
C.O. 18B	585007.75	1799624.10	1677.66
C.O. 18C	585029.30	1799641.63	1678.31

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 18D	585050.85	1799659.16	1679.18
W.W. 19A	584660.35	1799277.37	1668.05
C.O. 19B	584638.83	1799291.19	1669.15
C.O. 19C	584632.71	1799292.59	1669.36
C.O. 19D	584633.56	1799296.58	1669.41
C.O. 20A	584899.29	1799638.60	1677.85
C.O. 20B	584912.52	1799664.15	1678.33
C.O. 20C	584902.36	1799694.04	1679.37
C.O. 20D	584892.20	1799723.93	1680.40

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 20E	584944.13	1799698.16	1680.18
C.O. 20F	584966.05	1799748.60	1681.41
C.O. 20G	584980.85	1799782.63	1682.54
C.O. 20H	584994.38	1799813.78	1683.29
C.O. 20J	584947.83	1799837.85	1683.11
C.O. 20.1A	584843.20	1799567.11	1674.48
C.O. 20.1B	584808.90	1799524.12	1673.89
C.O. 20.1C	584793.74	1799505.20	1673.44
C.O. 20.1D	584773.25	1799479.46	1672.53
C.O. 20.1E	584759.30	1799490.59	1673.12
C.O. 20.1F	584745.68	1799503.47	1674.01
C.O. 20.1G	584722.56	1799517.99	1673.78
C.O. 20.1H	584725.02	1799521.89	1674.02
C.O. 20.1J	584738.94	1799436.47	1671.42
C.O. 20.1K	584704.64	1799393.48	1671.16

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 20.1L	584692.39	1799378.13	1670.95
C.O. 20.1M	584663.55	1799401.23	1671.82
C.O. 21A	584704.01	1799633.19	1676.38
C.O. 21B	584673.50	1799587.43	1675.43
C.O. 21C	584650.47	1799552.89	1674.92
C.O. 21D	584626.85	1799566.10	1676.00
C.O. 21E	584617.98	1799578.86	1676.54
C.O. 21F	584620.25	1799506.95	1674.61
C.O. 21G	584586.17	1799463.78	1673.79
C.O. 21H	584558.46	1799428.67	1673.19
C.O. 21J	584533.32	1799444.32	1674.01
C.O. 21K	584521.50	1799425.33	1673.52
C.O. 22A	584710.99	1799735.96	1679.91
C.O. 22B	584736.25	1799784.82	1681.13
C.O. 22C	584751.65	1799814.60	1681.69

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 22D	584762.77	1799836.11	1682.19

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L281	38.3	S62° 40' 28.17"W
L282	94.0	S62° 41' 07.86"W
L283	71.0	S40° 11' 07.86"W
L284	17.7	S49° 48' 52.14"E
L285	73.9	S34° 12' 36.23"E
L286	39.6	S55° 47' 23.77"W
L287	16.7	S67° 17' 09.48"W
L288	118.8	S54° 45' 27.69"W
L289	38.8	S27° 18' 52.14"E
L290	90.7	S62° 41' 07.86"W
L291	52.8	S27° 18' 52.14"E
L292	55.3	N62° 41' 07.86"E
L293	285.7	N62° 41' 07.86"E
L294	17.0	S27° 18' 52.14"E
L295	67.8	S62° 41' 07.86"W
L296	92.6	S27° 18' 52.14"E
L297	7.0	S62° 41' 07.86"W
L298	204.4	S62° 41' 07.86"W
L299	100.3	S62° 39' 31.33"W
L300	91.9	N62° 40' 08.05"E
L301	55.6	N39° 08' 02.00"E
L302	134.4	S51° 24' 31.33"W
L303	61.7	S62° 39' 31.33"W
L304	156.1	S51° 24' 31.33"W
L305	25.6	S32° 41' 39.56"E
L306	6.3	S12° 53' 41.80"E

SEWER DATA		
LINE #	DISTANCE	BEARING
L307	4.1	N77° 06' 18.20"E
L308	83.8	S62° 39' 31.33"W
L309	63.1	S71° 13' 23.68"E
L310	46.4	S47° 05' 47.65"W
L311	126.1	S66° 30' 27.67"W
L312	52.4	N27° 20' 28.67"W
L313	34.3	S62° 39' 31.33"W
L314	112.2	S51° 24' 31.33"W
L315	17.8	S38° 35' 28.67"E
L316	18.8	S43° 24' 14.75"E
L317	27.3	S32° 07' 43.76"E
L318	4.6	N57° 52' 16.24"E
L319	129.6	S51° 24' 31.33"W
L320	37.0	S38° 41' 17.04"E
L321	39.5	N62° 39' 31.33"E
L322	96.5	N56° 18' 41.57"E
L323	27.1	S29° 13' 31.43"E
L324	15.5	S55° 11' 11.87"E
L325	55.0	N56° 39' 38.20"E
L326	99.7	N51° 42' 49.51"E
L327	29.6	N31° 53' 54.98"W
L328	22.4	N58° 06' 05.02"E
L329	14.1	N31° 53' 54.98"W
L336	167.7	N62° 39' 31.33"E
L337	40.0	S27° 20' 28.67"E

SEE SHEET 43
MATCH LINE STA. 99+07.27

MATCH LINE STA. 109+07.27
SEE SHEET 45

SEE SHEET 70



BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD YAZDEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA | Checked RT/MA | Scale:
Drawn SH | Job No. 96019.040 | 1"= 40'

ERSC INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-B
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

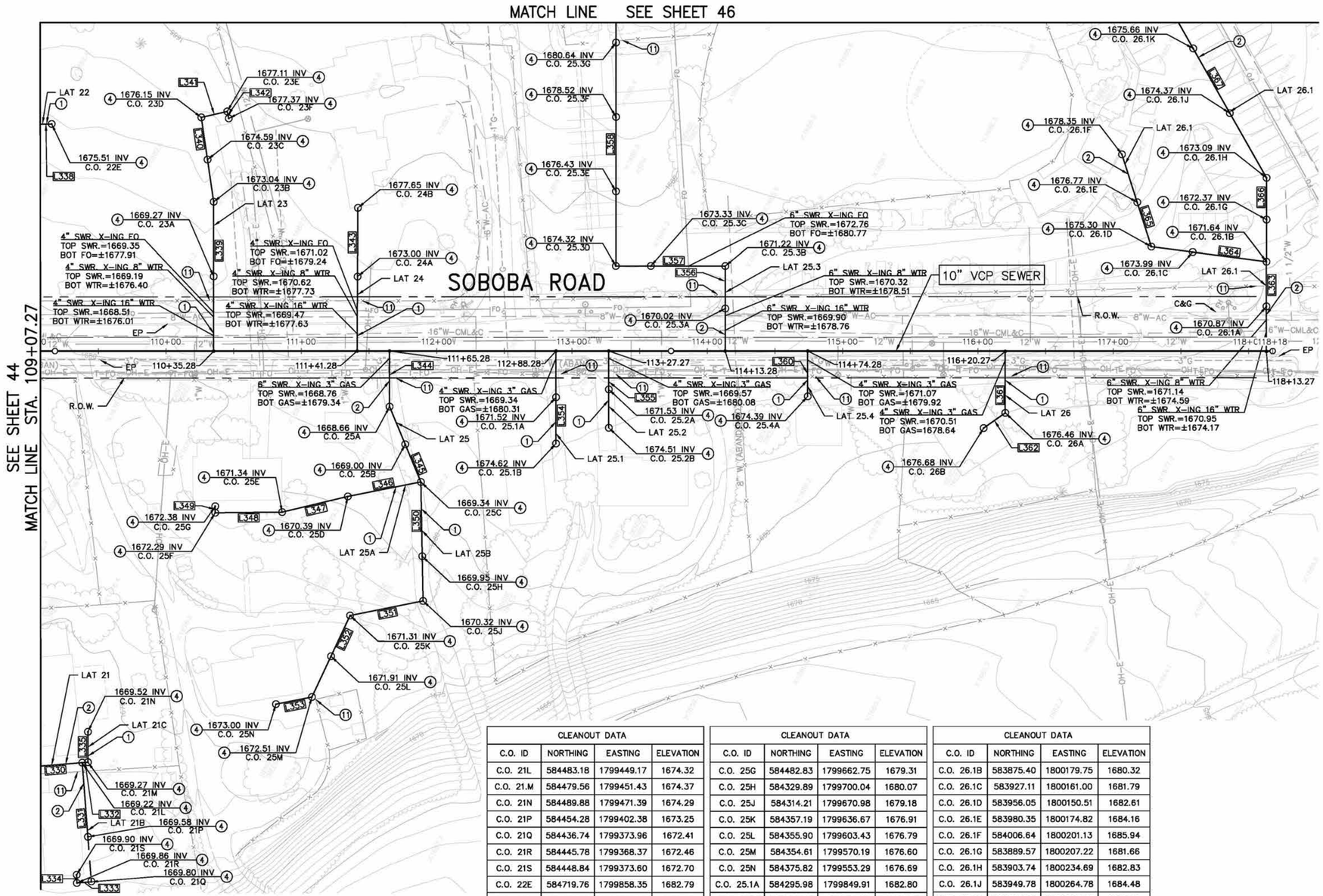
STA. 100+00.00 TO STA. 110+00.00

SHEET 44 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L330	31.0	N31° 53' 54.98"W
L331	88.4	N58° 18' 08.39"E
L332	4.3	N31° 53' 54.98"W
L333	10.6	S31° 41' 10.92"E
L334	6.0	S59° 41' 25.97"W
L335	22.5	N62° 39' 31.33"E
L338	8.4	S27° 20' 28.67"E
L339	110.1	N62° 42' 44.72"E
L340	63.1	N54° 20' 59.15"E
L341	19.6	S40° 17' 31.73"E
L342	5.3	S49° 42' 28.27"W
L343	105.7	N63° 01' 05.63"E
L344	41.1	S62° 41' 18.94"W
L345	60.3	S40° 11' 18.94"W
L346	55.0	N38° 33' 41.06"W
L347	49.9	N40° 41' 45.41"W
L348	49.4	N27° 53' 50.18"W
L349	4.8	N62° 06' 09.82"E
L350	88.0	S61° 38' 20.82"W
L351	55.0	N38° 35' 55.33"W
L352	66.5	S87° 46' 29.50"W
L353	27.1	N38° 32' 07.16"W
L354	68.4	S62° 41' 18.93"W
L355	56.8	S62° 41' 18.93"W
L356	62.8	N62° 45' 33.91"E
L357	80.9	N27° 14' 26.09"W
L358	179.8	N62° 45' 33.91"E
L360	33.5	S62° 42' 51.75"W
L361	45.7	S62° 42' 51.75"W
L362	19.6	N62° 27' 56.35"W
L363	66.1	N62° 42' 51.75"E
L364	85.8	N19° 55' 49.72"W
L365	71.6	N45° 00' 50.64"E
L366	61.8	N62° 42' 51.75"E
L367	132.0	N33° 10' 41.08"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 21L	584483.18	1799449.17	1674.32
C.O. 21.M	584479.56	1799451.43	1674.37
C.O. 21N	584489.88	1799471.39	1674.29
C.O. 21P	584454.28	1799402.38	1673.25
C.O. 21Q	584436.74	1799373.96	1672.41
C.O. 21R	584445.78	1799368.37	1672.46
C.O. 21S	584448.84	1799373.60	1672.70
C.O. 22E	584719.76	1799858.35	1682.79
C.O. 23A	584561.71	1799813.15	1681.68
C.O. 23B	584586.96	1799862.10	1682.37
C.O. 23C	584605.35	1799887.74	1683.38
C.O. 23D	584623.74	1799913.38	1683.91
C.O. 23E	584608.78	1799926.07	1684.41
C.O. 23F	584605.37	1799922.05	1684.30
C.O. 24A	584467.23	1799861.86	1683.82
C.O. 24B	584490.22	1799907.01	1684.64
C.O. 25A	584402.09	1799787.33	1682.72
C.O. 25B	584379.04	1799767.86	1682.10
C.O. 25C	584355.99	1799748.39	1681.31
C.O. 25D	584399.04	1799714.16	1680.29
C.O. 25E	584436.87	1799681.62	1679.27
C.O. 25F	584480.57	1799658.48	1679.20

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 25G	584482.83	1799662.75	1679.31
C.O. 25H	584329.89	1799700.04	1680.07
C.O. 25J	584314.21	1799670.98	1679.18
C.O. 25K	584357.19	1799636.67	1676.91
C.O. 25L	584355.90	1799603.43	1676.79
C.O. 25M	584354.61	1799570.19	1676.60
C.O. 25N	584375.82	1799553.29	1676.69
C.O. 25.1A	584295.98	1799849.91	1682.80
C.O. 25.1B	584280.29	1799819.53	1682.12
C.O. 25.2A	584263.98	1799872.93	1682.85
C.O. 25.2B	584250.93	1799847.68	1682.01
C.O. 25.3A	584214.96	1799965.54	1683.10
C.O. 25.3B	584229.32	1799993.44	1684.39
C.O. 25.3C	584278.22	1799968.27	1683.99
C.O. 25.D	584301.23	1799956.43	1684.02
C.O. 25.3E	584326.41	1800005.33	1685.13
C.O. 25.3F	584351.58	1800054.23	1686.24
C.O. 25.3G	584376.76	1800103.13	1687.46
C.O. 25.4A	584131.00	1799935.78	1681.89
C.O. 26A	583995.67	1799991.90	1679.98
C.O. 26B	584004.71	1799974.53	1679.96
C.O. 26.1A	583860.25	1800150.38	1679.04

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 26.1B	583875.40	1800179.75	1680.32
C.O. 26.1C	583927.11	1800161.00	1681.79
C.O. 26.1D	583956.05	1800150.51	1682.61
C.O. 26.1E	583980.35	1800174.82	1684.16
C.O. 26.1F	584006.64	1800201.13	1685.94
C.O. 26.1G	583889.57	1800207.22	1681.66
C.O. 26.1H	583903.74	1800234.69	1682.83
C.O. 26.1J	583949.78	1800264.78	1684.48
C.O. 26.1K	583995.81	1800294.88	1685.52

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI YAZDI No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

ERSG INC.COM Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 110+00.00 TO STA. 120+00.00

SHEET 45 OF 77 SHEETS
DWG. NO.

NOTES:
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MATCH LINE SEE SHEET 45

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 25.3H	584401.93	1800152.03	1689.16
C.O. 25.3J	584427.11	1800200.93	1690.73
C.O. 25.3K	584442.00	1800229.86	1692.40
C.O. 26.1L	584041.84	1800324.98	1686.70
C.O. 26.1M	584087.88	1800355.08	1687.75
C.O. 26.1N	584133.91	1800385.18	1688.66
C.O. 26.1P	584179.94	1800415.28	1689.84
C.O. 26.1Q	584220.44	1800441.75	1691.70
C.O. 26.1R	584243.80	1800479.45	1692.07
C.O. 26.1S	584272.78	1800526.20	1692.59
C.O. 26.1T	584300.47	1800570.88	1692.42

SEWER DATA		
LINE #	DISTANCE	BEARING
L359	127.7	N62° 45' 33.91"E
L368	246.4	N33° 10' 41.08"E
L369	151.9	N58° 12' 33.65"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOOD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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Drawn SH Job No. 96019.040

1861 West Redlands Blvd.
Building 3-118
Redlands, California 92373-3119
(909) 880-1255
ERSC INC.com
Engineering Resources of Southern California

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 110+00.00 TO STA. 120+00.00

SHEET 46 OF 77 SHEETS
DWG. NO.

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 27A	585457.73	1799419.89	1675.37
C.O. 27B	585488.68	1799403.92	1675.05
C.O. 27.1A	585408.59	1799479.02	1676.73
C.O. 27.1B	585386.03	1799490.67	1676.57
C.O. 28A	585404.32	1799528.48	1678.09
C.O. 28B	585382.16	1799539.92	1677.93
C.O. 28.1A	585671.62	1799712.05	1687.70
C.O. 28.1B	585688.11	1799693.50	1687.18
C.O. 28.1C	585733.89	1799663.03	1688.22
C.O. 28.1D	585779.68	1799632.56	1687.46
C.O. 28.1E	585825.47	1799602.09	1686.37
C.O. 28.1F	585848.37	1799586.86	1687.21
C.O. 28.1G	585881.25	1799564.98	1690.13
C.O. 28.1H	585935.87	1799571.45	1696.37
C.O. 28.1J	585957.59	1799574.02	1699.44
C.O. 28.2A	585895.73	1799911.50	1697.50

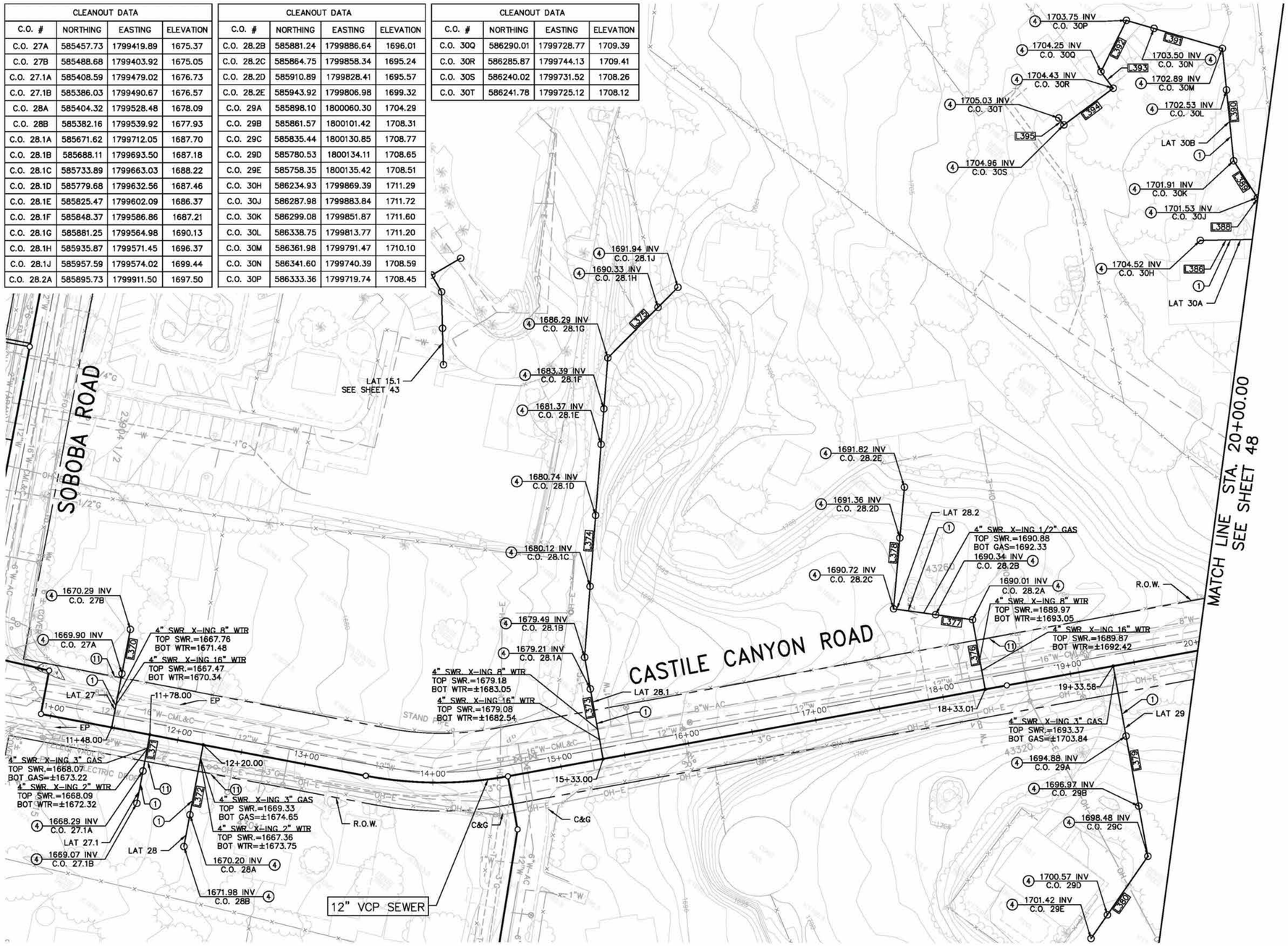
CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 28.2B	585881.24	1799886.64	1696.01
C.O. 28.2C	585864.75	1799858.34	1695.24
C.O. 28.2D	585910.89	1799828.41	1695.57
C.O. 28.2E	585943.92	1799806.98	1699.32
C.O. 29A	585898.10	1800060.30	1704.29
C.O. 29B	585861.57	1800101.42	1708.31
C.O. 29C	585835.44	1800130.85	1708.77
C.O. 29D	585780.53	1800134.11	1708.65
C.O. 29E	585758.35	1800135.42	1708.51
C.O. 30H	586234.93	1799869.39	1711.29
C.O. 30J	586287.98	1799883.84	1711.72
C.O. 30K	586299.08	1799851.87	1711.60
C.O. 30L	586338.75	1799813.77	1711.20
C.O. 30M	586361.98	1799791.47	1710.10
C.O. 30N	586341.60	1799740.39	1708.59
C.O. 30P	586333.36	1799719.74	1708.45

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 30Q	586290.01	1799728.77	1709.39
C.O. 30R	586285.87	1799744.13	1709.41
C.O. 30S	586240.02	1799731.52	1708.26
C.O. 30T	586241.78	1799725.12	1708.12

NOTES:
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CONSTRUCTION NOTES

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13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L370	77.1	N27° 18' 05.09"W
L371	53.9	S27° 18' 05.09"E
L372	79.9	S27° 18' 05.09"E
L373	79.8	N48° 23' 31.28"W
L374	232.0	N33° 38' 19.33"W
L375	76.9	N6° 45' 25.70"E
L376	54.7	N48° 23' 31.28"W
L377	61.5	S59° 46' 00.18"W
L378	94.4	N32° 58' 41.67"W
L379	149.4	S48° 23' 31.28"E
L380	77.2	S3° 23' 31.28"E
L386	39.8	S50° 51' 28.72"W
L388	2.2	N55° 40' 16.26"W
L389	33.8	N70° 51' 02.04"W
L390	87.2	N43° 50' 06.65"W
L391	77.2	S68° 15' 00.65"W
L392	44.3	S11° 45' 48.39"E
L393	15.9	S74° 37' 53.53"E
L394	47.5	S15° 22' 06.47"W
L395	6.6	N74° 37' 53.53"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMAD YASEEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 10+00.00 TO STA. 20+00.00

SHEET 47 OF 77 SHEETS
DWG. NO.

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 30A	586079.12	1800073.95	1709.28
C.O. 30B	586113.14	1800042.53	1712.83
C.O. 30C	586126.41	1800027.59	1712.44
C.O. 30D	586169.07	1799992.87	1712.23
C.O. 30E	586211.73	1799958.15	1712.22
C.O. 30F	586254.38	1799923.44	1712.29
C.O. 30G	586269.14	1799911.43	1712.23
C.O. 31A	586049.37	1800140.60	1707.89
C.O. 31B	586021.12	1800187.79	1707.39
C.O. 31C	585992.86	1800234.97	1707.32

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 32A	586223.78	1800233.66	1717.33
C.O. 32B	586263.73	1800195.87	1717.95
C.O. 32C	586282.38	1800178.22	1717.99
C.O. 32D	586271.83	1800167.06	1717.56
C.O. 33A	586239.91	1800369.23	1717.02
C.O. 33B	586220.71	1800387.40	1716.76
C.O. 33C	586210.93	1800399.76	1717.09
C.O. 33D	586176.81	1800442.90	1718.24
C.O. 34A	586455.36	1800478.48	1728.65
C.O. 34B	586477.97	1800457.09	1726.54

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 34C	586490.52	1800445.22	1726.30
C.O. 34D	586536.22	1800414.62	1726.91
C.O. 34E	586565.38	1800395.10	1727.09
C.O. 34F	586589.76	1800387.54	1727.59
C.O. 34G	586624.27	1800397.66	1728.23
C.O. 34H	586658.78	1800407.77	1728.41
C.O. 34J	586647.40	1800446.60	1728.76
C.O. 34K	586640.33	1800444.53	1728.76
C.O. 34.1A	586404.99	1800585.31	1730.08
C.O. 34.1B	586398.02	1800591.91	1730.06

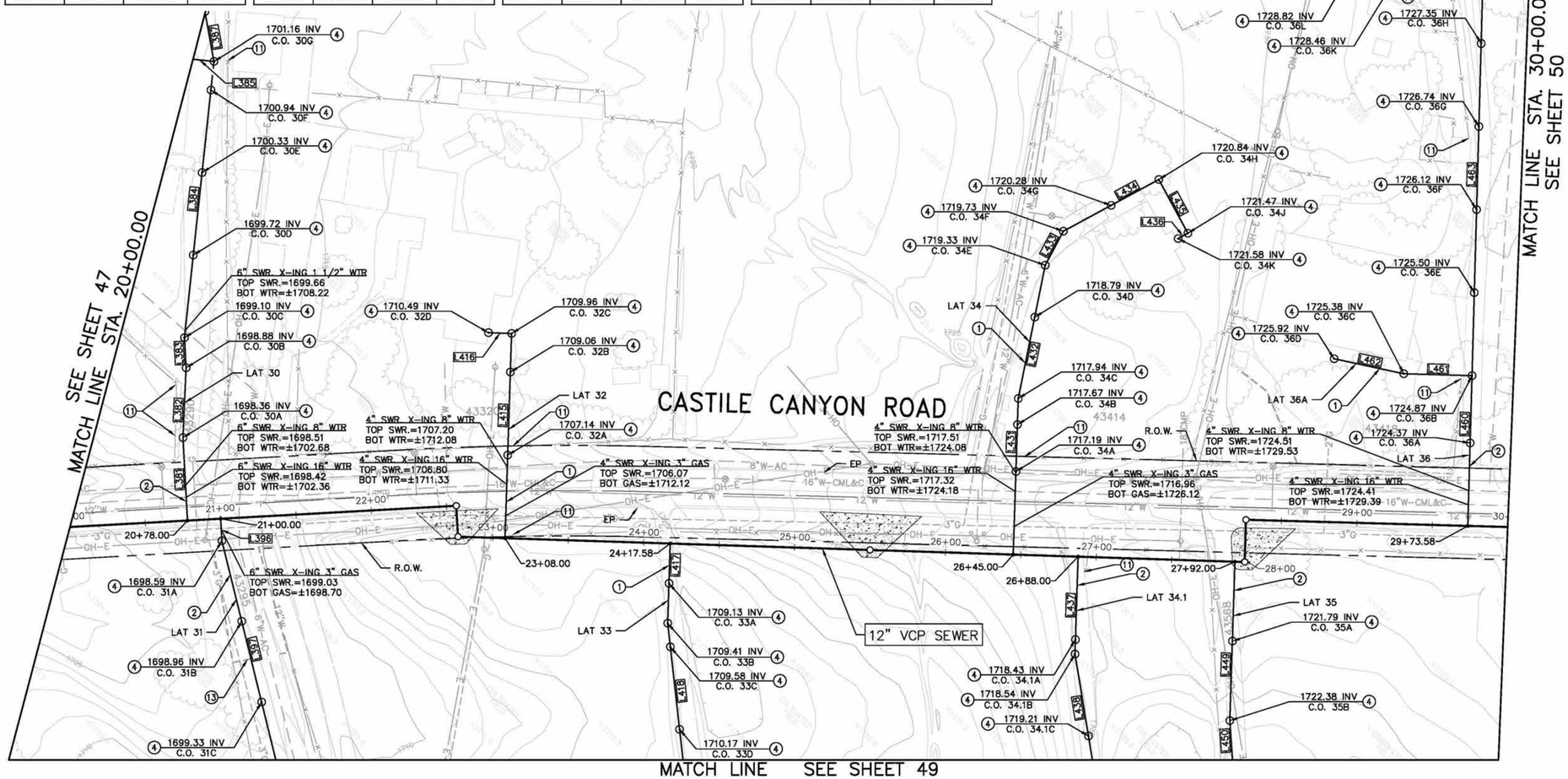
CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 34.1C	586366.16	1800636.73	1729.97
C.O. 35A	586478.15	1800659.26	1731.82
C.O. 35B	586439.89	1800695.46	1728.89
C.O. 36A	586682.46	1800676.91	1733.75
C.O. 36B	586714.74	1800646.10	1733.16
C.O. 36C	586683.52	1800613.39	1731.72
C.O. 36D	586657.72	1800573.84	1731.62
C.O. 36E	586754.53	1800608.13	1733.12
C.O. 36F	586794.31	1800570.15	1732.98
C.O. 36G	586834.10	1800532.17	1733.79

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36H	586873.88	1800494.20	1733.86
C.O. 36J	586907.39	1800462.22	1733.84
C.O. 36K	586869.41	1800422.43	1732.52
C.O. 36L	586847.32	1800399.29	1731.98
C.O. 36M	586929.16	1800441.41	1733.60
C.O. 36N	586949.97	1800421.57	1733.68
C.O. 36X	586978.41	1800394.43	1736.12

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L381	55.0	N48° 23' 31.28"W
L382	46.3	N42° 43' 18.53"W
L383	20.0	N48° 23' 31.28"W
L384	184.0	N39° 08' 31.28"W
L385	14.4	S50° 51' 28.72"W
L387	31.2	N55° 40' 16.26"W
L396	14.6	S48° 26' 56.00"E
L397	149.6	S59° 05' 15.86"E
L415	135.7	N43° 24' 28.56"W
L416	15.3	S46° 35' 31.44"W
L417	52.9	S43° 24' 28.56"E
L418	91.0	S51° 39' 28.56"E
L431	103.4	N43° 24' 28.56"W
L432	90.1	N33° 48' 09.94"W
L433	25.5	N17° 13' 23.59"W
L434	71.9	N16° 20' 09.75"E
L435	40.5	S73° 39' 50.25"E
L436	7.4	S16° 20' 09.75"W
L437	64.6	S43° 24' 28.56"E
L438	71.1	S54° 35' 18.31"E
L449	105.3	S43° 24' 28.56"E
L450	26.1	S49° 13' 07.71"E
L460	99.6	N43° 40' 01.68"W
L461	45.2	S46° 19' 58.32"W
L462	47.2	S56° 52' 34.55"W
L463	266.3	N43° 40' 01.68"W
L464	87.0	S46° 19' 58.32"W
L465	58.9	N43° 40' 01.68"W
L466	25.2	N46° 19' 58.32"E
L473	39.3	N43° 40' 01.68"W
L474	30.1	N33° 57' 45.33"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD I. ZAREH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

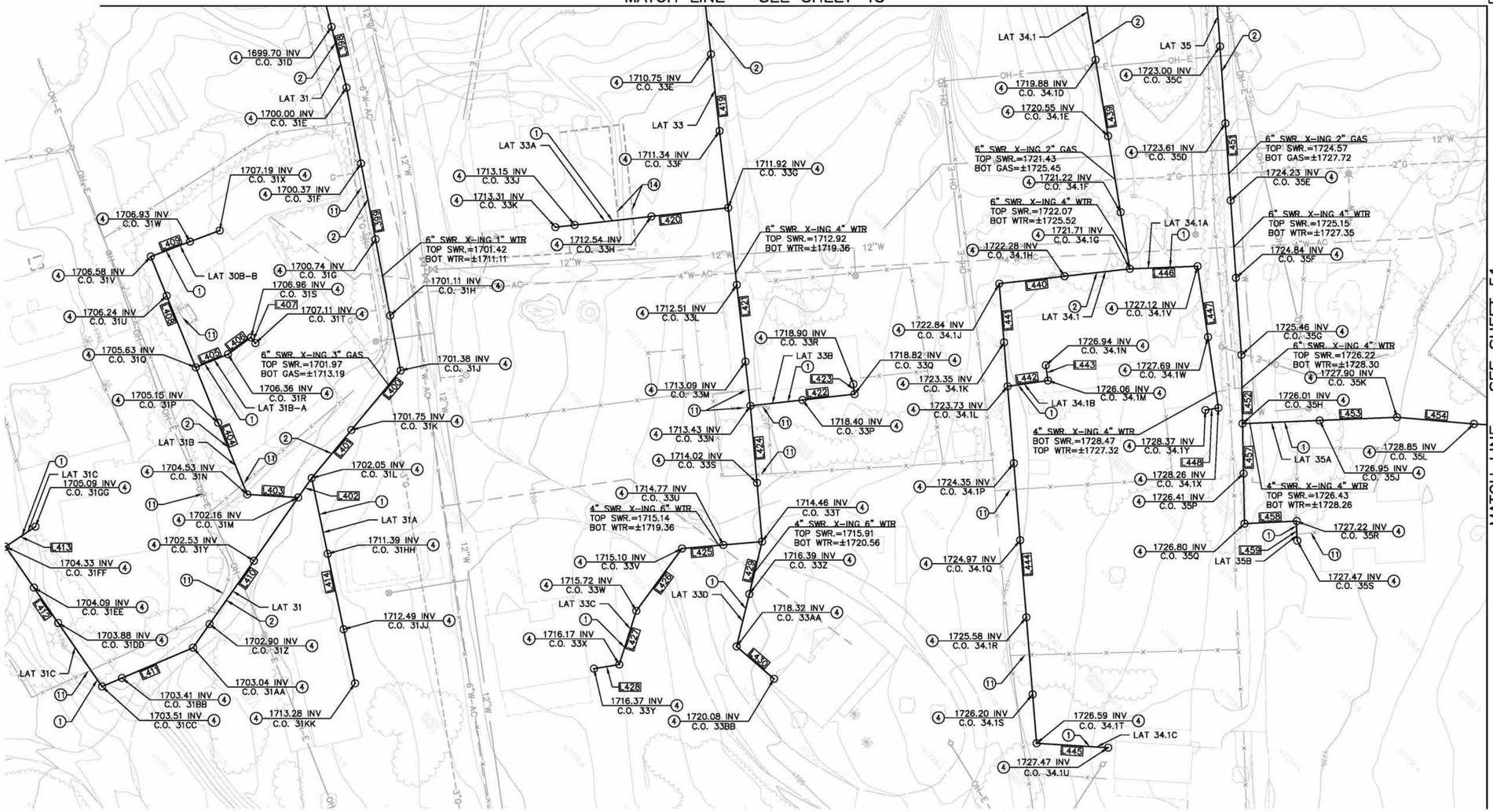
ERSC INC.com
Engineering Resources of Southern California
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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 20+00.00 TO STA. 30+00.00

SHEET 48 OF 77 SHEETS
DWG. NO.

NOTES:
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- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
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7. INSTALL 4-INCH 90° ELBOW.
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10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA			SEWER DATA		
LINE #	DISTANCE	BEARING	LINE #	DISTANCE	BEARING
L398	60.0	S59° 05' 15.86"E	L425	57.2	S39° 46' 21.34"W
L399	204.8	S56° 05' 35.78"E	L426	55.0	S9° 03' 03.68"E
L400	15.5	S5° 41' 50.77"E	L427	40.1	S27° 36' 07.01"E
L401	83.9	S5° 41' 50.77"E	L428	18.2	S35° 21' 14.96"W
L402	16.8	S10° 17' 33.40"E	L429	76.8	S31° 37' 36.80"E
L403	36.3	S48° 15' 44.72"W	L430	35.2	N85° 37' 54.20"E
L404	97.5	N67° 20' 07.30"W	L439	189.5	S54° 35' 18.31"E
L405	24.8	S22° 39' 52.70"W	L440	93.6	S38° 16' 19.36"W
L406	20.4	S8° 20' 48.40"W	L441	73.3	S49° 53' 46.68"E
L407	5.2	N81° 39' 11.60"W	L442	29.0	N36° 33' 46.11"E
L408	85.1	N67° 20' 07.30"W	L443	11.0	N53° 26' 13.89"W
L409	52.4	N24° 13' 55.09"E	L444	255.0	S49° 53' 46.68"E
L410	130.5	S10° 17' 33.40"E	L445	51.0	N48° 15' 28.71"E
L411	70.4	S21° 37' 22.18"W	L446	48.2	N42° 33' 15.97"E
L412	120.9	N79° 49' 24.03"W	L447	102.0	S53° 37' 47.69"E
L413	25.6	N10° 51' 28.72"E	L448	9.4	S35° 20' 31.44"W
L414	149.3	N57° 10' 55.00"W	L451	248.9	S49° 13' 07.71"E
L419	144.8	S51° 39' 28.56"E	L452	48.9	S46° 09' 42.30"E
L420	123.7	S38° 20' 31.44"W	L453	110.0	N42° 23' 30.68"E
L421	141.7	S51° 39' 28.15"E	L454	55.9	N49° 43' 51.25"E
L422	74.6	N38° 20' 31.44"E	L457	71.2	S46° 26' 05.17"E
L423	7.2	N51° 39' 28.56"W	L458	36.9	N41° 59' 06.11"E
L424	97.0	S50° 10' 29.61"E	L459	14.0	S48° 00' 53.89"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 31D	585964.61	1800282.16	1709.31
C.O. 31E	585941.73	1800320.36	1713.61
C.O. 31F	585911.07	1800365.99	1715.39
C.O. 31G	585880.37	1800411.65	1715.39
C.O. 31H	585849.69	1800457.30	1715.97
C.O. 31J	585827.49	1800490.33	1716.56
C.O. 31K	585772.76	1800495.79	1715.92
C.O. 31L	585728.57	1800500.20	1715.36
C.O. 31M	585712.04	1800503.20	1715.13
C.O. 31N	585687.88	1800476.12	1714.31
C.O. 31P	585709.08	1800425.37	1712.95

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 31Q	585725.47	1800386.11	1712.10
C.O. 31R	585748.32	1800395.65	1713.63
C.O. 31S	585768.46	1800398.61	1714.11
C.O. 31T	585767.70	1800403.75	1714.48
C.O. 31U	585746.66	1800335.36	1711.95
C.O. 31V	585758.27	1800307.56	1711.37
C.O. 31W	585785.45	1800319.79	1712.47
C.O. 31X	585806.01	1800329.05	1713.19
C.O. 31Y	585657.93	1800513.03	1714.70
C.O. 31Z	585603.81	1800522.86	1713.52
C.O. 31AA	585583.68	1800526.51	1713.18

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 31BB	585532.55	1800506.24	1710.76
C.O. 31CC	585518.19	1800500.55	1709.69
C.O. 31DD	585527.91	1800446.42	1710.20
C.O. 31EE	585533.31	1800416.32	1709.40
C.O. 31FF	585539.56	1800381.52	1708.61
C.O. 31GG	585564.68	1800386.34	1709.69
C.O. 31HH	585698.76	1800546.42	1716.27
C.O. 31JJ	585668.96	1800592.64	1716.26
C.O. 31KK	585647.64	1800625.70	1716.58
C.O. 33E	586142.69	1800486.04	1719.07
C.O. 33F	586108.57	1800529.18	1721.90
C.O. 33G	586074.45	1800572.31	1722.51
C.O. 33H	586031.31	1800538.20	1721.13
C.O. 33J	585988.18	1800504.08	1718.84
C.O. 33K	585977.41	1800495.56	1718.83
C.O. 33L	586040.33	1800615.45	1723.98
C.O. 33M	586006.21	1800658.59	1724.58

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 33N	585986.55	1800683.45	1724.75
C.O. 33P	586015.81	1800706.59	1725.52
C.O. 33Q	586045.07	1800729.73	1725.89
C.O. 33R	586049.53	1800724.10	1725.79
C.O. 33S	585951.33	1800725.69	1724.79
C.O. 33T	585924.44	1800757.93	1725.14
C.O. 33U	585903.15	1800740.21	1723.99
C.O. 33V	585880.45	1800721.31	1723.29
C.O. 33W	585826.14	1800729.97	1722.28
C.O. 33X	585790.64	1800748.52	1721.88
C.O. 33Y	585775.79	1800737.99	1721.19
C.O. 33Z	585891.73	1800778.07	1724.95
C.O. 33AA	585859.02	1800798.21	1724.21
C.O. 33BB	585861.70	1800833.30	1720.08
C.O. 34.1D	586334.29	1800681.56	1727.54
C.O. 34.1E	586302.42	1800726.38	1727.89
C.O. 34.1F	586270.55	1800771.21	1729.23

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 34.1G	586247.04	1800804.27	1730.10
C.O. 34.1H	586210.33	1800775.28	1730.10
C.O. 34.1J	586173.59	1800746.32	1729.28
C.O. 34.1K	586146.55	1800778.42	1729.89
C.O. 34.1L	586126.35	1800802.42	1729.78
C.O. 34.1M	586149.66	1800819.71	1730.46
C.O. 34.1N	586156.19	1800810.90	1730.51
C.O. 34.1P	586090.92	1800844.48	1729.72
C.O. 34.1Q	586055.49	1800886.55	1729.98
C.O. 34.1R	586020.06	1800928.62	1730.23
C.O. 34.1S	585984.63	1800970.69	1730.36
C.O. 34.1T	585962.10	1800997.44	1730.15
C.O. 34.1U	585996.08	1801035.52	1732.92
C.O. 34.1V	586282.55	1800836.88	1730.70
C.O. 34.1W	586252.32	1800877.92	1731.23
C.O. 34.1X	586222.10	1800918.96	1731.41
C.O. 34.1Y	586214.42	1800913.52	1731.45

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 35C	586403.70	1800737.30	1727.46
C.O. 35D	586368.01	1800778.79	1729.64
C.O. 35E	586332.08	1800820.36	1731.30
C.O. 35F	586296.19	1800862.04	1731.95
C.O. 35G	586260.27	1800903.68	1732.73
C.O. 35H	586226.39	1800938.97	1732.51
C.O. 35J	586267.01	1800976.05	1733.36
C.O. 35K	586307.63	1801013.13	1734.89
C.O. 35L	586343.18	1801055.10	1735.60
C.O. 35P	586201.89	1800964.73	1732.72
C.O. 35Q	586177.33	1800990.55	1733.03
C.O. 35R	586204.76	1801015.24	1733.99
C.O. 35S	586195.41	1801025.63	1734.28

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FADEH No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

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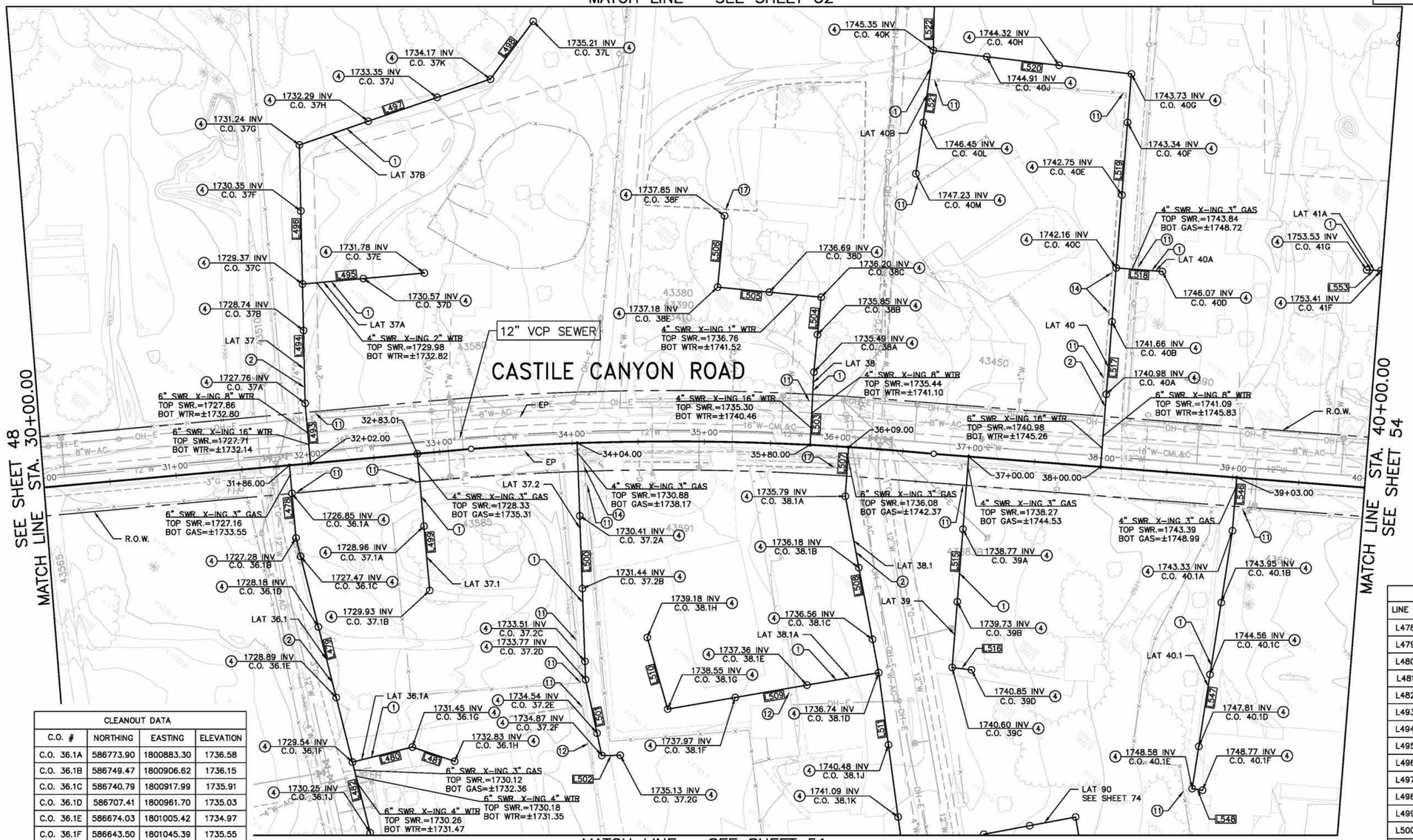
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 20+00.00 TO STA. 30+00.00

SHEET 49 OF 77 SHEETS
DWG. NO.

NOTES:
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- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

MATCH LINE SEE SHEET 52



CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
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7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L478	55.1	S43° 40' 01.68"E
L479	174.6	S52° 38' 04.03"E
L480	46.6	S37° 21' 55.97"W
L481	33.8	S70° 04' 17.91"W
L482	57.0	S52° 38' 04.03"E
L493	45.6	N43° 40' 01.68"W
L494	90.1	N39° 45' 33.07"W
L495	92.4	N46° 19' 58.32"E
L496	104.9	N39° 45' 33.07"W
L497	152.5	N32° 26' 31.32"E
L498	54.3	N1° 53' 00.28"W
L499	103.7	S43° 40' 01.68"E
L500	178.9	S40° 32' 05.65"E
L501	58.6	S50° 31' 55.34"E
L502	13.9	N50° 37' 32.21"E
L503	55.0	N35° 35' 25.00"W
L504	56.9	N32° 58' 09.85"W
L505	78.5	S57° 01' 50.15"W

SEWER DATA		
LINE #	DISTANCE	BEARING
L506	53.9	N32° 58' 09.85"W
L507	37.3	N34° 47' 28.25"W
L508	135.7	N49° 13' 29.55"W
L509	161.8	S41° 43' 08.56"W
L510	56.3	N54° 19' 38.89"W
L511	123.9	N46° 07' 48.58"W
L515	159.8	S34° 01' 44.36"E
L516	14.7	N58° 48' 15.07"E
L517	150.8	N34° 01' 44.36"W
L518	34.9	N55° 58' 15.64"E
L519	146.7	N34° 01' 44.36"W
L520	150.6	S58° 17' 42.10"W
L521	94.1	S30° 26' 06.81"E
L522	31.8	N37° 22' 41.58"W
L546	40.3	S33° 59' 57.81"E
L547	197.2	S29° 38' 19.49"E
L548	7.8	N60° 21' 40.51"E
L553	10.9	S54° 27' 24.07"W

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36.1A	586773.90	1800883.30	1736.58
C.O. 36.1B	586749.47	1800906.62	1736.15
C.O. 36.1C	586740.79	1800917.99	1735.91
C.O. 36.1D	586707.41	1800961.70	1735.03
C.O. 36.1E	586674.03	1801005.42	1734.97
C.O. 36.1F	586643.50	1801045.39	1735.55
C.O. 36.1G	586680.55	1801073.67	1738.51
C.O. 36.1H	586692.06	1801105.43	1739.64
C.O. 36.1J	586610.13	1801089.10	1736.59
C.O. 37A	586833.36	1800848.66	1736.86
C.O. 37B	586875.64	1800813.49	1736.87
C.O. 37C	586902.63	1800791.03	1736.77
C.O. 37D	586934.53	1800824.45	1738.74
C.O. 37E	586966.42	1800857.86	1739.28
C.O. 37F	586944.91	1800755.86	1736.26

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 37G	586983.26	1800723.95	1737.36
C.O. 37H	587029.67	1800753.46	1739.03
C.O. 37J	587076.09	1800782.96	1740.14
C.O. 37K	587111.96	1800805.76	1741.26
C.O. 37L	587166.28	1800803.98	121.39
C.O. 37.1A	586816.55	1800976.69	1739.54

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 37.1B	586781.33	1801010.31	1737.80
C.O. 37.2A	586895.96	1801063.92	1741.57
C.O. 37.2B	586854.16	1801099.67	1741.75
C.O. 37.2C	586812.36	1801135.41	1741.67
C.O. 37.2D	586801.83	1801144.42	1741.66
C.O. 37.2E	586775.58	1801176.30	1742.23
C.O. 37.2F	586764.58	1801189.66	1742.39
C.O. 37.2G	586773.41	1801200.43	1742.63
C.O. 38A	587090.98	1801134.68	1745.61
C.O. 38B	587114.84	1801119.20	1745.92
C.O. 38C	587138.70	1801103.72	1745.96
C.O. 38D	587117.33	1801070.78	1745.13

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 38E	587095.96	1801037.83	1744.47
C.O. 38F	587141.18	1801008.50	1744.94
C.O. 38.1A	587032.39	1801211.64	1745.82
C.O. 38.1B	586996.47	1801253.29	1746.26
C.O. 38.1C	586960.55	1801294.95	1746.60
C.O. 38.1D	586943.77	1801314.40	1746.50
C.O. 38.1E	586902.72	1801277.80	1745.29
C.O. 38.1F	586861.66	1801241.19	1742.95
C.O. 38.1G	586823.01	1801206.73	1742.60
C.O. 38.1H	586855.82	1801161.03	1742.43
C.O. 38.1J	586905.65	1801354.05	1746.49
C.O. 38.1K	586867.54	1801393.70	1746.67

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 39A	587068.23	1801296.64	1747.78
C.O. 39B	587022.65	1801327.42	1748.01
C.O. 39C	586981.37	1801355.29	1747.96
C.O. 39D	586988.98	1801367.85	1748.16
C.O. 40A	587215.35	1801317.96	1751.00
C.O. 40B	587260.93	1801287.18	1751.37
C.O. 40C	587294.75	1801264.35	1751.58
C.O. 40D	587314.27	1801293.26	1752.97
C.O. 40E	587340.33	1801233.57	1751.80
C.O. 40F	587385.91	1801202.79	1752.41
C.O. 40G	587416.35	1801182.24	1753.01
C.O. 40H	587387.44	1801135.45	1751.75

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 40J	587358.54	1801088.66	1750.13
C.O. 40K	587337.22	1801054.15	1748.90
C.O. 40L	587289.80	1801082.01	1749.42
C.O. 40M	587256.08	1801101.82	1751.20
C.O. 40.1A	587194.04	1801456.61	1752.82
C.O. 40.1B	587146.23	1801483.81	1752.28
C.O. 40.1C	587098.43	1801511.01	1752.17
C.O. 40.1D	587050.63	1801538.21	1751.93
C.O. 40.1E	587022.63	1801554.14	1751.79
C.O. 40.1F	587026.51	1801560.95	1751.85
C.O. 41F	587417.60	1801422.16	1756.90
C.O. 41G	587411.25	1801413.28	1756.49

MATCH LINE SEE SHEET 51

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMAD YASEEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date
Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

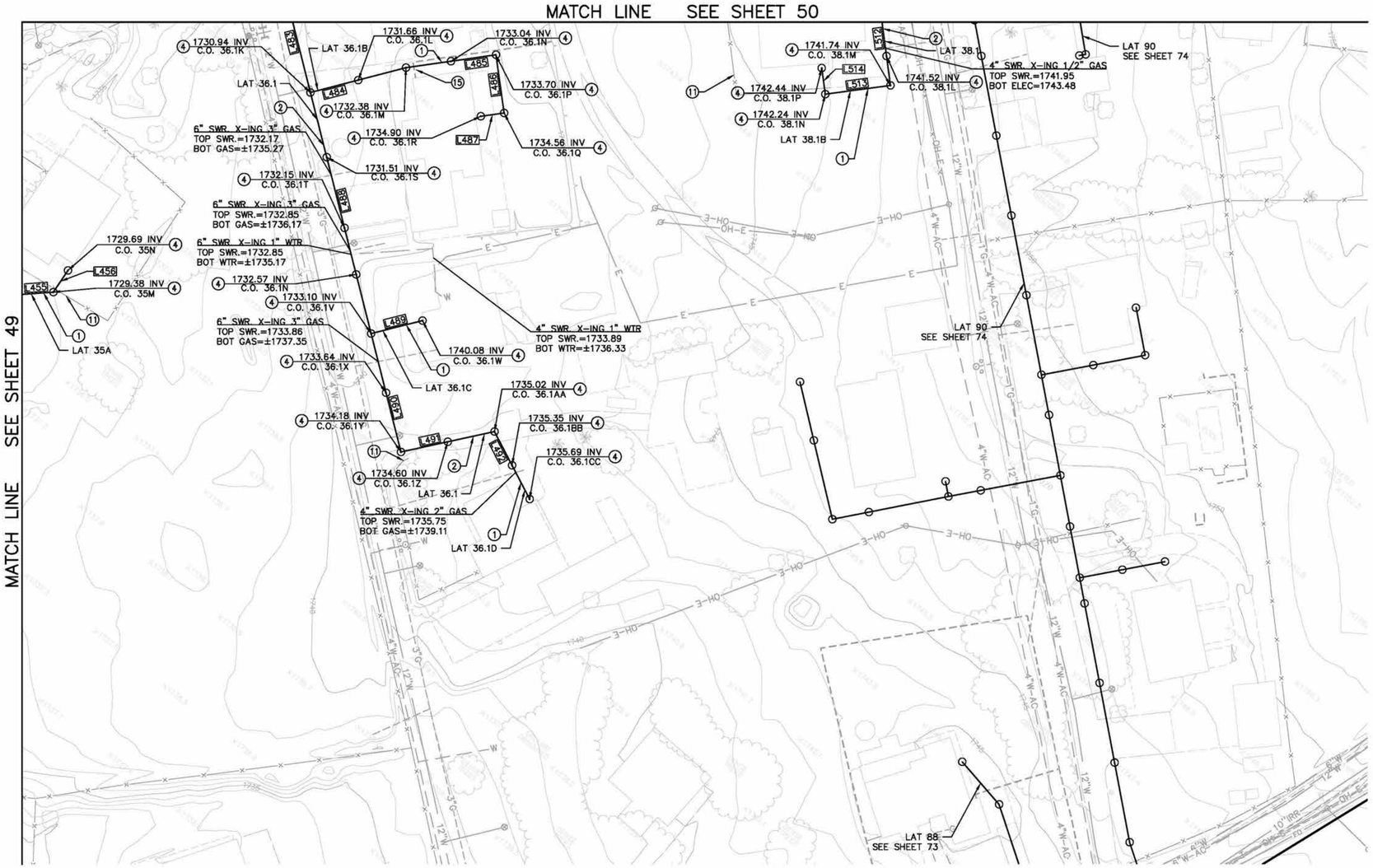
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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 30+00.00 TO STA. 40+00.00

SHEET 50 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L455	30.1	N47° 26' 10.40"E
L456	17.8	N4° 31' 29.17"W
L483	49.8	S52° 38' 04.03"E
L484	67.0	S36° 55' 11.31"W
L485	61.7	S43° 21' 18.32"W
L486	39.9	N46° 28' 58.20"W
L487	16.0	N43° 31' 08.36"E
L488	168.5	S52° 38' 04.03"E
L489	35.9	N37° 21' 55.97"E
L490	82.9	S52° 38' 04.03"E
L491	65.0	N39° 10' 52.16"E
L492	51.7	S65° 59' 02.45"E
L512	43.9	N46° 07' 48.58"W
L513	44.6	N43° 52' 11.42"E
L514	17.9	S46° 07' 48.58"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 35M	586364.12	1801077.94	1735.99
C.O. 35N	586381.85	1801076.55	1736.70
C.O. 36.1K	586578.68	1801130.28	1737.78
C.O. 36.1L	586605.46	1801150.40	1739.20
C.O. 36.1M	586632.23	1801170.52	1740.01
C.O. 36.1N	586654.66	1801191.69	1740.37
C.O. 36.1P	586677.09	1801212.87	1740.00

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36.1Q	586649.60	1801241.82	1740.10
C.O. 36.1R	586638.01	1801230.81	1740.51
C.O. 36.1S	586551.21	1801166.25	1738.31
C.O. 36.1T	586521.27	1801205.46	1739.12
C.O. 36.1U	586501.49	1801231.37	1739.76
C.O. 36.1V	586476.39	1801264.24	1740.35
C.O. 36.1W	586504.96	1801286.05	1742.67

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36.1X	586451.23	1801297.19	1740.43
C.O. 36.1Y	586426.06	1801330.14	1740.85
C.O. 36.1Z	586451.26	1801350.68	1741.31
C.O. 36.1AA	586476.45	1801371.21	1741.89
C.O. 36.1BB	586465.94	1801394.80	1742.27
C.O. 36.1CC	586455.42	1801418.40	1742.38
C.O. 38.1L	586841.42	1801420.87	1746.78
C.O. 38.1M	586827.50	1801435.35	1747.08
C.O. 38.1N	586795.32	1801404.42	1745.91
C.O. 38.1P	586807.71	1801391.54	1745.89

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI KAZEM No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

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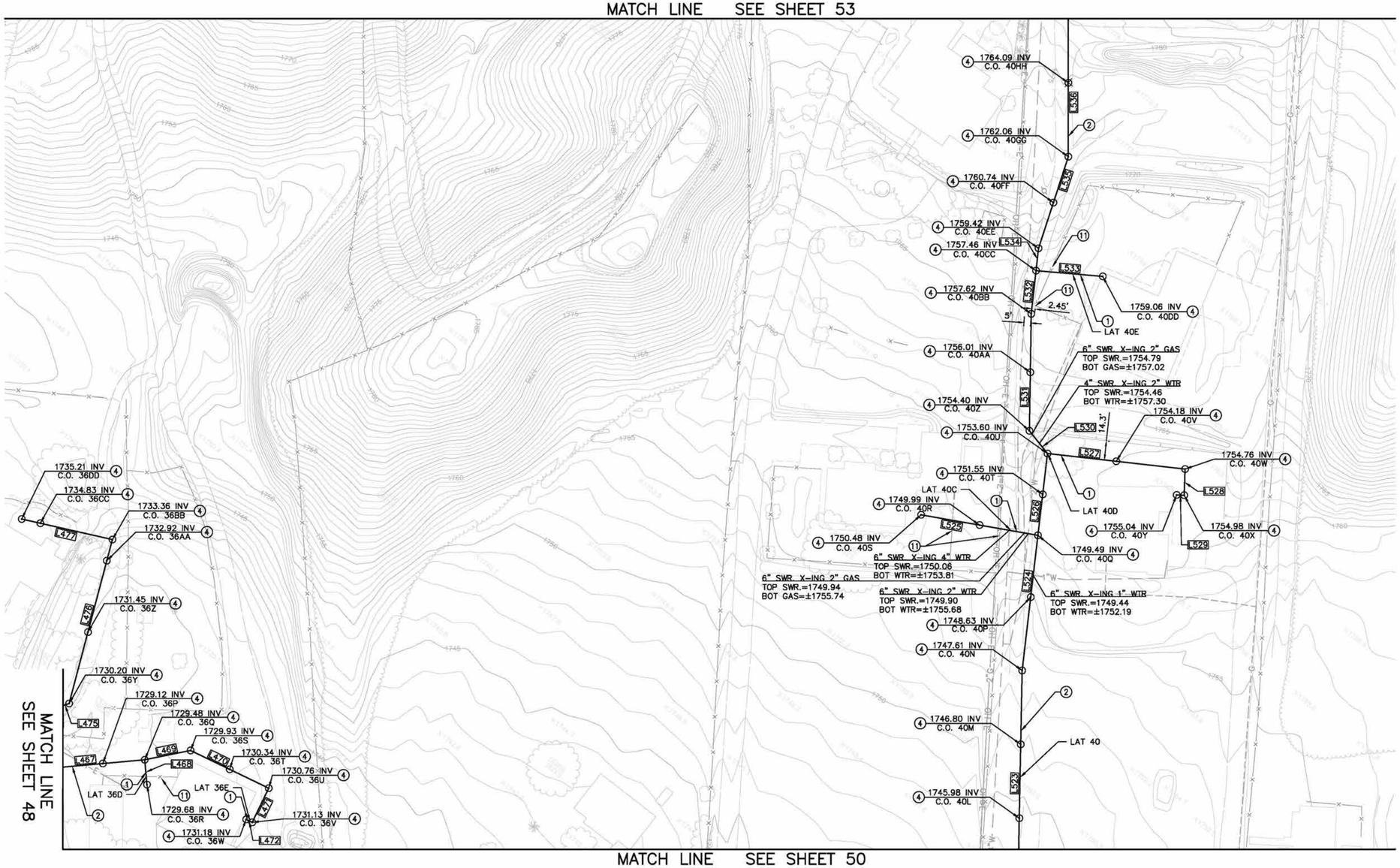
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 30+00.00 TO STA. 40+00.00

SHEET 51 OF 77
SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

MATCH LINE SEE SHEET 53



MATCH LINE SEE SHEET 48

MATCH LINE SEE SHEET 50

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
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7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
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13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L467	61.1	N46° 19' 58.32"E
L468	18.6	S43° 40' 01.68"E
L469	34.8	N40° 05' 56.33"E
L470	64.6	N77° 14' 32.88"E
L471	28.2	S12° 45' 27.12"E
L472	5.1	S77° 14' 32.88"W
L475	4.7	N33° 57' 45.33"E
L476	126.3	N23° 42' 17.56"W
L477	69.2	S64° 15' 11.41"W
L523	133.2	N37° 22' 41.58"W
L524	101.4	N31° 51' 17.72"W
L525	88.4	S61° 25' 16.31"W
L526	61.3	N31° 51' 17.72"W
L527	103.1	N57° 56' 30.22"E
L528	19.5	S36° 35' 27.92"E
L529	5.6	S53° 24' 32.08"W
L530	21.6	N77° 03' 02.03"W
L531	87.1	N37° 33' 39.86"W
L532	32.4	N32° 12' 28.88"W
L533	49.8	N56° 28' 18.89"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36P	586987.95	1800461.35	1734.12
C.O. 36Q	587009.60	1800484.03	1734.63

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36R	586996.11	1800496.90	1734.39
C.O. 36S	587036.23	1800506.45	1735.26

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36T	587043.36	1800537.97	1735.91
C.O. 36U	587050.50	1800569.48	1736.92
C.O. 36V	587022.97	1800575.71	1736.23
C.O. 36W	587021.85	1800570.74	1736.11
C.O. 36Y	587007.27	1800413.87	1735.15
C.O. 36Z	587057.63	1800391.76	1734.95
C.O. 36AA	587107.99	1800369.65	1736.25
C.O. 36BB	587122.90	1800363.10	1736.93

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 36CC	587099.01	1800313.56	1743.11
C.O. 36DD	587092.83	1800300.75	1743.10
C.O. 40L	587380.93	1801020.76	1749.73
C.O. 40M	587424.63	1800987.37	1751.15
C.O. 40N	587468.34	1800953.98	1752.51
C.O. 40P	587515.05	1800924.95	1754.81
C.O. 40Q	587554.43	1800900.49	1758.36
C.O. 40R	587533.29	1800861.70	1757.27

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 40S	587512.16	1800822.90	1755.86
C.O. 40T	587580.46	1800884.31	1759.31
C.O. 40U	587606.44	1800868.17	1761.68
C.O. 40V	587633.86	1800911.84	1759.94
C.O. 40W	587661.22	1800955.54	1760.47
C.O. 40X	587645.51	1800967.20	1760.41
C.O. 40Y	587642.21	1800962.62	1760.40
C.O. 40Z	587611.33	1800847.07	1761.68

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 40AA	587645.86	1800820.52	1764.49
C.O. 40BB	587680.39	1800793.96	1765.38
C.O. 40CC	587707.70	1800776.75	1765.91
C.O. 40DD	587735.29	1800818.25	1766.10
C.O. 40EE	587721.90	1800767.82	1766.92
C.O. 40FF	587755.43	1800755.33	1771.00
C.O. 40GG	587788.96	1800742.84	1772.76
C.O. 40HH	587832.10	1800708.55	1774.79

REGISTERED PROFESSIONAL ENGINEER
MAHMOOD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

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Underground Service Alert
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TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH Job No. 96019.040 1"= 40'

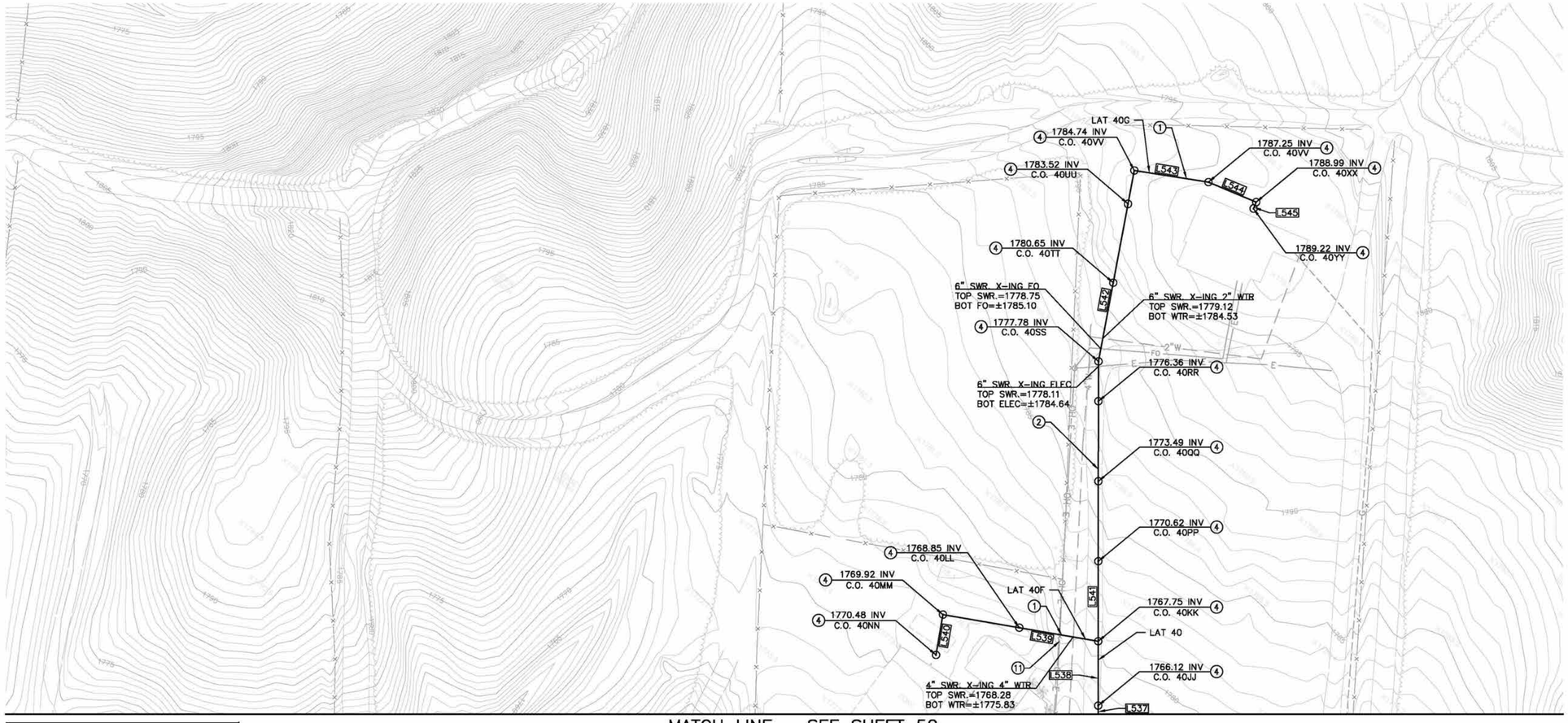
ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 3-118
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 30+00.00 TO STA. 40+00.00

SHEET 52 OF 77
SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



MATCH LINE SEE SHEET 52

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L537	50.9	N38° 28' 41.41"W
L538	50.9	N38° 28' 41.41"W
L539	108.2	S61° 15' 38.62"W
L540	28.2	S28° 44' 21.38"E
L541	192.4	N38° 27' 11.18"W
L542	133.3	N27° 51' 36.91"W
L543	51.5	N60° 22' 08.43"E
L544	35.6	N74° 15' 54.10"E
L545	4.7	S15° 44' 05.90"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 40JJ	587875.07	1800674.39	1778.23
C.O. 40KK	587909.74	1800646.84	1780.43
C.O. 40LL	587883.29	1800598.62	1776.99
C.O. 40MM	587857.70	1800551.94	1776.55
C.O. 40NN	587832.99	1800565.49	1775.58
C.O. 40PP	587952.81	1800612.64	1783.35
C.O. 40QQ	587995.88	1800578.43	1786.14
C.O. 40QQ	588038.95	1800544.23	1787.67
C.O. 40SS	588060.40	1800527.20	1788.03
C.O. 40TT	588109.02	1800501.50	1790.42
C.O. 40UU	588157.65	1800475.80	1794.08
C.O. 40VV	588178.25	1800464.90	1793.69
C.O. 40WW	588203.73	1800509.69	1795.99
C.O. 40XX	588213.38	1800543.97	1796.43
C.O. 40YY	588208.85	1800545.24	1796.68

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD I. KASEM
No.C 58784
C.I.V.I.L.
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-19
Redlands, California 92373-3119
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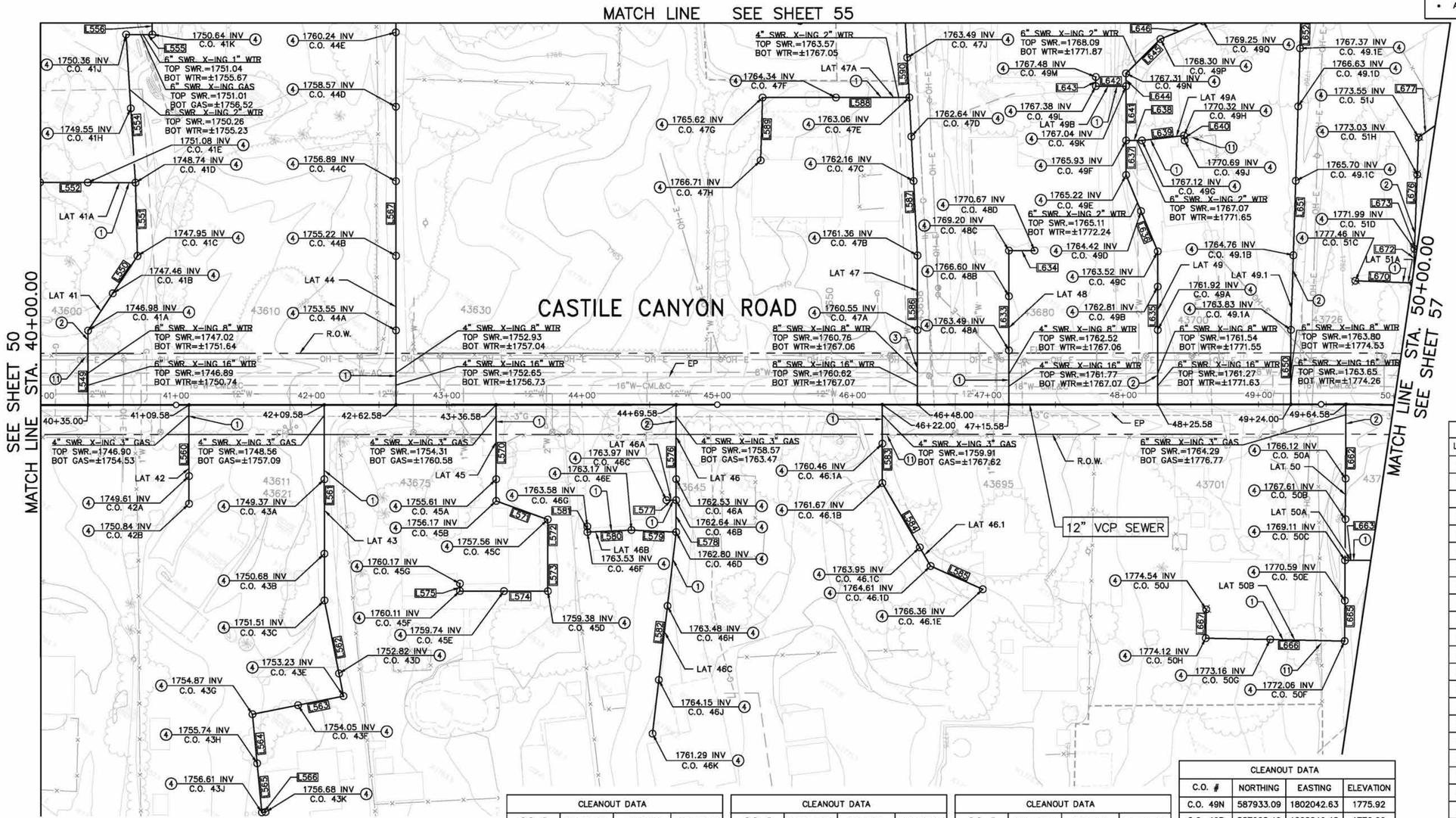
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 30+00.00 TO STA. 40+00.00

SHEET 53 OF 77 SHEETS
DWG. NO.

NOTES:
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CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
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9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
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12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA			SEWER DATA		
LINE #	DISTANCE	BEARING	LINE #	DISTANCE	BEARING
L549	55.0	S34° 01' 44.36"E	L586	110.0	N34° 01' 44.36"W
L550	66.0	S0° 24' 44.92"E	L587	116.8	N36° 57' 09.16"W
L551	54.1	S35° 32' 23.62"E	L588	108.5	S55° 58' 15.64"W
L552	70.6	S56° 09' 05.79"W	L589	46.5	S32° 17' 27.59"E
L554	109.7	S37° 38' 12.71"E	L590	55.3	N37° 00' 47.40"W
L555	19.4	S55° 58' 15.64"W	L633	113.5	N34° 01' 44.36"W
L556	9.0	S34° 01' 44.36"E	L634	19.0	N55° 58' 15.64"E
L560	73.0	S34° 01' 44.36"E	L635	112.9	N34° 01' 44.36"W
L561	144.5	S34° 01' 44.36"E	L636	61.0	N56° 31' 44.36"W
L562	72.1	S45° 16' 44.36"E	L637	25.6	N34° 01' 44.36"W
L563	68.6	S44° 43' 15.64"W	L638	11.7	N55° 58' 15.64"E
L564	51.2	S39° 27' 31.66"E	L639	31.3	N49° 20' 07.59"E
L565	21.7	S39° 27' 31.66"E	L640	3.6	S40° 54' 51.78"E
L566	2.8	N50° 32' 28.34"E	L641	40.1	N34° 01' 44.36"W
L567	282.1	N34° 02' 06.94"W	L642	22.3	S55° 58' 15.64"W
L570	71.0	S34° 01' 44.36"E	L643	6.8	N34° 26' 57.02"W
L571	40.4	N75° 54' 52.48"E	L644	9.4	N34° 01' 44.36"W
L572	50.9	S34° 13' 11.21"E	L644	9.4	N34° 01' 44.36"W
L573	50.9	S34° 13' 11.21"E	L645	36.0	N10° 58' 15.64"E
L574	65.0	S56° 05' 51.17"W	L646	31.5	N33° 28' 15.64"E
L575	5.5	N33° 54' 08.83"W	L650	55.0	S34° 01' 44.36"E
L576	70.6	S34° 01' 44.36"E	L651	207.9	S32° 08' 49.06"E
L577	7.2	S55° 58' 15.64"W	L652	19.4	S32° 34' 19.48"E
L578	23.6	S34° 01' 44.36"E	L662	115.3	S33° 42' 39.51"E
L579	33.1	S58° 32' 46.12"W	L663	18.7	N56° 12' 30.17"E
L580	32.6	S53° 21' 33.99"W	L665	59.6	S33° 38' 08.35"E
L581	4.2	N34° 01' 44.36"W	L666	102.7	S57° 10' 51.30"W
L582	149.9	S27° 18' 09.38"E	L667	21.2	N32° 49' 08.70"W
L583	58.0	S34° 01' 44.36"E	L670	41.6	N58° 07' 21.28"E
L584	70.9	S64° 10' 14.63"E	L672	13.3	N31° 52' 38.72"W
L585	42.2	N80° 02' 29.70"E	L673	1.8	N58° 07' 21.28"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 41A	587347.11	1801512.72	1755.68
C.O. 41B	587379.87	1801512.48	1756.26
C.O. 41C	587412.88	1801512.24	1757.01
C.O. 41D	587456.92	1801480.79	1758.53
C.O. 41E	587437.27	1801451.49	1757.65
C.O. 41H	587500.47	1801447.20	1759.41
C.O. 41J	587543.76	1801413.82	1759.16
C.O. 41K	587554.60	1801429.86	1759.82
C.O. 42A	587299.44	1801634.72	1758.03

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 42B	587282.51	1801646.16	1758.99
C.O. 43A	587353.39	1801718.95	1760.47
C.O. 43B	587307.81	1801749.73	1760.38
C.O. 43C	587279.21	1801769.05	1760.36
C.O. 43D	587240.51	1801808.13	1760.77
C.O. 43E	587228.51	1801820.24	1760.63
C.O. 43F	587204.15	1801796.11	1759.54
C.O. 43G	587179.78	1801771.98	1758.74
C.O. 43H	587151.66	1801795.13	1759.11

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 43J	587123.53	1801818.28	1759.57
C.O. 43K	587125.30	1801820.43	1759.70
C.O. 44A	587474.22	1801701.32	1761.40
C.O. 44B	587519.80	1801670.54	1761.46
C.O. 44C	587565.38	1801639.77	1761.77
C.O. 44D	587610.96	1801608.99	1762.89
C.O. 44E	587656.54	1801578.21	1763.99
C.O. 45A	587424.47	1801824.21	1763.71
C.O. 45B	587411.18	1801833.18	1763.64
C.O. 45C	587421.02	1801872.40	1764.11
C.O. 45D	587377.25	1801902.17	1763.72
C.O. 45E	587359.15	1801875.15	1763.62
C.O. 45F	587341.01	1801848.16	1763.47
C.O. 45G	587345.56	1801845.10	1763.51
C.O. 46A	587498.89	1801934.43	1767.44
C.O. 46B	587486.01	1801943.13	1767.51
C.O. 46C	587481.85	1801937.16	1767.26
C.O. 46D	587466.48	1801956.32	1767.66

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 46E	587449.21	1801928.09	1766.51
C.O. 46F	587429.73	1801901.90	1766.09
C.O. 46G	587433.18	1801899.57	1766.13
C.O. 46H	587417.61	1801981.55	1768.07
C.O. 46J	587368.73	1802006.77	1767.93
C.O. 46K	587333.26	1802025.09	1768.26
C.O. 46.1A	587605.73	1802046.15	1771.01
C.O. 46.1B	587581.69	1802062.43	1771.19
C.O. 46.1C	587557.73	1802111.94	1772.05
C.O. 46.1D	587550.81	1802126.23	1772.48
C.O. 46.1E	587558.10	1802167.77	1773.86
C.O. 47A	587689.90	1802020.74	1771.59
C.O. 47B	587735.49	1801989.96	1771.61
C.O. 47C	587779.43	1801956.88	1771.56
C.O. 47D	587805.76	1801937.10	1771.53
C.O. 47E	587828.84	1801919.74	1771.26
C.O. 47F	587798.49	1801874.79	1769.40
C.O. 47G	587768.14	1801829.85	1768.77

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 47H	587728.86	1801854.67	1770.14
C.O. 47J	587852.35	1801902.01	1771.44
C.O. 48A	587715.29	1802085.14	1773.14
C.O. 48B	587748.44	1802062.76	1772.93
C.O. 48C	587776.20	1802044.02	1773.81
C.O. 48D	587786.82	1802059.74	1773.89
C.O. 49A	587789.28	1802167.91	1775.60
C.O. 49B	587815.80	1802150.01	1775.93
C.O. 49C	587837.23	1802135.54	1776.28
C.O. 49D	587854.96	1802108.72	1776.43
C.O. 49E	587870.88	1802084.64	1775.94
C.O. 49F	587892.05	1802070.34	1775.88
C.O. 49G	587898.60	1802080.04	1775.76
C.O. 49H	587918.94	1802103.72	1777.17
C.O. 49J	587916.26	1802106.20	1777.22
C.O. 49K	587925.32	1802047.88	1775.82
C.O. 49L	587912.84	1802029.40	1773.92
C.O. 49M	587918.44	1802025.56	1773.87

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 49N	587933.09	1802042.63	1775.92
C.O. 49P	587968.40	1802049.48	1776.60
C.O. 49Q	587996.89	1802068.31	1777.66
C.O. 49.1A	587844.36	1802249.48	1778.82
C.O. 49.1B	587890.93	1802220.21	1779.05
C.O. 49.1C	587937.49	1802190.95	1779.30
C.O. 49.1D	587984.06	1802161.68	1779.40
C.O. 49.1E	588020.38	1802138.86	1779.09
C.O. 50A	587775.76	1802344.37	1779.83
C.O. 50B	587750.79	1802361.01	1780.06
C.O. 50C	587725.56	1802377.82	1780.28
C.O. 50E	587700.75	1802394.36	1780.43
C.O. 50F	587675.95	1802410.90	1780.54
C.O. 50G	587646.13	1802364.67	1778.55
C.O. 50H	587620.29	1802324.60	1777.15
C.O. 50J	587638.14	1802313.09	1777.13
C.O. 51C	587901.01	1802268.61	1780.68
C.O. 51D	587944.81	1802291.85	1781.55
C.O. 51H	587991.51	1802262.81	1781.91
C.O. 51J	588014.84	1802248.30	1781.83

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI YAZDEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____
Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

ERSG INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 40+00.00 TO STA. 50+00.00

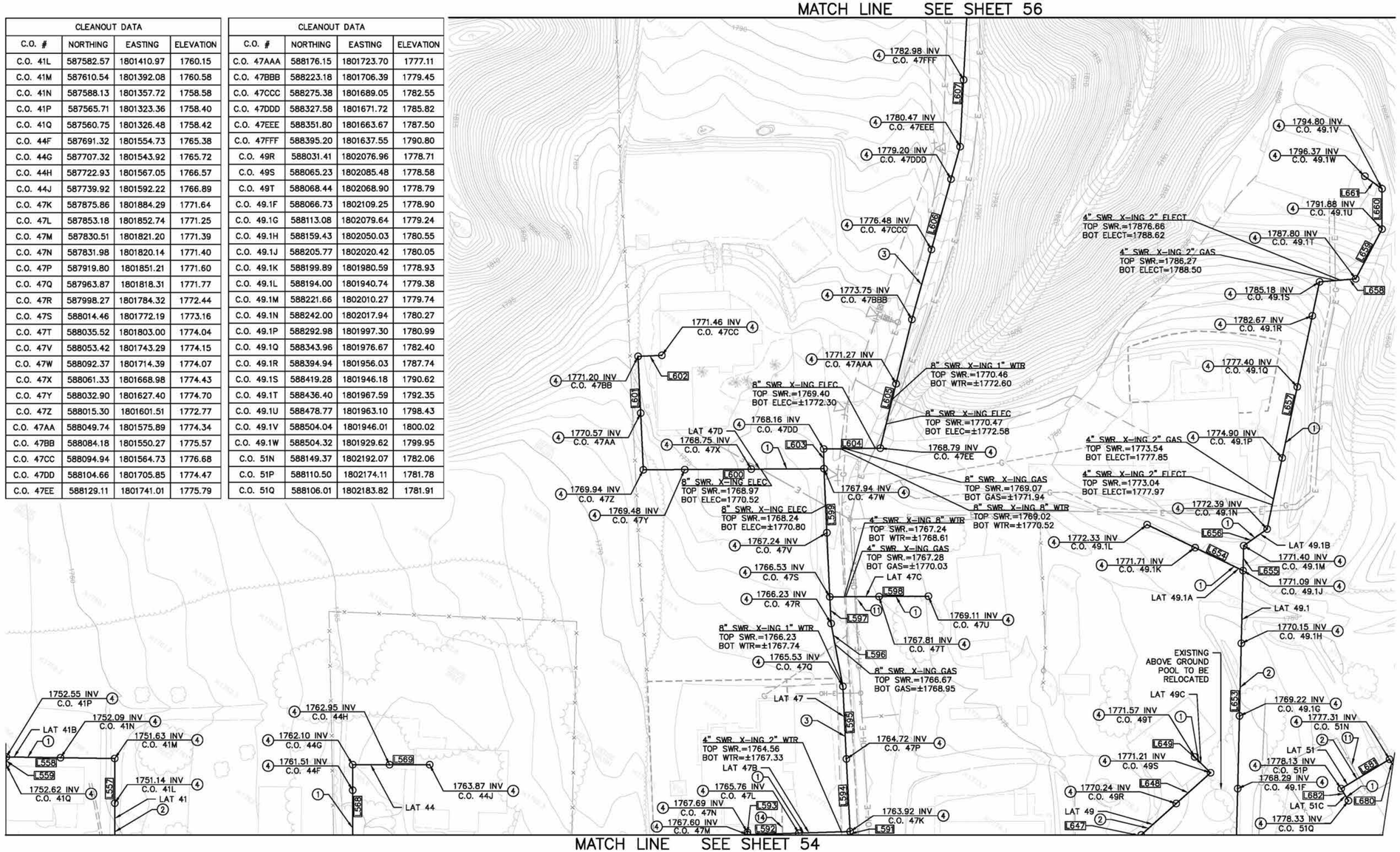
SHEET 54 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 41L	587582.57	1801410.97	1760.15
C.O. 41M	587610.54	1801392.08	1760.58
C.O. 41N	587588.13	1801357.72	1758.58
C.O. 41P	587565.71	1801323.36	1758.40
C.O. 41Q	587560.75	1801326.48	1758.42
C.O. 44F	587691.32	1801554.73	1765.38
C.O. 44G	587707.32	1801543.92	1765.72
C.O. 44H	587722.93	1801567.05	1766.57
C.O. 44J	587739.92	1801592.22	1766.89
C.O. 47K	587875.86	1801884.29	1771.64
C.O. 47L	587853.18	1801852.74	1771.25
C.O. 47M	587830.51	1801821.20	1771.39
C.O. 47N	587831.98	1801820.14	1771.40
C.O. 47P	587919.80	1801851.21	1771.60
C.O. 47Q	587963.87	1801818.31	1771.77
C.O. 47R	587998.27	1801784.32	1772.44
C.O. 47S	588014.46	1801772.19	1773.16
C.O. 47T	588035.52	1801803.00	1774.04
C.O. 47V	588053.42	1801743.29	1774.15
C.O. 47W	588092.37	1801714.39	1774.07
C.O. 47X	588061.33	1801668.98	1774.43
C.O. 47Y	588032.90	1801627.40	1774.70
C.O. 47Z	588015.30	1801601.51	1772.77
C.O. 47AA	588049.74	1801575.89	1774.34
C.O. 47BB	588084.18	1801550.27	1775.57
C.O. 47CC	588094.94	1801564.73	1776.68
C.O. 47DD	588104.66	1801705.85	1774.47
C.O. 47EE	588129.11	1801741.01	1775.79

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 47AAA	588176.15	1801723.70	1777.11
C.O. 47BBB	588223.18	1801706.39	1779.45
C.O. 47CCC	588275.38	1801689.05	1782.55
C.O. 47DDD	588327.58	1801671.72	1785.82
C.O. 47EEE	588351.80	1801663.67	1787.50
C.O. 47FFF	588395.20	1801637.55	1790.80
C.O. 49R	588031.41	1802076.96	1778.71
C.O. 49S	588065.23	1802085.48	1778.58
C.O. 49T	588068.44	1802068.90	1778.79
C.O. 49.1F	588066.73	1802109.25	1778.90
C.O. 49.1G	588113.08	1802079.64	1779.24
C.O. 49.1H	588159.43	1802050.03	1780.55
C.O. 49.1J	588205.77	1802020.42	1780.05
C.O. 49.1K	588199.89	1801980.59	1778.93
C.O. 49.1L	588194.00	1801940.74	1779.38
C.O. 49.1M	588221.66	1802010.27	1779.74
C.O. 49.1N	588242.00	1802017.94	1780.27
C.O. 49.1P	588292.98	1801997.30	1780.99
C.O. 49.1Q	588343.96	1801976.67	1782.40
C.O. 49.1R	588394.94	1801956.03	1787.74
C.O. 49.1S	588419.28	1801946.18	1790.62
C.O. 49.1T	588436.40	1801967.59	1792.35
C.O. 49.1U	588478.77	1801963.10	1798.43
C.O. 49.1V	588504.04	1801946.01	1800.02
C.O. 49.1W	588504.32	1801929.62	1799.95
C.O. 51N	588149.37	1802192.07	1782.06
C.O. 51P	588110.50	1802174.11	1781.78
C.O. 51Q	588106.01	1802183.82	1781.91

MATCH LINE SEE SHEET 56



MATCH LINE SEE SHEET 54

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L557	58.5	S34° 01' 44.36"E
L558	82.0	N56° 52' 52.17"E
L559	5.9	N32° 07' 20.00"W
L568	54.2	N33° 59' 46.72"W
L569	58.3	N55° 58' 15.64"E
L591	3.6	N37° 00' 47.40"W
L592	77.7	S54° 17' 33.65"W
L593	1.8	N35° 41' 11.04"W

SEWER DATA		
LINE #	DISTANCE	BEARING
L594	55.0	N36° 58' 22.29"W
L595	55.0	N36° 44' 24.92"W
L596	48.4	N44° 39' 41.42"W
L597	20.2	N36° 49' 47.54"W
L598	74.6	N55° 38' 34.76"E
L599	97.0	N36° 34' 21.94"W
L600	136.7	S55° 40' 20.26"W
L601	85.9	N36° 38' 42.96"W

SEWER DATA		
LINE #	DISTANCE	BEARING
L602	18.0	N53° 21' 17.04"E
L603	15.0	N34° 46' 32.07"W
L604	42.8	N55° 11' 19.97"E
L605	100.2	N20° 12' 10.27"W
L606	135.5	N18° 22' 19.82"W
L607	97.8	N31° 02' 11.97"W
L647	2.7	N33° 28' 15.64"E
L648	70.5	N14° 06' 03.88"E

SEWER DATA		
LINE #	DISTANCE	BEARING
L649	16.9	N79° 01' 44.36"W
L653	200.6	S32° 34' 19.48"E
L654	80.5	N81° 35' 33.11"E
L655	18.8	S32° 34' 19.48"E
L656	21.7	N20° 39' 18.18"E
L657	191.3	N22° 02' 15.85"W
L658	27.4	N51° 22' 16.10"E
L659	42.6	N6° 02' 53.83"W

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI ASSEH No.C 58784 C.IV.IL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

1861 West Redlands Blvd. Building 7-118 Redlands, California 92373-3119 (909) 890-1255
ERSC INC.com Engineering Resources of Southern California

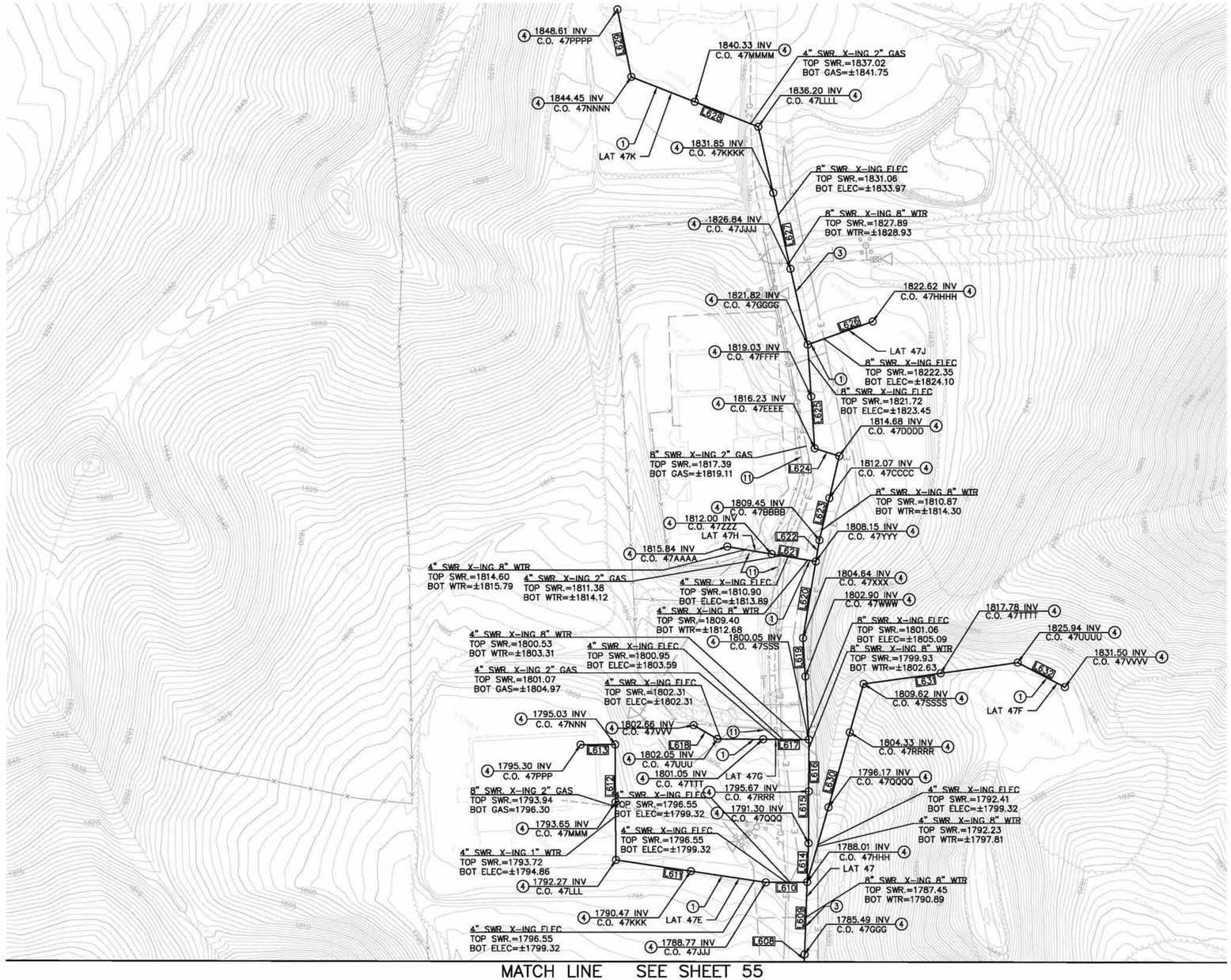
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 40+00.00 TO STA. 50+00.00

SHEET 55 OF 77
SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 47GGG	588438.61	1801611.44	1794.74
C.O. 47HHH	588481.93	1801584.45	1799.06
C.O. 47JJJ	588465.45	1801560.29	1797.37
C.O. 47KKK	588442.41	1801511.97	1797.10
C.O. 47LLL	588419.40	1801463.73	1798.26
C.O. 47MMM	588453.06	1801440.62	1798.75
C.O. 47NNN	588486.75	1801417.58	1799.29
C.O. 47PPP	588472.97	1801397.42	1798.80
C.O. 47QQQ	588505.31	1801569.87	1801.04
C.O. 47RRR	588535.73	1801549.46	1804.38
C.O. 47SSS	588566.14	1801529.05	1807.92
C.O. 47TTT	588548.23	1801502.17	1807.63
C.O. 47UUU	588530.33	1801475.30	1806.80
C.O. 47VVV	588529.07	1801455.90	1807.16
C.O. 47WWW	588601.69	1801502.09	1812.20
C.O. 47XXX	588623.28	1801485.57	1813.37
C.O. 47YYY	588673.32	1801462.75	1817.15
C.O. 47ZZZ	588660.15	1801433.87	1818.09
C.O. 47AAAA	588646.98	1801404.98	1821.17
C.O. 47BBBB	588687.14	1801456.45	1818.30
C.O. 47CCCC	588715.70	1801445.62	1820.61
C.O. 47DDDD	588744.27	1801434.78	1822.07
C.O. 47EEEE	588739.07	1801417.40	1822.07
C.O. 47FFFF	588768.10	1801394.86	1824.78
C.O. 47GGGG	588797.13	1801372.32	1827.53
C.O. 47HHHH	588836.36	1801401.26	1828.62
C.O. 47JJJJ	588834.79	1801332.23	1833.01
C.O. 47KKKK	588872.44	1801292.14	1839.53
C.O. 47LLLL	588905.11	1801257.37	1844.46
C.O. 47MMMM	588894.67	1801210.31	1851.02
C.O. 47NNNN	588884.23	1801163.25	1850.82
C.O. 47PPPP	588918.27	1801128.49	1851.57
C.O. 47QQQQ	588534.20	1801567.33	1805.94
C.O. 47RRRR	588586.47	1801550.22	1816.06
C.O. 47SSSS	588620.33	1801539.13	1823.59
C.O. 47TTTT	588657.05	1801580.08	1833.11
C.O. 47UUUU	588693.77	1801621.03	1839.18
C.O. 47VVVV	588698.00	1801658.30	1839.00



MATCH LINE SEE SHEET 55

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L608	3.5	N31° 02' 11.97"W
L609	51.0	N31° 55' 28.97"W
L610	29.2	S55° 42' 13.96"W
L611	107.1	S64° 30' 11.14"W
L612	81.6	N34° 21' 25.24"W
L613	24.4	S55° 38' 34.76"W
L614	27.6	N31° 55' 28.97"W
L615	73.3	N33° 52' 07.74"W
L616	73.3	N33° 52' 07.74"W
L617	64.6	N56° 19' 35.33"E
L618	19.4	N86° 16' 40.74"E
L619	54.4	N37° 25' 15.39"W
L620	55.0	N24° 30' 52.64"W
L621	63.5	S65° 29' 07.36"W
L622	15.2	N24° 30' 52.64"W
L623	61.1	N20° 46' 16.06"W
L624	18.1	S73° 21' 00.48"W
L625	73.5	N37° 49' 29.33"W
L626	48.7	N36° 25' 04.00"E
L627	157.7	N46° 47' 40.94"W
L628	96.4	S77° 29' 46.34"W
L629	48.7	N45° 36' 25.24"W
L630	145.6	N18° 07' 50.67"W
L631	110.0	N48° 07' 14.92"E
L632	37.5	N83° 31' 13.71"E

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____
Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

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Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-B
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

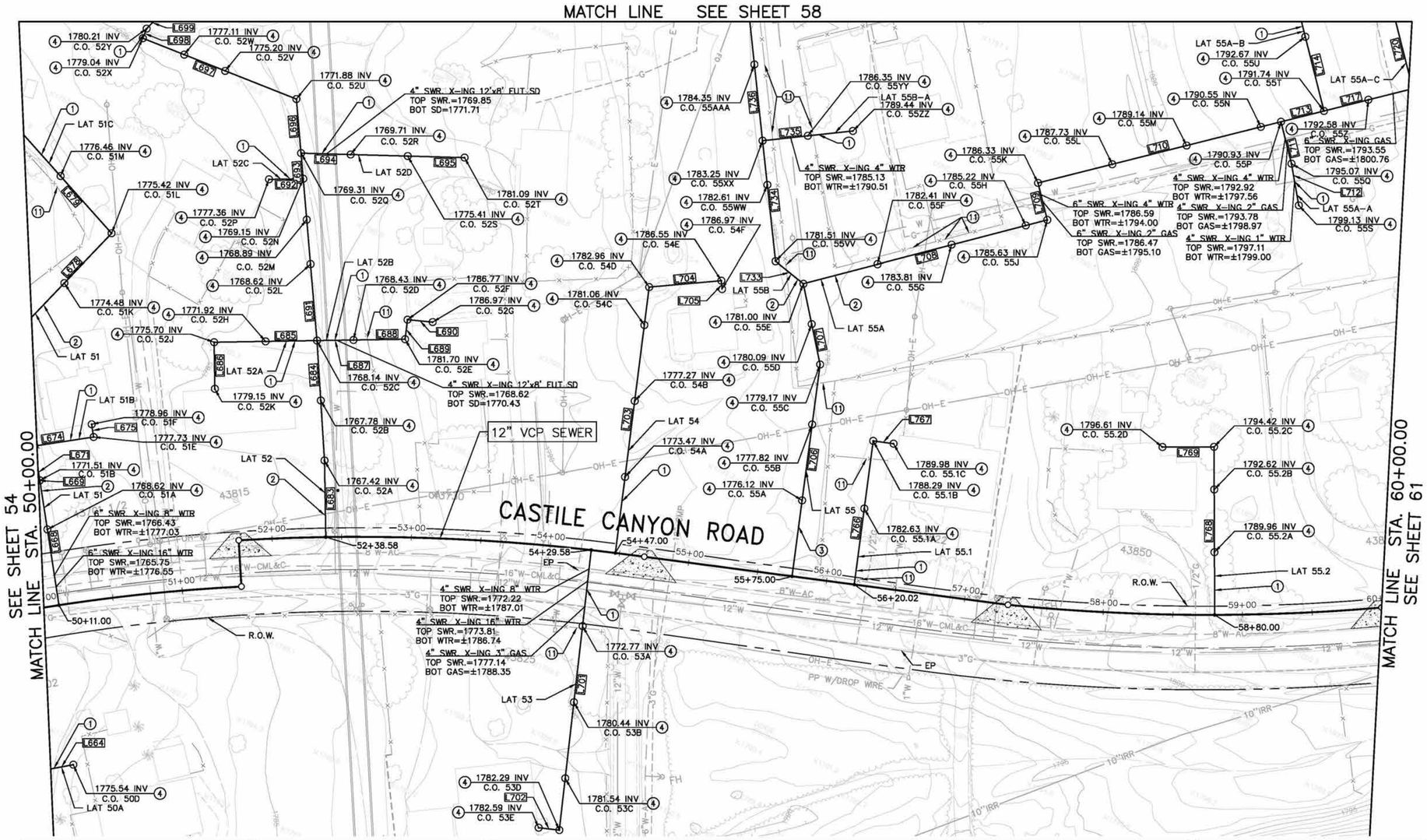
STA. 40+00.00 TO STA. 50+00.00

SHEET 56 OF 77
SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
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8. INSTALL 4-INCH 45° ELBOW.
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10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L664	16.9	N56° 12' 30.17"E
L668	90.7	N31° 52' 38.72"W
L669	1.3	N58° 07' 21.28"E
L671	11.6	N31° 52' 38.72"W
L674	42.9	S58° 07' 21.28"W
L675	9.2	S31° 52' 38.72"E
L678	86.1	N20° 32' 13.91"E
L679	93.4	N64° 53' 27.35"W
L683	55.0	N24° 04' 32.77"W
L684	86.3	N26° 43' 57.74"W
L685	73.9	S65° 57' 30.03"W
L686	33.7	S24° 02' 22.73"E
L687	26.2	N65° 57' 30.03"E
L688	37.1	N65° 57' 30.03"E
L689	14.2	N16° 15' 24.91"W
L690	18.2	N72° 26' 50.08"E
L691	116.4	N28° 01' 04.77"W
L692	24.6	S65° 57' 30.03"W
L693	18.4	N28° 01' 04.77"W
L694	35.6	N68° 24' 53.78"E
L695	81.8	N68° 24' 53.78"E
L696	39.0	N28° 01' 04.77"W
L697	118.6	S88° 27' 30.03"W
L698	7.4	N1° 32' 29.97"W

SEWER DATA		
LINE #	DISTANCE	BEARING
L699	7.2	N20° 44' 25.92"E
L701	202.4	S16° 38' 26.11"E
L702	15.0	S73° 21' 33.89"W
L703	192.4	N15° 53' 45.23"W
L704	52.0	N61° 44' 14.38"E
L705	6.1	S28° 15' 45.62"E
L706	153.4	N15° 37' 01.77"W
L707	59.3	N34° 53' 12.28"W
L708	181.1	N52° 14' 33.30"E
L709	27.3	N37° 16' 20.51"W
L710	179.9	N52° 43' 39.49"E
L711	30.7	N37° 16' 20.51"W
L712	30.8	N33° 08' 49.18"W
L713	31.9	N52° 43' 39.49"E
L714	66.3	S37° 16' 20.51"E
L717	62.5	N52° 43' 39.49"E
L720	39.5	N37° 16' 20.51"W
L733	25.6	N74° 14' 19.77"W
L734	87.0	N29° 15' 55.96"W
L735	65.2	N60° 44' 04.04"E
L736	86.1	N29° 15' 55.96"W
L766	104.0	N15° 37' 01.77"W
L767	14.7	N74° 28' 49.84"E
L768	120.7	N23° 20' 47.31"W

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 50D	587745.31	1802407.34	1781.82
C.O. 51A	587893.36	1802323.85	1781.46
C.O. 51B	587923.65	1802305.01	1781.51
C.O. 51E	587967.48	1802328.31	1783.43
C.O. 51F	587975.31	1802323.45	1783.43
C.O. 51K	588060.85	1802265.54	1782.85
C.O. 51L	588106.87	1802282.77	1783.72
C.O. 51M	588130.25	1802232.89	1783.00
C.O. 52A	588017.12	1802487.37	1785.96
C.O. 52B	588055.63	1802467.98	0.00

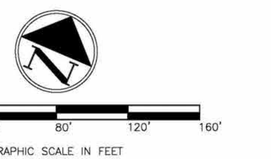
CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 52C	588093.98	1802448.66	0.00
C.O. 52D	588104.82	1802472.49	1786.93
C.O. 52E	588119.93	1802506.36	1788.72
C.O. 52F	588133.53	1802502.39	1788.99
C.O. 52G	588139.01	1802519.70	1789.93
C.O. 52H	588079.10	1802414.84	0.00
C.O. 52J	588064.05	1802381.10	1785.19
C.O. 52K	588033.31	1802394.81	1785.16
C.O. 52L	588142.70	1802422.74	0.00
C.O. 52M	588170.91	1802407.73	0.00

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 52N	588196.94	1802393.88	0.00
C.O. 52P	588186.93	1802371.44	1785.53
C.O. 52Q	588213.29	1802385.37	0.00
C.O. 52R	588226.32	1802418.30	1786.50
C.O. 52S	588241.40	1802456.43	1787.22
C.O. 52T	588256.43	1802494.40	1789.23
C.O. 52U	588247.67	1802366.89	1787.31
C.O. 52V	588246.19	1802311.91	1785.82
C.O. 52W	588245.34	1802280.24	1785.40
C.O. 52X	588244.48	1802248.32	1785.45
C.O. 52Y	588251.90	1802248.12	1786.04
C.O. 53A	587980.54	1802704.53	1790.73
C.O. 53B	587927.85	1802720.28	1790.12
C.O. 53C	587875.15	1802736.03	1789.70
C.O. 53D	587839.27	1802746.76	1789.48
C.O. 53E	587834.99	1802732.42	1789.19

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 54A	588091.02	1802690.44	1791.00
C.O. 54B	588143.92	1802675.37	1790.81
C.O. 54C	588196.82	1802660.31	1792.86
C.O. 54D	588223.21	1802652.79	1792.77
C.O. 54E	588247.83	1802698.58	1793.53
C.O. 54F	588242.47	1802701.46	1793.56
C.O. 55A	588125.53	1802813.98	1794.23
C.O. 55B	588178.27	1802799.24	1794.75
C.O. 55C	588220.31	1802787.48	1795.00
C.O. 55D	588244.62	1802770.54	1794.92
C.O. 55E	588268.92	1802753.59	1795.00
C.O. 55F	588302.65	1802797.14	1795.50
C.O. 55G	588336.29	1802840.57	1796.82
C.O. 55H	588370.01	1802884.10	1797.90
C.O. 55J	588379.79	1802896.74	1798.13
C.O. 55K	588401.54	1802880.18	1798.14

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55L	588434.85	1802923.95	1799.26
C.O. 55M	588468.16	1802967.72	1800.34
C.O. 55N	588501.47	1803011.48	1801.65
C.O. 55P	588510.48	1803023.33	1801.87
C.O. 55Q	588485.76	1803042.11	1802.57
C.O. 55S	588460.31	1803058.71	1803.34
C.O. 55T	588529.79	1803048.70	1802.53
C.O. 55U	588573.56	1803015.39	1802.57
C.O. 55Z	588549.66	1803074.81	1803.42
C.O. 55VV	588275.88	1802728.92	1794.73
C.O. 55WW	588323.86	1802702.04	1795.18
C.O. 55XX	588351.75	1802686.41	1795.22
C.O. 55YY	588367.68	1802714.84	1794.85
C.O. 55ZZ	588383.62	1802743.28	1795.80
C.O. 55AAA	588399.73	1802659.52	1795.23
C.O. 55.1A	588137.64	1802857.34	1796.22

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55.1B	588184.86	1802844.14	1796.09
C.O. 55.1C	588188.79	1802858.30	1796.50
C.O. 55.2A	588207.65	1803100.84	1800.44
C.O. 55.2B	588248.97	1803083.01	1800.30
C.O. 55.2C	588277.12	1803070.85	1800.36
C.O. 55.2D	588262.42	1803036.80	1800.32



REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI KAZEMI No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
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Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

ERSC INC. Engineering Resources of Southern California
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SOBOBA BAND OF LUISEÑO INDIANS

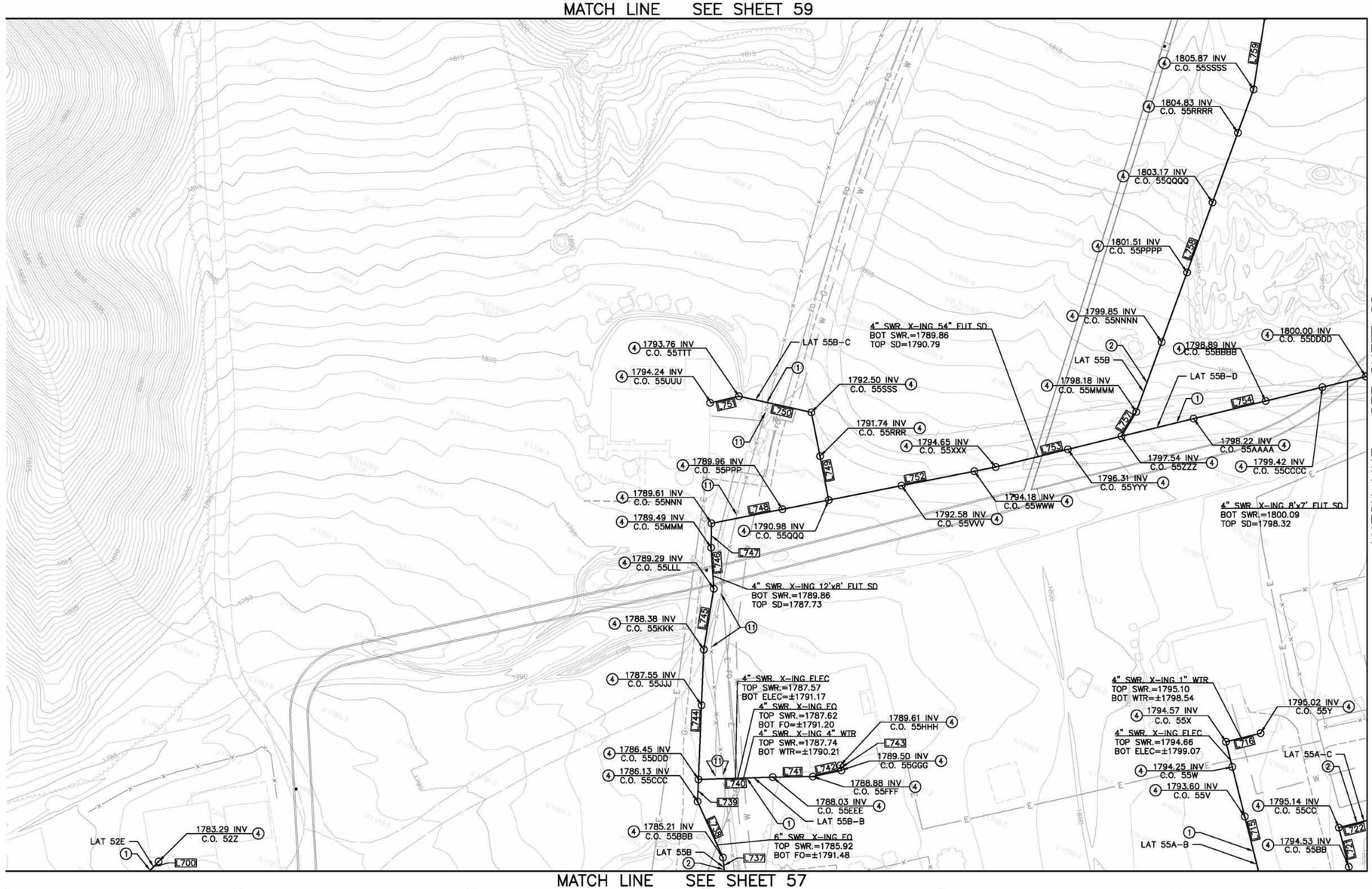
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 50+00.00 TO STA. 60+00.00

SHEET 57 OF 77 SHEETS
DWG. NO.

NOTES:
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- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

MATCH LINE SEE SHEET 59



MATCH LINE SEE SHEET 62

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L700	12.5	N20° 44' 25.92"E
L715	100.8	S37° 16' 20.51"E
L716	26.5	S52° 43' 39.49"W
L721	35.3	N37° 16' 20.51"W
L722	21.7	N52° 43' 39.49"E
L737	12.1	N29° 15' 55.96"W
L738	45.6	N47° 30' 12.05"W
L739	16.4	N20° 46' 55.70"W
L740	55.0	N65° 07' 17.89"E
L741	29.8	N65° 59' 22.98"E
L742	21.6	N54° 44' 23.66"E
L743	3.8	N35° 15' 36.34"W
L744	96.3	N20° 46' 55.70"W
L745	45.7	N13° 54' 06.88"W
L746	30.4	N26° 47' 06.33"W
L747	18.1	N22° 07' 33.65"W
L748	88.6	N55° 37' 47.81"E
L749	66.3	S34° 21' 52.66"E
L750	55.0	N79° 21' 57.63"E
L751	21.2	N53° 41' 02.12"E
L752	126.1	N55° 37' 47.81"E
L753	95.9	N53° 07' 22.24"E
L754	186.5	N53° 07' 22.24"E
L757	21.2	N8° 07' 22.24"E
L758	254.2	N3° 07' 37.76"W
L759	53.3	N14° 22' 37.76"W

MATCH LINE SEE SHEET 57

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 52Z	588270.27	1802255.08	1786.76
C.O. 55V	588617.33	1802982.08	1802.59
C.O. 55W	588647.53	1802959.10	1802.45
C.O. 55X	588662.77	1802947.50	1802.41

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55Y	588678.79	1802968.56	1802.81
C.O. 55BB	588613.30	1803067.61	1804.33
C.O. 55CC	588637.22	1803049.41	1804.17
C.O. 55BBB	588437.41	1802638.41	1794.94

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55CCC	588468.20	1802604.80	1794.05
C.O. 55DDD	588483.56	1802598.97	1793.85
C.O. 55EEE	588506.70	1802648.87	1794.61
C.O. 55FFF	588518.83	1802676.11	1795.64
C.O. 55GGG	588531.41	1802693.71	1795.30
C.O. 55HHH	588534.41	1802691.59	1794.96
C.O. 55JJJ	588534.98	1802579.46	1794.42
C.O. 55KKK	588573.62	1802564.79	1794.77
C.O. 55LLL	588618.02	1802553.80	1794.36
C.O. 55MMM	588645.18	1802540.09	1795.57

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55NNN	588661.94	1802533.28	1796.05
C.O. 55PPP	588692.15	1802577.45	1796.91
C.O. 55QQQ	588711.94	1802606.37	1797.42
C.O. 55RRR	588739.31	1802587.65	1798.80
C.O. 55SSS	588766.69	1802568.93	1799.63
C.O. 55TTT	588756.54	1802514.87	1798.84
C.O. 55UUU	588743.98	1802497.78	1798.53
C.O. 55VVV	588742.98	1802651.77	1798.61
C.O. 55WWW	588774.03	1802697.16	1799.49
C.O. 55XXX	588783.14	1802710.48	1799.58

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55YYY	588816.14	1802754.47	1800.91
C.O. 55ZZZ	588840.71	1802787.22	1801.58
C.O. 55AAAA	588873.71	1802831.21	1802.74
C.O. 55BBBB	588906.72	1802875.21	1803.89
C.O. 55CCCC	588932.69	1802909.82	1804.84
C.O. 55DDDD	588952.60	1802936.36	1806.10
C.O. 55MMMM	588861.66	1802790.21	1801.64
C.O. 55NNNN	588916.58	1802787.21	1806.11
C.O. 55PPPP	588971.49	1802784.21	1808.87
C.O. 55QQQQ	589026.41	1802781.20	1813.02

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55RRRR	589081.33	1802778.20	1814.18
C.O. 55SSSS	589115.50	1802776.34	1816.08

REGISTERED PROFESSIONAL ENGINEER
MAHMOOD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

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0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

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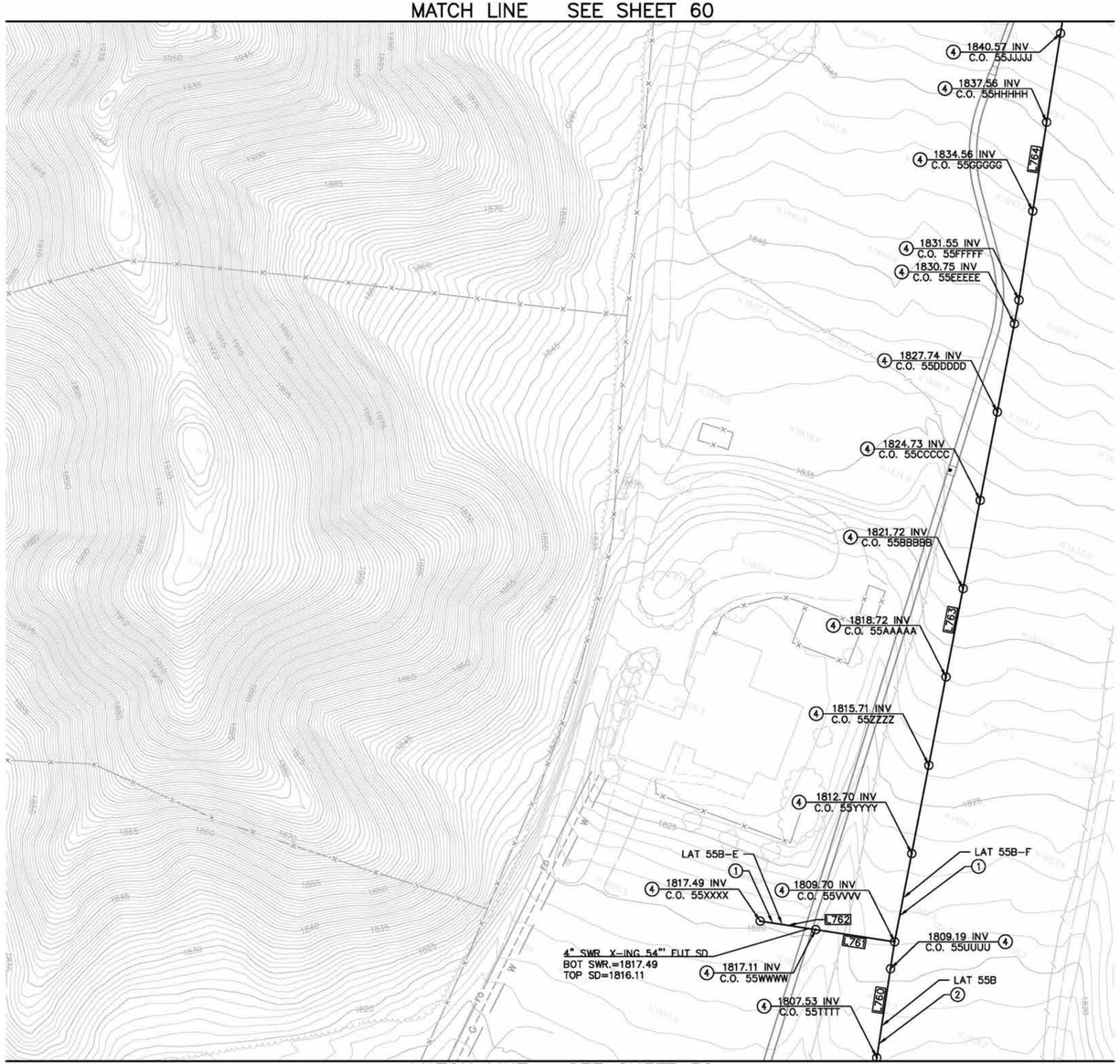
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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 50+00.00 TO STA. 60+00.00

SHEET 58 OF 77
SHEETS
DWG. NO.

MATCH LINE SEE SHEET 60



MATCH LINE SEE SHEET 58

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55TTTT	589168.78	1802762.68	1818.06
C.O. 55UUUU	589222.06	1802749.02	1820.27
C.O. 55VVVV	589238.24	1802744.88	1821.12
C.O. 55WWWW	589226.11	1802697.57	1819.91

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55XXXX	589217.59	1802664.31	1820.47
C.O. 55YYYY	589291.89	1802733.29	1823.57
C.O. 55ZZZZ	589345.76	1802721.66	1826.22
C.O. 55AAAAA	589399.52	1802710.06	1829.05

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55BBBBB	589453.28	1802698.45	1831.92
C.O. 55CCCCC	589507.05	1802686.85	1834.37
C.O. 55DDDDD	589560.81	1802675.24	1836.92
C.O. 55EEEEE	589614.57	1802663.63	1839.84
C.O. 55FFFFF	589628.91	1802660.54	1840.37
C.O. 55GGGGG	589682.20	1802646.97	1842.71
C.O. 55HHHHH	589735.50	1802633.40	1845.15
C.O. 55JJJJJ	589788.80	1802619.82	1848.17

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YAZDEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

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CONSTRUCTION NOTES

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13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L760	73.4	N14° 22' 37.76"W
L761	48.8	S75° 37' 22.24"W
L762	34.3	S75° 37' 22.24"W
L763	399.7	N12° 10' 55.53"W
L764	172.9	N14° 17' 09.46"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

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Designed SH/RT/MA
Drawn SH
Checked RT/MA
Job No. 96019.040
Scale: 1"= 40'

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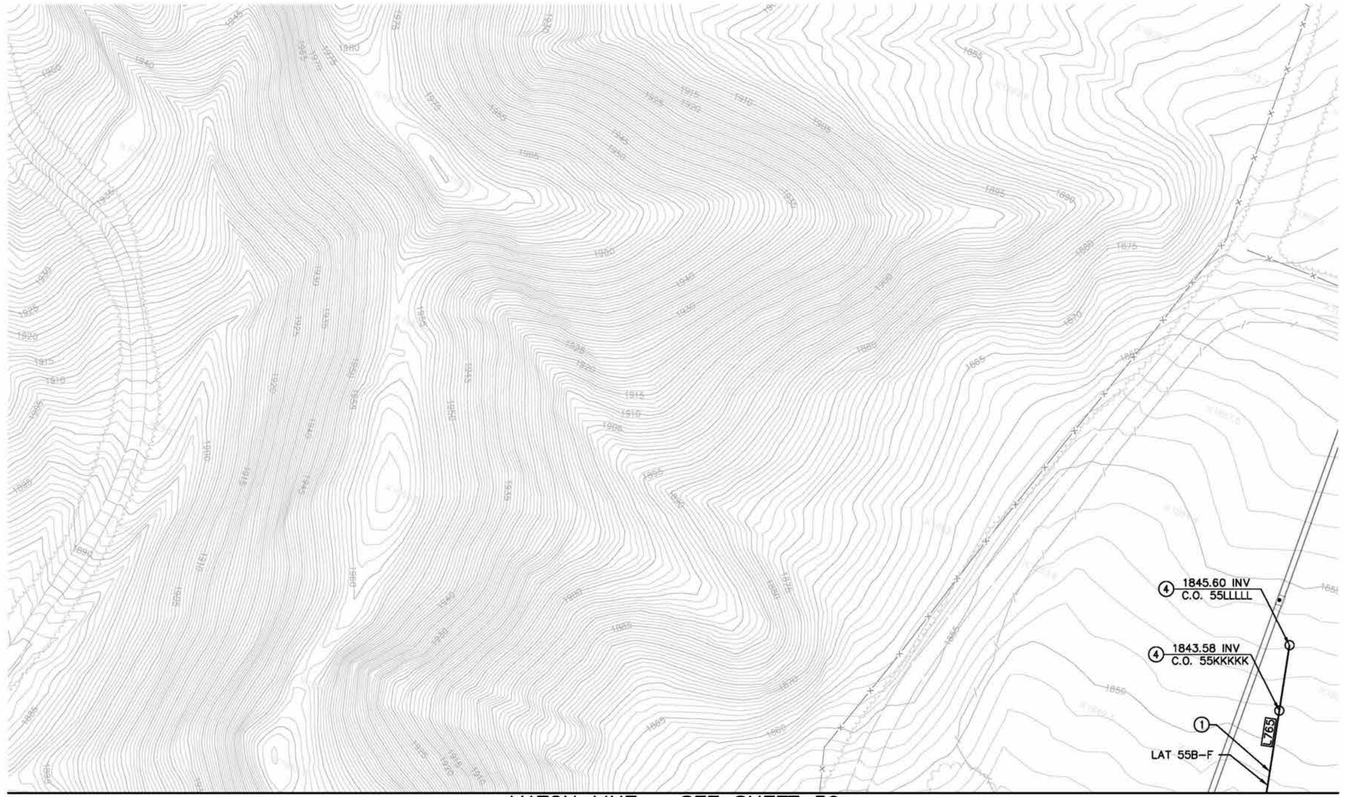
STA. 50+00.00 TO STA. 60+00.00

SHEET 59 OF 77 SHEETS
DWG. NO.

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MATCH LINE SEE SHEET 59

SEWER DATA		
LINE #	DISTANCE	BEARING
L765	84.1	N14° 17' 09.46"W

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55KKKKK	589842.10	1802606.25	1850.88
C.O. 55LLLLL	589877.96	1802597.12	1853.10

N

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI ASSEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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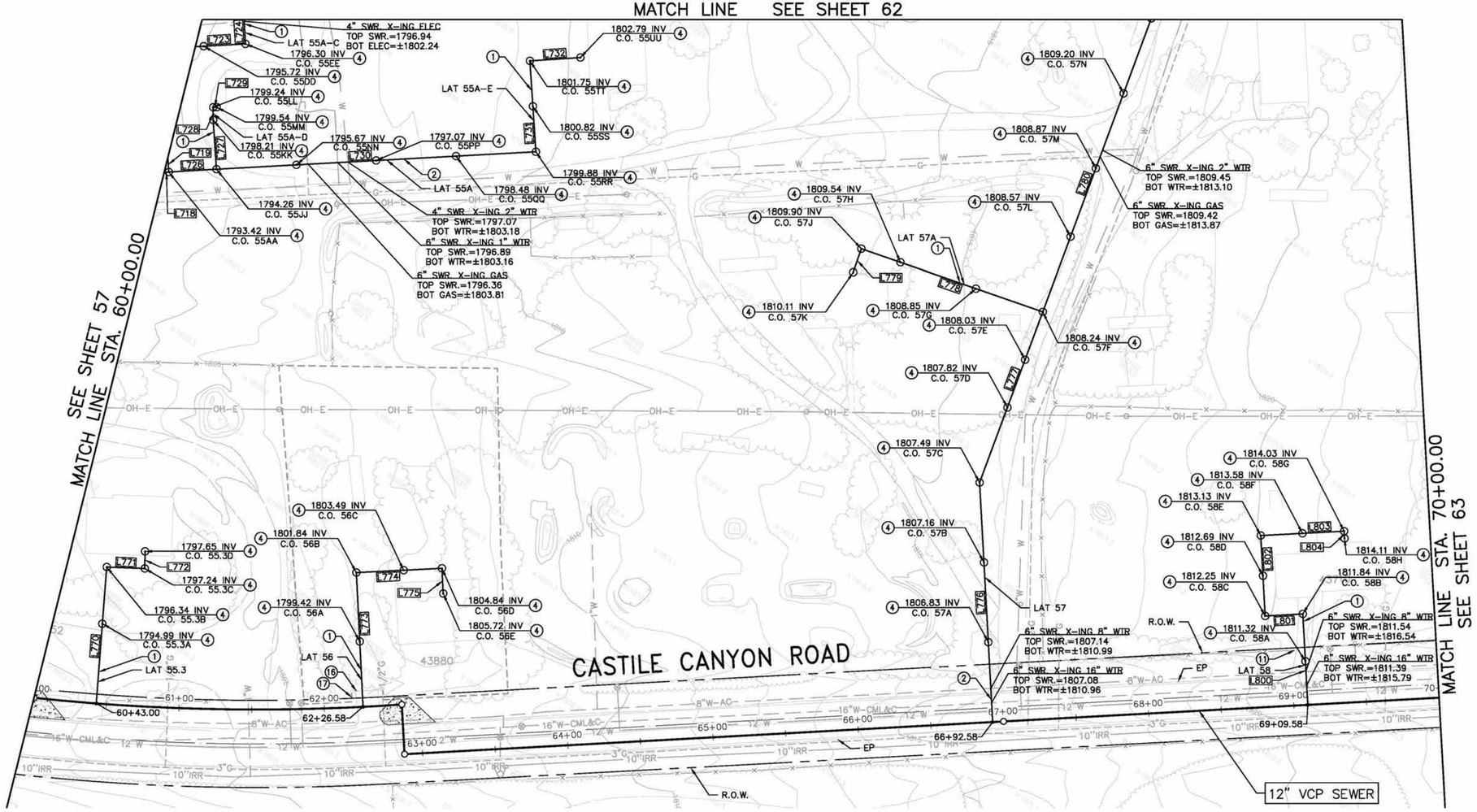
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SHEET 60 OF 77 SHEETS
DWG. NO.



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SEWER DATA		
LINE #	DISTANCE	BEARING
L718	3.2	N52° 43' 39.49"E
L719	10.2	N37° 16' 20.51"W
L723	35.9	N52° 43' 39.49"E
L724	17.2	N37° 16' 20.51"W
L726	32.9	N52° 33' 09.27"E
L727	33.9	S37° 50' 39.60"E
L728	8.8	S35° 03' 33.94"E
L729	2.6	S54° 56' 26.06"W
L730	220.0	N52° 46' 33.78"E
L731	62.6	N37° 51' 01.92"W
L732	34.8	N52° 08' 58.08"E
L770	94.1	N29° 42' 05.30"W
L771	26.2	N58° 09' 30.26"E
L772	11.8	N33° 36' 20.86"W
L773	92.4	N36° 56' 57.61"W
L774	58.9	N53° 03' 02.39"E
L775	17.3	S36° 56' 57.61"E
L776	165.0	N37° 13' 18.16"W
L777	125.1	N13° 46' 58.53"W
L778	132.1	S75° 01' 44.24"W
L779	17.1	S14° 58' 15.76"E
L780	214.7	N13° 46' 58.53"W
L800	62.6	N37° 13' 18.16"W
L801	26.0	S52° 47' 30.40"W
L802	55.4	N37° 12' 45.04"W
L803	57.4	N52° 52' 58.43"E
L804	4.9	S37° 07' 11.47"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55AA	588569.53	1803100.92	1804.17
C.O. 55DD	588654.65	1803072.31	1804.97
C.O. 55EE	588672.07	1803095.21	1805.68
C.O. 55JJ	588589.51	1803127.01	1805.33
C.O. 55KK	588616.30	1803106.19	1806.85
C.O. 55LL	588623.48	1803101.15	1807.03
C.O. 55MM	588624.97	1803103.28	1807.13
C.O. 55NN	588622.78	1803170.80	1806.84
C.O. 55PP	588656.05	1803214.60	1807.52
C.O. 55QQ	588689.32	1803258.39	1808.72
C.O. 55RR	588722.60	1803302.19	1809.64
C.O. 55SS	588747.32	1803282.97	1809.33
C.O. 55TT	588772.05	1803263.76	1809.20

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55UU	588793.40	1803291.23	1810.37
C.O. 55.3A	588286.84	1803237.19	1803.73
C.O. 55.3B	588320.81	1803217.82	1804.25
C.O. 55.3C	588334.64	1803240.10	1804.52
C.O. 55.3D	588344.47	1803233.57	1804.56
C.O. 56A	588375.94	1803390.60	1806.73
C.O. 56B	588413.85	1803362.09	1807.22
C.O. 56C	588433.42	1803388.11	1808.34
C.O. 56D	588449.27	1803409.17	1808.30
C.O. 56E	588435.41	1803419.61	1808.47
C.O. 57A	588617.85	1803748.83	1816.42
C.O. 57B	588661.65	1803715.56	1815.67
C.O. 57C	588705.45	1803682.29	1815.71

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 57D	588758.86	1803669.19	1816.10
C.O. 57E	588792.91	1803660.83	1816.17
C.O. 57F	588826.95	1803652.48	1816.09
C.O. 57G	588814.39	1803605.49	1815.30
C.O. 57H	588800.18	1803552.35	1814.43
C.O. 57J	588792.83	1803524.88	1813.86
C.O. 57K	588776.30	1803529.30	1813.94
C.O. 57L	588880.37	1803639.38	1816.05
C.O. 57M	588928.99	1803627.45	1816.69
C.O. 57N	588982.41	1803614.35	1817.25
C.O. 58A	588729.24	1803936.73	1820.67
C.O. 58B	588755.18	1803917.02	1820.90
C.O. 58C	588739.48	1803896.34	1819.91
C.O. 58D	588761.54	1803879.59	1819.88
C.O. 58E	588783.65	1803862.89	1820.03
C.O. 58F	588800.92	1803885.71	1820.70
C.O. 58G	588818.25	1803908.59	1821.24
C.O. 58H	588814.29	1803911.60	1821.26

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI YAZDI No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED ____ RCE ____ Date ____

Designed SH/RT/MA Checked RT/MA Date ____
Drawn SH Job No. 95019.040 Scale: 1"= 40'

ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-B, Redlands, California 92373-3119 (909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 60+00.00 TO STA. 70+00.00

SHEET 61 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.

CONSTRUCTION NOTES

(1) INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.

(2) INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.

(3) INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177

(4) INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.

(5) INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.

(6) FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.

(7) INSTALL 4-INCH 90° ELBOW.

(8) INSTALL 4-INCH 45° ELBOW.

(9) INSTALL 4-INCH 22.5° ELBOW.

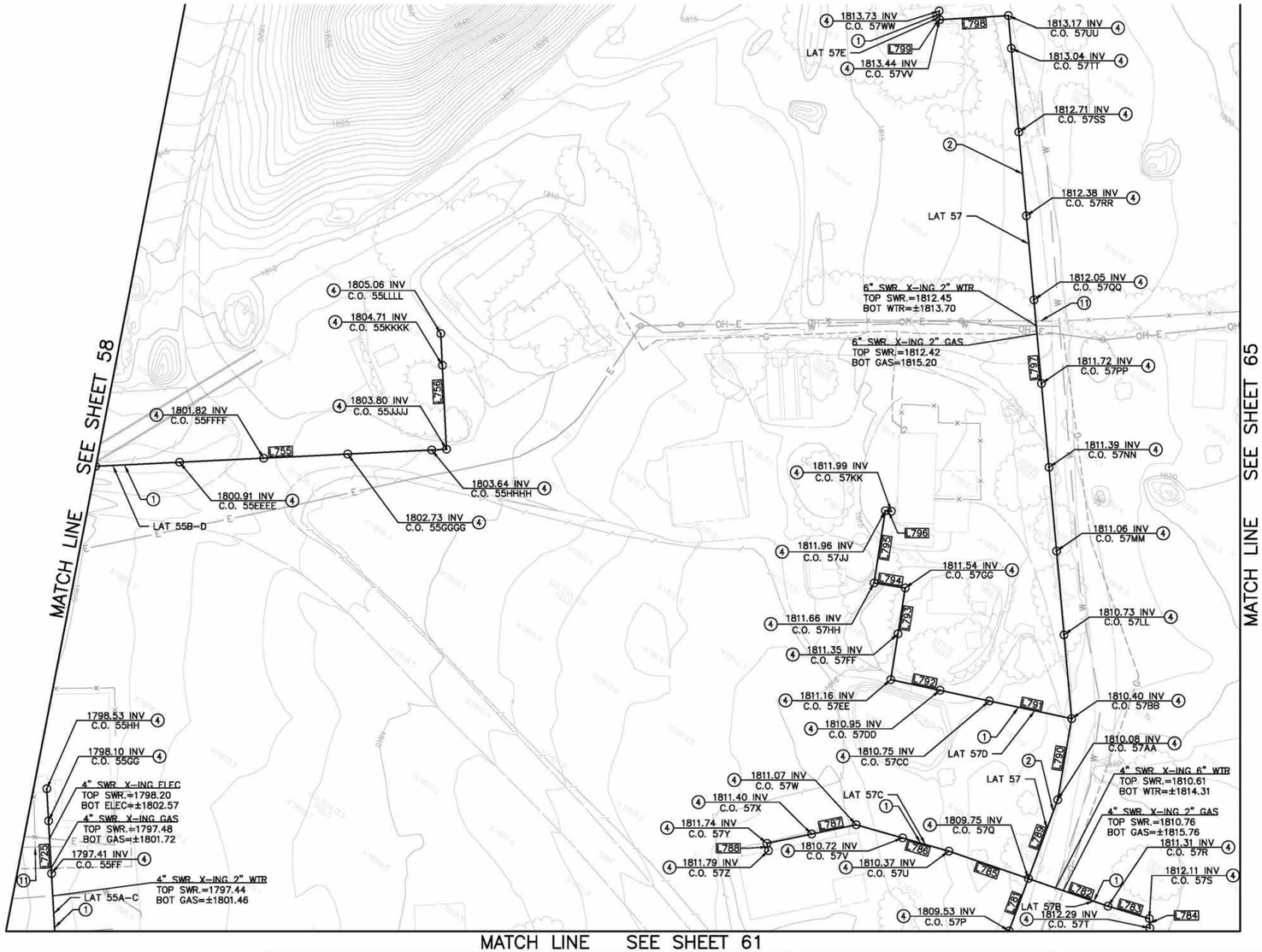
(10) INSTALL 4-INCH 11.25° ELBOW.

(11) REMOVE AND REPLACE EXISTING FENCE.

(12) REMOVE AND REPLACE EXISTING RETAINING WALL.

(13) REMOVE AND RE-INSTALL EXISTING GATE.

(14) REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L725	93.4	N37° 16' 20.51"W
L755	229.7	N53° 07' 22.24"E
L756	75.7	N36° 52' 37.76"W
L781	36.8	N13° 46' 58.53"W
L782	55.0	N75° 03' 11.13"E
L783	28.3	N72° 32' 54.89"E
L784	6.2	S37° 08' 48.07"E
L785	55.0	S74° 56' 17.25"W
L786	63.0	S71° 50' 19.73"W
L787	59.6	S44° 06' 50.59"W
L788	4.9	S45° 53' 09.41"E
L789	55.0	N13° 46' 58.53"W
L790	53.9	N24° 20' 30.36"W
L791	55.0	N68° 00' 53.12"E
L792	66.0	N68° 05' 11.56"E
L793	60.7	S25° 07' 30.32"E
L794	20.6	N64° 52' 29.68"E
L795	47.9	S25° 13' 43.85"E
L796	3.9	S60° 48' 09.05"W
L797	461.5	N39° 14' 18.75"W
L798	45.0	S52° 31' 44.24"W
L799	5.7	N37° 28' 15.76"W

MATCH LINE SEE SHEET 61

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55FF	588715.84	1803061.90	1805.86
C.O. 55GG	588743.32	1803040.98	1805.86
C.O. 55HH	588760.08	1803028.23	1805.82
C.O. 55EEEE	588985.61	1802980.37	1806.60
C.O. 55FFFF	589018.62	1803024.36	1807.67
C.O. 55GGGG	589051.62	1803068.36	1808.67
C.O. 55HHHH	589084.63	1803112.35	1808.98

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 55JJJJ	589090.43	1803120.09	1809.18
C.O. 55KKKK	589134.42	1803087.08	1808.66
C.O. 55LLLL	589151.01	1803074.64	1808.86
C.O. 57P	589035.82	1803601.25	1818.11
C.O. 57Q	589071.15	1803592.58	1818.45
C.O. 57R	589085.33	1803645.72	1819.27
C.O. 57S	589093.81	1803672.69	1819.65

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 57T	589088.86	1803676.44	1819.72
C.O. 57U	589056.85	1803539.47	1817.58
C.O. 57V	589047.03	1803509.53	1816.24
C.O. 57W	589037.21	1803479.58	1815.27
C.O. 57X	589015.82	1803458.85	1815.01
C.O. 57Y	588994.44	1803438.12	1815.00
C.O. 57Z	588991.06	1803441.60	1815.04
C.O. 57AA	589124.55	1803579.48	1818.54
C.O. 57BB	589173.66	1803557.26	1818.50
C.O. 57CC	589153.08	1803506.29	1816.85
C.O. 57DD	589140.77	1803475.68	1816.24
C.O. 57EE	589128.45	1803445.06	1815.69
C.O. 57FF	589155.95	1803432.17	1816.23

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 57GG	589183.45	1803419.27	1815.82
C.O. 57HH	589174.70	1803400.62	1814.95
C.O. 57JJ	589218.00	1803380.22	1815.83
C.O. 57KK	589219.91	1803383.63	1815.93
C.O. 57LL	589216.29	1803522.45	1817.73
C.O. 57MM	589258.86	1803487.54	1817.97
C.O. 57NN	589301.46	1803452.89	1817.57
C.O. 57PP	589344.05	1803418.10	1817.70
C.O. 57QQ	589386.65	1803383.31	1817.57
C.O. 57RR	589429.25	1803348.52	1817.42
C.O. 57SS	589471.85	1803313.73	1817.54
C.O. 57TT	589514.45	1803278.94	1816.31
C.O. 57UU	589531.08	1803265.36	1817.16

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 57VV	589503.70	1803229.65	1817.09
C.O. 57WW	589508.21	1803226.20	1817.28

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI FARDEN No.C 58784 CIVIL STATE OF CALIFORNIA

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GRAPHIC SCALE IN FEET
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Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date

Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-B
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

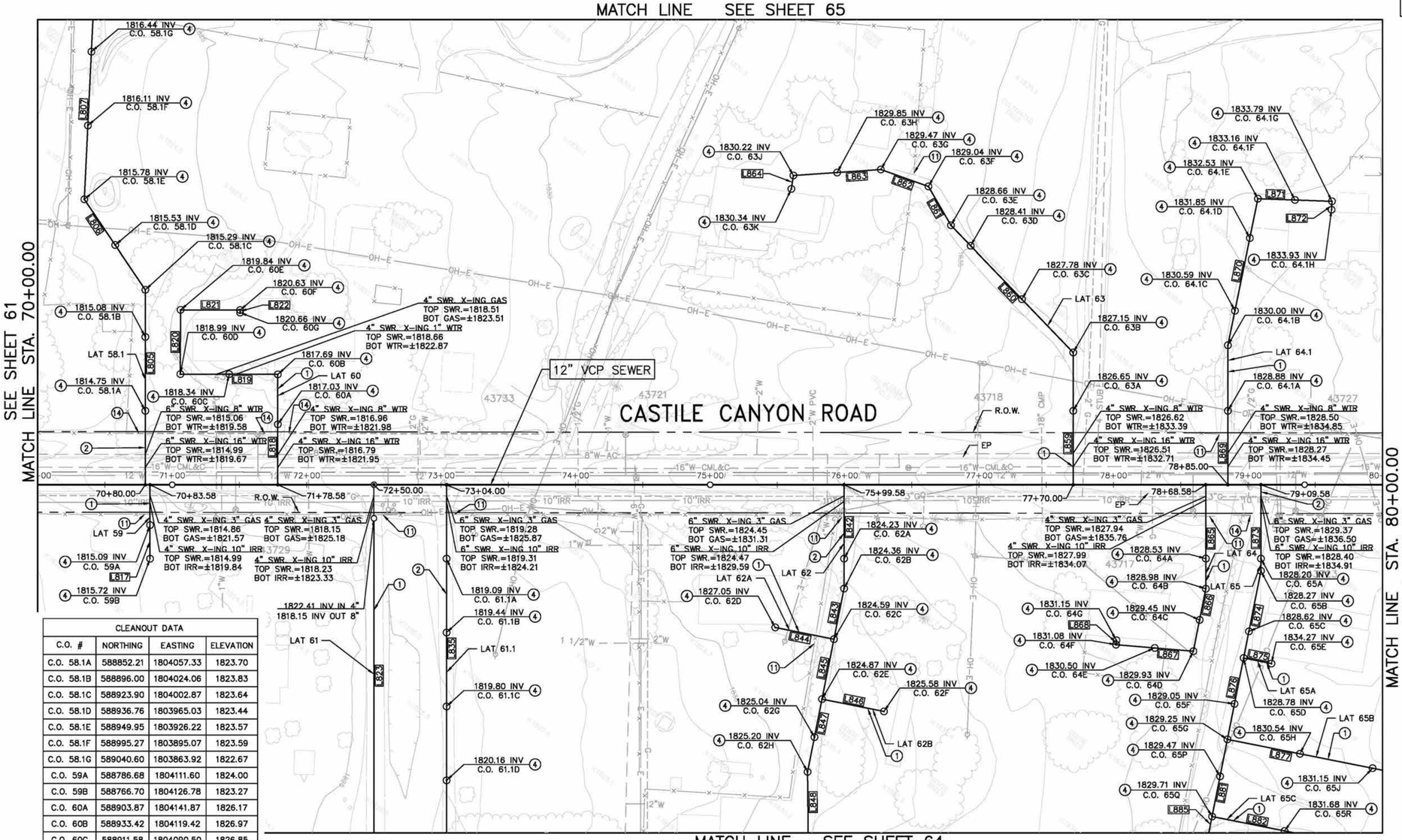
STA. 60+00.00 TO STA. 70+00.00

SHEET 62 OF 77
SHEETS
DWG. NO.

NOTES:
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CONSTRUCTION NOTES

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5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L805	145.0	N37° 13' 18.16"W
L806	81.0	N71° 14' 02.09"W
L807	134.0	N34° 29' 57.99"W
L817	55.1	S37° 13' 18.16"E
L818	82.1	N37° 13' 41.78"W
L819	72.5	S52° 56' 54.25"W
L820	47.8	N37° 03' 00.28"W
L821	44.2	N52° 59' 05.52"E
L822	1.8	S37° 00' 54.48"E
L823	234.1	S37° 13' 15.67"E
L835	259.1	S37° 13' 18.16"E
L842	77.3	S37° 13' 18.16"E
L843	38.4	S25° 58' 18.16"E
L844	44.6	S64° 01' 41.84"W
L845	45.5	S25° 58' 18.16"E
L846	46.9	N64° 01' 41.84"E
L847	55.2	S25° 58' 18.16"E
L848	45.0	S37° 49' 18.16"E
L859	98.4	N37° 13' 18.16"W
L860	131.1	N81° 07' 46.86"W

SEWER DATA		
LINE #	DISTANCE	BEARING
L861	33.4	N67° 18' 07.41"W
L862	37.5	S72° 20' 07.00"W
L863	65.2	S48° 51' 36.45"W
L864	10.1	S28° 43' 45.37"E
L865	77.4	S37° 13' 18.16"E
L866	47.4	S25° 58' 18.16"E
L867	57.7	S57° 34' 52.18"W
L868	3.3	N32° 25' 07.82"W
L869	103.8	N37° 13' 18.16"W
L870	111.1	N25° 38' 01.76"W
L871	55.1	N54° 46' 27.64"E
L872	6.3	S35° 13' 32.36"E
L873	64.1	S37° 13' 18.16"E
L874	66.1	S25° 58' 18.16"E
L875	21.1	N64° 01' 41.84"E
L876	61.7	S25° 58' 18.16"E
L877	117.2	N64° 01' 41.84"E
L881	58.5	S25° 58' 18.16"E
L882	67.3	N64° 01' 41.84"E
L885	12.0	S25° 58' 18.16"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 58.1A	588852.21	1804057.33	1823.70
C.O. 58.1B	588896.00	1804024.06	1823.83
C.O. 58.1C	588923.90	1804002.87	1823.64
C.O. 58.1D	588936.76	1803965.03	1823.44
C.O. 58.1E	588949.95	1803926.22	1823.57
C.O. 58.1F	588995.27	1803895.07	1823.59
C.O. 58.1G	589040.60	1803863.92	1822.67
C.O. 59A	588786.68	1804111.60	1824.00
C.O. 59B	588766.70	1804126.78	1823.27
C.O. 60A	588903.87	1804141.87	1826.17
C.O. 60B	588933.42	1804119.42	1826.97
C.O. 60C	588911.58	1804090.50	1826.85
C.O. 60D	588889.74	1804061.57	1824.71
C.O. 60E	588927.88	1804032.78	1825.28
C.O. 60F	588954.52	1804068.11	1826.60
C.O. 60G	588953.05	1804069.21	1826.71
C.O. 61.1A	588900.11	1804302.25	1827.65
C.O. 61.1B	588856.32	1804335.52	1827.30
C.O. 61.1C	588812.52	1804368.78	1826.90
C.O. 61.1D	588768.72	1804402.05	1826.91
C.O. 62A	589078.91	1804537.61	1832.49
C.O. 62B	589061.16	1804551.09	1831.90

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 62C	589026.65	1804567.90	1831.15
C.O. 62D	589007.13	1804527.83	1831.05
C.O. 62E	588985.76	1804587.82	1830.63
C.O. 62F	589006.32	1804630.03	1831.58
C.O. 62G	588959.83	1804600.45	1830.56
C.O. 62H	588936.14	1804611.99	1830.69
C.O. 63A	589269.59	1804606.78	1838.13

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 63B	589304.15	1804580.52	1837.77
C.O. 63C	589312.63	1804526.18	1836.07
C.O. 63D	589321.12	1804471.84	1834.92
C.O. 63E	589324.37	1804450.97	1834.64
C.O. 63F	589337.27	1804420.15	1834.50
C.O. 63G	589325.88	1804384.38	1833.84
C.O. 63H	589304.43	1804359.84	1833.44
C.O. 63J	589282.99	1804335.29	1833.76
C.O. 63K	589274.10	1804340.16	1833.95
C.O. 64A	589241.68	1804751.77	1836.68
C.O. 64B	589223.79	1804765.36	1836.40
C.O. 64C	589202.50	1804775.74	1835.74
C.O. 64D	589181.20	1804786.11	1835.58

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 64E	589165.73	1804761.74	1835.47
C.O. 64F	589150.25	1804737.38	1835.39
C.O. 64G	589152.97	1804735.42	1835.48
C.O. 64.1A	589339.15	1804698.36	1838.67
C.O. 64.1B	589377.98	1804668.86	1839.09
C.O. 64.1C	589401.64	1804657.51	1839.46
C.O. 64.1D	589451.22	1804633.71	1840.20
C.O. 64.1E	589478.18	1804620.78	1840.10
C.O. 64.1F	589494.05	1804643.27	1840.15
C.O. 64.1G	589509.93	1804665.76	1840.71
C.O. 64.1H	589504.79	1804669.39	1840.93
C.O. 65A	589266.43	1804784.47	1838.27
C.O. 65B	589259.15	1804790.00	1838.27

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 65C	589217.92	1804810.08	1837.52
C.O. 65D	589199.73	1804818.94	1837.50
C.O. 65E	589208.96	1804837.89	1838.57
C.O. 65F	589168.47	1804834.16	1837.12
C.O. 65G	589144.26	1804845.96	1836.98
C.O. 65H	589168.35	1804895.40	1837.61
C.O. 65J	589192.43	1804944.85	1838.55
C.O. 65P	589119.03	1804858.25	1836.74
C.O. 65Q	589091.64	1804871.59	1836.47
C.O. 65R	589115.72	1804921.04	1837.27

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMAD YASEEN No.C 58784 CIVIL STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

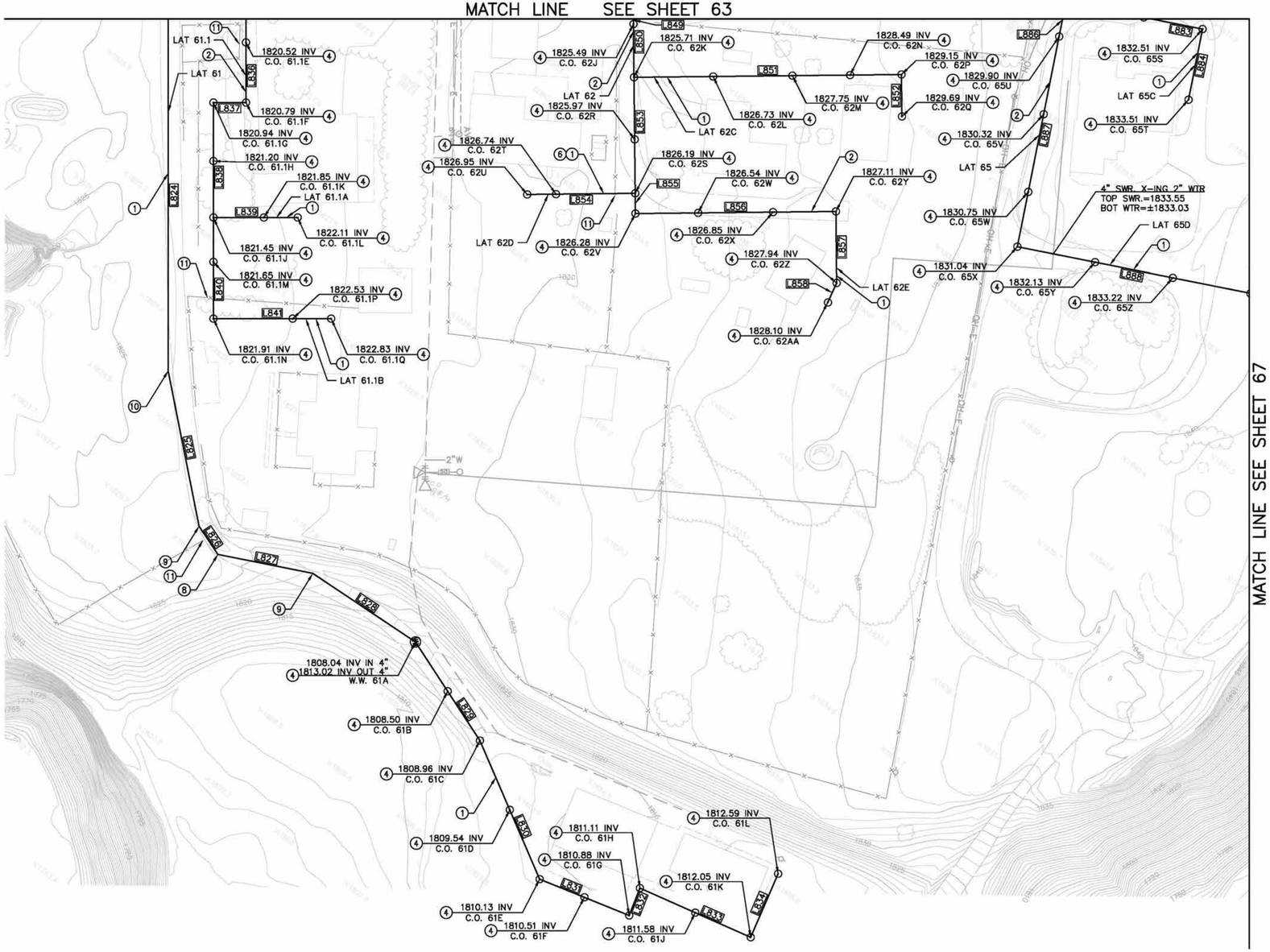
ERSG INC. Engineering Resources of Southern California
1861 West Redlands Blvd, Building 7-B, Redlands, California 92373-3119 (909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 70+00.00 TO STA. 80+00.00

SHEET 63 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
W.W. 61A	588464.85	1804780.62	1818.02
C.O. 61B	588451.10	1804819.13	1815.94
C.O. 61C	588437.35	1804857.65	1814.70
C.O. 61D	588411.60	1804903.25	1813.49
C.O. 61E	588385.86	1804948.86	1814.32
C.O. 61F	588394.61	1804981.23	1814.57
C.O. 61G	588403.36	1805013.60	1814.94
C.O. 61H	588423.03	1805008.07	1815.28
C.O. 61J	588432.67	1805048.99	1815.69
C.O. 61K	588442.32	1805089.91	1816.50
C.O. 61L	588488.92	1805078.43	1816.53
C.O. 61.1E	588724.93	1804435.32	1827.35
C.O. 61.1F	588691.67	1804460.59	1827.59
C.O. 61.1G	588677.98	1804442.57	1826.66
C.O. 61.1H	588645.65	1804467.14	1826.42
C.O. 61.1J	588614.44	1804490.84	1826.07
C.O. 61.1K	588635.61	1804518.71	1826.77
C.O. 61.1L	588649.81	1804537.41	1827.20
C.O. 61.1M	588589.90	1804509.48	1826.13
C.O. 61.1N	588558.69	1804533.19	1826.11
C.O. 61.1P	588591.96	1804576.99	1826.95
C.O. 61.1Q	588608.14	1804598.30	1827.82
C.O. 62J	588897.71	1804641.83	1830.86
C.O. 62K	588868.55	1804664.46	1830.95
C.O. 62L	588902.28	1804707.91	1832.31
C.O. 62M	588936.00	1804751.35	1832.98
C.O. 62N	588960.53	1804782.95	1833.57
C.O. 62P	588982.34	1804811.16	1834.07
C.O. 62Q	588959.39	1804828.98	1833.92
C.O. 62R	588834.52	1804690.88	1830.85
C.O. 62S	588804.92	1804713.86	1830.74
C.O. 62T	588771.20	1804670.41	1829.93
C.O. 62U	588758.91	1804654.58	1829.43
C.O. 62V	588793.85	1804722.45	1830.66
C.O. 62W	588820.54	1804756.83	1831.20
C.O. 62X	588852.43	1804797.90	1832.77
C.O. 62Y	588879.19	1804832.38	1833.64
C.O. 62Z	588840.14	1804862.70	1833.80
C.O. 62AA	588825.64	1804865.96	1833.80
C.O. 65S	589133.95	1804958.47	1838.03
C.O. 65T	589088.99	1804980.37	1838.43
C.O. 65U	589069.58	1804882.34	1836.46
C.O. 65V	589020.14	1804906.42	1836.24
C.O. 65W	588970.69	1804930.51	1836.55
C.O. 65X	588935.89	1804947.46	1836.53
C.O. 65Y	588959.97	1804996.91	1837.53
C.O. 65Z	588984.06	1805046.35	1838.68

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L824	243.8	S37° 13' 15.77"E
L825	109.9	S48° 28' 18.16"E
L826	23.5	S70° 58' 18.16"E
L827	67.1	N64° 01' 41.84"E
L828	85.8	N86° 31' 41.84"E
L829	81.8	S70° 21' 23.83"E
L830	104.7	S60° 33' 12.84"E
L831	67.1	N74° 52' 19.94"E
L832	20.4	N15° 42' 31.10"W
L833	84.1	N76° 44' 12.02"E
L834	48.0	N13° 49' 58.18"W

SEWER DATA		
LINE #	DISTANCE	BEARING
L836	57.7	S37° 13' 18.16"E
L837	22.6	S52° 46' 41.84"W
L838	79.8	S37° 13' 18.16"E
L839	58.5	N52° 46' 41.84"E
L840	70.0	S37° 13' 18.16"E
L841	81.8	N52° 46' 41.84"E
L849	1.4	S37° 49' 18.16"E
L850	39.2	S37° 49' 18.16"E
L851	185.7	N52° 10' 41.84"E
L852	29.1	S37° 49' 18.16"E
L853	80.5	S37° 49' 18.16"E

SEWER DATA		
LINE #	DISTANCE	BEARING
L854	75.0	S52° 10' 41.84"W
L855	14.0	S37° 49' 18.16"E
L856	139.2	N52° 10' 41.84"E
L857	49.4	S37° 49' 18.16"E
L858	14.9	S12° 39' 30.83"E
L858	14.9	S12° 39' 30.83"E
L883	29.4	N64° 01' 41.84"E
L884	50.0	S25° 58' 18.16"E
L886	1.4	S25° 58' 18.16"E
L887	159.9	S25° 58' 18.16"E
L888	163.5	N64° 01' 41.84"E

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI ZADEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date

Designed SH/RT/MA | Checked RT/MA | Scale: 1"= 40'
Drawn SH | Job No. 96019.040

ERSC INC.com
Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 70+00.00 TO STA. 80+00.00

SHEET 64 OF 77
SHEETS
DWG. NO.

NOTES:
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MATCH LINE SEE SHEET 66



MATCH LINE SEE SHEET 63

CONSTRUCTION NOTES

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SEWER DATA		
LINE #	DISTANCE	BEARING
L808	289.0	N34° 29' 57.99"W
L809	156.9	N2° 36' 55.50"W
L810	53.6	N57° 37' 38.36"E
L811	61.0	N33° 40' 00.62"W
L812	5.2	N55° 23' 09.19"E
L813	189.7	N27° 37' 36.55"W
L920	197.9	S41° 24' 03.90"W
L921	50.2	N48° 35' 56.10"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 58.1H	589085.93	1803832.76	1822.79
C.O. 58.1J	589131.25	1803801.61	1822.72
C.O. 58.1K	589176.58	1803770.46	1822.31
C.O. 58.1L	589221.91	1803739.31	1822.03
C.O. 58.1M	589267.24	1803708.16	1821.84
C.O. 58.1N	589298.53	1803686.65	1822.12
C.O. 58.1P	589353.47	1803684.14	1822.15

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 58.1Q	589407.45	1803681.67	1823.25
C.O. 58.1R	589455.27	1803679.49	1823.52
C.O. 58.1S	589483.98	1803724.78	1824.35
C.O. 58.1T	589458.60	1803741.69	1824.91
C.O. 58.1U	589433.21	1803758.60	1825.04
C.O. 58.1V	589430.20	1803754.60	1824.89
C.O. 58.1W	589532.75	1803699.26	1824.69

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 58.1X	589581.44	1803673.77	1824.28
C.O. 58.1Y	589630.17	1803648.27	1824.39
C.O. 68.1QQ	589871.59	1804364.66	1837.86
C.O. 68.1RR	589830.34	1804328.28	1837.35
C.O. 68.1SS	589789.08	1804291.91	1836.16
C.O. 68.1TT	589761.49	1804267.58	1835.64
C.O. 68.1UU	589794.68	1804229.94	1837.41

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI ASSEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

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Engineering Resources of Southern California
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Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

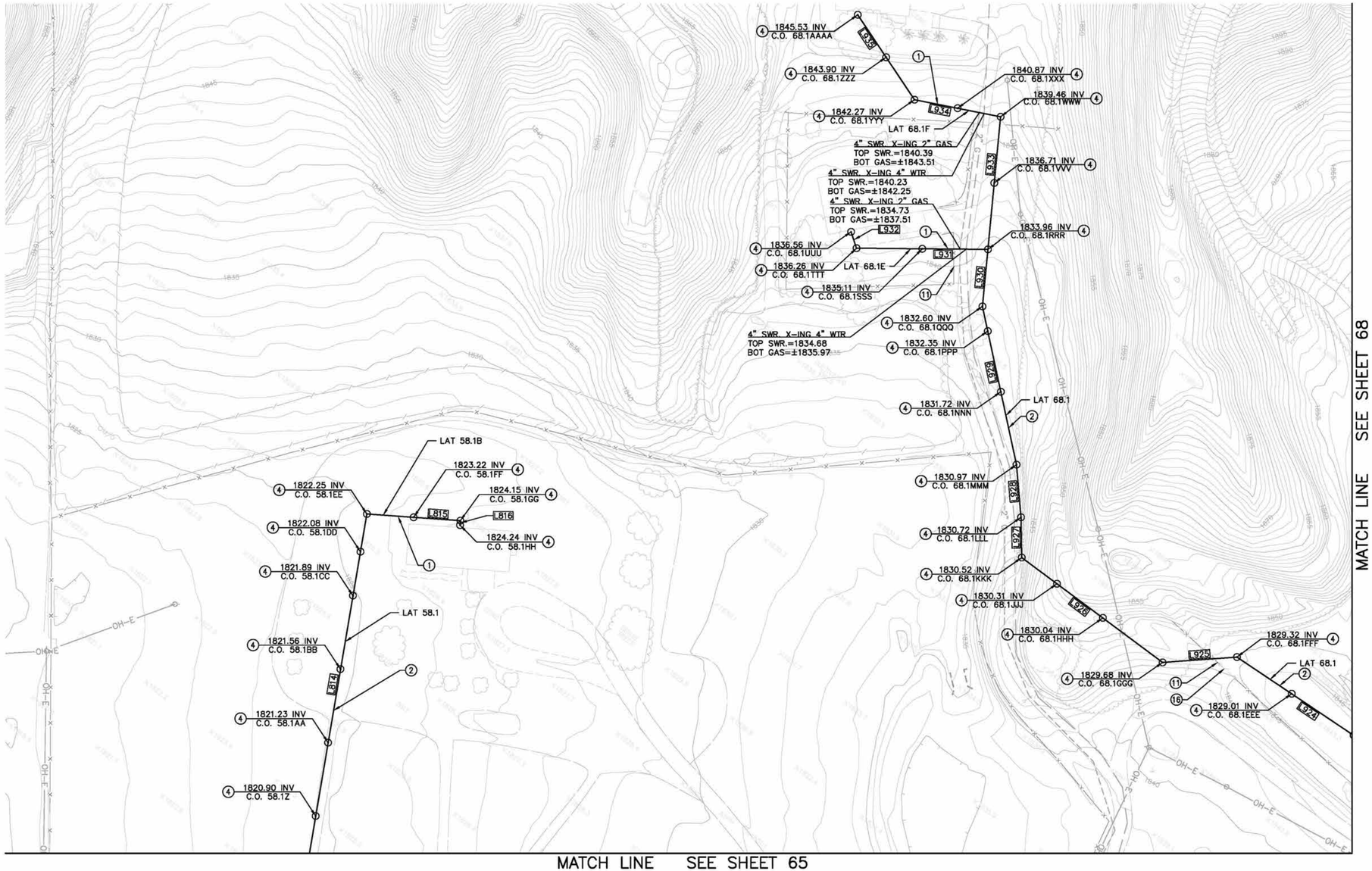
PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 70+00.00 TO STA. 80+00.00

SHEET 65 OF 77 SHEETS
DWG. NO.

NOTES:
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CONSTRUCTION NOTES

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SEWER DATA		
LINE #	DISTANCE	BEARING
L814	256.5	N27° 37' 36.55"W
L815	69.2	N56° 53' 38.89"E
L816	3.3	S33° 06' 21.11"E
L924	103.8	S86° 37' 10.37"W
L925	55.0	S48° 42' 07.55"W
L926	129.6	S89° 26' 24.35"W
L927	29.7	N38° 14' 58.33"W
L928	39.0	N42° 08' 29.59"W
L929	119.5	N49° 21' 05.79"W
L930	42.3	N31° 44' 57.30"W
L931	97.0	S53° 17' 28.82"W
L932	12.5	N55° 55' 29.27"W
L933	98.1	N31° 44' 57.30"W
L934	64.8	S64° 01' 41.84"W
L935	75.4	N70° 58' 18.16"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 58.1Z	589678.85	1803622.79	1824.63
C.O. 58.1AA	589727.59	1803597.28	1824.47
C.O. 58.1BB	589776.24	1803571.82	1824.86
C.O. 58.1CC	589824.95	1803546.33	1824.90
C.O. 58.1DD	589854.26	1803530.98	1825.63

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 58.1EE	589879.29	1803517.89	1825.43
C.O. 58.1FF	589898.18	1803546.86	1826.42
C.O. 58.1GG	589917.07	1803575.83	1826.97
C.O. 58.1HH	589914.31	1803577.63	1827.12
C.O. 68.1EEE	590186.37	1804141.57	1843.25

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 68.1FFF	590183.50	1804093.05	1845.41
C.O. 68.1GGG	590147.20	1804051.73	1845.91
C.O. 68.1HHH	590146.66	1803996.74	1851.43
C.O. 68.1JJJ	590146.25	1803954.55	1854.52
C.O. 68.1KKK	590145.94	1803922.27	1840.94
C.O. 68.1LLL	590169.28	1803903.75	1838.86
C.O. 68.1MMM	590198.22	1803877.57	1835.97
C.O. 68.1NNN	590234.04	1803835.84	1836.10
C.O. 68.1PPP	590263.90	1803801.07	1836.49
C.O. 68.1QQQ	590276.05	1803786.91	1837.60

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 68.1RRR	590312.01	1803764.66	1839.45
C.O. 68.1SSS	590283.03	1803725.79	1840.97
C.O. 68.1TTT	590254.07	1803686.95	1841.16
C.O. 68.1UUU	590261.06	1803676.55	1841.69
C.O. 68.1VVV	590353.75	1803738.83	1842.66
C.O. 68.1WWW	590395.44	1803713.04	1846.10
C.O. 68.1XXX	590381.25	1803683.91	1846.36
C.O. 68.1YYY	590367.06	1803654.78	1846.83
C.O. 68.1ZZZ	590379.35	1803619.16	1850.72
C.O. 68.1AAAA	590391.63	1803583.53	1852.72

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI, PE/PLS
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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APPROVED

RCE Date

Date

Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH Job No. 96019.040 1"= 40'

ERSG INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-19
Redlands, California 92373-3119
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SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 70+00.00 TO STA. 80+00.00

SHEET 66 OF 77
SHEETS
DWG. NO.

MATCH LINE SEE SHEET 68

SEE SHEET 63
MATCH LINE STA. 80+00.00

MATCH LINE STA. 90+00.00
SEE SHEET 69

CASTILE CANYON ROAD

10" VCP SEWER

R.O.W.

EP

4" SWR X-ING 8" WTR
TOP SWR.=1834.29
BOT WTR=±1840.92

4" SWR X-ING 16" WTR
TOP SWR.=1834.12
BOT WTR=±1840.61

1834.82 INV IN 4"
1834.82 INV OUT 8"

LAT 68.1

1836.09 INV
C.O. 68.1E

1837.73 INV
C.O. 68.1F

1839.95 INV
C.O. 68.1G

1842.18 INV
C.O. 68.1H

1832.47 INV
C.O. 68.1D

LAT 68.1A

1822.32 INV
C.O. 68.1J

1822.03 INV
C.O. 68.1C

1821.80 INV
C.O. 68.1B

1821.50 INV IN 4"
1831.50 INV OUT 4"
W.W. 68.1A

4" SWR X-ING 3" GAS
TOP SWR.=1831.86
BOT GAS=±1839.64

4" SWR X-ING 10" IRR
TOP SWR.=1831.89
BOT IRR=±1837.97

1831.97 INV
C.O. 66A

1832.57 INV
C.O. 66B

LAT 66

1833.19 INV
C.O. 66C

1832.17 INV
C.O. 65N

1832.07 INV
C.O. 65M

1833.80 INV
C.O. 66D

1833.92 INV
C.O. 66E

LAT 65B-A

1831.36 INV
C.O. 65L

1831.30 INV
C.O. 65K

LAT 65B

1834.31 INV
C.O. 65AA

LAT 65D

1835.18 INV
C.O. 65BB

LAT 67

4" SWR X-ING 3" GAS
TOP SWR.=1832.58
BOT GAS=±1840.22

4" SWR X-ING 10" IRR
TOP SWR.=1832.70
BOT IRR=±1838.52

1833.47 INV
C.O. 67A

1835.05 INV
C.O. 67B

1835.25 INV
C.O. 67C

LAT 68

1839.18 INV
C.O. 68A

1839.79 INV
C.O. 68B

1840.41 INV
C.O. 68C

4" SWR X-ING 3" GAS
TOP SWR.=1834.71
BOT GAS=±1841.99

4" SWR X-ING 10" IRR
TOP SWR.=1834.92
BOT IRR=±1840.40

LAT 69

1841.02 INV
C.O. 68D

1841.61 INV
C.O. 68F

1841.48 INV
C.O. 68E

4" SWR X-ING 3" GAS
TOP SWR.=1835.11
BOT GAS=±1843.12

4" SWR X-ING 10" IRR
TOP SWR.=1835.16
BOT IRR=±1841.49

1836.64 INV
C.O. 69A

1838.91 INV
C.O. 69B

1841.17 INV
C.O. 69C

1843.34 INV
C.O. 69D

6" SWR X-ING 3" GAS
TOP SWR.=1837.68
BOT GAS=±1845.81

6" SWR X-ING 10" IRR
TOP SWR.=1837.76
BOT IRR=±1844.19

1838.20 INV
C.O. 70A

LAT 70

1839.50 INV
C.O. 70B

1840.80 INV
C.O. 70C

LAT 70B

1841.76 INV
C.O. 70E

1841.53 INV
C.O. 70D

LAT 70A

1842.07 INV
C.O. 70F

1842.62 INV
C.O. 70G

4" SWR X-ING 3" GAS
TOP SWR.=1838.06
BOT GAS=±1846.42

4" SWR X-ING 10" IRR
TOP SWR.=1838.14
BOT IRR=±1844.86

1838.90 INV
C.O. 71A

LAT 71

1840.00 INV
C.O. 71B

1841.09 INV
C.O. 71C

1842.89 INV
C.O. 71E

1842.08 INV
C.O. 72C

1842.03 INV
C.O. 71D

1843.74 INV
C.O. 71F

1840.99 INV
C.O. 72D

1839.95 INV
C.O. 72F

1840.44 INV
C.O. 72E

4" SWR X-ING 3" GAS
TOP SWR.=1845.49
BOT GAS=±1849.79

4" SWR X-ING 10" IRR
TOP SWR.=1845.42
BOT IRR=±1847.88

1844.26 INV
C.O. 72A

1843.17 INV
C.O. 72B

LAT 72

4" SWR X-ING 8" WTR
TOP SWR.=1842.90
BOT WTR=±1849.59

4" SWR X-ING 16" WTR
TOP SWR.=1843.22
BOT WTR=±1851.24

4" SWR X-ING 3" GAS
TOP SWR.=1843.98
BOT GAS=±1852.04

4" SWR X-ING 10" IRR
TOP SWR.=1844.19
BOT IRR=±1850.87

1844.14 INV
C.O. 73A

LAT 73

1846.16 INV
C.O. 73B

1847.26 INV
C.O. 73C

1848.49 INV
C.O. 73D

NOTES:
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CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L878	5.9	N64° 01' 41.84"E
L879	5.2	N64° 01' 41.84"E
L880	62.3	N25° 58' 18.16"W
L889	2.5	N64° 01' 41.84"E
L890	42.8	N64° 01' 41.84"E
L891	47.8	S37° 13' 18.16"E
L892	174.6	S28° 15' 39.21"E
L893	78.1	S37° 09' 04.44"E
L894	4.8	S52° 50' 55.56"W
L895	110.0	S37° 13' 18.16"E
L896	55.0	S43° 02' 25.73"E
L897	95.5	S37° 13' 18.16"E
L898	11.8	S52° 46' 41.84"W
L899	80.6	N37° 13' 18.16"W
L900	82.4	N37° 04' 12.37"W
L901	123.7	S55° 58' 50.34"W
L902	58.2	S3° 46' 54.60"E
L903	73.7	N37° 04' 12.37"W
L936	217.6	S37° 40' 09.12"E
L937	191.4	S31° 40' 11.85"E
L938	191.4	S31° 40' 11.85"E
L939	9.9	S58° 19' 48.15"W
L940	83.5	S43° 29' 39.74"E
L941	55.0	S30° 50' 09.07"E
L942	81.4	S24° 53' 53.70"E
L943	34.6	S34° 29' 49.19"E
L944	63.4	N55° 38' 07.11"E
L945	247.9	N29° 04' 35.12"W
L946	24.7	N60° 55' 24.88"E
L947	173.5	S29° 04' 35.12"E
L948	6.8	N60° 31' 26.80"E

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 65K	589198.17	1804956.64	1838.74
C.O. 65L	589200.45	1804961.30	1838.85
C.O. 65M	589247.62	1804932.55	1839.70
C.O. 65N	589254.14	1804929.37	1839.74
C.O. 65AA	589008.14	1805095.80	1839.53
C.O. 65BB	589027.35	1805135.22	1840.18
C.O. 66A	589436.93	1804997.05	1842.22
C.O. 66B	589389.21	1805022.70	1841.83
C.O. 66C	589340.76	1805048.74	1841.81
C.O. 66D	589292.32	1805074.79	1841.48

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 66E	589283.15	1805079.72	1841.26
C.O. 67A	589474.20	1805031.47	1843.00
C.O. 67B	589443.01	1805055.10	1843.13
C.O. 67C	589440.07	1805051.22	1842.97
C.O. 68A	589534.65	1805137.56	1844.60
C.O. 68B	589490.86	1805170.83	1844.88
C.O. 68C	589450.43	1805208.54	1845.25
C.O. 68D	589406.86	1805241.64	1845.29
C.O. 68E	589374.65	1805266.11	1845.41
C.O. 68F	589367.50	1805256.69	1844.98
W.W. 68.1A	589690.92	1805036.43	1845.26
C.O. 68.1B	589723.69	1805011.67	1845.45
C.O. 68.1C	589756.68	1804986.75	1845.29
C.O. 68.1D	589725.91	1804941.17	1844.47
C.O. 68.1E	589699.44	1804901.95	1844.02
C.O. 68.1F	589687.46	1804884.21	1843.79

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 68.1G	589658.42	1804886.13	1843.97
C.O. 68.1H	589629.39	1804888.05	1843.93
C.O. 68.1J	589791.66	1804960.32	1845.17
C.O. 69A	589589.80	1805209.95	1846.01
C.O. 69B	589546.27	1805243.56	1846.20
C.O. 69C	589502.73	1805277.18	1846.48
C.O. 69D	589461.12	1805309.30	1846.57
C.O. 70A	589688.87	1805353.19	1849.13
C.O. 70B	589642.06	1805382.07	1849.38
C.O. 70C	589595.26	1805410.95	1849.61
C.O. 70D	589569.17	1805427.04	1849.30
C.O. 70E	589563.99	1805418.65	1849.03
C.O. 70F	589538.87	1805455.78	1849.33
C.O. 70G	589508.58	1805484.52	1849.82
C.O. 71A	589707.55	1805384.20	1850.09
C.O. 71B	589670.63	1805401.34	1850.01

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 71C	589633.70	1805418.48	1849.66
C.O. 71D	589605.30	1805438.00	1849.53
C.O. 71E	589623.10	1805464.24	1850.60
C.O. 71F	589640.99	1805490.41	1850.75
C.O. 72A	589794.12	1805538.94	1853.17
C.O. 72B	589746.05	1805565.67	1852.93
C.O. 72C	589697.98	1805592.40	1852.66
C.O. 72D	589649.91	1805619.13	1852.51
C.O. 72E	589625.53	1805632.68	1852.36
C.O. 72F	589613.53	1805611.09	1851.94
C.O. 73A	589881.59	1805626.59	1855.78
C.O. 73B	589833.51	1805653.31	1856.16
C.O. 73C	589807.25	1805667.82	1856.19
C.O. 73D	589778.04	1805684.21	1855.67

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

ERSC INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-19
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 80+00.00 TO STA. 90+00.00

SHEET 67 OF 77 SHEETS
DWG. NO.

NOTES:
- CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.
- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



MATCH LINE SEE SHEET 67

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 68.1K	589826.65	1804933.89	1845.20
C.O. 68.1L	589807.89	1804909.06	1844.24
C.O. 68.1M	589789.13	1804884.23	1843.88
C.O. 68.1N	589786.23	1804843.88	1843.70
C.O. 68.1P	589783.33	1804803.52	1843.52
C.O. 68.1Q	589870.53	1804900.74	1844.63
C.O. 68.1R	589914.42	1804867.58	1844.22
C.O. 68.1S	589958.30	1804834.43	1843.99
C.O. 68.1T	590002.19	1804801.28	1843.64
C.O. 68.1U	590046.07	1804768.12	1843.30
C.O. 68.1V	590089.96	1804734.97	1842.66
C.O. 68.1W	590133.84	1804701.82	1842.52
C.O. 68.1X	590156.75	1804684.51	1842.10
C.O. 68.1Y	590177.85	1804717.18	1842.47
C.O. 68.1Z	590174.71	1804669.60	1842.58
C.O. 68.1AA	590147.73	1804637.09	1842.72
C.O. 68.1BB	590120.75	1804604.57	1842.17
C.O. 68.1CC	590081.07	1804566.48	1840.97
C.O. 68.1DD	590041.40	1804528.38	1840.42
C.O. 68.1EE	590001.73	1804490.29	1839.88
C.O. 68.1FF	589970.93	1804460.71	1839.57
C.O. 68.1GG	589983.58	1804447.53	1839.87
C.O. 68.1HH	590014.19	1804426.00	1840.22
C.O. 68.1JJ	590044.81	1804404.47	1839.97
C.O. 68.1KK	589940.71	1804431.70	1838.94
C.O. 68.1LL	589909.35	1804464.36	1839.29
C.O. 68.1MM	589886.79	1804511.50	1841.96
C.O. 68.1NN	589923.82	1804415.48	1838.54
C.O. 68.1PP	589912.85	1804401.03	1838.37
C.O. 68.1VV	590215.55	1804635.71	1842.79
C.O. 68.1WW	590212.31	1804580.80	1842.72
C.O. 68.1XX	590209.07	1804525.90	1842.69
C.O. 68.1YY	590205.82	1804471.00	1842.67
C.O. 68.1ZZ	590202.58	1804416.09	1842.78
C.O. 68.1AAA	590199.34	1804361.19	1842.91
C.O. 68.1BBB	590196.10	1804306.28	1843.20
C.O. 68.1CCC	590192.85	1804251.38	1843.70
C.O. 68.1DDD	590189.61	1804196.47	1843.61

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L904	14.0	N37° 04' 12.37"W
L905	62.2	S52° 55' 47.63"W
L906	80.9	S85° 53' 10.75"W
L907	413.7	N37° 04' 12.37"W
L908	38.9	N57° 08' 44.40"E
L909	23.3	N39° 41' 21.68"W
L910	84.5	S50° 18' 38.32"W
L911	207.7	S43° 50' 16.79"W
L912	18.3	N46° 09' 58.11"W
L913	74.9	N35° 07' 00.87"W
L914	41.9	S43° 50' 16.79"W
L915	45.3	S46° 09' 43.21"E
L916	52.3	S64° 25' 51.90"E
L917	23.4	S43° 50' 16.79"W
L918	18.1	S52° 47' 12.83"W
L919	3.9	S41° 24' 03.90"W
L922	53.1	N39° 41' 21.68"W
L923	439.8	S86° 37' 10.37"W



GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI FARSH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____
Designed SH/RT/MA Checked RT/MA
Drawn SH Job No. 96019.040
Scale: 1"= 40'

1861 West Redlands Blvd.
Building 7-B
Redlands, California 92373-3119
(909) 890-1255
ERSC INC.com
Engineering Resources of Southern California

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

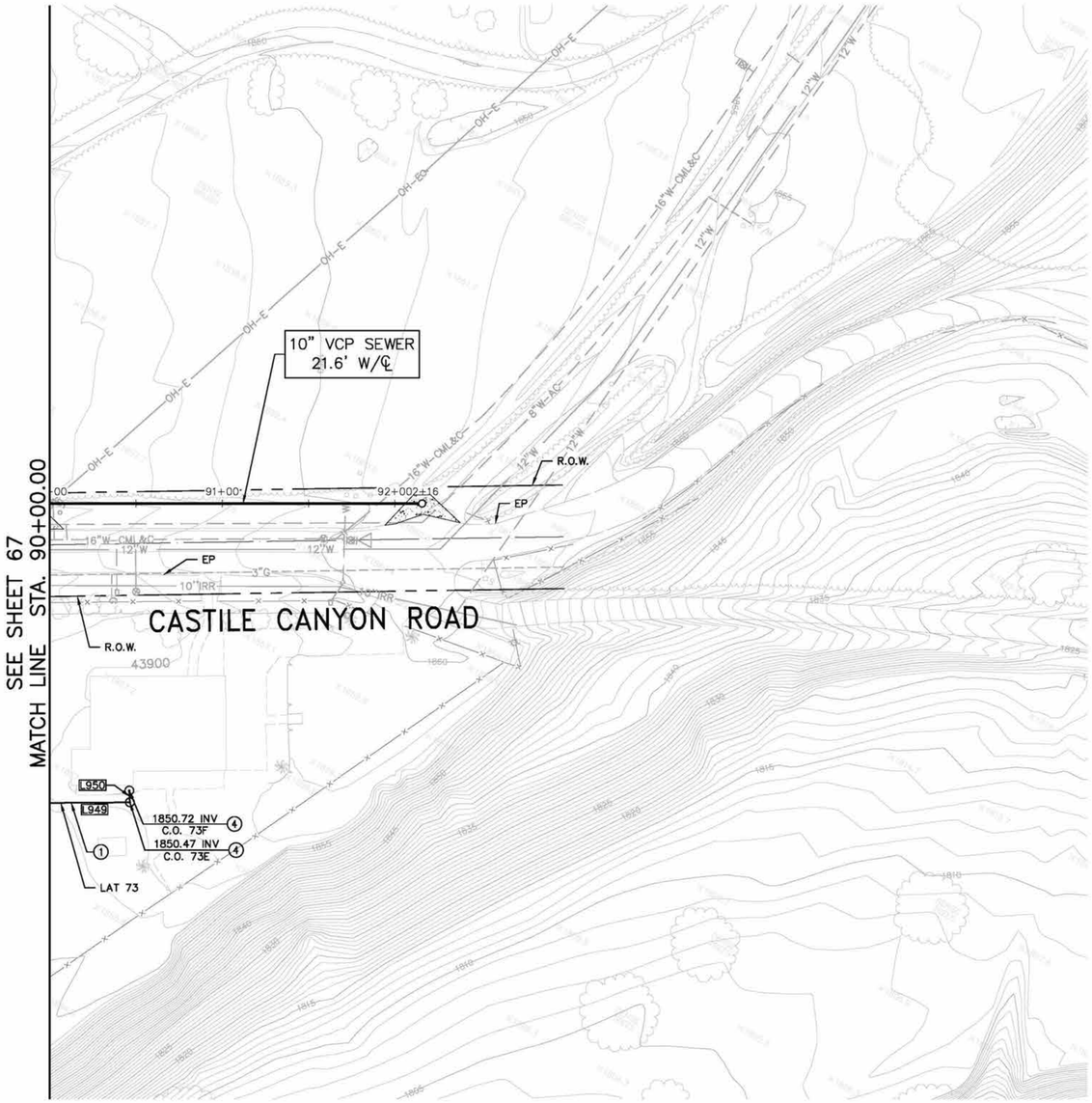
STA. 80+00.00 TO STA. 90+00.00

SHEET 68 OF 77 SHEETS
DWG. NO.

NOTES:
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7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.



SEWER DATA		
LINE #	DISTANCE	BEARING
L949	47.1	N60° 31' 26.80"E
L950	6.8	N32° 00' 19.38"W

CLEANOUT DATA			
C.O. #	NORTHING	EASTING	ELEVATION
C.O. 73E	589804.53	1805731.07	1857.35
C.O. 73F	589810.30	1805727.49	1857.92

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:
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CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date

Designed SH/RT/MA | Checked RT/MA | Scale: 1"= 40'
Drawn SH | Job No. 96019.040

ERSC INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-19
Redlands, California 92373-3119
(909) 890-1255

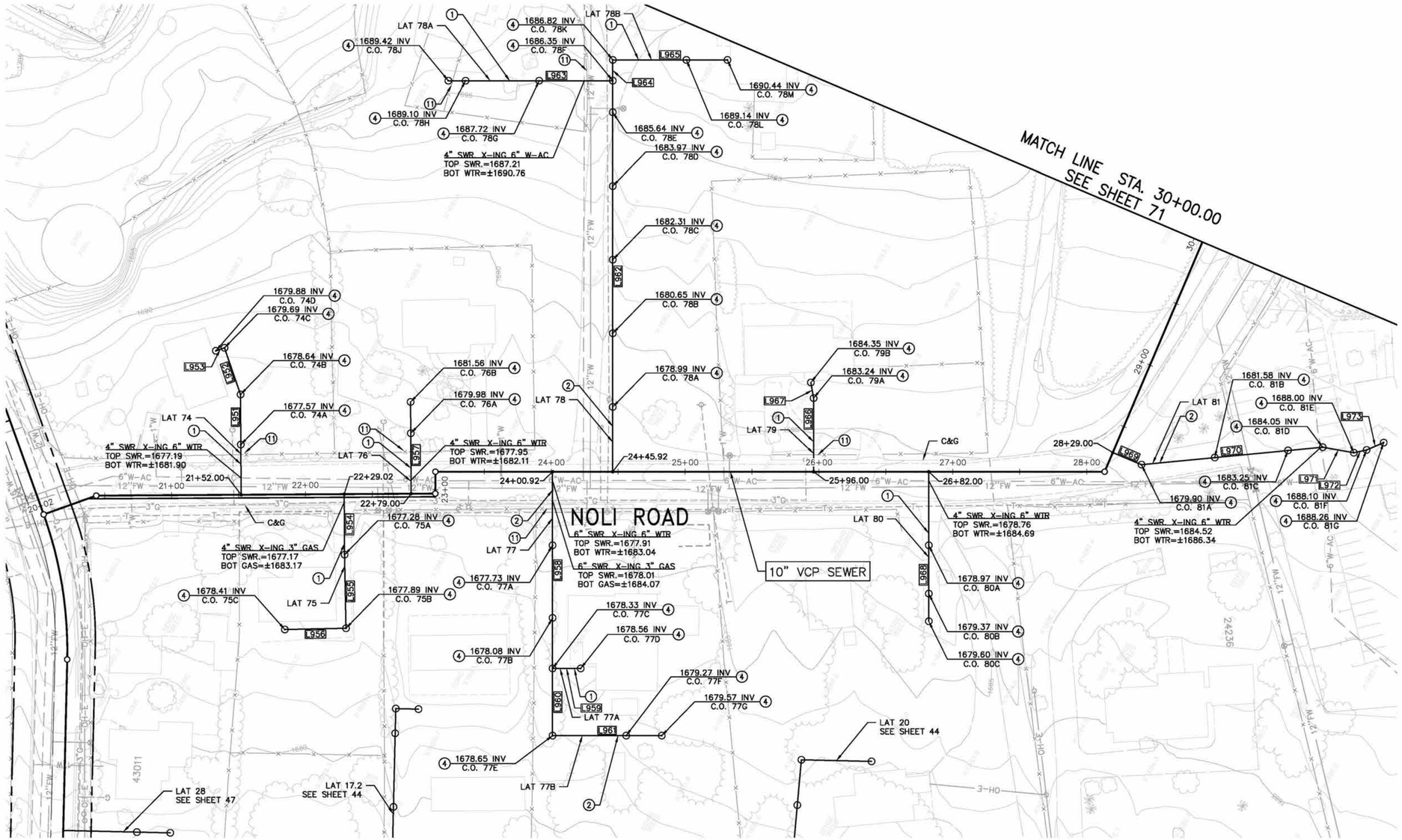
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

STA. 90+00.00 TO STA. 100+00.00

SHEET 69 OF 77
SHEETS
DWG. NO.

NOTES:
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- ALL UTILITY CROSSING TO BE FIELD VERIFIED.



CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
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12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L951	74.93	N61° 00' 41.95"E
L952	36.84	N42° 25' 30.95"E
L953	6.83	N47° 34' 29.05"W
L954	45.28	S61° 01' 31.91"W
L955	55.00	S60° 17' 26.50"W
L956	45.71	N29° 46' 50.41"W
L957	68.52	N61° 01' 31.73"E
L958	147.11	S61° 22' 27.04"W
L959	20.99	S28° 37' 32.96"E
L960	50.18	S61° 22' 27.04"W
L961	81.57	S28° 37' 32.96"E
L962	292.05	N61° 22' 27.04"E
L963	122.88	N28° 37' 32.96"W
L964	15.54	N61° 22' 27.04"E
L965	85.64	S28° 37' 32.96"E
L966	55.00	N61° 22' 27.04"E
L967	11.82	N51° 13' 41.38"E
L968	111.84	S61° 22' 27.04"W
L969	23.27	S5° 33' 56.59"E
L970	136.07	S34° 09' 20.51"E
L971	23.62	S18° 29' 37.45"E
L972	9.78	S40° 51' 19.35"E
L973	13.84	S51° 56' 52.31"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 74A	585474.89	1799819.94	1686.22
C.O. 74B	585493.05	1799852.71	1686.68
C.O. 74C	585520.24	1799877.56	1687.35

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 74D	585524.86	1799872.52	1687.25
C.O. 75A	585367.43	1799784.86	1684.00
C.O. 75B	585340.17	1799737.09	1683.22

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 75C	585379.84	1799714.39	1682.89
C.O. 76A	585367.50	1799888.16	1686.93
C.O. 76B	585378.83	1799908.63	1687.78
C.O. 77A	585234.33	1799865.41	1685.55
C.O. 77B	585208.33	1799817.67	1684.49
C.O. 77C	585190.28	1799784.62	1683.90
C.O. 77D	585171.86	1799794.68	1684.90
C.O. 77E	585166.24	1799740.57	1681.99
C.O. 77F	585117.97	1799766.92	1682.33

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 77G	585094.64	1799779.65	1682.93
C.O. 78A	585244.45	1799977.79	1688.86
C.O. 78B	585270.80	1800026.07	1689.90
C.O. 78C	585297.15	1800074.34	1691.39
C.O. 78D	585323.50	1800122.62	1693.61
C.O. 78E	585349.85	1800170.90	1694.95
C.O. 78F	585361.18	1800191.66	1695.96
C.O. 78G	585409.45	1800165.31	1695.03
C.O. 78H	585457.73	1800138.96	1695.54

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 78J	585469.04	1800132.78	1695.41
C.O. 78K	585368.62	1800205.29	1695.92
C.O. 78L	585320.34	1800231.64	1697.37
C.O. 78M	585293.45	1800246.32	1697.36
C.O. 79A	585115.87	1800055.48	1690.52
C.O. 79B	585123.28	1800064.70	1691.04
C.O. 80A	584987.69	1800000.13	1687.16
C.O. 80B	584970.36	1799968.39	1686.49
C.O. 80C	584960.46	1799950.24	1686.15

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 81A	584877.03	1800129.13	1690.19
C.O. 81B	584831.52	1800160.01	1690.63
C.O. 81C	584786.00	1800190.89	1690.94
C.O. 81D	584764.43	1800205.53	1691.02
C.O. 81E	584742.03	1800213.02	1691.61
C.O. 81F	584734.63	1800219.42	1691.65
C.O. 81G	584726.10	1800230.32	1691.74

REGISTERED PROFESSIONAL ENGINEER
MAHMOOD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
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GRAPHIC SCALE IN FEET
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PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

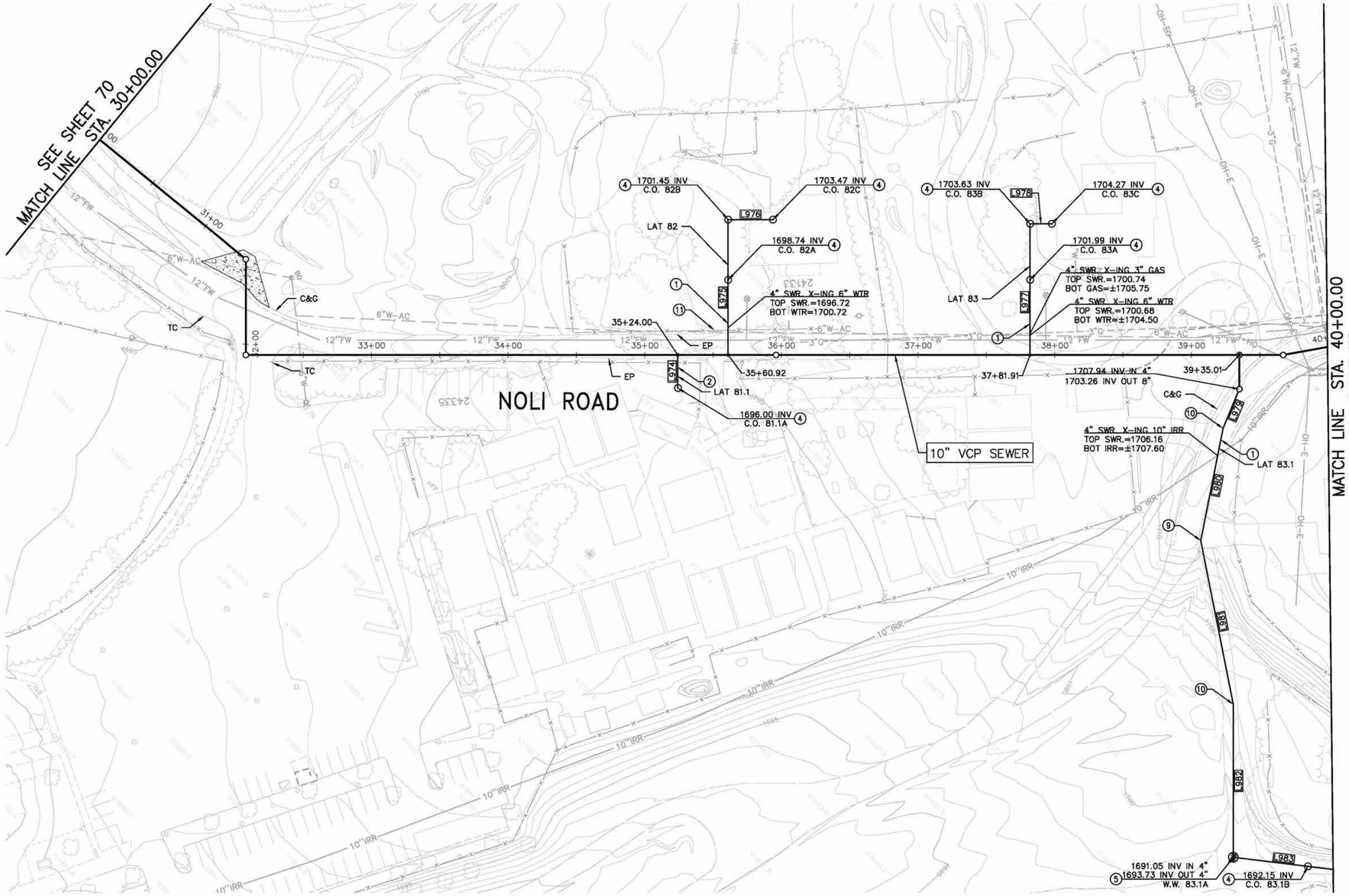
STA. 20+00.00 TO STA. 30+00.00

SHEET 70 OF 77 SHEETS
DWG. NO.

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SEWER DATA		
LINE #	DISTANCE	BEARING
L974	24.22	S44° 46' 46.21"E
L975	98.87	N44° 46' 46.21"W
L976	32.80	N45° 13' 13.79"E
L977	95.76	N44° 46' 46.21"W
L978	15.87	N45° 13' 13.79"E
L979	31.10	S22° 16' 46.21"E
L980	83.73	S33° 31' 46.21"E
L981	122.17	S56° 01' 46.21"E
L982	112.03	S44° 46' 46.21"E
L983	73.50	N52° 09' 59.16"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 81.1A	585085.78	1800725.05	1703.02
C.O. 82A	585168.02	1800695.47	1704.62
C.O. 82B	585199.16	1800664.56	1704.65
C.O. 82C	585222.27	1800687.85	1705.11

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 83A	585323.68	1800852.33	1709.07
C.O. 83B	585352.61	1800823.62	1709.78
C.O. 83C	585363.79	1800834.89	1710.60
W.W. 83.1A	585128.36	1801255.62	1698.35

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 83.1B	585162.10	1801299.06	1697.67

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

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Drawn SH Job No. 96019.040 1"= 40'

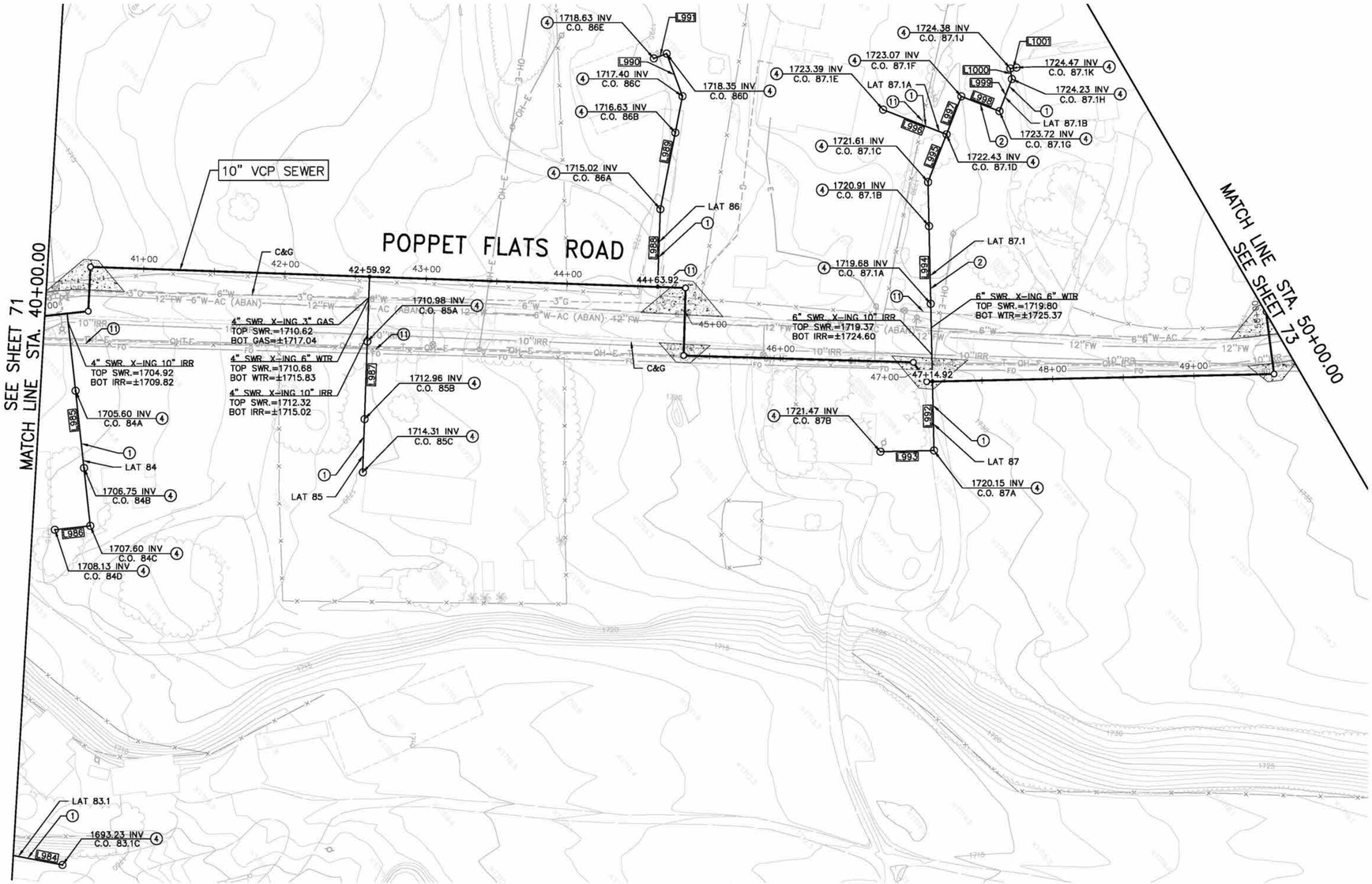
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SHEET 71 OF 77 SHEETS
DWG. NO.

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SEWER DATA		
LINE #	DISTANCE	BEARING
L984	35.57	N52° 09' 59.16"E
L985	151.15	S54° 57' 51.07"E
L986	25.23	S35° 02' 08.93"W
L987	138.47	S46° 44' 08.69"E
L988	55.00	N46° 44' 08.69"W
L989	81.27	N37° 38' 35.45"W
L990	32.16	N69° 13' 39.88"W
L991	9.67	S20° 46' 20.12"W
L992	48.80	S50° 01' 01.03"E
L993	37.88	S39° 58' 58.97"W
L994	141.09	N50° 01' 01.03"W
L995	36.16	N27° 30' 55.03"W
L996	48.13	S62° 29' 57.78"W
L997	28.78	N27° 31' 08.57"W
L998	28.96	N62° 28' 58.97"E
L999	24.39	N27° 31' 01.03"W
L1000	7.60	N57° 13' 30.44"W
L1001	4.34	N32° 46' 29.56"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 83.1C	585195.27	1801341.77	1698.23
C.O. 84A	585423.49	1801095.58	1714.15
C.O. 84B	585391.80	1801140.50	1715.23
C.O. 84C	585368.29	1801174.30	1715.97
C.O. 84D	585347.69	1801159.86	1715.15
C.O. 85A	585601.71	1801205.44	1720.09
C.O. 85B	585564.01	1801245.49	1719.67
C.O. 85C	585538.21	1801272.91	1719.98
C.O. 86A	585819.36	1801271.84	1725.10

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 86B	585862.91	1801238.25	1725.06
C.O. 86C	585883.71	1801222.20	1725.30
C.O. 86D	585895.12	1801192.14	1725.13
C.O. 86E	585886.08	1801188.71	1725.16
C.O. 87A	585852.29	1801527.93	1728.88
C.O. 87B	585823.33	1801503.53	1728.31
C.O. 87.1A	585919.05	1801448.33	1730.23
C.O. 87.1B	585954.39	1801406.19	1729.51
C.O. 87.1C	585974.37	1801382.36	1729.24

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 87.1D	586006.44	1801365.67	1729.61
C.O. 87.1E	585984.21	1801322.97	1728.89
C.O. 87.1F	586031.95	1801352.42	1730.02
C.O. 87.1G	586045.34	1801378.05	1730.84
C.O. 87.1H	586066.97	1801366.78	1731.73
C.O. 87.1J	586071.09	1801360.39	1731.72
C.O. 87.1K	586074.73	1801362.74	1731.85

REGISTERED PROFESSIONAL ENGINEER
MAHMOOD AHMADI YASERI
No.C 58784
CIVIL
STATE OF CALIFORNIA

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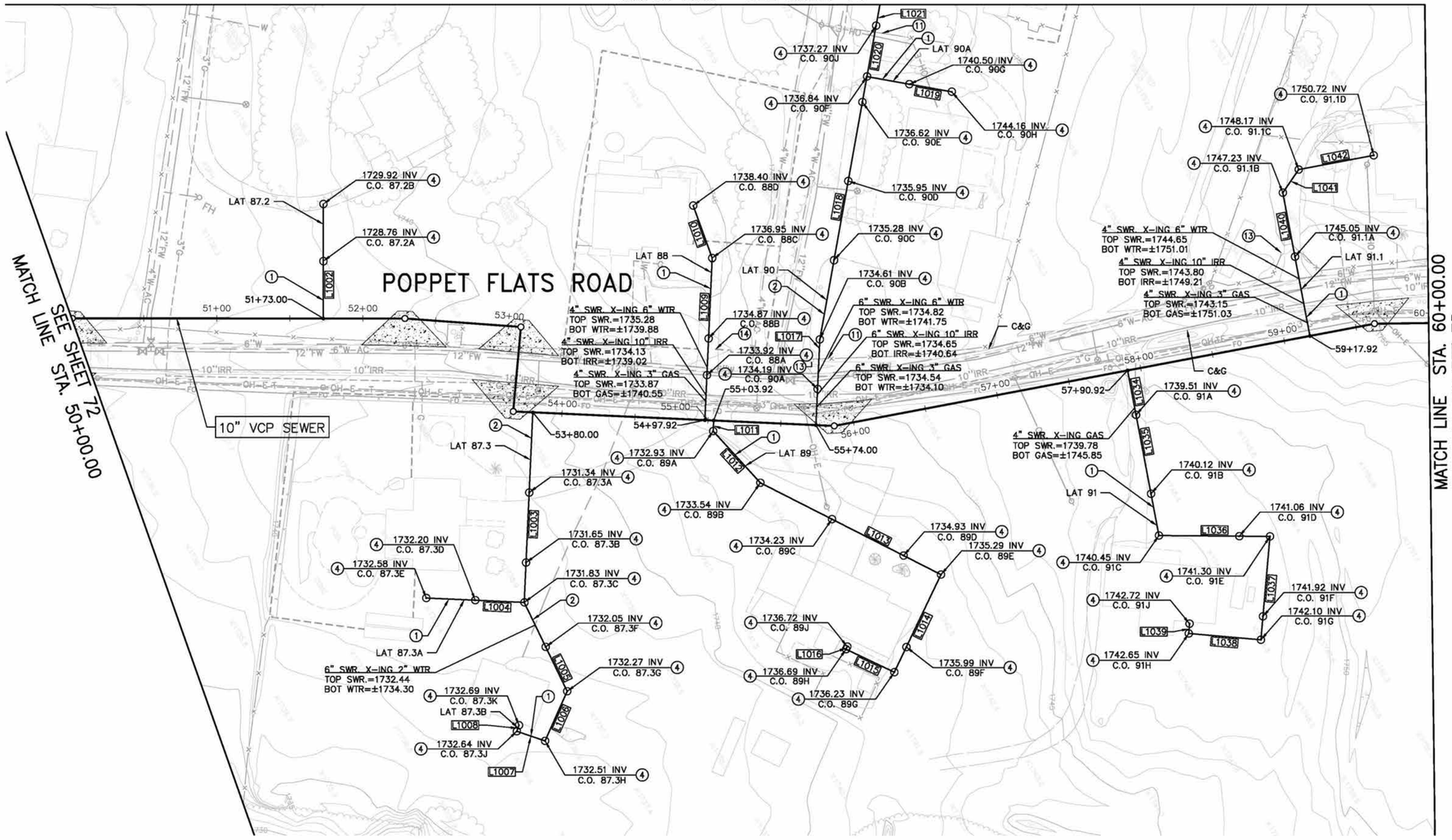
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SHEET 72 OF 77
SHEETS
DWG. NO.



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SEWER DATA		
LINE #	DISTANCE	BEARING
L1002	78.17	N59° 21' 02.13"W
L1003	130.29	S56° 47' 17.52"E
L1004	67.12	S33° 12' 42.48"W
L1005	67.60	S85° 08' 15.95"E
L1006	37.22	S35° 21' 36.97"E
L1007	20.39	S49° 32' 15.98"W
L1008	4.39	N40° 27' 44.02"W
L1009	110.92	N56° 47' 17.52"W
L1010	38.22	N79° 17' 17.52"W
L1011	7.27	S56° 47' 17.52"E
L1012	47.91	N78° 16' 48.49"E
L1013	138.74	N57° 35' 00.86"E
L1014	74.11	S33° 49' 34.18"E
L1015	36.63	S56° 10' 25.82"W
L1016	1.98	N33° 49' 34.18"W
L1017	58.68	N56° 47' 17.52"W
L1018	182.76	N49° 11' 14.17"W
L1019	58.92	S40° 48' 45.83"W
L1020	50.14	N49° 11' 14.17"W
L1021	50.14	N49° 11' 14.17"W
L1034	31.03	N70° 05' 29.73"W
L1035	84.05	S70° 05' 29.73"E
L1036	76.00	N31° 07' 51.68"E
L1037	71.01	S54° 23' 28.98"E
L1038	49.62	S35° 36' 31.02"W
L1039	6.47	N54° 23' 28.98"W
L1040	99.58	N70° 05' 29.73"W
L1041	19.20	N25° 05' 29.73"W
L1042	52.28	N19° 54' 30.27"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 87.2A	586261.54	1801662.95	1737.98
C.O. 87.2B	586281.47	1801629.32	1738.52
C.O. 87.3A	586302.03	1801870.97	1738.98
C.O. 87.3B	586275.72	1801911.16	1738.94
C.O. 87.3C	586260.79	1801933.97	1738.71
C.O. 87.3D	586232.71	1801915.58	1738.68
C.O. 87.3E	586204.63	1801897.20	1738.43

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 87.3F	586257.92	1801967.65	1738.35
C.O. 87.3G	586255.06	1802001.33	1737.73
C.O. 87.3H	586224.71	1802022.87	1737.27
C.O. 87.3J	586211.47	1802007.35	1737.38
C.O. 87.3K	586214.81	1802004.36	1737.32
C.O. 88A	586447.71	1801863.74	1744.06
C.O. 88B	586461.44	1801842.76	1743.87

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 88C	586491.57	1801796.75	1745.43
C.O. 88D	586498.67	1801759.19	1745.38
C.O. 89A	586431.85	1801898.92	1742.99
C.O. 89B	586441.58	1801945.83	1742.66
C.O. 89C	586471.07	1801992.26	1742.67
C.O. 89D	586500.55	1802038.69	1742.21
C.O. 89E	586515.96	1802062.95	1742.44
C.O. 89F	586470.27	1802093.57	1741.82
C.O. 89G	586454.40	1802104.20	1741.74
C.O. 89H	586434.00	1802073.77	1742.63
C.O. 89J	586435.65	1802072.67	1742.63
C.O. 90A	586508.02	1801910.51	1745.59
C.O. 90B	586526.60	1801882.13	1747.18

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 90C	586562.60	1801840.44	1747.33
C.O. 90D	586598.55	1801798.82	1747.85
C.O. 90E	586634.50	1801757.19	1747.92
C.O. 90F	586646.05	1801743.81	1748.06
C.O. 90G	586668.35	1801763.06	1748.60
C.O. 90H	586690.65	1801782.32	1748.92
C.O. 90J	586669.18	1801717.02	1748.12
C.O. 91A	586686.56	1802036.86	1748.94
C.O. 91B	586667.83	1802088.57	1748.12
C.O. 91C	586657.94	1802115.88	1748.95
C.O. 91D	586705.02	1802144.32	1748.69
C.O. 91E	586723.00	1802155.18	1748.90
C.O. 91F	586690.98	1802199.89	1748.74

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 91G	586681.66	1802212.91	1748.78
C.O. 91H	586641.39	1802184.07	1748.90
C.O. 91J	586645.18	1802178.58	1748.90
C.O. 91.1A	586835.27	1801999.22	1754.72
C.O. 91.1B	586850.45	1801957.31	1755.40
C.O. 91.1C	586867.83	1801949.16	1755.51
C.O. 91.1D	586916.99	1801966.97	1758.68

REGISTERED PROFESSIONAL ENGINEER MAMDOUH AHMADY ASSEH No.C 58784 C.IV.I.L. STATE OF CALIFORNIA

BENCH MARK:
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BASIS OF BEARING:
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0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert 811 TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date _____
_____ Date _____

Designed SH/RT/MA Checked RT/MA Scale: 1"= 40'
Drawn SH Job No. 96019.040

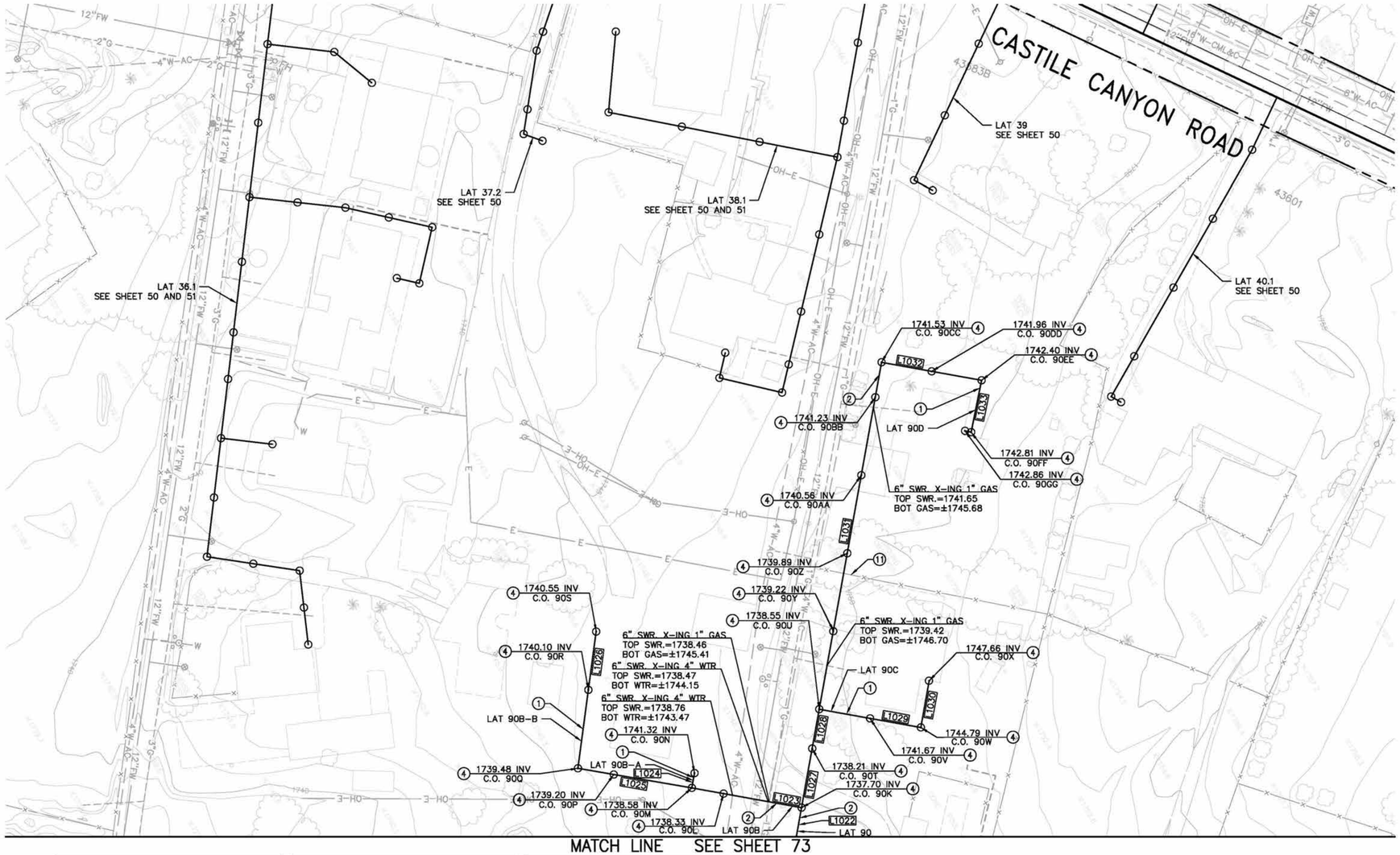
ERSC INC.com Engineering Resources of Southern California
1861 West Redlands Blvd. Building 7-B Redlands, California 92373-3119 (909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 50+00.00 TO STA. 60+00.00

SHEET 73 OF 77 SHEETS
DWG. NO.

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MATCH LINE SEE SHEET 73

CONSTRUCTION NOTES

1. INSTALL 4-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
3. INSTALL 8-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177
4. INSTALL SEWER CLEANOUT PER EMWD STD. SB-52.
5. INSTALL WET WELL AND FIBER GLASS DUPLEX PUMP SYSTEM PER DETAIL ON SHEET 77.
6. FILL CONTROLLED LOW STRENGTH MATERIAL PER EMWD STD. SPECIFICATION SECTION 02253.
7. INSTALL 4-INCH 90° ELBOW.
8. INSTALL 4-INCH 45° ELBOW.
9. INSTALL 4-INCH 22.5° ELBOW.
10. INSTALL 4-INCH 11.25° ELBOW.
11. REMOVE AND REPLACE EXISTING FENCE.
12. REMOVE AND REPLACE EXISTING RETAINING WALL.
13. REMOVE AND RE-INSTALL EXISTING GATE.
14. REMOVE AND REPLACE EXISTING WALL.

SEWER DATA		
LINE #	DISTANCE	BEARING
L1022	20.63	N49° 11' 14.17"W
L1023	77.35	N40° 48' 45.83"E
L1024	10.45	S49° 11' 14.17"E
L1025	80.25	N40° 23' 16.08"E
L1026	95.82	S51° 44' 35.55"E
L1027	55.36	N49° 11' 14.17"W
L1028	55.36	N49° 11' 14.17"W
L1029	71.64	N40° 48' 45.83"E
L1030	33.06	N49° 11' 14.17"W
L1031	244.76	N49° 11' 14.17"W
L1032	70.53	N40° 49' 51.65"E
L1033	36.72	S48° 01' 43.31"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 90K	586692.30	1801690.25	1748.47
C.O. 90L	586650.68	1801654.30	1747.73
C.O. 90M	586633.77	1801639.68	1747.36
C.O. 90N	586640.59	1801631.78	1747.41
C.O. 90P	586591.87	1801604.05	1746.68

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 90Q	586572.64	1801587.69	1745.95
C.O. 90R	586606.70	1801544.50	1746.20
C.O. 90S	586632.06	1801512.43	1746.16
C.O. 90T	586719.57	1801658.67	1749.39
C.O. 90U	586737.72	1801637.66	1749.68

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 90V	586764.78	1801661.13	1750.41
C.O. 90W	586791.88	1801684.53	1750.66
C.O. 90X	586813.50	1801659.52	1750.74
C.O. 90Y	586773.66	1801596.03	1749.74
C.O. 90Z	586809.61	1801554.41	1749.29
C.O. 90AA	586845.56	1801512.78	1748.94
C.O. 90BB	586881.51	1801471.15	1748.67
C.O. 90CC	586897.64	1801452.47	1748.44
C.O. 90DD	586924.32	1801475.53	1749.10
C.O. 90EE	586951.01	1801498.58	1742.40
C.O. 90FF	586926.45	1801525.88	1749.83
C.O. 90GG	586923.21	1801522.97	1749.87

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMAD YASEEN
No.C 58784
CIVIL
STATE OF CALIFORNIA

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0' 20' 40' 80' 120' 160'
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APPROVED
RCE Date
Date
Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH Job No. 96019.040 1"= 40'

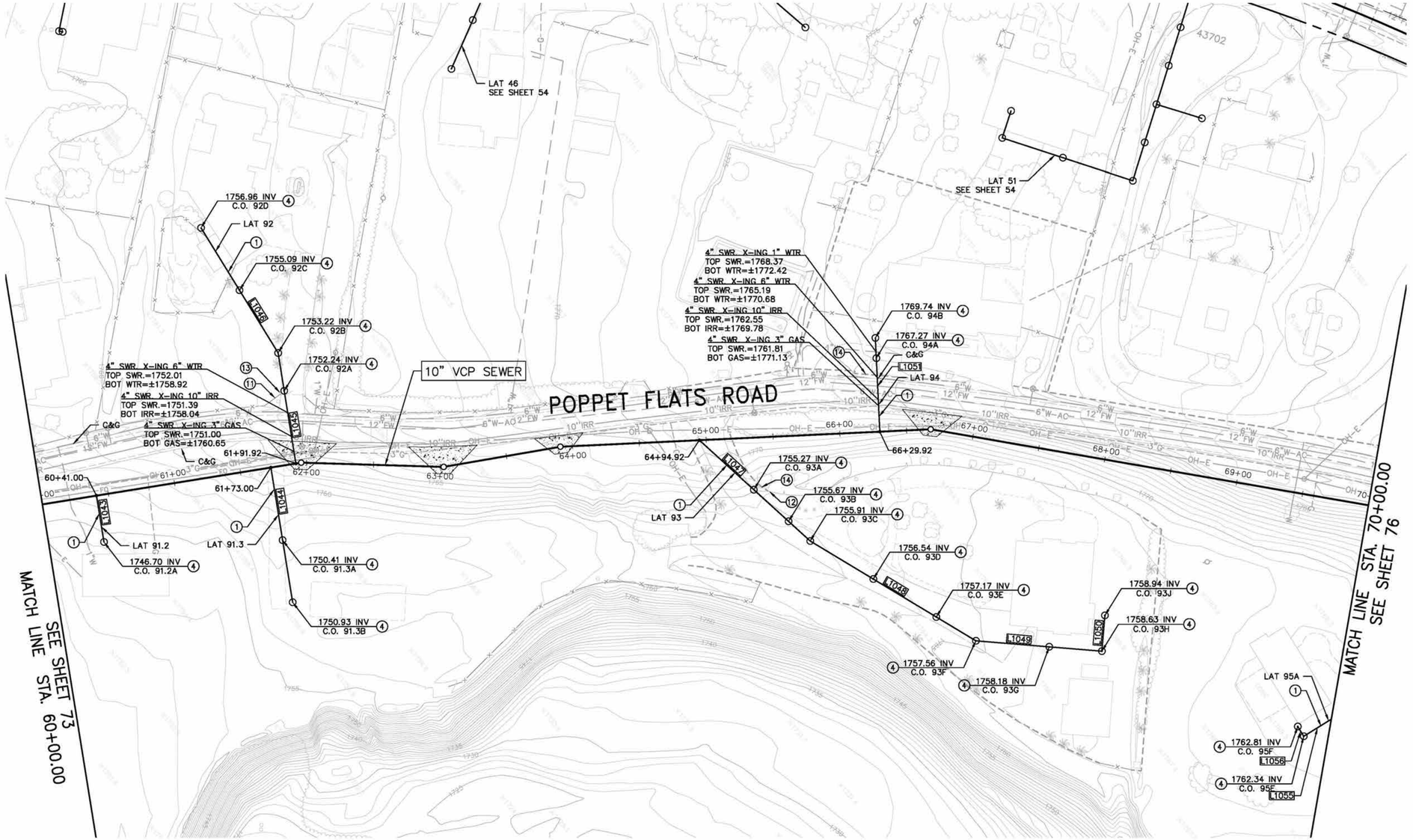
ERSG INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 218
Redlands, California 92373-3119
(909) 880-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 50+00.00 TO STA. 60+00.00

SHEET 74 OF 77 SHEETS
DWG. NO.

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CONSTRUCTION NOTES

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2. INSTALL 6-INCH FUSIBLE SEWER LATERAL PER EMWD STD. SB-177.
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SEWER DATA		
LINE #	DISTANCE	BEARING
L1043	35.15	S60° 03' 47.50"E
L1044	102.04	S60° 03' 47.50"E
L1045	83.76	N60° 03' 47.50"W
L1046	109.74	N82° 33' 47.50"W
L1047	112.03	N81° 23' 37.07"E
L1048	144.52	N70° 08' 37.07"E
L1049	94.46	N43° 46' 52.05"E
L1050	26.83	N46° 01' 01.12"W
L1051	70.17	N53° 36' 22.93"W
L1055	24.28	S7° 22' 17.21"W
L1056	8.50	N82° 37' 42.79"W

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 91.2A	586908.96	1802135.69	1754.20
C.O. 91.3A	587013.45	1802218.77	1757.55
C.O. 91.3B	586989.97	1802259.53	1756.87

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 92A	587084.73	1802132.88	1763.41
C.O. 92B	587099.09	1802107.96	1763.61
C.O. 92C	587106.21	1802053.42	1763.40

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 92D	587113.29	1801999.15	1762.92
C.O. 93A	587310.52	1802411.48	1765.13
C.O. 93B	587315.78	1802446.22	1763.01
C.O. 93C	587319.06	1802467.87	1762.80
C.O. 93D	587337.74	1802519.60	1763.50
C.O. 93E	587356.42	1802571.33	1764.40
C.O. 93F	587368.15	1802603.80	1764.88
C.O. 93G	587407.86	1802641.85	1766.33
C.O. 93H	587436.34	1802669.15	1766.76

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 93J	587454.97	1802649.85	1766.38
C.O. 94A	587443.59	1802392.93	1776.15
C.O. 94B	587452.59	1802380.72	1777.02
C.O. 95E	587513.34	1802813.61	1769.44
C.O. 95F	587514.43	1802805.18	1769.53

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI ASSEH
No.C 58784
C.IV.IL
STATE OF CALIFORNIA

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Revision	No.	By	Date	Approval

APPROVED
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Drawn SH
Checked RT/MA
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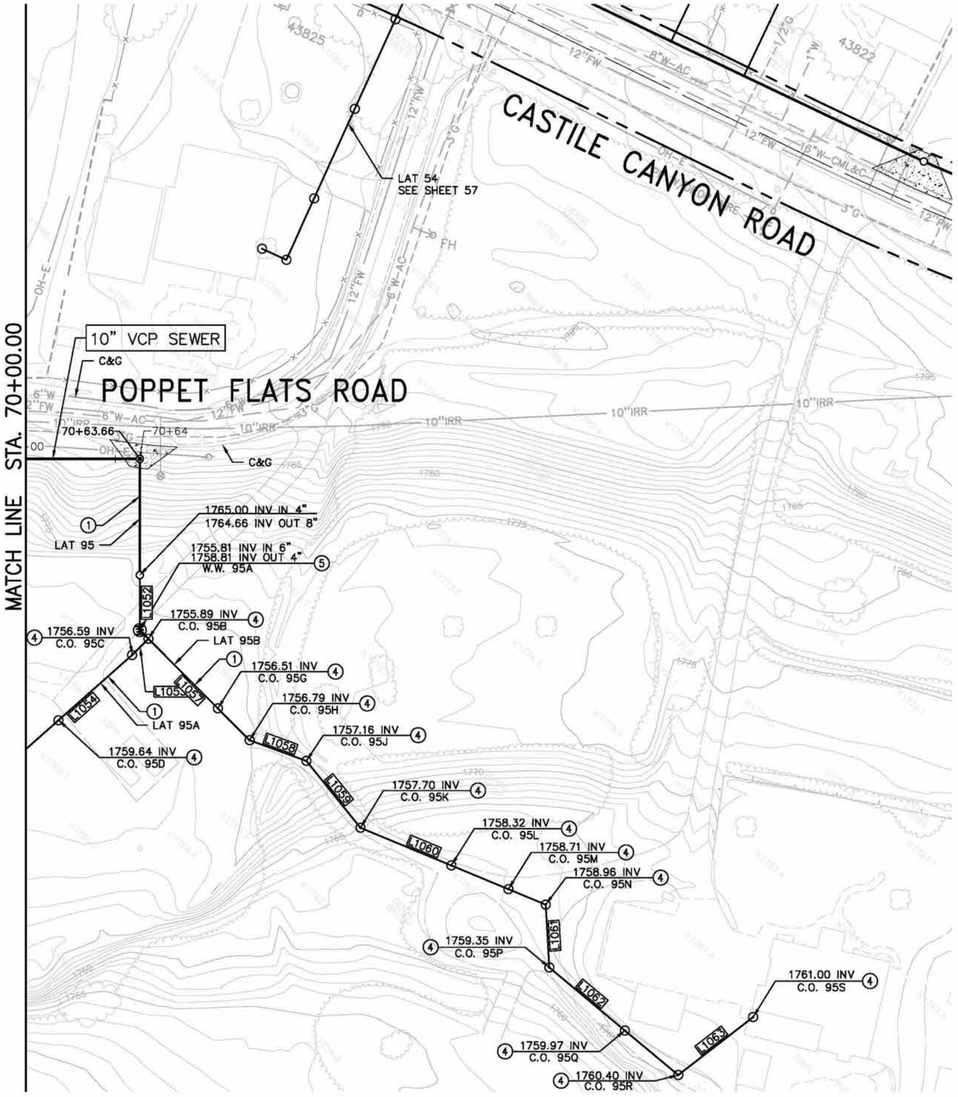
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SHEET 75 OF 77 SHEETS
DWG. NO.

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SEWER DATA		
LINE #	DISTANCE	BEARING
L1052	30.76	S41° 03' 16.65"E
L1053	12.92	S3° 59' 45.05"W
L1054	79.23	S7° 22' 17.21"W
L1057	86.91	S86° 00' 14.95"E
L1058	33.75	N68° 58' 09.13"E
L1059	48.07	S80° 01' 55.76"E
L1060	112.11	N71° 27' 57.91"E
L1061	35.21	S44° 20' 28.24"E
L1062	93.86	N88° 47' 07.21"E
L1063	52.95	N11° 13' 44.43"E

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
W.W. 95A	587629.34	1802821.01	1769.60
C.O. 95B	587628.87	1802827.79	1769.47
C.O. 95C	587616.24	1802826.91	1769.28
C.O. 95D	587561.64	1802819.86	1769.24

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 95G	587625.04	1802882.66	1769.32
C.O. 95H	587623.29	1802907.70	1769.93
C.O. 95J	587635.40	1802939.21	1771.96
C.O. 95K	587627.01	1802986.57	1765.03

CLEANOUT DATA			
C.O. ID	NORTHING	EASTING	ELEVATION
C.O. 95L	587644.56	1803038.70	1762.74
C.O. 95M	587655.54	1803071.47	1763.05
C.O. 95N	587662.71	1803092.85	1763.62
C.O. 95P	587637.53	1803117.46	1763.04
C.O. 95Q	587638.70	1803172.45	1765.52
C.O. 95R	587639.52	1803211.30	1765.26
C.O. 95S	587691.45	1803221.61	1767.27

REGISTERED PROFESSIONAL ENGINEER
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No.C 58784
CIVIL
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THE BASIS OF BEARINGS FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'34"W, AS CALCULATED AND MEASURED.



GRAPHIC SCALE IN FEET
1" = 40'

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

Underground Service Alert
811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED
RCE Date
Date

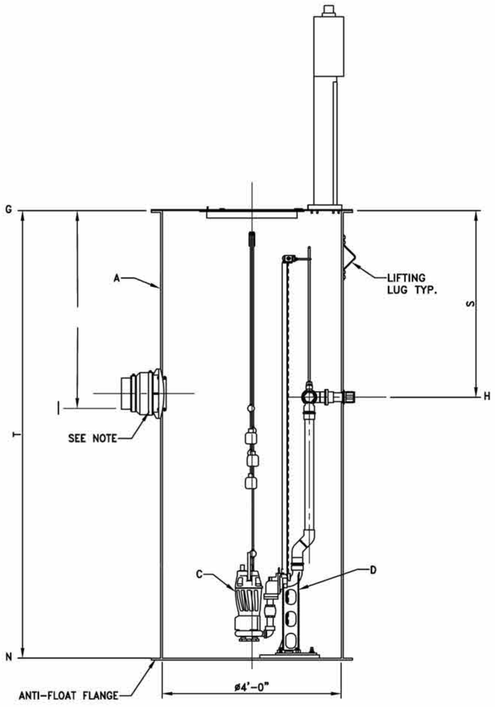
Designed SH/RT/MA | Checked RT/MA | Scale:
Drawn SH | Job No. 96019.040 | 1"= 40'

ERSC INC.COM
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7–118
Redlands, California 92373–3119
(909) 880–1255

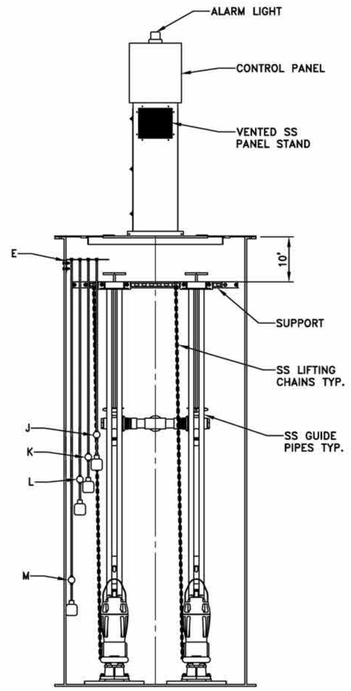
SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS
STA. 70+00.00 TO STA. 70+65.74

SHEET 76 OF 77
SHEETS
DWG. NO.



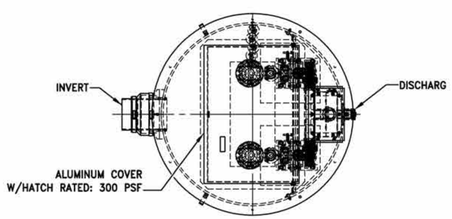
SIDE CUTAWAY
NTS

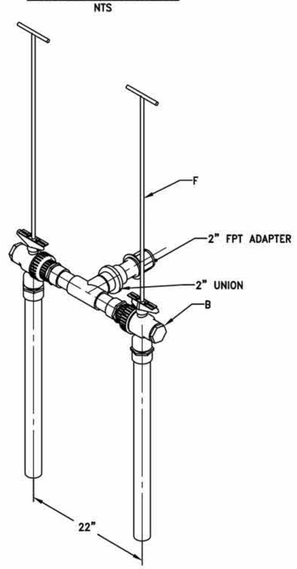


FRONT CUTAWAY
NTS

NOTE:

INVERT HUB ASSEMBLY SHIPPED LOOSE FOR FIELD INSTALL BY OTHERS.





FRONT CUTAWAY
NTS

① **LATERAL No. 8**
STA 59+20.61 ELEVATION TABLE FOR 23321 SOBOBA ROAD

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1629.03'
H	DISCHARGE (2" PVC)	1622.91'
I	INVERT	1622.41'
J	HIGH WATER ALARM FLOAT	1624.91'
K	LAG PUMP ON FLOAT	1621.41'
L	LEAD PUMP ON FLOAT	1620.91'
M	PUMPS OFF FLOAT	1617.14'
N	FLOOR OF BASIN	1615.03'
P	LENGTH TO BE PUMPED	554.78'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	14.31'
S	GROUND TO DISCHARGE, S	6.12'
T	DEPTH OF STATION	14.00'
U	AREA (ACRES)	0.57

STATIC HEAD=20.08' TDH=20.50'
Q=600 GPD Q=0.42 GPM

② **LATERAL No. 8.2**
STA 60+17.00 ELEVATION TABLE FOR SOBOBA OLD CASINO

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1631.97'
H	DISCHARGE (2" PVC)	1623.31'
I	INVERT	1622.81'
J	HIGH WATER ALARM FLOAT	1622.31'
K	LAG PUMP ON FLOAT	1621.81'
L	LEAD PUMP ON FLOAT	1621.31'
M	PUMPS OFF FLOAT	1617.81'
N	FLOOR OF BASIN	1614.97'
P	LENGTH TO BE PUMPED	496.90'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	13.89'
S	GROUND TO DISCHARGE, S	8.66'
T	DEPTH OF STATION	17.00'
U	AREA (ACRES)	4.53

STATIC HEAD=14.16' TDH=31.51'
Q=4,766 GPD Q=3.31 GPM

③ **LATERAL No. 12.1**
STA 82+19.90 ELEVATION TABLE FOR SOBOBA ROAD: 23661, 23663, 23667, & 23669

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1641.45'
H	DISCHARGE (2" PVC)	1636.45'
I	INVERT	1620.64'
J	HIGH WATER ALARM FLOAT	1620.14'
K	LAG PUMP ON FLOAT	1619.64'
L	LEAD PUMP ON FLOAT	1619.14'
M	PUMPS OFF FLOAT	1615.64'
N	FLOOR OF BASIN	1613.64'
P	LENGTH TO BE PUMPED	36.99'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	4.40'
S	GROUND TO DISCHARGE, S	5.00'
T	DEPTH OF STATION	28.00'
U	AREA (ACRES)	7.48

STATIC HEAD=25.21' TDH=28.52'
Q=7,870 GPD Q=5.41 GPM

④ **LATERAL No. 16**
STA 98+23.96 ELEVATION TABLE FOR 23935 SOBOBA ROAD

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1648.15'
H	DISCHARGE (2" PVC)	1643.15'
I	INVERT	1641.35'
J	HIGH WATER ALARM FLOAT	1640.85'
K	LAG PUMP ON FLOAT	1640.35'
L	LEAD PUMP ON FLOAT	1639.85'
M	PUMPS OFF FLOAT	1636.35'
N	FLOOR OF BASIN	1634.15'
P	LENGTH TO BE PUMPED	301.84'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	21.09'
S	GROUND TO DISCHARGE, S	5.00'
T	DEPTH OF STATION	14.00'
U	AREA (ACRES)	0.42

STATIC HEAD=27.89' TDH=28.02'
Q=442 GPD Q=0.31 GPM

⑤ **LATERAL No. 17**
STA 101+58.96 ELEVATION TABLE FOR 23995 & 24025 SOBOBA ROAD

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1667.58'
H	DISCHARGE (2" PVC)	1662.58'
I	INVERT	1657.28'
J	HIGH WATER ALARM FLOAT	1656.78'
K	LAG PUMP ON FLOAT	1656.28'
L	LEAD PUMP ON FLOAT	1655.78'
M	PUMPS OFF FLOAT	1652.28'
N	FLOOR OF BASIN	1649.58'
P	LENGTH TO BE PUMPED	165.07'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	4.11'
S	GROUND TO DISCHARGE, S	5.00'
T	DEPTH OF STATION	18.00'
U	AREA (ACRES)	0.74

STATIC HEAD=14.41' TDH=14.61'
Q=779 GPD Q=0.54 GPM

⑥ **LATERAL No. 19**
STA 106+44.96 ELEVATION TABLE FOR 24167 SOBOBA ROAD

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1668.03'
H	DISCHARGE (2" PVC)	1664.10'
I	INVERT	1663.60'
J	HIGH WATER ALARM FLOAT	1663.10'
K	LAG PUMP ON FLOAT	1662.60'
L	LEAD PUMP ON FLOAT	1662.10
M	PUMPS OFF FLOAT	1658.60'
N	FLOOR OF BASIN	1656.03'
P	LENGTH TO BE PUMPED	352.19'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	5.46'
S	GROUND TO DISCHARGE, S	3.93'
T	DEPTH OF STATION	12.00'
U	AREA (ACRES)	0.44

STATIC HEAD=10.96' TDH=11.21'
Q=463 GPD Q=0.32 GPM

⑦ **LATERAL No. 61**
STA 72+50.00 ELEVATION TABLE FOR 43765 CASTILE CANYON ROAD

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1818.05'
H	DISCHARGE (2" PVC)	1813.05'
I	INVERT	1808.04'
J	HIGH WATER ALARM FLOAT	1807.54'
K	LAG PUMP ON FLOAT	1807.04'
L	LEAD PUMP ON FLOAT	1806.54'
M	PUMPS OFF FLOAT	1803.04'
N	FLOOR OF BASIN	1801.05'
P	LENGTH TO BE PUMPED	764.17'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	9.36'
S	GROUND TO DISCHARGE, S	5.00'
T	DEPTH OF STATION	17.00'
U	AREA (ACRES)	0.79

STATIC HEAD=19.37' TDH=20.42'
Q=831 GPD Q=0.58 GPM

⑧ **LATERAL No. 68.1**
STA 83+67.00 ELEVATION TABLE FOR CASTILE CANYON ROAD: 43718, 43736, 43740, 43744, 43748, 43756, 43758, & 43768

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1845.26'
H	DISCHARGE (2" PVC)	1831.50'
I	INVERT	1821.50'
J	HIGH WATER ALARM FLOAT	1821.00'
K	LAG PUMP ON FLOAT	1820.50'
L	LEAD PUMP ON FLOAT	1820.00'
M	PUMPS OFF FLOAT	1816.50'
N	FLOOR OF BASIN	1814.50'
P	LENGTH TO BE PUMPED	80.60'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	3.32'
S	GROUND TO DISCHARGE, S	13.76'
T	DEPTH OF STATION	30.76'
U	AREA (ACRES)	6.00

STATIC HEAD=18.32' TDH=23.10'
Q=6,313 GPD Q=4.38 GPM

⑨ **LATERAL No. 83.1**
STA ELEVATION 39+35.01 TABLE FOR POPPET FLATS ROAD: 11101

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1698.35'
H	DISCHARGE (2" PVC)	1693.73'
I	INVERT	1693.23'
J	HIGH WATER ALARM FLOAT	1692.73'
K	LAG PUMP ON FLOAT	1692.23'
L	LEAD PUMP ON FLOAT	1691.73'
M	PUMPS OFF FLOAT	1688.23'
N	FLOOR OF BASIN	1685.35'
P	LENGTH TO BE PUMPED	349.04'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	14.21'
S	GROUND TO DISCHARGE, S	4.62'
T	DEPTH OF STATION	12.00'
U	AREA (ACRES)	0.78

STATIC HEAD=19.71' TDH=20.18'
Q=821 GPD Q=0.57 GPM

⑩ **LATERAL No. 95**
STA 70+63.66 ELEVATION TABLE FOR POPPET FLATS ROAD: 24000 & 43828

ITEM	DESCRIPTION	ELEVATION
G	TOP OF STATION	1769.60'
H	DISCHARGE (2" PVC)	1758.81'
I	INVERT	1755.81'
J	HIGH WATER ALARM FLOAT	1755.31'
K	LAG PUMP ON FLOAT	1754.81'
L	LEAD PUMP ON FLOAT	1750.31'
M	PUMPS OFF FLOAT	1750.81'
N	FLOOR OF BASIN	1748.60'
P	LENGTH TO BE PUMPED	30.77'
Q	SIZE	2"
R	DIFFERENCE IN ELEVATION	6.19'
S	GROUND TO DISCHARGE, S	10.79'
T	DEPTH OF STATION	21.00'
U	AREA (ACRES)	1.85

STATIC HEAD=14.19' TDH=14.40'
Q=1,946 GPD Q=1.35 GPM

EXCEL FLUID GROUP PUMP STATION

ITEM	DESCRIPTION	QTY:
A	FIBERGLASS BASIN, ø4'x10'	1
B	2" SHUT OFF VALVE	2
C	BARNES SUBMERSIBLE PUMP	2
D	1220 BAF W/CHECK VALVE	2
E	4-FLOAT BRACKET ASM	1
F	SS EXTENSION HANDLES	2

REGISTERED PROFESSIONAL ENGINEER
MAMOUD AHMADY ZADEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

BENCH MARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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811
TWO WORKING DAYS BEFORE YOU DIG

Revision	No.	By	Date	Approval

APPROVED _____ RCE _____ Date
_____ Date
Designed SH/RT/MA Checked RT/MA Scale:
Drawn SH Job No. 96019.040 1"= 40'

ERSC INC.
Engineering Resources of Southern California
1861 West Redlands Blvd.
Building 7-18
Redlands, California 92373-3119
(909) 890-1255

SOBOBA BAND OF LUISEÑO INDIANS

PRIVATE PVC SEWER FOR THE SOBOBA SEPTIC TO GRAVITY SEWER LATERALS

PUMP DETAIL SHEET

SHEET 77 OF 77 SHEETS
DWG. NO.

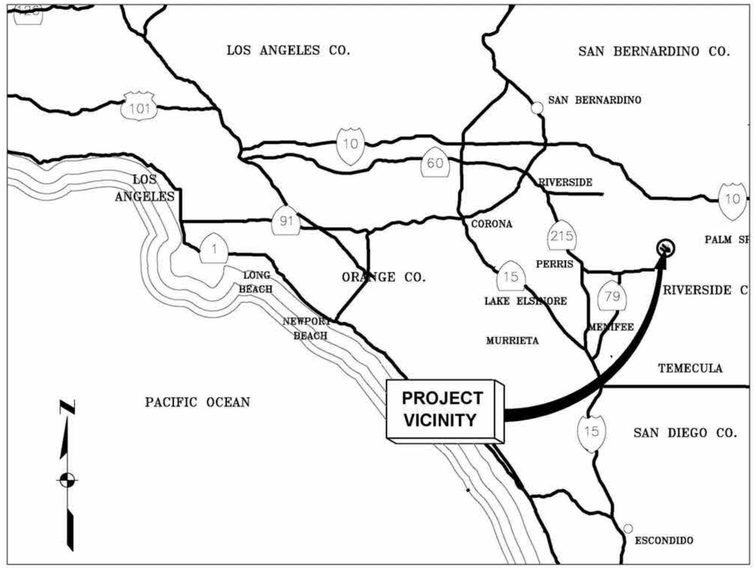
Appendix B

EMWD Soboba Sewer Project
60% Plans

EASTERN MUNICIPAL WATER DISTRICT

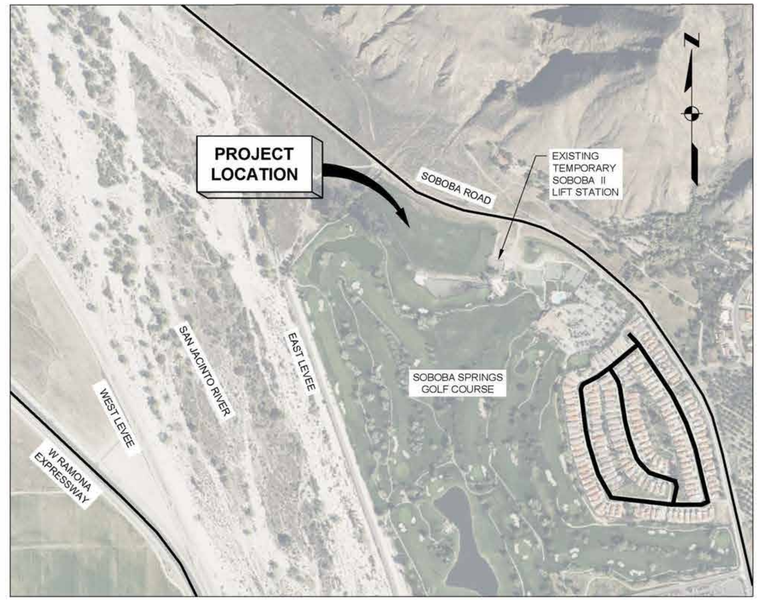
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT



VICINITY MAP

SCALE: NTS



LOCATION MAP

SCALE: NTS

DRAWING INDEX

SHEET No.	DWG No.	DRAWING TITLE
GENERAL		
1	G-1	TITLE SHEET, VICINITY MAP, LOCATION MAP AND DRAWING INDEX
2	G-2	SHEET INDEX MAP
3	G-3	CONSTRUCTION NOTES, LEGEND, ABBREVIATIONS
DEMOLITION		
4	D-1	EXISTING LIFT STATION DEMOLITION PLAN
5	D-2	EXISTING LIFT STATION DEMOLITION SECTIONS AND DETAILS
CIVIL		
6	C-1	SEWER PLAN & PROFILE STA 10+00 TO 20+00
7	C-2	SEWER PLAN & PROFILE STA 20+00 TO 30+00
8	C-3	SEWER PLAN & PROFILE STA 30+00 TO 37+00
9	C-4	SEWER PLAN & PROFILE STA 37+00 TO 41+00
10	C-5	SEWER PLAN & PROFILE STA 41+00 TO 48+47.52
* 11	C-6	TRENCHLESS PLAN AND PROFILE - I
* 12	C-7	TRENCHLESS PLAN AND PROFILE - II
* 13	C-8	TRENCHLESS DETAILS AND SECTIONS
14	C-9	CIVIL DETAILS
15	C-10	EXISTING SEWER FORCE MAIN ABANDONMENT PLAN
* 16	C-11	EXISTING SEWER FORCE MAIN ABANDONMENT DETAILS
17	C-12	MISCELLANEOUS DETAILS - I
* 18	C-13	MISCELLANEOUS DETAILS - II

* SHEETS NOT INCLUDED FOR THIS SUBMITTAL

BOARD OF DIRECTORS

PHILIP E. PAULE	BOARD PRESIDENT
STEPHEN J. CORONA	BOARD VICE-PRESIDENT
JEFFERY D. ARMSTRONG	BOARD MEMBER
DAVID J. SLAWSON	BOARD MEMBER
RANDY A. RECORD	BOARD MEMBER
JOE MOUAWAD, P.E.	GENERAL MANAGER

APPROVED BY: _____ DATE _____

LANAYA VOELZ ALEXANDER, P.E.
ASSISTANT GENERAL MANAGER OF
PLANNING, ENGINEERING, AND CONSTRUCTION

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER DESIGN OF THIS PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS OF EASTERN MUNICIPAL WATER DISTRICT IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

_____ _____

MICHAEL J. WYKOSKY R.C.E. C76078 DATE

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE
NOT FOR CONSTRUCTION

THIS DOCUMENT IS AN INTERIM DOCUMENT AND NOT SUITABLE FOR CONSTRUCTION. AS AN INTERIM DOCUMENT, IT MAY CONTAIN DATA THAT IS POTENTIALLY INACCURATE OR INCOMPLETE AND IS NOT TO BE RELIED UPON WITHOUT THE EXPRESS WRITTEN CONSENT OF THE PREPARER.

SPEC. No. _____

Underground Service Alert — Call: TOLL FREE 811 — TWO WORKING DAYS BEFORE YOU DIG

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY: Kennedy Jenks
KJ JOB No. 2344003.00

REVISIONS

NO.	DATE	INITIAL	DESCRIPTION	APP'VD/DATE

APPROVED BY:
DIRECTOR OF ENGINEERING DATE
REFERENCES

EASTERN MUNICIPAL WATER DISTRICT
PROJECT MANAGER DATE

APPROVALS

	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

TITLE SHEET, VICINITY MAP, LOCATION MAP AND DRAWING INDEX

I.D.
S.A.
W.O.
C.O.
COORD.
SHT. 1 OF X

G-1



BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 6, BASED LOCALLY ON CONTINUOUS OPERATING REFERENCES STATIONS (CORS) "MLFP", "P584" AND "DSSC" NAD83(2011) (EPOCH:2010.00). ALL BEARING AND DISTANCES SHOWN ON THIS SURVEY ARE GRID. GROUND DISTANCES MAY BE OBTAINED BY DIVIDING THE GRID DISTANCE BY COMBINED SCALE FACTORS OF 0.99991740.

BENCH MARK

THE FOLLOWING BENCHMARK WAS OBSERVED BY COZAD & FOX. INC.:

A USGS MONUMENT DESIGNATED PID "DX0164" BEING A BOLT ON THE NORTH SIDE OF MAIN STREET, 45 FEET EAST OF THE EAST CURB OF SAN JACINTO STREET AND 2 1/2 FEET NORTH OF THE NORTH CURB OF MAIN STREET, SET IN THE SIDEWALK.

ELEVATION: 1567.60 (NAVD88)

15" SEWER INDEX MAP
SCALE: 1" = 100'

11/8/2024 60% SUBMITTAL

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INSPECTION		
SWR. OPERATIONS		
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		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

SHEET INDEX MAP

I.D.
S.A.
W.O.
C.O.
COORD.
SHT. 2 OF X
D—
G-2

GENERAL NOTES

1. SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH EMWD STANDARDS AND SPECIFICATIONS.
2. FOUR WEEKS PRIOR TO CONSTRUCTION, CONTRACTOR SHALL EXPOSE EXISTING SEWER SYSTEM AND VERIFY ITS EXISTING ELEVATION AND LOCATION.
3. GRAVITY SEWER SYSTEM PROFILE ELEVATIONS ARE TO INVERT (FLOW LINE) OF SEWER.
4. SHOP DRAWINGS, SHALL BE SUBMITTED AND APPROVED BY EMWD PRIOR TO ORDERING MATERIALS.
5. PROTECT ALL EXISTING UTILITIES IN PLACE.
6. CONTRACTOR SHALL BACKFILL WITH CONTROL DENSITY FILL ALL MAINLINE UTILITY CROSSINGS, 4" AND LARGER AND WITH 6 FEET OR LESS OF SEPARATION BETWEEN PROPOSED SEWER AND SAID CROSSINGS AND AT LOCATIONS SHOWN ON THE CONSTRUCTION DRAWINGS. THE CONTROL DENSITY FILL SHALL EXTEND FIVE FEET ON EACH SIDE OF THE EXISTING FACILITY AND EXTEND FROM THE BOTTOM OF THE EXCAVATION TO THE CENTER GRADE OF THE EXISTING FACILITY TO BE SUPPORTED IN ACCORDANCE WITH CONTROL DENSITY FILL. SEE DETAIL X ON DRAWING CX.
7. THE SEWER PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) SDR-35, UNLESS OTHERWISE NOTED IN THE DRAWINGS.
8. EXISTING UTILITIES (EXCLUDING LATERALS) HAVE BEEN LOCATED ON THE CONSTRUCTION DRAWINGS BY SEARCH OR AVAILABLE RECORDS AND FIELD REVIEW. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES FOUR WEEKS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL TAKE PRECAUTIONARY MEASURES TO PROTECT ALL UTILITIES AND SHALL BE RESPONSIBLE FOR COST DUE TO DAMAGE OF ANY UTILITY EITHER SHOWN OR NOT SHOWN ON THE CONSTRUCTION DRAWINGS.
9. APPROVAL OF EMWD IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE DISTRICT'S JURISDICTION. ALL PERMITS REQUIRED BY LAW AND NOT ALREADY OBTAINED BY THE DISTRICT SHALL BE ACQUIRED BY CONTRACTOR. REQUIREMENTS OF EMWD SHALL TAKE PRECEDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHERE EMWD REQUIREMENTS ARE MORE STRINGENT.
10. THE PROPOSED WORK SHALL BE SUBORDINATE TO ANY OPERATIONS EMWD MAY CONDUCT AND SHALL BE COORDINATED WITH SUCH OPERATIONS AS DIRECTED BY EMWD.
11. LINEAR FEET OF SEWER SHOWN ON THE DRAWINGS IS A HORIZONTAL MEASUREMENT AND EXTENDS THROUGH MANHOLES.
12. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND IMPROVEMENTS IN PLACE, INCLUDING BUT NOT LIMITED TO PIPES, CONDUITS, BERMS, CURBS, GUTTERS, CONCRETE PAVEMENT, ASPHALT CONCRETE PAVEMENT, WALKWAYS, SIDEWALKS, CROSS GUTTERS, SPANDRELS, MEDIANS, DRIVEWAYS, MAILBOXES, BIKEWAYS, TRAILWAYS, STORM DRAINS, LANDSCAPING, LANDSCAPING MATERIALS, LANDSCAPE IRRICATION SYSTEMS, TRAFFIC STRIPING, POWER POLES, STREET LIGHT SIGNS, FENCES, AND WALLS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY CONTRACTOR AND SHALL BE APPROVED BY THE PROPERTY OWNER AND EMWD.
13. A PRE-CONSTRUCTION MEETING BETWEEN THE COUNTY OF RIVERSIDE, EMWD, THE SOBOBA TRIBE, AND CONTRACTOR SHALL BE HELD PRIOR TO COMMENCEMENT OF ANY WORK.
14. ALL SEWER FACILITIES ARE OWNED, OPERATED, AND MAINTAINED BY THE DISTRICT UNLESS SPECIFIED OTHERWISE. ALL WATER FACILITIES ARE OWNED, OPERATED, AND MAINTAINED BY THE DISTRICT.
15. SUPPORT ALL UTILITIES CROSSED BY OR PARALLEL TO TRENCHING OPERATIONS TO PROTECT THE UTILITY AND PROVIDE WORKER SAFETY DURING CONSTRUCTION. THE CONTRACTOR SHALL SATISFY ALL OF THE REQUIREMENTS OF THE UTILITY COMPANY.
16. WHERE GROUND WATER IS ENCOUNTERED, INSTALL TRENCH PER DETAILS XX ON SHEET C-XXX.
17. THE CONTRACTOR IS ADVISED THAT THE WORK ON THIS PROJECT MAY INVOLVE WORKING IN A CONFINED AIR SPACE. CONTRACTOR SHALL BE RESPONSIBLE FOR "CONFINED AIR SPACE" ARTICLE, 108, TITLE 8, CALIFORNIA ADMINISTRATIVE CODE.
18. THE CONTRACTOR SHALL COMPLY WITH THE DIVISION OF DRINKING WATER'S SEPARATION REQUIREMENTS AND THE PIPELINE SEPARATION WAIVER FOR NORTHERN AND SOUTHERN WINE COUNTRY SEWER PROJECT INCLUDED IN SECTION H OF THE GENERAL CONDITIONS OF THE SPECIFICATIONS.

NOTIFICATIONS

AT LEAST TWO WEEKS PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL NOTIFY:

1. EASTERN MUNICIPAL WATER DISTRICT, FIELD ENGINEERING DEPARTMENT (951) 928-3777.
2. PERMIT AGENCIES
   - A. RIVERSIDE COUNTY TRANSPORTATION DEPARTMENT, PERMIT SECTION (951) 955-6790
   - B. UNDERGROUND SERVICE ALERT (USA), 811
   - C. SOUTHERN CALIFORNIA EDISON (714) 796-9932
   - D. FRONTIER (760) 778-3620
   - E. SOUTHERN CALIFORNIA GAS COMPANY (909) 335-7755
   - F. CHARTER (951) 406-1666
   - G. CROWN CASTLE (724) 416-2624
   - H. CENTURY LINK (LEVEL 3) (918) 547-0817
   - I. WILSHIRE CONNECTION LLC (213) 542-0100
   - J. ANY OTHER CONFLICTING UTLITIES NOT USING USA.

CONTRACTOR SHALL NOTIFY THE FOLLOWING ENTITIES AT LEAST 48 HOURS IN ADVANCE OF STARTING CONSTRUCTION:

1. EASTERN MUNICIPAL WATER DISTRICT - RECYCLED WATER (951) 928-6107
2. EASTERN MUNICIPAL WATER DISTRICT - SEWER (951) 928-6107
3. EASTERN MUNICIPAL WATER DISTRICT - WATER (951) 928-6107
4. SOCALGAS DISTRIBUTION RAMONA (800) 423-1391
5. CITY OF SAN JACINTO - SJAC01 (951) 537-7721
6. CITY OF SAN JACINTO - SEWER (951) 537-7721
7. SOBOBA BAND OF LUISENO INDIANS (951) 663-2619
8. SCE DISTRIBUTION - SAN JACINTO REGION (800) 611-1911

SEWER NOTES

1. SEWER SYSTEM CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH EMWD'S STANDARDS AND SPECIFICATIONS.
2. GRAVITY SEWER PROFILE ELEVATIONS ARE TO FLOW LINE (CONDUIT INVERT).
3. PVC PIPE SHALL BE COLORED GREEN AS MANUFACTURED.
4. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWINGS SB-53, SB-58 AND SB-61, AS APPLICABLE. SEWER MAINS MAY BE LAID THROUGH THE MANHOLES AND USED AS A FORM FOR THE INVERT.
5. MANHOLES OF DEPTHS LESS THAN FIVE FEET FROM FINISH STREET GRADE TO SEWER PIPE SHELF TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWINGS SB-30.
6. PRIOR TO CONSTRUCTION OF SEWER, CONTRACTOR SHALL EXPOSE EXISTING SEWER AND VERIFY ITS EXISTING ELEVATIONS AND LOCATION. WHERE CONNECTION TO EXISTING MANHOLES AND INLET STUB OF PROPER SIZE EXISTS, NO ALTERATIONS SHALL BE MADE TO EXISTING MANHOLE BASE OR STUB EXCEPT AS SPECIFICALLY AUTHORIZED BY EMWD.
7. ALL SEWER INLETS AT THE MANHOLE SHALL BE SUCH THAT ITS CROWN SHALL BE LEVEL WITH THE CRWON OF THE OUTLET PIPE, AT THEIR PROJECTS TO THE MANHOLE CENTERLINE.
8. ALL PIPE ZONE BEDDING & TRENCH BACKFILL ARE TO BE PER STANDARD DRAWING SB-157, SB-158, AND SB-159.
9. WHERE PEDESTRIANS WILL BE WALKING ON MANHOLE COVERS, ALL MANHOLE COVERS SHALL BE GMI COMPOSITE COVER ATTRIBUTES - 2600 SERIES (TITUS INDUSTRIAL GROUP, INC., PHONE NO. 541-389-1975 OR 541-948-4458, OR APPROVED EQUAL.
10. AS NOTED PER PLANS, MANHOLES SHALL BE COATED IN THE INTERIOR (SHAFT, CHANNEL, AND SHELVES) WITH A 100% SOLID EPOXY POLYMER. MINIMUM TOTAL DRY THICKNESS OF COATING SYSTEM SHALL BE 125 MILS.
    - A. SAUREISEN SEWERGARD GLAZE NO. 210GL. SURFACE PREPARATION INCLUDING SAUREISEN UNDERLAYMENT OF NO. F-120 OR NO. 209 FILLER COMPOUND, ABRASIVE BLASTING, MIXING APPLICATION, AND CURING SHALL BE AS RECOMMENDED BY MANUFACTURER.
    - B. RAVEN 400 LINING SYSTEM. SURFACE PREPARTION, ABRASIVE BLASTING, MIXING APPLICATION, AND CURING SHALL BE AS RECOMMENDED BY MANUFACTURER. MINIMUM TOTAL DRY THICKNESS OF COATING SYSTEM SHALL BE 125 MILS.
12. WHERE GROUNDWATER IS ENCOUNTERED, MANHOLES SHALL BE COATED IN THE EXTERIOR WITH BARRICOAT-R (CARLISLE COATINGS & WATERPROOFING); PHONE NO. 800-527-7092, OR WITH MEL-ROL-LM (W.R. MEADOWS); PHONE NO. 541-389-1975, OR APPROVED EQUAL. WHERE GROUNDWATER INFILTRATION PERSISTS, USE SAURESEIN INSTAPLUG F-180, HYDROACTIVE POLYURETHANE GROUT F-370, OR SEWER SEAL F-170.
13. REQUIREMENTS TO REMOVE EXISTING SEWER MANHOLE STUB AND JOIN WITH NEW SEWER. REMOVE EXISTING SEWER STUB, INSTALL SIKA HYDROPHILIC LEAKMASTER WATERSTOP, AND SEAL OPENING WITH SIKA 122 PLUS MORTAR. JOIN NEW SEWER BY CORING MANHOLE BASE (CORE SIZED TO ACCOMMODATE WATER STOPS). INSTALL SIKA HYDROTITE WATERSTOPS BOTH ON THEPIPE AND THE OUTSIDE DIAMETER OF THE CUTOUT. FILL THE ANNULUS SPACE WITH NON-SHRINK GROUT PER EMWD STANDARD DETAIL PROVISION SECTION 03300. COAT OUTER AFFECTED SURFACE AREAS OF MANHOLE WITH CARLISLE "BARRICOAT-R" PHONE NO. 800-527-7092 OR W.R. MEADOWS "MEL-ROL-LM" PHONE NO. 800-342-5976. RECHANNEL MANHOLE BOTTOM.
14. TEMPORARY SEWER BYPASS SYSTEM – WHERE SEWER CONVEYANCE FACILITIES MUST BE REMOVED FROM SERVICE TO ALLOW MODIFICATIONS AND CONNECTIONS TO EXISTING FACILITIES, WHICH WILL REQUIRE BYPASS OF SEWAGE FLOWS. CONVEYANCE OF SEWAGE SHALL NOT BE INTERRUPTED BY PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY BYPASSING OF THE EXISTING GRAVITY SEWERS.
15. CONTRACTOR SHALL HAVE ADEQUATE BYPASS FACILITIES, INCLUDING PUMPING UNITS (DUTY AND BACKUP) ELECTRIC GENERATORS (IF ELECTRIC MOTOR DRIVEN PUMPS ARE PROVIDED), SUCTION AND DISCHARGE PIPING, VALVES, AND REPAIR FITTINGS TO CONVEY SEWAGE WITHOUT LEAKAGE.
16. CONTRACTOR SHALL LOCATE BYPASS FACILITIES OUT OF THE TRAVELED WAY. IF DISCHARGE PIPING IS LOCATED IN AREAS SUBJECTED TO TRAFFIC, CONTRACTOR SHALL INSTALL DISCHARGE PIPING BELOW GROUND WITH SUFFICIENT COVER TO PROTECT THE DISCHARGE PIPING IN PLACE.
17. A MINIMUM OF 15 CALENDAR DAYS PRIOR TO INSTALLING ANY BYPASS SYSTEM AND PRIOR TO BEGINNING ANY SEWER CONNECTIONS WORK, CONTRACTOR SHALL SUBMIT TO EMWD THE FOLLOWING FOR APPROVAL:
    - * PROPOSED SCHEDULE, INCLUDING INSTALLATION OF BYPASS SYSTEM, BYPASS SYSTEM TESTING, SEWER CONSTRUCTION, AND BYPASS SYSTEM REMOVAL.
    - * A DETAILED WRITTEN PLAN FOR BYPASSING THE EXISTING GRAVITY SEWER. PLAN SHALL INCLUDE LAYOUT DRAWING OF TEMPORARY EQUIPMENT AND PIPING, MANUFACTURER'S DATA FOR MAJOR SYSTEM COMPONENTS (DATA SHALL PROVIDE EQUIPMENT PERFORMANCE CAPABILITIES AND POWER REQUIREMENTS), BACKUP PUMPING AND POWER EQUIPMENT, AND METHOD OF OPERATION AND CONTROL. PLAN SHALL ALSO INCLUDE A SYSTEM HEAD CURVE FOR BYPASS PUMP AND TEMPORARY PIPING, ALONG WITH SUPPORTING DATA AND CALCULATIONS.
18. TEMPORARY BYPASS PUMPING EQUIPMENT SHALL BE SUITABLE TO PUMP RAW SEWAGE AND SHALL BE CAPABLE OF RUNNING DRY. PUMPING EQUIPMENT MAY BE ENGINE DRIVEN OR ELECTRIC MOTOR DRIVEN. ELECTRIC MOTOR DRIVEN PUMPING UNITS SHALL BE PROVIDED WITH PORTABLE ELECTRIC POWER GENERATORS. PORTABLE ELECTRIC POWER GENERATORS SHALL BE SIZED TO START AND CONTINUOUSLY OPERATE CONNECTED PUMPING UNITS. CONTRACTOR SHALL PROVIDE BACKUP PUMPING EQUIPMENT SIZED TO PUMP 100% OF THE SPECIFIED SEWAGE FLOW. BACKUP PUMP(S) SHALL BE INSTALLED AND CONNECTED TO TEMPORARY PIPING SYSTEM. BACKUP PUMP(S) SHALL AUTOMATICALLY START AND OPERATE UPON FAILURE OF DUTY PUMP(S). BACKUP PUMPING UNITS THAT ARE ELECTRIC MOTOR DRIVEN SHALL BE PROVIDED WITH A BACKUP PORTABLE ELECTRIC POWER GENERATOR.
19. TEMPORARY BYPASS PUMPING EQUIPMENT AND BACKUP PUMPING EQUIPMENT SHALL BE SIZED TO HANDLE PEAK FLOW. CONTRACTOR SHALL ASSIGN COMPETENT PERSONNEL TO OPERATE THE BYPASS PUMPING EQUIPMENT DURING ALL BYPASS OPERATIONS (24 HOURS PER DAY). RELIABLE OPERATION OF BYPASS FACILITIES FOR A MINIMUM OF 24 HOURS SHALL BE DEMONSTRATED PRIOR TO REMOVAL OF THE EXISTING GRAVITY SEWERS FROM SERVICE (REFER HEREAFTER AS "FUNCTIONAL TEST"). DURING THE 24-HOUR FUNCTIONAL TEST, THE EMERGENCY BACK-UP SYSTEM SHALL BE ACTIVATED A MINIMUM OF TWO (2) CYCLES TO CHECK THE RELIABILITY, INCLUDING CAPACITY AND CONTROLS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OPERATION OF THE BYPASS FACILITIES UNTIL SUCH TIME AS THE NEW SEWERS ARE IN OPERATION AND SAID SEWERS ARE ACCEPTABLE TO THE DISTRICT. CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY ALL COSTS FOR ANY SEWAGE SPILLS WHICH RESULT FROM HIS CONSTRUCTION ACTIVITIES, INCLUDING SUBSEQUENT CLEANUP, FINES, AND DAMAGE DUE TO BACKUP INTO DWELLINGS AND/OR BUSINESSES.

GENERAL CONSTRUCTION NOTES

1. APPROVAL BY EMWD IMPLIES NO PERMISSION OTHER THAN THAT WITHIN THE EMWD'S JURISDICTION. ALL PERMITS REQUIRED BY LAW AND NOT ALREADY OBTAINED BY THE EMWD SHALL BE ACQUIRED BY CONTRACTOR. REQUIREMENTS OF EMWD SHALL TAKE RPECENDENCE OVER REQUIREMENTS OF OTHER AGENCIES ONLY WHERE EMWD REUQIREMENTS ARE MORE STRINGENT.
2. THE PROPOSED WORK SHALL BE SUBORDINATE TO ANY OPERATIONS EMWD MAY CONDUCT AND SHALL BE COORDINATED WITH SUCH OPERATIONS AS DIRECTED BY EMWD.
3. LINEAR FEET OF PIPE SHOWN ON THE DRAWINGS ARE HORIZONTAL MEASUREMENTS AND EXTEND THROUGH VALVES, BENDS, AND OTHER APPURTENANCES.
4. CONTRACTOR SHALL PROTECT ALL EXISTING IMPROVEMENTS IN PLACE. SAID EXISTING IMPROVEMENTS SHALL INCLUDE BUT NOT BE LIMITED TO PIPES, BERMS, DITCHES, DRIVEWAYS, FENCES, AND PLANTS. ANY REMOVAL OR DAMAGE TO EXISTING IMPROVEMENTS SHALL BE REPLACED OR REPAIRED BY THE CONTRACTOR AND SHALL BE APPROVED BY THE OWNER AND EMWD.
5. ALL MATERIALS TESTING AND INSPECTION OF PIPE SHALL BE IN CONFORMITY WITH THE REQUIREMENTS OF AWWA STANDARDS AND EMWD. FAILURE TO MEET SAID REQUIREMENTS WILL BE CAUSE FOR REJECTION.
6. A PRECONSTRUCTION MEETING BETWEEN THE SOBOBA BAND OF LUISENO INDIANS, RIVERSIDE COUNTY, RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT, EMWD, AND THE CONTRACTOR SHALL BE HELD PRIOR TO COMMENCEMENT OF ANY WORK.
7. THE CONTRACTOR SHALL SUBMIT THE SHORING PLANS FOR TRENCHES AND BORE PITS PREPARED AND SIGNED BY A CALIFORNIA REGISTERED CIVIL ENGINEER TO THE DISTRICT FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
8. THE CONTRACTOR SHALL USE CONTROLLED DENSITY FILL (CDF) AS BACKFILL FOR ALL OPEN CUT UTILITY CROSSINGS. CDF SHALL BE PLACED FROM THE BOTTOM OF THE EXCAVATION TO THE CENTER GRADE OF THE UTILITY, AND SHALL EXTEND 5 FEET ON EACH SIDE PER SPECIFICATIONS SECTION 02252.
9. THE CONTRACTOR SHALL SUBMIT THE DEWATERING PLAN FOR THE EXCAVATED TRENCHES AND BORE PITS TO EMWD FOR REVIEW AND APPROVAL, A MINIMUM OF 30 DAYS PRIOR TO START OF EXCVATION.
10. CONTRACTOR SHALL NOT OPERATE ANY EXISTING VALVE OR EQUIPMENT. ANY SUCH WORK SHALL BE PERFORMED BY THE DISTRICT. CONTRACTOR SHALL FOLLOW THE SEQUENCE OF WORK SPECIFIED IN THE TECHNICAL SPECIFICATION. UNLESS SPECIFIED ELSEWHERE, A MINIMUM OF 10 WORKING DAYS WRITTED NOTICE TO THE DISTRICT IS REQUIRED PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITIES WHICH MAY EFFECT EXISTING UTILITIES.
11. CONTRACTOR SHALL PROVIDE HIS OWN SANITARY FACILITIES AND TEMPORARY POWER.

ENGINEER'S NOTE TO CONTRACTORS

1. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. THE CONTRACTOR IS REQUIRE TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN, AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS, AND IS RESPONSIBLE FOR THE PROTECTION OF, AND ANY DAMAGE TO THESE LINES OR STRUCTURES.
2. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONNEL AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL AND EMWD HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPORT DISCREPANCIES IN PLANS AND/OR CONDITIONS IMMEDIATELY TO THE DISTRICT AND THE DESIGN ENGINEER FOR RESOLUTION PRIOR TO CONSTRUCTION, AND SHALL BE RESPONSIBLE FOR DISCREPANCIES NOT SO REPORTED AND RESOLVED.

WORK TO BE DONE

1. WORK TO BE DONE CONSISTS OF THE IMPROVEMENTS IN CONFORMATION WITH THESE PLANS AND THE CONTRACT DOCUMENTS AND SPECIFICATIONS TOGETHER WITH ANY SUPPLEMENTAL INFORMATION REFERENCED HEREON.

NOTE TO CONTRACTOR

1. ALL EXISTING UNDERGROUND UTILITY LOCATIONS SHOWN HEREON ARE FROM PLANS FURNISHED BY THE RESPECTIVE UTILITY COMPANIES. CONTRACTOR SHALL CONTACT "UNDERGROUND SERVICE ALERT" (USA, 811) TO VERIFY EXISTING UTILITY LOCATIONS ON SITE BEFORE COMMENCING CONSTRUCTION.
2. WHERE INVESTIGATIONS OF SUBSURFACE CONDITIONS HAVE BEEN MADE BY EMWD IN RESPECT TO FOUNDATION OR OTHER STRUCTURAL DESIGN, AND THAT INFORMATION IS SHOWN IN THE PLANS, SAID INFORMATION REPRESENTS ONLY THE STATEMENT BY EMWD AS TO THE CHARACTER OF THE MATERIAL WHICH HAS BEEN ACTUALLY ENCOUNTERED BY IT IN IT'S INVESTIGATION, AND IS ONLY INCLUDED FOR THE CONVENIENCE OF BIDDERS. INVESTIGATIONS OF SUBSURFACE CONDITIONS ARE MADE FOR THE PURPOSE OF DESIGN, AND EMWD DISTRICT ASSUMES NO RESPONSIBILITY WHATEVER IN RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE BORINGS OR OF THE LOG OF TEST BORINGS OR OTHER PRELIMINARY INVESTIGATIONS, OR OF THE INTERPRETATION THEREOF, AND THERE IS NO GUARANTY EITHER EXPRESSED OR IMPLIED, THAT THE CONDITIONS INDICATED ARE REPRESENTATIVE OF THOSE EXISTING THROUGHOUT THE WORK, OR ANY PART OF IT, OR THAT UNLOOKED FOR DEVELOPMENTS MAY NOT OCCUR.
3. MAKING SUCH INFORMATION AVAILABLE TO BIDDERS IS NOT TO BE CONSTRUED IN ANY WAY AS WAIVER OF THE PROVISIONS OF THE FIRST PART OF THIS ARTICLE AND BIDDERS MUST SATISFY THEMSELVES THROUGH THEIR OWN INVESTIGATIONS AS TO CONDITIONS TO BE ENCOUNTERED.

SOILS ENGINEER

1. GEOTECHNICAL WORK COMPLETED BY KLEINFELDER, INC. IN A REPORT TITLED "GEOTECHNICAL INVESTIGATION - SOBOBA SEWER PROJECT" DATED XXX X, 2024.
2. A SCOUR STUDY COMPLETED BY FLOW SCIENCE, INC. IN A REPORT TITLED" SOBOBA SEWER SCOUR ANALYSIS" DATED FEBRUARY 2, 2024.

LEGEND

SYMBOL	DESCRIPTION
	CONTROL DENSITY FILL PER NOTES AND DETAILS HEREON
	CRUSHED ROCK
	NATIVE MATERIAL
	EXISTING CONCRETE
	EXISTING CONCRETE CURB AND GUTTER
	EXISTING EDGE OF PAVEMENT
	EXISTING WATER VALVE
	EXISTING IRRIGATION FACILITY
	EXISTING FIRE HYDRANT
	EXISTING FENCE
RW	EXISTING RECLAIMED WATER FACILITY
	EXISTING POWER POLE
	EXISTING POWER POLE AND GUY WIRE
	EXISTING SIGN
	BACK FLOW PREVENTER
	BLOW-OFF
	AIR RELEASE VALVE
	EXISTING STORM DRAIN FACILITY
	EXISTING STORM DRAIN MANHOLE
S	EXISTING SSMH
	EXISTING STREET LIGHT
	EXISTING TRAFFIC FACILITY
	EXISTING TRAFFIC SIGNAL POLE
	EXISTING TREE
F/O	EXISTING FIBER OPTIC FACILITY
W	EXISTING WATERLINE
COMM	EXISTING CABLE TV FACILITY
	EXISTING RIGHT OF WAY
S	EXISTING SEWER FACILITY
G	EXISTING GAS FACILITY
E	EXISTING UG ELEC FACILITY
OHE	EXISTING OH ELEC FACILITY
	EXISTING WATER METER
	PROPOSED SEWER FACILITY
	PROPOSED SEWER MANHOLE
	PROPOSED SEWER LATERAL
	ROAD CENTERLINE
	SLOPE DIRECTION ARROW
28-B7	SOIL BORING LOCATION
	TRAFFIC SIGNAL PULL BOX
	DIRT ROAD

ABBREVIATIONS

AVAR	AIR VACUUM AIR RELEASE
BFP	BACKFLOW PREVENTER
BVCE	BEGIN VERTICAL CURVE ELEVATION
BVCS	BEGIN VERTICAL CURVE STATION
CB	CATCH BASIN
CLSM	CONTROLLED LOW STRENGTH MATERIAL
CML&C	CEMENT MORTAR LINED AND COATED WELDED STEEL PIPE
CMP	CORRUGATED METAL PIPE
CP	CONTROL POINT
CTS	CORROSION TEST STATION
DI	DROP INLET
DIA	DIAMETER
DWG	DRAWING
E	EAST
(E)	EXISTING
ELEC	ELECTRIC
EMWD	EASTERN MUNICIPAL WATER DISTRICT
EOP	EDGE OF PAVEMENT
EVCE	END VERTICAL CURVE ELEVATION
(F)	FUTURE
FH	FIRE HYDRANT
FM	FORCEMAIN
ICV	IRRIGATION CONTROL VALVE
IE	INVERT ELEVATION
ICR	IRRIGATION CONTROL VALVE
IRR	IRRIGATION
LVC	LENGTH OF VERTICAL CURVE
MAX	MAXIMUM
MH	MANHOLE
MIN	MINIMUM
(N)	NORTH
NO	NUMBER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
OH	OVERHEAD
PB	PULL BOX
PCC	POINT OF COMPOUND CURVE
PED	PEDESTAL
PROP	PROPOSED
PVC	POLYVINYL CHLORIDE PIPE
PVI	POINT OF VERTICAL INTERSECTION
RCWD	RANCHO CALIFORNIA WATER DISTRICT
RD	ROAD
ROW	RIGHT OF WAY
(S)	SOUTH
SD	STORM DRAIN
SS	SANITARY SEWER
STL	STEEL
SCE	SOUTHERN CALIFORNIA EDISON
STA	STATION
STD	STANDARD
TEL	TELECOMMUNICATION
THW	TOP OF HEADWALL
TYP	TYPICAL
UG	UNDERGROUND
UNK	UNKNOWN
VAR	VARIES
VCP	VITRIFIED CLAY PIPE
W	WATER
WM	WATER METER

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE

NOT FOR CONSTRUCTION

THIS DOCUMENT IS AN INTERIM DOCUMENT AND NOT SUITABLE FOR CONSTRUCTION. AS AN INTERIM DOCUMENT, IT MAY CONTAIN DATA THAT IS POTENTIALLY INACCURATE OR INCOMPLETE AND IS NOT TO BE RELIED UPON WITHOUT THE EXPRESS WRITTEN CONSENT OF THE PREPARER.

SPEC. No. _____

Underground Service Alert — DIG! BEFORE YOU DIG — Call: TOLL FREE 811 — TWO WORKING DAYS BEFORE YOU DIG

VERIFY SCALES: BAR IS ONE INCH ON ORIGINAL DRAWING (0 — 1"). IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY: Kennedy Jenks — K/J JOB No. 2344003.00

REVISIONS				
NO.	DATE	INITIAL	DESCRIPTION	APP'VD/DATE

APPROVED BY: _____ DIRECTOR OF ENGINEERING _____ DATE

REFERENCES

EASTERN MUNICIPAL WATER DISTRICT

PROJECT MANAGER _____ DATE

APPROVALS	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

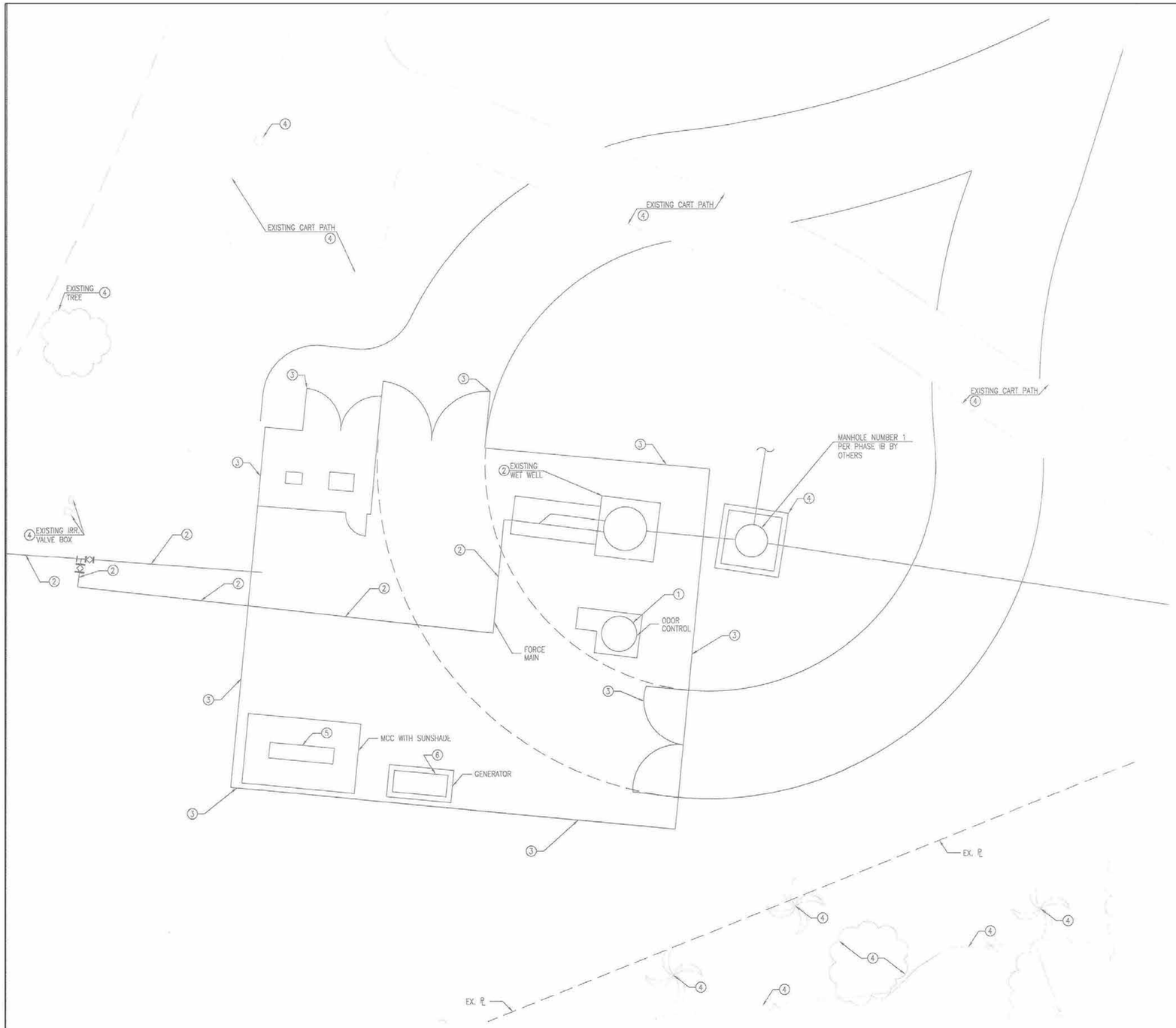
SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

CONSTRUCTION NOTES, LEGEND, AND ABBREVIATIONS

I.D. _____
S.A. _____
W.O. _____
C.O. _____
COORD. _____
SHT. 3 OF X
D—
G-3



0' 5' 10' 20' 30' 40'

PLAN
SCALE: NTS

CONSTRUCTION NOTES:

1. REMOVE AND SALVAGE EXISTING CHEMICAL TANK
2. REMOVE AND DISPOSE
3. REMOVE AND DISPOSE OF EXISTING FENCE AND GATES
4. PROTECT IN PLACE
5. REMOVE AND SALVAGE MCC LINEUP
6. REMOVE AND SALVAGE EMERGENCY STANDBY GENERATOR

GENERAL NOTES:

A. DEMOLITION SHALL NOT PROCEED UNTIL THE ENTIRE GRAVITY SEWER SYSTEM IS IN PLACE AND OPERATIONAL.

B. REMOVE AND DISPOSE OF ALL CONCRETE SLABS, UNLESS NOTED OTHERWISE

C. ALL ABOVE GRADE PIPING, VALVES, AND APPURTENANCES SHALL BE REMOVED. VERTICAL PIPE RISERS SHALL BE REMOVED TO BELOW GRADE TRANSITION WITH HORIZONTAL PIPING

D. BELOW GRADE HORIZONTAL PIPING RUNS DEEPER THAN 48" SHALL BE ABANDONED IN PLACE. PROVIDE APPROPRIATE BLIND FLANGES, CAPS, THREADED PLUGS, ETC. AT ENDS OF ALL ABANDONED PIPING. BELOW GRADE HORIZONTAL PIPING RUNS SHALLOWER THAN 48" SHALL BE REMOVED

E. CONTRACTOR SHALL COORDINATE WITH SCE FOR THE REMOVAL OF ALL SCE OWNED EQUIPMENT AND MATERIAL INCLUDING SERVICE METER, TRANSFORMER, AND SERVICE CONDUCTORS

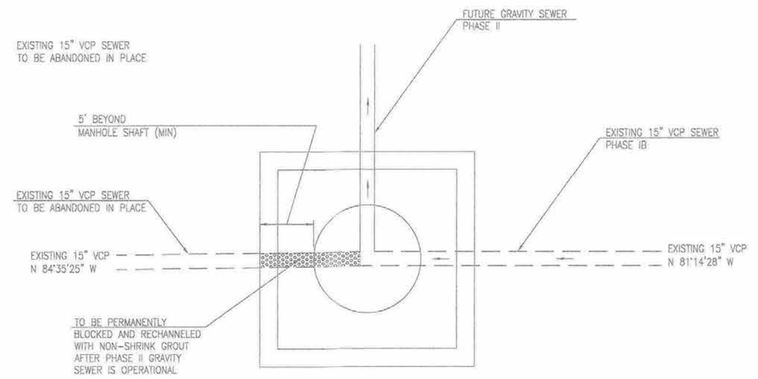
F. ALL ELECTRICAL CONDUCTORS SHALL BE DISCONNECTED FROM THE ASSOCIATED EQUIPMENT AND REMOVED FROM THE CONDUIT. ALL ABOVE GRADE CONDUIT SHALL BE REMOVED. VERTICAL CONDUIT RISERS AND SWEEPS SHALL BE REMOVED TO BELOW GRADE TRANSITION WITH HORIZONTAL CONDUIT

G. BELOW GRADE HORIZONTAL CONDUIT RUNS DEEPER THAN 36" SHALL BE ABANDONED IN PLACE. PROVIDE CONDUIT CAPS AT ENDS OF ALL ABANDONED CONDUIT. BELOW GRADE HORIZONTAL CONDUIT RUNS SHALLOWER THAN 36" SHALL BE REMOVED

H. BELOW GRADE AREAS AND VOIDS CREATED BY REMOVAL OF BELOW GRADE FACILITIES OR DEMOLITION OF STRUCTURES SHALL BE BACKFILLED WITH IMPORTED FILL MATERIAL COMPACTED TO 95% MINIMUM RELATIVE COMPACTION

I. ALL IMPORTED FILL MATERIAL SHALL BE SELECT SOIL MATERIAL, GRANULAR WITH A SAND EQUIVALENT (SE) GREATER THAN 30, NON-EXPANSIVE WITH AN EXPANSION INDEX OF LESS THAN 20, FREE OF VEGETATIVE MATTER AND OTHER DELETERIOUS SUBSTANCES, AND SHALL NOT CONTAIN ROCKS OR OTHER, IRREDUCIBLE MATTER WITH A MAXIMUM DIMENSION REINFORCED CONCRETE REINFORCED CONCRETE GREATER THAN 4". FILL MATERIAL SHALL BE APPROVED BY THE DISTRICT PRIOR TO USE ONSITE

J. SEE SPECIFICATION SECTION 02051 "TEMPORARY SEWAGE LIFT STATION DEMOLITION" FOR ADDITIONAL DEMOLITION REQUIREMENTS



RECHANNEL MANHOLE NUMBER 1 – PHASE IB
N.T.S.

THIS SHEET IS TAKEN FROM THE TEMPORARY SOBOBA II LIFT STATION (W.O. 147602) PROJECT DWG. D-55102.

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE
NOT FOR CONSTRUCTION
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SPEC. No. _____

Underground Service Alert
DIG! BEFORE YOU DIG
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY:
Kennedy Jenks
KJ JOB No. 2344003.00

REVISIONS

NO.	DATE	INITIAL	DESCRIPTION	APP'VD/DATE

APPROVED BY:
DIRECTOR OF ENGINEERING DATE
REFERENCES

EASTERN MUNICIPAL WATER DISTRICT
PROJECT MANAGER DATE

APPROVALS

	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

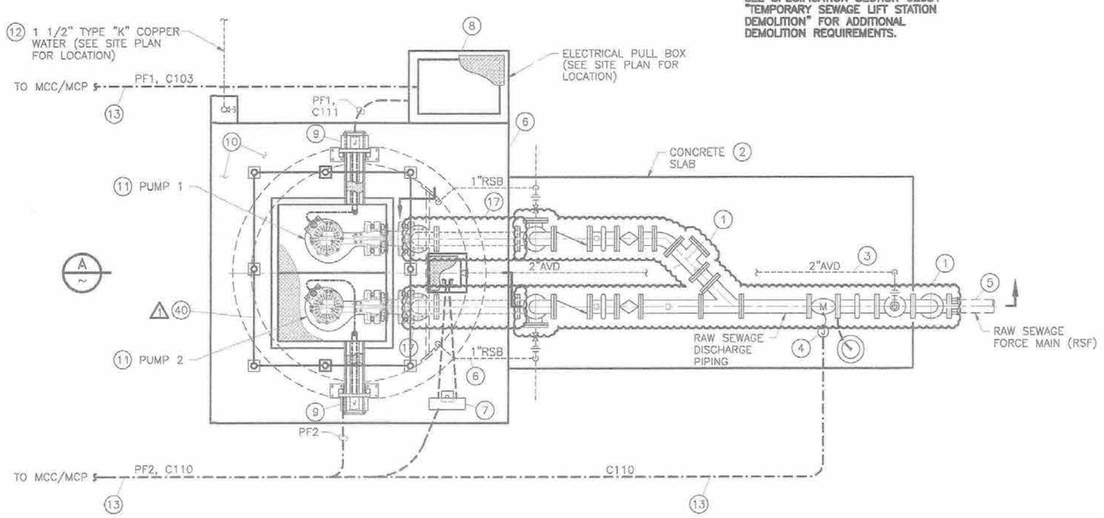
SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA
SOBOBA SEWER PROJECT
PRELIMINARY DESIGN
EXISTING LIFT STATION
DEMOLITION PLAN

I.D.
S.A.
W.O.
C.O.
COORD.
SHT. 4 OF X
D—
D-1

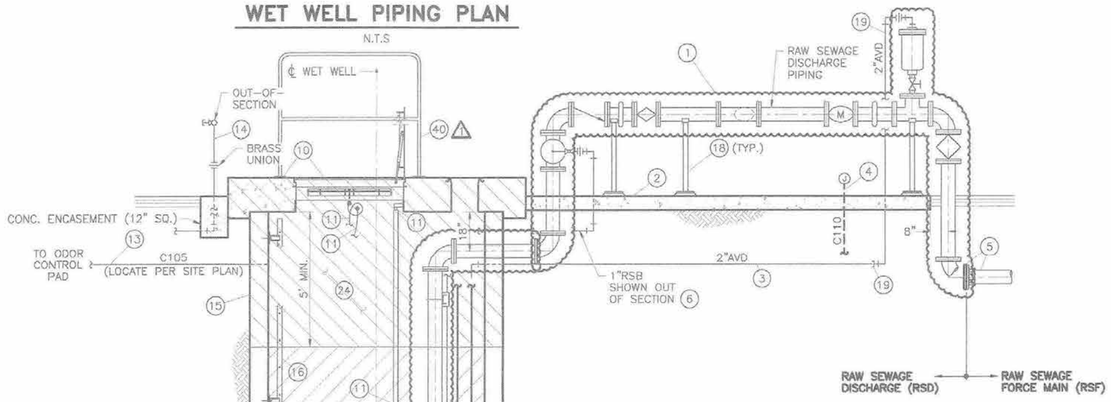
NOTE:

SEE SPECIFICATION SECTION 02051 "TEMPORARY SEWAGE LIFT STATION DEMOLITION" FOR ADDITIONAL DEMOLITION REQUIREMENTS.



WET WELL PIPING PLAN

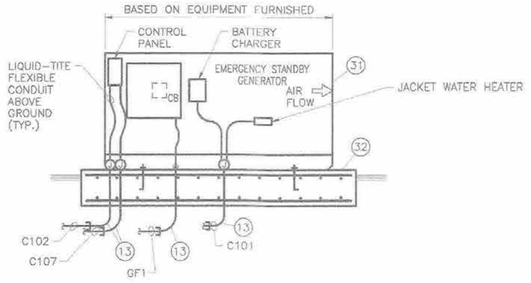
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WET WELL SECTION

N.T.S

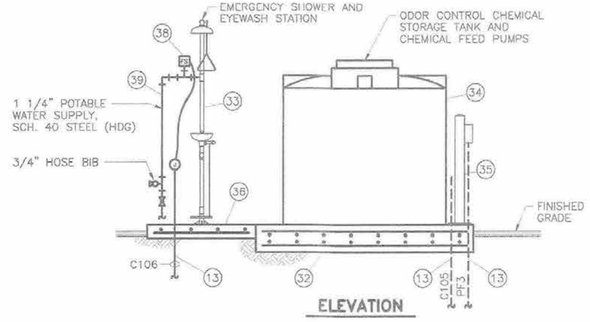
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EMERGENCY STANDBY GENERATOR DETAIL

SCALE: N.T.S.

1 D-1

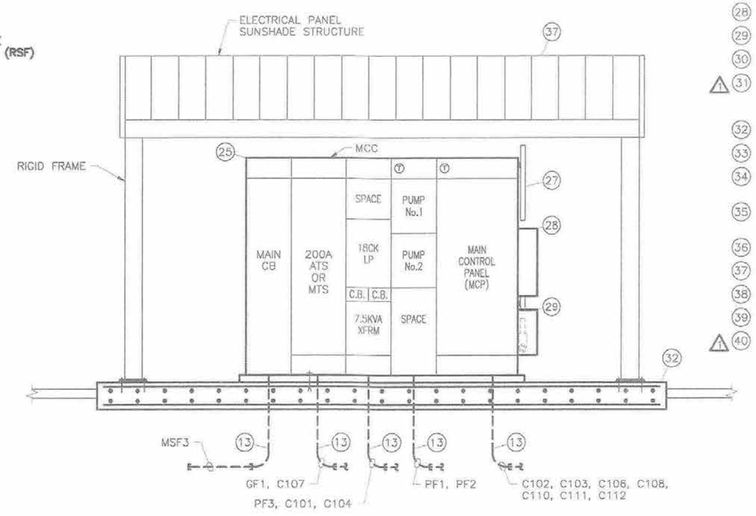


ELEVATION

ODOR CONTROL SLAB AND EMERGENCY SHOWER/EYEWASH STATION DETAIL

SCALE: N.T.S.

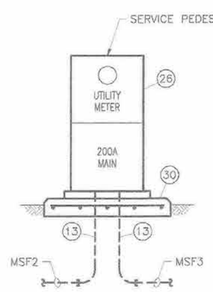
2 D-1



MCC DETAIL

SCALE: N.T.S.

3 D-1



SERVICE PEDESTAL

SCALE: 3/8"=1'-0"

4 D-1

DESCRIPTION OF DEMOLITION WORK FOR DRAWING D-2:

1. REMOVE AND DISPOSE OF RAW SEWAGE DISCHARGE PIPING, VALVES, AND FITTINGS. REMOVE AND SALVAGE FLOW METER.
2. REMOVE AND DISPOSE OF 6" THICK REINFORCED CONCRETE SUPPORT SLAB.
3. REMOVE AND DISPOSE OF BELOW GRADE 2" AIR VALVE DRAIN (AVD) PIPING.
4. REMOVE AND DISPOSE OF JUNCTION BOX AND VERTICAL CONDUIT RISER.
5. FILL FORCE MAIN (RSF) WITH CONTROL DENSITY FILL PER DISTRICT DETAILED PROVISIONS SECTION 02252. INSTALL DUCTILE IRON BLIND FLANGE ON END OF BELOW GRADE FORCE MAIN.
6. REMOVE AND DISPOSE OF 1" RAW SEWAGE BACKFLUSH (RSB) PIPING, VALVES, AND FITTINGS.
7. REMOVE AND DISPOSE OF FLOAT TRANSDUCER JUNCTION BOX, SUPPORT STANCHION, AND CABLE CAGE.
8. REMOVE AND DISPOSE OF 2'x3' ELECTRICAL PULL BOX.
9. REMOVE AND DISPOSE OF PUMP JUNCTION BOX, SUPPORT STANCHION, AND PUMP CABLE CAGE.
10. REMOVE AND DISPOSE OF WET WELL REINFORCED CONCRETE ROOF AND ACCESS HATCH.
11. REMOVE AND SALVAGE SUBMERSIBLE PUMPING UNIT, INCLUDING PUMP, BASE ELBOW, GUIDE RAIL AND SUPPORT BRACKETS, PUMP POWER AND CONTROL CABLES (DISCONNECT AT ABOVE GROUND JUNCTION BOX), AND LIFTING CHAIN / CABLE.
12. REMOVE AND DISPOSE OF 1 1/2" WATERLINE.
13. REMOVE CONDUCTORS FROM CONDUIT. ABANDON IN PLACE ALL BELOW GRADE CONDUIT DEEPER THAN 36". REMOVE AND DISPOSE OF ALL BELOW GRADE CONDUIT AND CONDUCTORS SHALLOWER THAN 36". REMOVE VERTICAL CONDUIT RISER AND PROVIDE CONDUIT CAPS AT THE ENDS OF ALL ABANDONED CONDUIT.
14. REMOVE AND DISPOSE OF 1 1/2" ANGLE VALVE, VERTICAL RISER, AND CONCRETE ENCASEMENT. CAP 1 1/2" WATERLINE
15. REMOVE AND DISPOSE OF UPPER 5' (MINIMUM) OF WET WELL SHAFT.
16. REMOVE AND DISPOSE OF WET WELL ACCESS STABILIZER.
17. REMOVE AND DISPOSE OF WET WELL DISCHARGE PIPING, FITTINGS, AND PIPE SUPPORTS.
18. REMOVE AND DISPOSE OF PIPE SUPPORTS.
19. REMOVE AND DISPOSE OF ABOVE GRADE 2" AIR VALVE DRAIN (AVD) PIPING AND FITTINGS, INCLUDING VERTICAL RISER AND ELBOW. INSTALL END PLUG.
20. REMOVE AND DISPOSE OF WET WELL FLOATS AND ULTRASONIC TRANSDUCERS.
21. FILL SEWER WITH CONTROL DENSITY FILL PER DISTRICT DETAILED PROVISIONS SECTION 02252.
22. CORE DRILL WET WELL FOUNDATION IN 4 PLACES, EQUALLY SPACED. EACH CORE DRILL SHALL BE 12" IN DIAMETER.
23. FILL REMAINING WET WELL SHAFT WITH SAND COMPACTED TO 90% RELATIVE COMPACTION.
24. BACKFILL WITH SELECT FILL MATERIAL AND COMPACT TO 95% MINIMUM RELATIVE COMPACTION.
25. REMOVE AND SALVAGE AUTOMATIC / MANUAL TRANSFER SWITCH, MCC, AND MAIN CONTROL PANEL.
26. REMOVE AND SALVAGE ELECTRICAL SERVICE PEDESTAL.
27. REMOVE AND DISPOSE OF 2" CONDUIT AND 2" WEATHER HEAD.
28. REMOVE AND SALVAGE REMOTE TELEMETRY UNIT (RTU) AND ENCLOSURE.
29. REMOVE AND SALVAGE LIGHTNING ARRESTOR ENCLOSURE.
30. REMOVE AND DISPOSE OF 8" THICK REINFORCED CONCRETE SLAB.
31. ⚠ REMOVE AND SALVAGE EMERGENCY STANDBY GENERATOR, INCLUDING ACTIVE DIESEL PARTICULATE FILTER (IF SO EQUIPPED), SUB-BASE FUEL TANK, VIBRATION ISOLATOR SUPPORT PADS, CONTROL PANEL, BATTERY CHARGER, AND JACKET WATER HEATER.
32. REMOVE AND DISPOSE OF 12" THICK REINFORCED CONCRETE FOUNDATION.
33. REMOVE AND SALVAGE EMERGENCY SHOWER AND EYEWASH STATION.
34. REMOVE AND SALVAGE ODOR CONTROL CHEMICAL STORAGE TANK AND CHEMICAL FEED PUMPS.
35. REMOVE AND DISPOSE OF ODOR CONTROL GUARD POST AND GFI RECEPTACLE WITH WEATHER-PROOF BOX AND COVER.
36. REMOVE AND DISPOSE OF 6" THICK REINFORCED CONCRETE SLAB.
37. REMOVE AND SALVAGE ELECTRICAL PANEL SUNSHADE.
38. REMOVE AND SALVAGE FLOW SWITCH AND TEE.
39. REMOVE AND DISPOSE OF 1 1/4" POTABLE WATER PIPING AND HOSE BIB.
40. ⚠ REMOVE AND SALVAGE HANDRAIL.

THIS SHEET IS TAKEN FROM THE TEMPORARY SOBOBA II LIFT STATION (W.O. 147802) PROJECT DWG. D-55102.

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE

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SPEC. No. _____

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VERIFY SCALES

BAR IS ONE INCH ON ORIGINAL DRAWING

0 1"

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY: Kennedy Jenks

KJ JOB No. 2344003.00

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NO.	DATE	INITIAL	DESCRIPTION	APP'VD/DATE

APPROVED BY:

DIRECTOR OF ENGINEERING DATE

REFERENCES

EASTERN MUNICIPAL WATER DISTRICT

PROJECT MANAGER DATE

APPROVALS	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

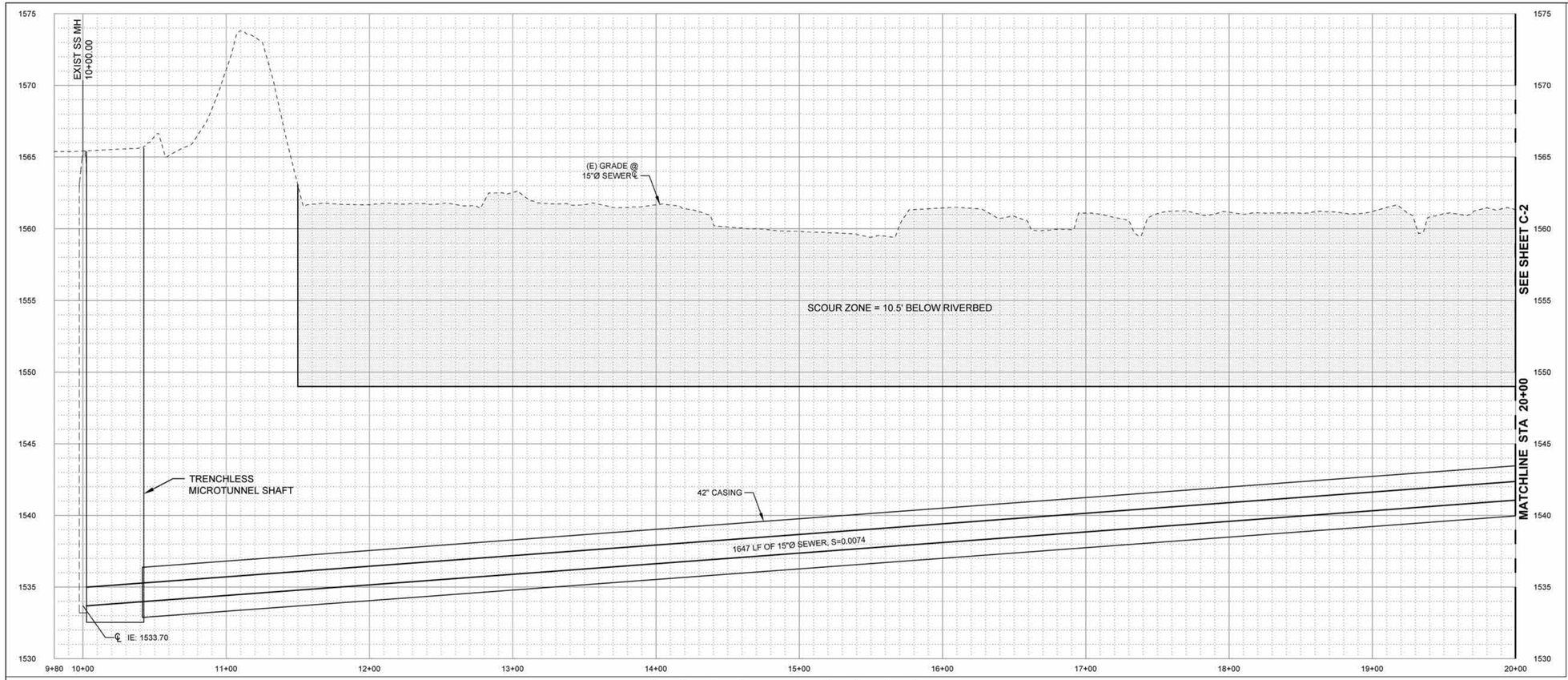
SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

EXISTING LIFT STATION
DEMOLITION SECTIONS AND DETAILS

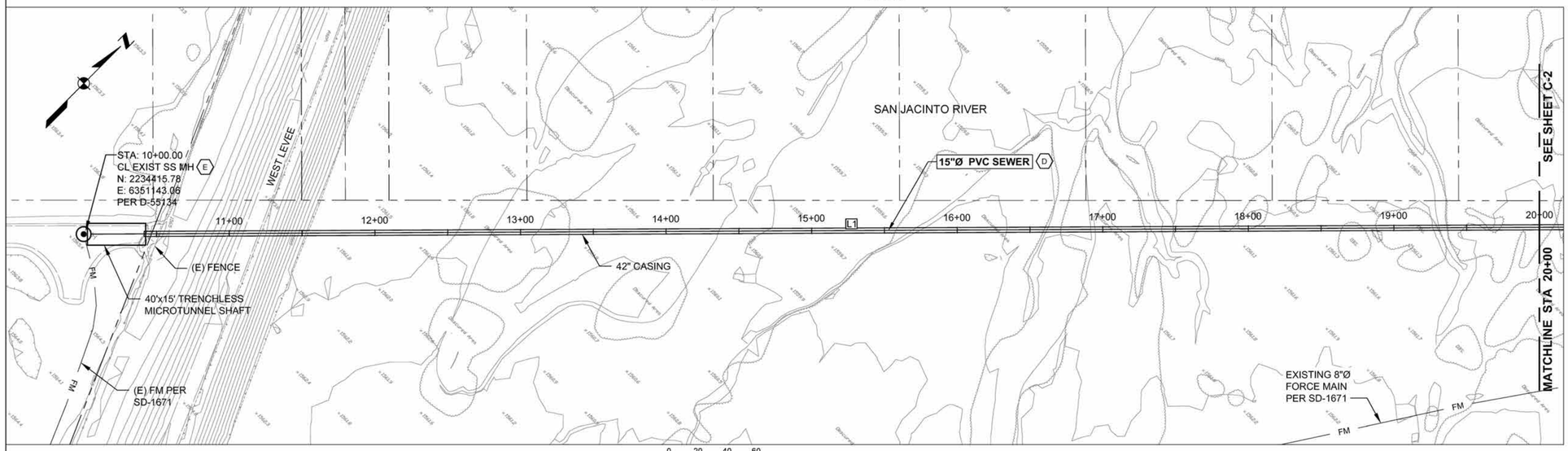
I.D.	
S.A.	
W.O.	
C.O.	
COORD.	60-D-63
SHT. 4 OF X	
D-69064	
D-2	



0 20 40 60
1"=40'

PROFILE

0 2 4 6
1"=4' VERT



0 20 40 60
1"=40'

PLAN

CONSTRUCTION NOTES

1. PIPE ZONE BEDDING AND TRENCH BACKFILL SHALL BE PER EMWD STD DWG SB-157, SB-158, AND SB-159.
2. ALL MANHOLES SHALL BE COATED IN THE INTERIOR (SHAFT, CHANNEL, AND SHELVES) WITH A 100% SOLID EPOXY POLYMER.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY IMPACTED FENCES OR AFFECTED SURFACE FEATURES (CART PATHS, TEEING GREEN, IRRIGATION LINES, ETC.) IN KIND FROM CONSTRUCTION ACTIVITIES.

SHEET KEYNOTES

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B. CONSTRUCT 48-INCH MANHOLE PER EMWD STANDARD DWG'S SB-53, SB-61, AND SB-181.

C. CONTRUCT 60-INCH MANHOLE PER EMWD STANDARD DWGS SB-53, SB-61, AND SB-181.

D. CONSTRUCT 15-INCH SEWER MAIN VIA TRENCHLESS METHODS PROVIDED BY XXX DETAIL.

E. PROPOSED SANITARY SEWER CONNECTION POINT. SEE SPECIFICATION ____.

LINE TABLE

LINE #	LENGTH (FT)	DIRECTION
L1	1646.78'	N44°50'10"E

11/8/2024 60% SUBMITTAL

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_____ _____
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SWR. OPERATIONS		
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DRAWN	HCS	10/2024
TRACED		
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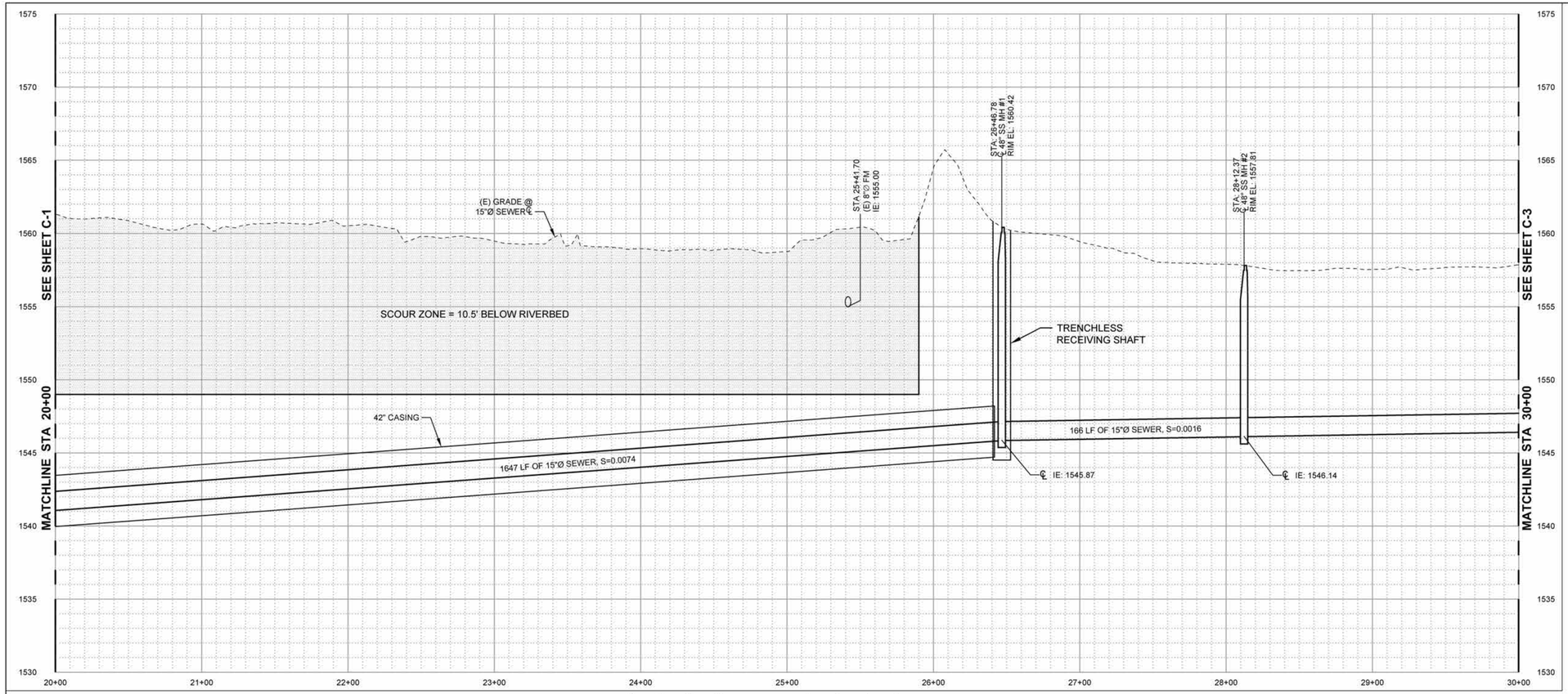
SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

PLAN AND PROFILE
STA 10+00 TO 20+00

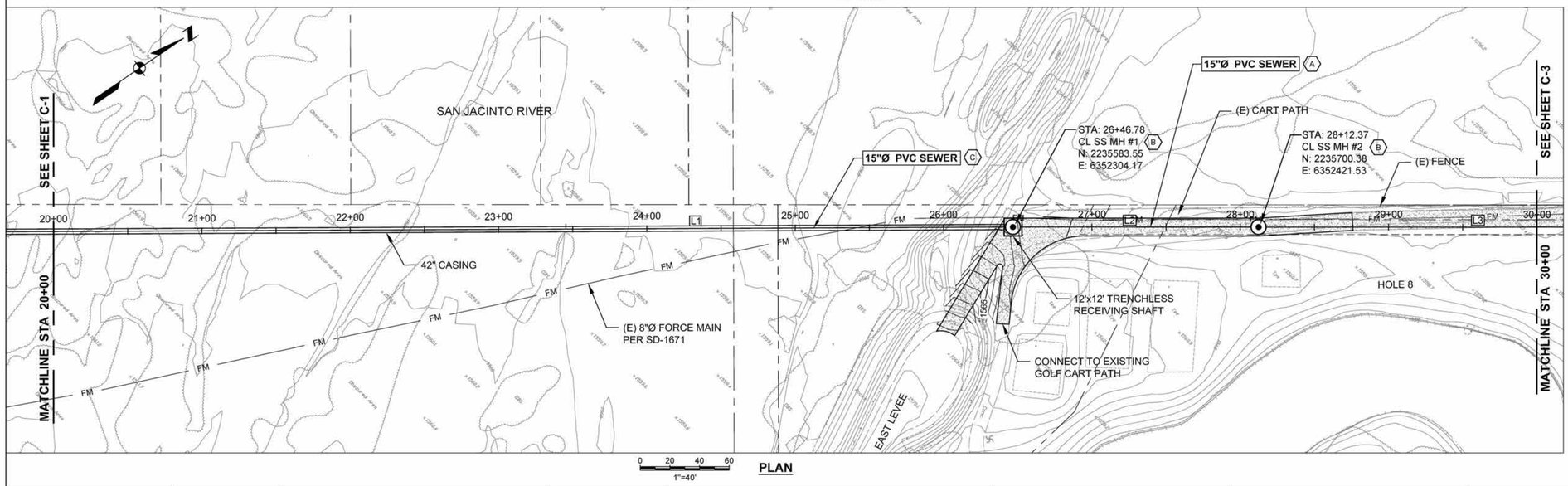
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S.A.	
W.O.	
C.O.	
COORD.	60-D-63
SHT.	4 OF X
	D–
	C-1



0 20 40 60
1"=40'

PROFILE

0 2 4 6
1"=4' VERT



0 20 40 60
1"=40'

PLAN

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LINE TABLE

LINE #	LENGTH (FT)	DIRECTION
L1	1646.78'	N44°50'10"E
L2	165.60'	N45°07'36"E
L3	490.00'	N45°07'36"E

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INSPECTION		
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SCALE: AS SHOWN

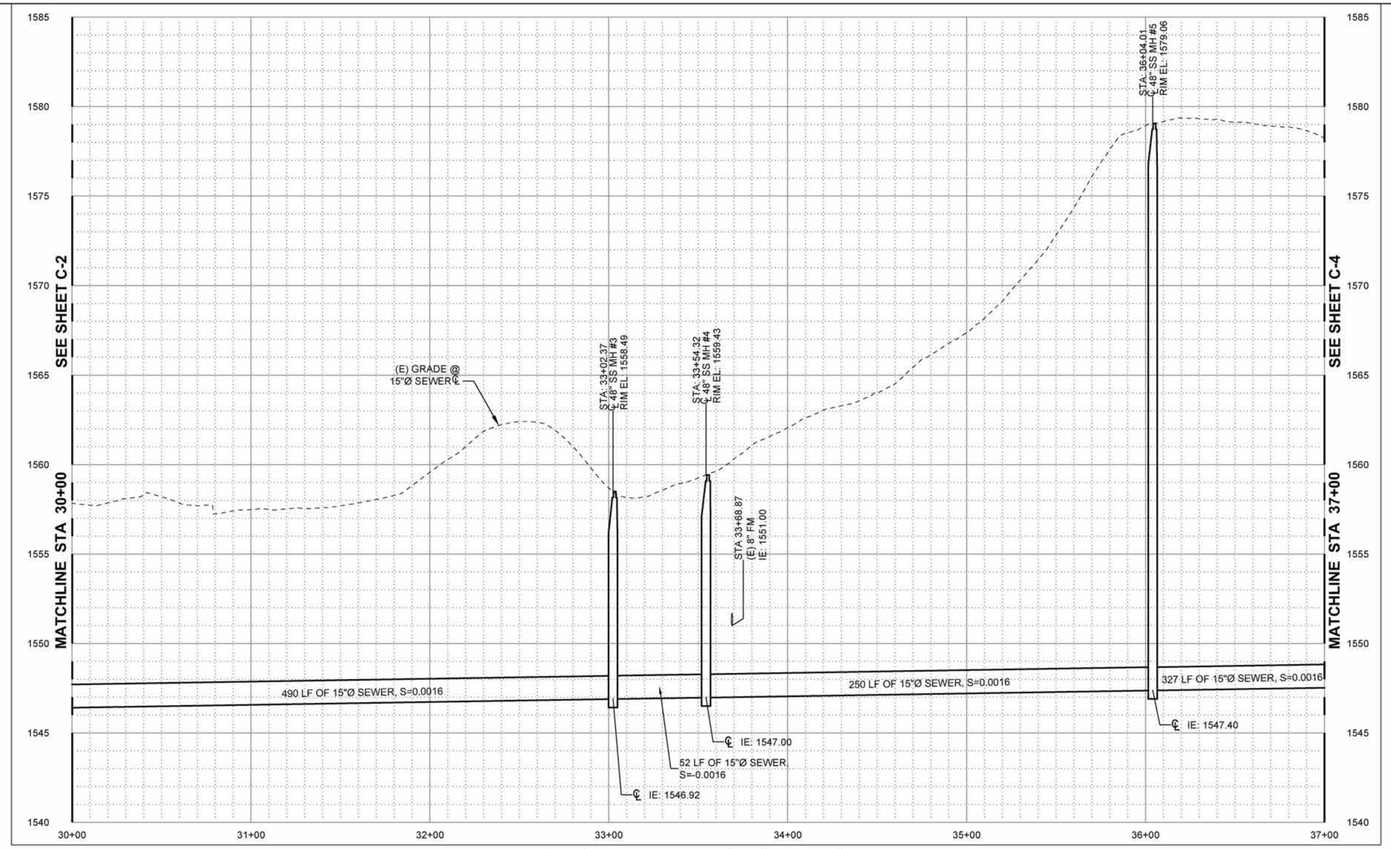
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DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

PLAN AND PROFILE
STA 20+00 TO 30+00

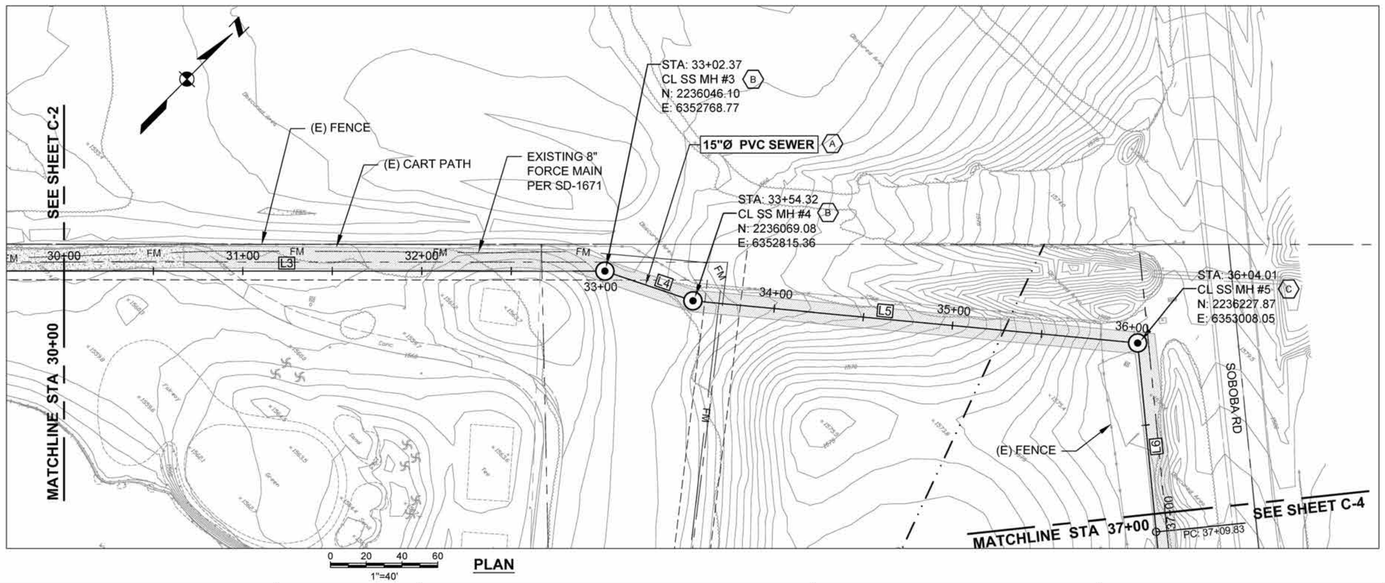
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S.A.	
W.O.	
C.O.	
COORD.	60-D-63
SHT.	4 OF X
	D-69064
	C-2



0 20 40 60
1"=40'

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LINE TABLE

LINE #	LENGTH (FT)	DIRECTION
L3	490.00'	N45°07'36"E
L4	51.94'	N63°44'55"E
L5	249.69'	N50°30'33"E
L6	105.83'	S50°28'55"E

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INSPECTION		
SWR. OPERATIONS		
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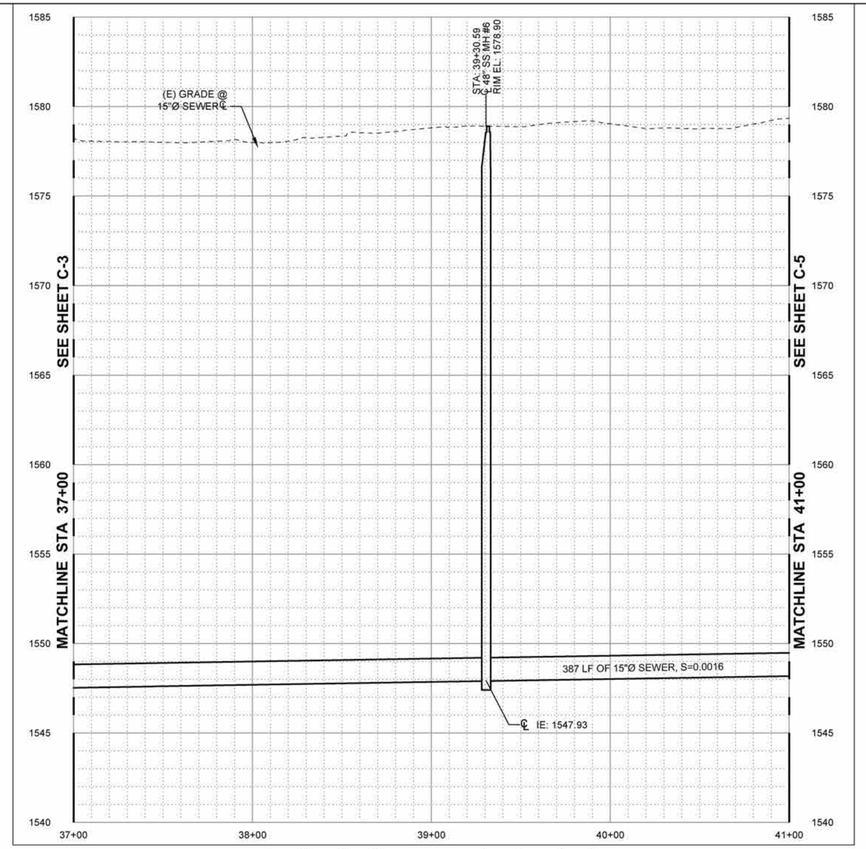
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EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

PLAN AND PROFILE
STA 30+00 TO 37+00

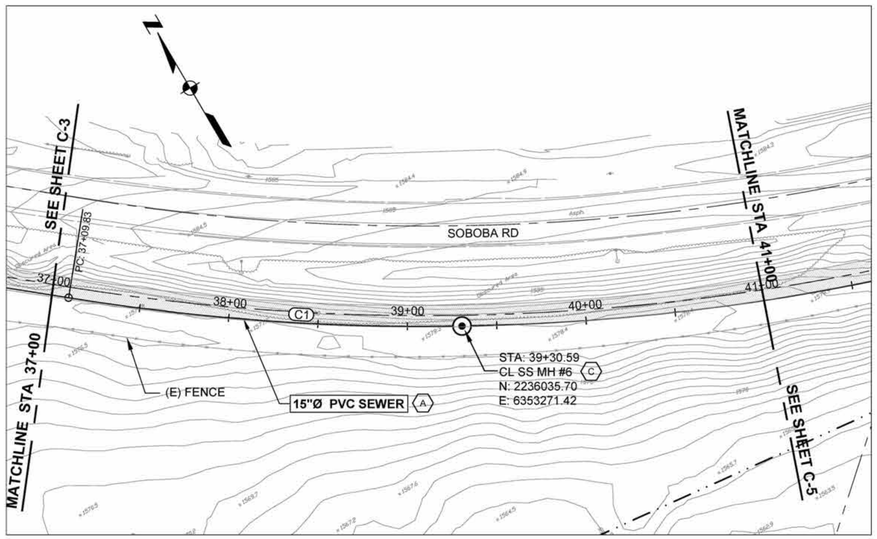
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S.A.	
W.O.	
C.O.	
COORD.	60-D-63
SHT.	4 OF X
	D-69064
	C-3



0 20 40 60
1"=40'

PROFILE

0 2 4 6
1"=4' VERT



PLAN 0 20 40 60 1"=40'

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CL CURVE DATA

MARK	DELTA	RADIUS	LENGTH	TANGENT
C1	27.71	1256.00'	607.39'	309.75'

11/8/2024 60% SUBMITTAL

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	DATE
DESIGNED	
DRAWN	
TRACED	
CHECKED	
SUBMITTED	

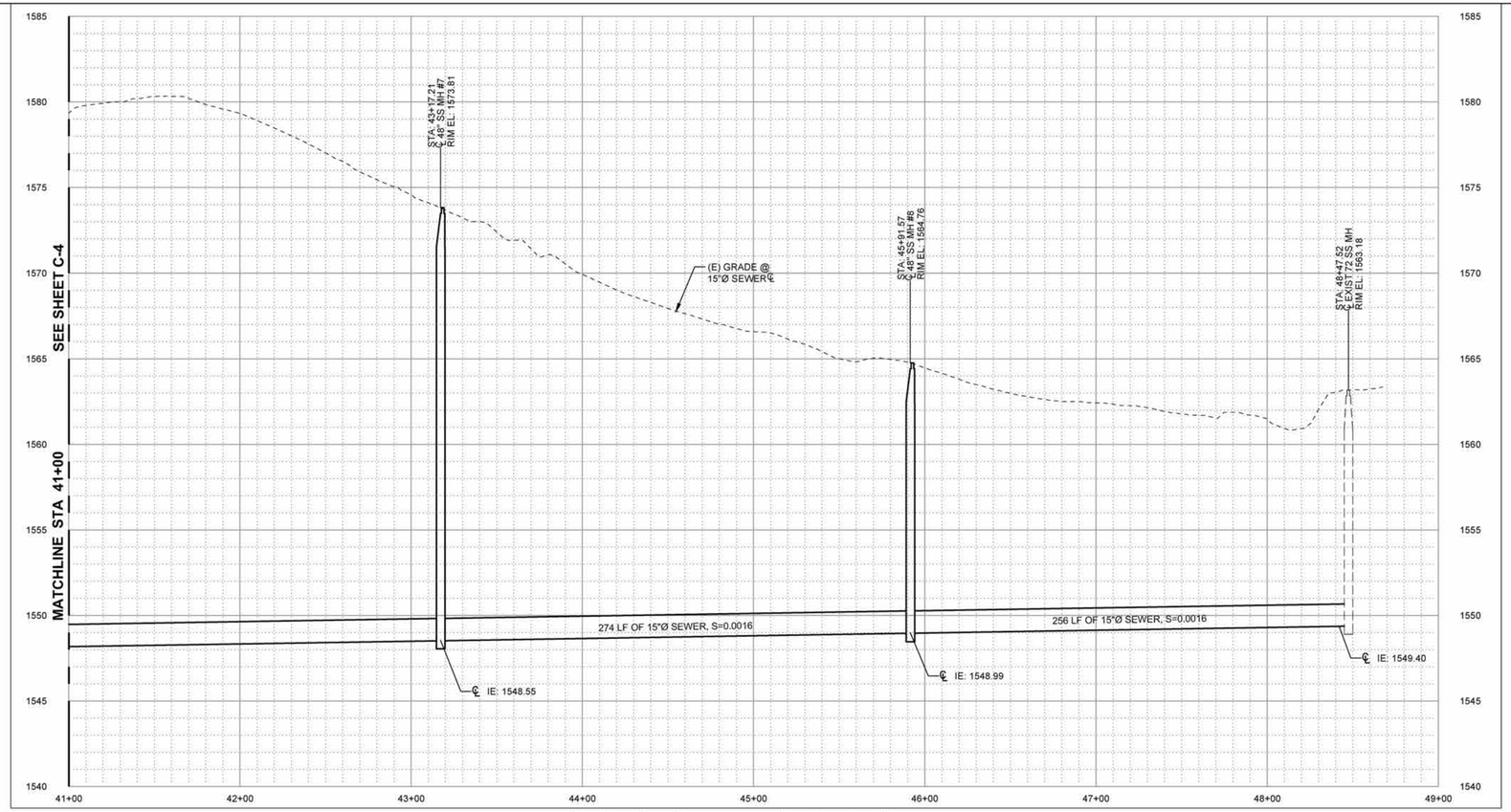
SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

PLAN AND PROFILE
STA 37+00 TO 41+00

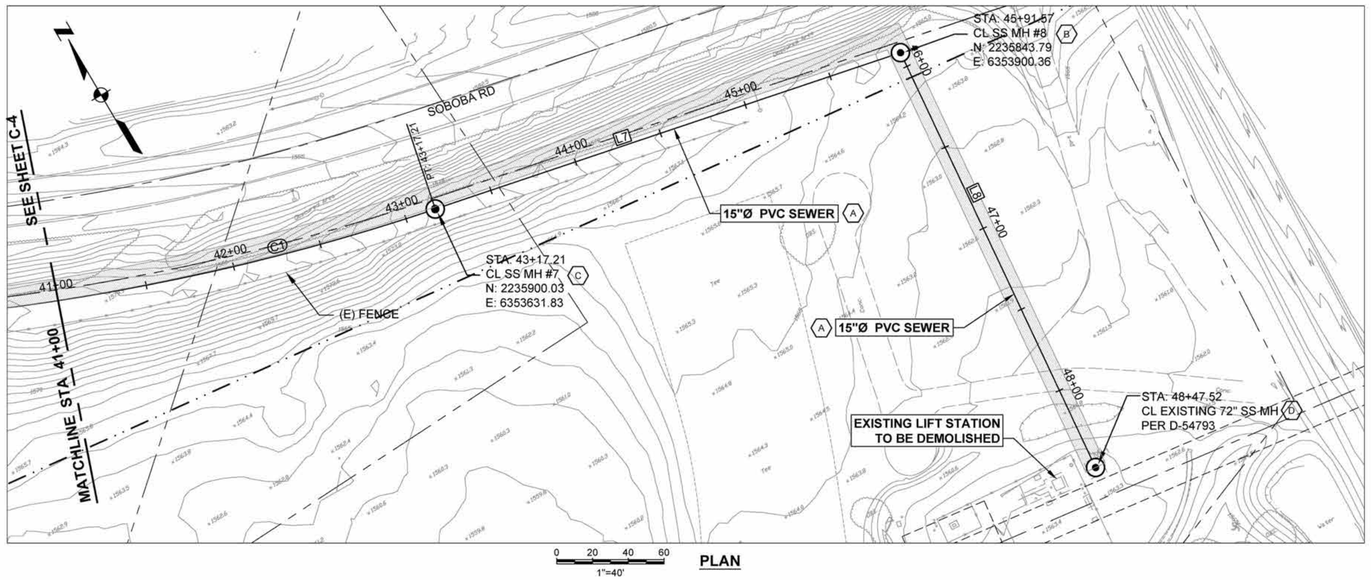
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COORD. 60-D-63	
SHT. 4 OF X	
D-69064	
C-4	



0 20 40 60
1"=40'

PROFILE

0 2 4 6
1"=4' VERT



0 20 40 60
1"=40'

PLAN

CONSTRUCTION NOTES

1. PIPE ZONE BEDDING AND TRENCH BACKFILL SHALL BE PER EMWD STD DWG SB-157, SB-158, AND SB-159.
2. ALL MANHOLES SHALL BE COATED IN THE INTERIOR (SHAFT, CHANNEL, AND SHELVES) WITH A 100% SOLID EPOXY POLYMER.
3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPLACE ANY IMPACTED FENCES OR AFFECTED SURFACE FEATURES (CART PATHS, TEEING GREEN, IRRIGATION LINES, ETC.) IN KIND FROM CONSTRUCTION ACTIVITIES.

SHEET KEYNOTES

A. CONSTRUCT 15-INCH SEWER MAIN PER EMWD STANDARD DWG'S SB-157 AND SB-158.

B. CONSTRUCT 48-INCH MANHOLE PER EMWD STANDARD DWG'S SB-53, SB-61, AND SB-181.

C. CONTRUCT 60-INCH MANHOLE PER EMWD STANDARD DWGS SB-53, SB-61, AND SB-181.

LINE TABLE

LINE #	LENGTH (FT)	DIRECTION
L7	274.36'	S78°10'18"E
L8	255.95'	S5°10'41"W

CL CURVE DATA

MARK	DELTA	RADIUS	LENGTH	TANGENT
C1	27.71	1256.00'	607.39'	309.75'

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE

NOT FOR CONSTRUCTION

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SPEC. No. _____

Underground Service Alert
DIG ALERT
Call: TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY:
Kennedy Jenks
KJ JOB No. 2344003.00

REVISIONS				
NO.	DATE	INITIAL	DESCRIPTION	APP'VD/DATE

APPROVED BY:
_____ _____
DIRECTOR OF ENGINEERING DATE
REFERENCES

EASTERN MUNICIPAL WATER DISTRICT
_____ _____
PROJECT MANAGER DATE

APPROVALS	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

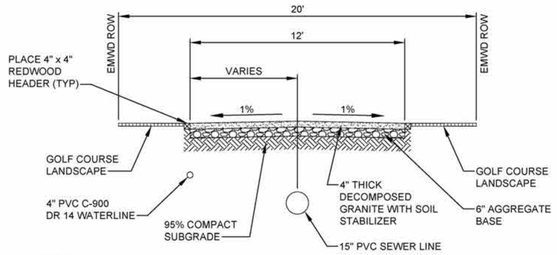
SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

PLAN AND PROFILE
STA 41+00 TO 48+47.52

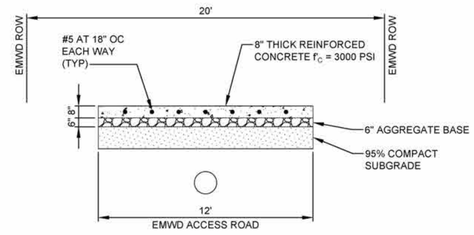
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S.A.	
W.O.	
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COORD. 60-D-63	
SHT. 4 OF X	
D-69064	
C-5	



NOTES:

1. THE GRANITE IS SCREENED TO INCLUDE STONE PARTICLE 3/8" OR 1/4" MINUS DOWN TO THE FINE PARTICLES. THE PARTICLES THAT PASS THE 200 SCREEN MESH AS DETERMINED BY ASTM METHODOLOGY SHALL NOT EXCEED 18 PERCENT. THE SAND EQUIVALENT OF MATERIAL SHALL BE IN THE RANGE OF 30-50. THE R-VALUE SHALL BE MINIMUM OF 70.
2. THE BLENDING OF COURSE SAND WITH ROCK DUST IS NOT AN EQUAL PRODUCT.
3. SOIL STABILIZER SHALL BE INCORPORATED INTO THE DECOMPOSED GRANITE MATERIAL SHALL BE APPROVED BY THE ENGINEER.
4. THE DECOMPOSED GRANITE PAVING SHALL NOT EXCEED A 5% SLOPE IN THE DIRECTION OF TRAVEL AND 2% MAX CROSS SLOPE.
5. SURFACE GRADE DECOMPOSED GRANITE PAVING TO ACHIEVE POSITIVE DRAINAGE AND NOT EXCEED THE MAX SLOPES STATED ABOVE.

1 -- DECOMPOSED GRANITE ACCESS ROAD
SCALE: 1" = 4'



2 -- CONCRETE ACCESS ROAD
SCALE: NTS

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE

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SPEC. No. _____

Underground Service Alert
DIG BEFORE YOU DIG
Call: TOLL FREE
811
TWO WORKING DAYS BEFORE YOU DIG

VERIFY SCALES
BAR IS ONE INCH ON ORIGINAL DRAWING
0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY:
Kennedy Jenks
K/J JOB No. 2344003.00

REVISIONS

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APPROVED BY:
DIRECTOR OF ENGINEERING DATE
REFERENCES

EASTERN MUNICIPAL WATER DISTRICT
PROJECT MANAGER DATE

APPROVALS	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

CIVIL DETAILS - I

I.D.
S.A.
W.O.
C.O.
COORD. 60-D-63
SHT. 4 OF X
D—
C-9



0 100 200
1"=100'

PLAN

CONSTRUCTION NOTES

1. ABANDON EXISTING 8" FORCE MAIN BETWEEN THE SOBOBA TEMPORARY II LIFT STATION AND THE MANHOLE AT THE DOWNSTREAM END OF THE ALIGNMENT (STATION 10+00). INSTALL CONCRETE END PLUGS AND FILL WITH GROUT PER EMWD STANDARD DETAILED PROVISION SECTION 03604 OR CELLCRETE
2. REMOVE AND DISPOSE OF TOP 6 FEET OF ABOVE GROUND APPURTENANCES ON THE ABANDOND SECTION.
3. REMOVE AND DISPOSE OF EXCESS MATERIALS IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGUALTIONS.

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE

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SPEC. No. _____

Underground Service Alert
Call: TOLL FREE 811
TWO WORKING DAYS BEFORE YOU DIG

VERIFY SCALES
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0 1"
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

PLANS PREPARED BY:
Kennedy Jenks
K/J JOB No. 2344003.00

REVISIONS				
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REFERENCES

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PROJECT MANAGER DATE

APPROVALS	INITIAL	DATE
PROJECT ENGR.		
INSPECTION		
SWR. OPERATIONS		
MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

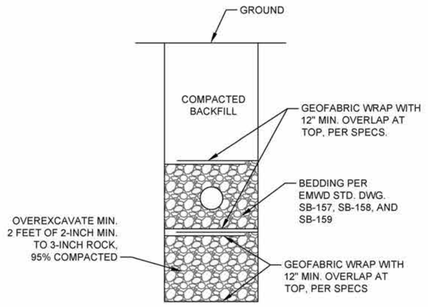
EXISTING SEWER FORCE MAIN
ABANDONMENT PLAN

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C.O.	
COORD.	60-D-63
SHT.	4 OF X
	D-69064
	C-10

NOTES:

1. TRENCH SURFACE REPAIR SHALL BE IN ACCORDANCE WITH THE CITY OF COUNTY OF RIVERSIDE PERMIT REQUIREMENTS, COUNTY OF RIVERSIDE STANDARD NO. 818 AND THE NOTES PROVIDED IN THIS DETAIL.
2. STREET STRUCTURAL SECTION TO BE AS FOLLOWS:
   AC SURFACE = MATCHING EXISTING THICKNESS + ONE INCH.
   BASE = MATCH EXISTING THICKNESS (MUST USE CLASS II BASE) IN NO CASE SHALL THE STRUCTURAL SECTION BE LESS THAN 6" AC OVER 12" CLASS II B.
3. WHEN A FIRM FOUNDATION IS NOT ENCOUNTERED DUE TO SOFT, SPONGY OR OTHER UNSUITABLE MATERIAL, SUCH MATERIAL SHALL BE REMOVED TO THE LIMITS DIRECTED BY THE COUNTY INSPECTOR, AND THE RESULTING EXCAVATION BACKFILLED WITH CLASS II BASE AT NO ADDITIONAL COST.
4. EMWD TO PROVIDE COUNTY INSPECTOR COPY OF COMPACTION REPORTS PRIOR TO PAVING.
5. COUNTY OF RIVERSIDE STREET RESTORATION REQUIREMENTS ARE PROVIDED IN APPENDIX ___ OF THE SPECIFICATIONS.
6. IF THE WORK ENCROACHES ON MORE THAN ONE TRAFFIC LANE, THEN THE ENTIRE WIDTH OF EACH LANE SHALL RECEIVE THE PAVING CAP.
7. IF EXISTING PAVEMENT IS 2-FEET OR LESS FROM EDGE OF PAVEMENT OR CURB/GUTTER, REMOVE AND REPLACE ENTIRE PAVEMENT SECTION WITH THE TRENCH REPAIR.

1 -- TRENCH SURFACE REPAIR
SCALE: NTS



2 -- TRENCH BACKFILL WHERE GROUNDWATER IS ENCOUNTERED
SCALE: NTS

11/8/2024 60% SUBMITTAL

DESIGN DEVELOPMENT PHASE
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0 1"
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PLANS PREPARED BY:
Kennedy Jenks
K/J JOB No. 2344003.00

REVISIONS				
NO.	DATE	INITIAL	DESCRIPTION	APP'VD/DATE

APPROVED BY:
DIRECTOR OF ENGINEERING DATE
REFERENCES

EASTERN MUNICIPAL WATER DISTRICT
PROJECT MANAGER DATE

APPROVALS		INITIAL	DATE
	PROJECT ENGR.		
	INSPECTION		
	SWR. OPERATIONS		
	MAINTENANCE		

		DATE
DESIGNED	MJW	10/2024
DRAWN	HCS	10/2024
TRACED		
CHECKED	RJL	10/2024
SUBMITTED		

SCALE: AS SHOWN

EASTERN MUNICIPAL WATER DISTRICT
RIVERSIDE COUNTY, CALIFORNIA

SOBOBA SEWER PROJECT
PRELIMINARY DESIGN

MISCELLANEOUS DETAILS - I

I.D.
S.A.
W.O.
C.O.
COORD. 60-D-63
SHT. 4 OF X
D-69064
C-12

Appendix C

Lake Park and Olive Ranch Plans

CITY OF SAN JACINTO

IN THE COUNTY OF RIVERSIDE, CALIFORNIA

LAKE PARK AND OLIVE RANCH SEWER AND WATER RELOCATION IMPROVEMENT PLANS

NOTES TO CONTRACTOR

1. STORAGE OF MATERIALS AND EQUIPMENT
   CONTRACTOR SHALL NOT STORE MATERIALS OR EQUIPMENT ON PRIVATE OR PUBLIC PROPERTY WITHOUT WRITTEN PERMISSION APPROVING SUCH USE. UPON REQUEST, CONTRACTOR MAY USE SOBOBA'S PROPERTY SHOWN ON THE CONSTRUCTION DRAWINGS FOR STORAGE OF MATERIALS.

2. CONTRACTOR'S EQUIPMENT
   ALL EQUIPMENT SHALL BE REMOVED FROM PUBLIC RIGHT-OF-WAY AND PLACED IN THE CONTRACTOR'S CONSTRUCTION YARD AT THE END OF EACH WORK DAY.

3. UTILITIES
   CONTRACTOR SHALL "POTHOLE" ALL UTILITIES CROSSING THE PROPOSED WATERLINE AND SEWER LINE FOUR WEEKS PRIOR TO CONSTRUCTION.
   CONTRACTOR SHALL HAVE A SUFFICIENT SUPPLY OF REPAIR OR REPLACEMENT MATERIALS ON THE JOB SITE TO REPAIR OR REPLACE DAMAGED OR DESTROYED FACILITIES INCLUDING, BUT NOT LIMITED TO, SEWER LATERALS AND SEWER MAINS. REPAIRS SHALL BE MADE WITH LIKE MATERIALS AND SAID REPAIRS SHALL BE APPROVED BY THE OWNER AND UTILITY COMPANY PRIOR TO BACKFILL.

4. WATER AND SEWER CROSSINGS
   CONTRACTOR IS ADVISED THAT EXISTING SEWER MAINS AND LATERALS MAY BE SHALLOW AND THAT THE PROPOSED PIPELINE MAY BE REQUIRED TO CROSS BENEATH SAID SEWER LINES BECAUSE MINIMUM PIPE COVER CANNOT BE OBTAINED. WHEN SUCH SITUATION IS ENCOUNTERED, CONTRACTOR SHALL, AT NO ADDITIONAL COST TO THE OWNER, FURNISH AND INSTALL PIPELINE AS SPECIFIED BELOW.
   PIPE HAS BEEN DESIGNED AND SHALL BE CONSTRUCTED IN COMPLIANCE WITH STATE DEPARTMENT OF HEALTH SERVICES STANDARDS. CONTRACTOR SHALL PROTECT ALL SEWERS IN PLACE. ALL SEWERS SHALL BE MAINTAINED IN CONTINUOUS OPERATION DURING CONSTRUCTION. CONTRACTOR SHALL MAINTAIN 1' MINIMUM CLEARANCE (OUTSIDE TO OUTSIDE) AT WATER AND SEWER LATERAL CROSSINGS (OVER AND UNDER SEWERS). IF THE PIPELINE IS INSTALLED BELOW SEWER LATERALS, CONTRACTOR SHALL NOT INSTALL PIPE JOINTS A MINIMUM OF 10 FEET, MEASURED HORIZONTALLY, FROM THE CENTERLINE OF SAID SEWER LATERAL CROSSING. IF THE PIPELINE IS INSTALLED OVER SEWER LATERALS, CONTRACTOR SHALL INSTALL THE PIPE SO THAT THERE ARE NO JOINTS A MINIMUM OF 8 FEET, MEASURED HORIZONTALLY FROM THE OUTSIDE OF SAID SEWER LATERAL CROSSING.

5. PIPELINE APPURTENANCES (VALVES AND CONNECTIONS)
   TWO WEEKS PRIOR TO CONSTRUCTION OF AIR VALVES, AND PRIOR TO FABRICATION AND CONSTRUCTION OF CONNECTION PIPING, CONTRACTOR SHALL EXCAVATE AND EXPOSE EXISTING UTILITIES AND REQUIRED CONNECTION POINTS TO DETERMINE EXACT LOCATION (HORIZONTAL AND VERTICAL) AND SIZE OF EACH. FOR EACH APPURTENANCE AND EACH CONNECTION, CONTRACTOR SHALL DETERMINE ALL PIPING AND FITTINGS REQUIRED TO COMPLETE THE CONNECTION INCLUDING ALL HORIZONTAL AND VERTICAL BENDS. CONTRACTOR SHALL FURNISH AND INSTALL ALL PIPING AND FITTINGS REQUIRED FOR FIELD INSTALLATIONS NECESSARY TO CLEAR (6" CLEARANCE MINIMUM) ALL EXISTING UTILITIES OR INTERFERENCES AND TO CONNECT TO EXISTING FACILITIES, ALL BASED ON CONTRACTOR'S FIELD MEASUREMENTS AND ALL AT NO ADDITIONAL COST.

TIME LIMITATION

THE TIME LIMIT ON DRAWING(S) APPROVAL SHALL BE SIX (6) MONTHS FROM THE DATE ON THE CERTIFICATION. IF CONSTRUCTION HAS NOT COMMENCED WITH STATED TIME, EMWD REQUIRES DRAWING(S) TO BE REVIEWED BY THE DESIGN ENGINEER AND RESUBMITTED TO EMWD FOR POSSIBLE CHANGES IN MASTER PLANNED SIZING AND CHANGES SPECIFICATIONS AND STANDARDS

NOTIFICATIONS

AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION, CONTRACTOR SHALL NOTIFY:

EASTERN MUNICIPAL WATER DISTRICT FIELD ENGINEERING DEPARTMENT	(951) 928-3777, EXT 4291
CITY OF SAN JACINTO	(951) 654-7337
UNDERGROUND SERVICE ALERT	(800) 227-2600
RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT	(951) 955-1200
SOBOBA BAND OF LUISEÑO INDIANS PLANNING DEVELOPMENT & OPERATIONAL DIRECTOR KATHIE BRENNAN	(951) 654-5544, EXT 4126

UNDERGROUND UTILITIES NOTE

ALL UNDERGROUND STRUCTURES OR UTILITIES REPORTED BY THE OWNER OR OTHERS AND THOSE SHOWN ON THE RECORDS EXAMINED ARE INDICATED WITH THEIR APPROXIMATE LOCATION AND EXTENT.

THE OWNER, BY ACCEPTING THESE PLANS OR PROCEEDING WITH THE IMPROVEMENTS PURSUANT THERETO AGREES TO ASSUME LIABILITY AND TO HOLD THE UNDERSIGNED HARMLESS FOR ANY DAMAGES RESULTING FROM THE EXISTENCE OF UNDERGROUND UTILITIES OR STRUCTURES NOT REPORTED TO THE UNDERSIGNED, NOT INDICATED ON THE PUBLIC RECORDS EXAMINED, LOCATED AT VARIANCE WITH THAT REPORTED OR SHOWN ON THE RECORDS EXAMINED.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES OR STRUCTURES SHOWN AND ANY OTHER UTILITIES OR STRUCTURES FOUND AT THE SITE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNERS OF THE UTILITIES OR STRUCTURES CONCERNED BEFORE STARTING WORK.

CALL UNDERGROUND SERVICE ALERT (U.S.A.) 1-800-227-2600 OR 811 AT LEAST 2 WORKING DAYS PRIOR TO EXCAVATION.

EMWD SEWER NOTES

1. SEWER SYSTEM CONSTRUCTION AND MATERIALS SHALL BE IN ACCORDANCE WITH EMWD'S STANDARDS AND SPECIFICATIONS.
2. GRAVITY SEWER PROFILE ELEVATIONS ARE TO FLOW LINE (CONDUIT INVERT). FORCE MAIN PROFILE ELEVATIONS ARE TO CENTIGRADE (C.G.).
3. CONTRACTOR SHALL INSTALL PVC SEWERS, EXCEPT WHERE SPECIFICALLY DESIGNATED ON PLANS PER EMWD STANDARDS AND SPECIFICATIONS. PVC PIPE SHALL BE COLORED GREEN AS MANUFACTURED.
4. MANHOLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWINGS SB-53, SB-58 AND SB-61, AS APPLICABLE. SEWER MAINS MAY BE LAID THROUGH THE MANHOLES AND USED AS A FORM FOR THE INVERT. GRIND EMWD LETTERING ON MANHOLE COVER
5. MANHOLES OF DEPTHS LESS THAN FIVE FEET FROM FINISH STREET GRADE TO SEWER PIPE SHELF ARE TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING SB-30.
6. MAINLINE CLEANOUTS, WHERE CALLED FOR ON THE PLANS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DRAWING SB-52.
7. PRIOR TO CONSTRUCTION OF SEWER, CONTRACTOR SHALL EXPOSE EXISTING SEWER AND VERIFY ITS EXISTING ELEVATION AND LOCATION. WHERE CONNECTING TO EXISTING MANHOLES AND INLET STUB OF PROPER SIZE EXISTS, NO ALTERATIONS SHALL BE MADE TO EXISTING MANHOLE BASE OR STUB EXCEPT AS SPECIFICALLY AUTHORIZED BY EMWD.
8. ALL SEWER INLETS AT THE MANHOLE SHALL BE SUCH THAT ITS CROWN SHALL BE LEVEL WITH THE CROWN OF THE OUTLET PIPE, AT THEIR PROJECTIONS TO THE MANHOLE CENTERLINE.
9. RECONSTRUCTION OF EXISTING MANHOLES SHALL BE SCHEDULED AT THE CONVENIENCE OF EMWD AND SHALL BE COMPLETED WITHIN FIVE WORKING DAYS FOLLOWING ITS COMMENCEMENT.
10. THE CONTRACTOR IS ADVISED THAT THE WORK ON THIS PROJECT MAY INVOLVE WORKING IN A CONFINED AIR SPACE. CONTRACTOR SHALL BE RESPONSIBLE FOR "CONFINED AIR SPACE" ARTICLE 108, TITLE 8, CALIFORNIA ADMINISTRATIVE CODE
11. BACKWATER VALVES SHALL BE INSTALLED PER SECTION 710.1 OF THE UNIFORM PLUMBING CODE.
12. SEWER PIPE ZONE BACKFILL SHALL BE PER DETIAL 1A IF THE DEPTH OF COVER IS BETWEEN 4' AND 9'. IF THE DEPTH OF COVER IS BETWEEN 9' AND 20'. SEWER PIPE ZONE BACKFILL SHALL BE PER DETAIL 1B. IF THE DEPTH OF COVER IS BETWEEN 20' AND 30'. SEWER PIPE ZONE BACKFILL SHALL BE PER DETAIL 1C.
13. WHERE CALLED OUT: ALL CONCRETE INSIDE THE MANHOLE (SHAFT AND CHANNEL) SHALL BE COATED WITH 100% SOLID EPOXY POLYMER, SAUEREISEN SEWERGARD GLAZE No. 210G. SURFACE PREPARATION INCLUDING SAUEREISEN UNDERLAYMENT No. F-120 OR No. 209 FILLER COMPOUND, ABRASIVE BLASTING, MIXING APPLICATION, AND CURING SHALL BE AS RECOMMENDED BY MANUFACTURER. MINIMUM THICKNESS SHALL BE 20 MILS.

EMWD BY PASS NOTES

1. WHERE SEWER CONVEYANCE FACILITIES MUST BE REMOVED FROM SERVICE TO ALLOW MODIFICATIONS AND CONNECTIONS TO EXISTING FACILITIES, WHICH WILL REQUIRE BYPASS OF SEWAGE FLOWS. CONVEYANCE OF SEWAGE SHALL NOT BE INTERRUPTED BY PROJECT CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NECESSARY BYPASSING OF THE EXISTING GRAVITY SEWERS.
   1.1. CONTRACTOR SHALL HAVE ADEQUATE BYPASS FACILITIES, INCLUDING PUMPING UNITS (DUTY AND BACKUP), ELECTRIC GENERATORS (IF ELECTRIC MOTOR DRIVEN PUMPS ARE PROVIDED), SUCTION AND DISCHARGE PIPING, VALVES, AND REPAIR FITTINGS TO CONVEY SEWAGE WITHOUT LEAKAGE.
   1.2. CONTRACTOR SHALL LOCATE BYPASS FACILITIES OUT OF THE TRAVELED WAY. IF DISCHARGE PIPING IS LOCATED IN AREAS SUBJECTED TO TRAFFIC CONTRACTOR SHALL INSTALL DISCHARGE PIPING BELOW GROUND WITH SUFFICIENT COVER TO PROTECT THE DISCHARGE PIPING IN PLACE.
   1.3. A MINIMUM OF 15 CALENDAR DAYS PRIOR TO INSTALLING ANY BYPASS SYSTEM AND PRIOR TO BEGINNING ANY SEWER CONNECTIONS WORK, CONTRACTOR SHALL SUBMIT TO EMWD THE FOLLOWING FOR APPROVAL:
      1.3.1. PROPOSED SCHEDULE, INCLUDING INSTALLATION OF BYPASS SYSTEM, BYPASS SYSTEM TESTING, SEWER CONSTRUCTION, AND BYPASS SYSTEM REMOVAL.
      1.3.2. A DETAILED WRITTEN PLAN FOR BYPASSING THE EXISTING GRAVITY PLAN SHALL INCLUDE LAYOUT DRAWING OF TEMPORARY EQUIPMENT AND PIPING, MANUFACTURER'S DATA FOR MAJOR SYSTEM COMPONENTS (DATA SHALL PROVIDE EQUIPMENT PERFORMANCE CAPABILITIES AND POWER REQUIREMENTS), BACKUP PUMPING AND POWER EQUIPMENT, AND METHOD OF OPERATION AND CONTROL. PLAN SHALL ALSO INCLUDE A SYSTEM HEAD CURVE FOR BYPASS PUMP AND TEMPORARY PIPING, ALONG WITH SUPPORTING DATA AND CALCULATIONS.
2. TEMPORARY BYPASS PUMPING EQUIPMENT SHALL BE SUITABLE TO PUMP RAW SEWAGE, AND SHALL BE CAPABLE OF RUNNING DRY. PUMPING EQUIPMENT MAY BE ENGINE DRIVEN OR ELECTRIC MOTOR DRIVEN. ELECTRIC MOTOR DRIVEN PUMPING UNITS SHALL BE PROVIDED WITH PORTABLE ELECTRIC POWER GENERATORS. PORTABLE ELECTRIC POWER GENERATORS SHALL BE SIZED TO START AND CONTINUOUSLY OPERATE CONNECTED PUMPING UNITS. CONTRACTOR SHALL PROVIDE BACKUP PUMPING EQUIPMENT SIZED TO PUMP 100% OF THE SPECIFIED SEWAGE FLOW. BACKUP PUMP(S) SHALL BE INSTALLED AND CONNECTED TO TEMPORARY PIPING SYSTEM. UEN-24 (REV. 4/1/2021) 18 BACKUP PUMP(S) SHALL AUTOMATICALLY START AND OPERATE UPON FAILURE OF DUTY PUMP(S). BACKUP PUMPING UNITS THAT ARE ELECTRIC MOTOR DRIVEN SHALL BE PROVIDED WITH A BACKUP PORTABLE ELECTRIC POWER GENERATOR.
3. TEMPORARY BYPASS PUMPING EQUIPMENT AND BACKUP PUMPING EQUIPMENT SHALL BE SIZED TO HANDLE PEAK FLOW. CONTRACTOR SHALL ASSIGN COMPETENT PERSONNEL TO OPERATE THE BYPASS PUMPING EQUIPMENT DURING ALL BYPASS OPERATIONS (24 HOURS PER DAY). RELIABLE OPERATION OF BYPASS FACILITIES FOR A MINIMUM OF 24 HOURS SHALL BE DEMONSTRATED PRIOR TO REMOVAL OF THE EXISTING GRAVITY SEWERS FROM SERVICE (REFER HEREAFTER AS 'FUNCTIONAL TEST'). DURING THE 24-HOUR FUNCTIONAL TEST, THE EMERGENCY BACK-UP SYSTEM SHALL BE ACTIVATED A MINIMUM OF TWO (2) CYCLES TO CHECK THE RELIABILITY, INCLUDING CAPACITY AND CONTROLS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR OPERATION OF THE BYPASS FACILITIES UNTIL SUCH TIME AS THE NEW SEWERS ARE IN OPERATION AND SAID SEWERS ARE ACCEPTABLE TO THE DISTRICT.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY ALL COSTS FOR ANY SEWAGE SPILLS WHICH RESULT FROM HIS CONSTRUCTION ACTIVITIES, INCLUDING SUBSEQUENT CLEANUP, FINES, AND DAMAGE DUE TO BACKUP INTO DWELLINGS AND/OR BUSINESSES.

DECLARATION OF ENGINEER OF RECORD

I HEREBY DECLARE THAT THE DESIGN OF THE IMPROVEMENTS AS SHOWN ON THESE PLANS COMPLIES WITH PROFESSIONAL ENGINEERING STANDARDS AND PRACTICES. AS THE ENGINEER IN RESPONSIBLE CHARGE OF THE DESIGN OF THESE IMPROVEMENTS, I ASSUME FULL RESPONSIBLE CHARGE FOR SUCH DESIGN. I UNDERSTAND AND ACKNOWLEDGE THAT THE PLAN CHECK OF THESE PLANS BY EASTERN MUNICIPAL WATER DISTRICT (EMWD) IS A REVIEW FOR THE LIMITED PURPOSE OF ENSURING THAT THE PLANS COMPLY WITH EMWD PROCEDURES, APPLICABLE POLICES AND ORDINANCES. THE PLAN CHECK IS NOT A DETERMINATION OF THE TECHNICAL ADEQUACY OF THE DESIGN OF THE IMPROVEMENTS. SUCH PLAN CHECK DOES NOT, THEREFORE, RELIEVE ME OF MY RESPONSIBILITY FOR THE DESIGN OF THESE IMPROVEMENTS. AS ENGINEER OF RECORD, I AGREE TO INDEMNIFY AND HOLD EMWD, IT'S OFFICERS, AGENTS, AND EMPLOYEES HARMLESS FROM ANY AND ALL LIABILITY, CLAIMS, DAMAGES OR INJURIES TO ANY PERSON OR PROPERTY WHICH MIGHT ARISE FROM THE NEGLIGENT ACTS, ERRORS OR OMISSIONS OF THE ENGINEER OF RECORD. I HAVE READ AND INFORMED THE PROJECT APPLICANT/DEVELOPER THAT APPROVAL OF THESE PLANS DO NOT RELIEVE THEM FROM THE REQUIREMENTS OF THE DESIGN CONDITIONS.

BY _____ _____
MAHMOUD AHAMDI ZADEH RCE 58784 DATE

EMWD WATER NOTES

1. WATER PIPELINE AND APPURTENANT CONSTRUCTION SHALL BE IN ACCORDANCE WITH EMWD STANDARDS AND SPECIFICATIONS.
2. PRIOR TO CONSTRUCTION OF PIPELINE, CONTRACTOR SHALL EXPOSE EXISTING WATER SYSTEM AND VERIFY ITS EXISTING ELEVATION AND LOCATION.
3. WHERE SEWERS HAVE BEEN CONSTRUCTED BY AGENCIES OTHER THAT EMWD, CONTRACTOR SHALL VERIFY SEWER LATERAL LOCATIONS PRIOR TO EXCAVATION FOR WATER PIPELINE. IN THE EVENT SEWER LATERALS ARE FOUND TO BE AT A DEPTH LESS THAN IN ACCORDANCE WITH EMWD SEWER STANDARDS, (FOR CITY OF HEMET, REFER TO CITY OF HEMET STD. NO. 201) WATER PIPELINE CONTRACTOR SHALL ADJUST WATER PIPELINE DEPTH AS DIRECTED BY THE ENGINEER TO CROSS OVER THE SEWER LATERAL IF POSSIBLE, TO PROVIDE 36" MINIMUM COVER TO FINISH ROAD GRADE; OTHERWISE, CROSS UNDER THE LATERAL, WHICH REQUIRES SPECIAL CONSTRUCTION.
4. ALL SERVICE CONNECTIONS SHALL BE 1" SERVICES X 1" METERS, UNLESS OTHERWISE NOTED; AND SHALL BE LOCATED AS SHOWN ON THE PLANS AND ADJUSTED AS NECESSARY TO MISS DRIVEWAYS. WATER SERVICE ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH STD. DWG. B-591 & B-590A, TYPE "A", "B" OR "C" (SELECT APPROPRIATE). (ENGINEER SHALL LIST OTHER SIZES AND DRAWINGS WHEN APPROPRIATE). ADJOINING LOT METER BOXES SHALL BE PLACED TOGETHER AT PROPERTY LINE. EMWD RECOMMENDS B-965 FOR DOMESTIC WATER SERVICE WITH A RESIDENTIAL FIRE SPRINKLER SYSTEM.
5. AIR VALVE ASSEMBLIES SHALL BE INSTALLED IN ACCORDANCE WITH STD. DWG. B-598 (SELECT APPROPRIATE TYPE "A", "B", "C" OR "D").
6. WATER SYSTEM PROFILE ELEVATIONS ARE TO CENTERLINE (CENTER GRADE) OF PIPE.
7. APPROVED REDUCTION PRESSURE BACKFLOW PREVENTION DEVICE (B-597 A, B, C) REQUIRED FOR ALL INDUSTRIAL, COMMERCIAL, APARTMENT COMPLEXES AND LANDSCAPE SERVICES.
8. INSTALL LOCATOR WIRE OVER WATER MAIN PER STD. DWG. B-656.
9. CONTRACTOR SHALL COORDINATE WATER SYSTEM SHUTDOWNS WITH EMWD OPERATIONS DEPARTMENT (THROUGH THE CONSTRUCTION INSPECTOR) AT A MINIMUM 10 DAYS PRIOR TO THE ACTUAL WORK. IN ADDITION, A SECOND NOTICE AT 48 HOURS SHALL BE GIVEN TO CONFIRM THAT WORK WILL TAKE PLACE AS SCHEDULED.
10. STEEL FLANGED BENDS (8-INCH TO 20-INCH DIAMETER) CONFORMING TO AWWA STANDARDS C207 BAD C208, SHALL BE USED FOR INSTANCES WHERE THERE ARE NO REGULATORY CONSTRAINTS/SEPARATION REQUIREMENTS. FABRICATED BENDS SHALL BE USED FOR ALL OTHER CONDITIONS.
11. ALL STEEL CYLINDER PIPES SHALL BE BONDED AT RUBBER GASKET JOINTS IN ACCORDANCE WITH STD. DWG. B-638.
12. ALL DESIGNATED PIPELINE WELDS SHALL BE FULL WELD DOUBLE PASS AT EACH PIPE JOINT WITHIN DESIGNATED WELD LENGTH LIMITS.
13. SHOP DRAWINGS FOR CML&C SHALL BE SUBMITTED AND APPROVED BY EMWD PRIOR TO FABRICATION.
14. ALL CML&C STEEL PIPE SHALL BE CLASS 150 EXCEPT WHERE NOTED OTHERWISE. PIPE SHALL CONFORM TO AWWA SPECIFICATIONS.
15. ALL PVC PIPE THROUGH 12-INCHES SHALL BE TYPE C-900, DR-18 EXCEPT WHERE NOTED OTHERWISE, PIPE SHALL CONFORM TO AWWA SPECIFICATIONS. ALL PVC PIPE 18-INCH AND LARGER SHOULD BE C-905, DR-18. PVC PIPE SHALL BE COLORED BLUE AS MANUFACTURED.
16. FITTINGS FOR PVC PIPE SHALL BE DUCTILE OR CAST IRON, FITTINGS SHALL BE FLANGED BOLTED MECHANICAL JOINTS, OR PUSH-ON JOINTS, AND SHALL BE CEMENT MORTAR LINED AND TAR (SEAL) COATED PER EMWD STANDARDS AND SPECIFICATIONS.
17. ALL DUCTILE OR GRAY IRON FITTINGS SHALL BE POLYETHYLENE ENCASED AT THE TIME OF INSTALLATION IN ACCORDANCE WITH ANSI/AWWA C105 AND EMWD STANDARDS AND SPECIFICATION
18. A JOINT RESTRAINT JOINT SHALL BE USED ON ALL MAIN LINE PIPE JOINTS WITHIN SPECIFIED LIMITS AND ALL JOINTS OR WATER APPURTENANCE LATERALS OFF MAIN LINE, PER EMWD STD. DWG. B-663

INDEX OF DRAWINGS

SHEET NUMBER	STREET NAME	DESCRIPTION
1	–	TITLE SHEET
2	–	INDEX SHEET
3	LAKE PARK	16-INCH SEWER STA 8+43.95 TO STA 10+00.00 & 12-INCH WATER RELOCATION STA 37+06.35 TO STA 37+36.18
4	OLIVE RANCH	10-INCH SEWER STA 10+00.00 TO STA 20+00.00
5	OLIVE RANCH	10-INCH SEWER STA 20+00.00 TO STA 20+90.87 & 12-INCH WATER RELOCATION STA 13+89.21 TO STA 14+52.26

ENGINEER'S CERTIFICATION

I CERTIFY THAT THE DESIGN OF THE WATER SYSTEM IS IN ACCORDANCE WITH THE REQUIREMENTS PRESCRIBED BY THE COUNTY OF RIVERSIDE FIRE DEPARTMENT.

BY _____ _____
NAME P.E. # DATE

SOBOBA CULTURAL MONITORING
ANY SOIL DISTURBANCE CONTACT SOBOBA CULTURAL COMITORING 48 HOURS IN ADVANCE
JESSICA VALDEZ (951) 654 5444, EXT 4139

BENCHMARK:
THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4, SOUTH RANGE 1 WEST, SAN BERNARDINO MERIDIAN 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

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CITY OF SAN JACINTO
APPROVED BY:
_____ _____
CITY ENGINEER DATE

DIG ALERT
Call: TOLL FREE 1-800-227-2600 OR 811
TWO FULL WORKING DAYS BEFORE YOU DIG

REVISIONS

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

ERSC INC.COM
1851 W. Redlands Blvd.
Redlands, Ca. 92373
909.890.1255
Engineering Resources of Southern California

UNDER THE SUPERVISION OF:
_____ _____
MAHMOUD AHMADI ZADEH RCE NO. 58784 DATE

REGISTERED PROFESSIONAL ENGINEER — MAHMOUD AHMADI ZADEH — No.C 58784 — CIVIL — STATE OF CALIFORNIA

WATER / SEWER APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT
_____ _____
CIVIL ENGINEER DATE

APPROVALS

	INITIAL	DATE
PROJECT ENG.		

CITY OF SAN JACINTO
RIVERSIDE COUNTY, CALIFORNIA

LAKE PARK AND OLIVE RANCH SEWER AND WATER RELOCATION IMPROVEMENT PLANS
TITLE SHEET

I.D. U7
S.A. 42/31
W.O. 16-655
C.O.
COORD. 47C-60
SHEET: 1 OF 6
D-

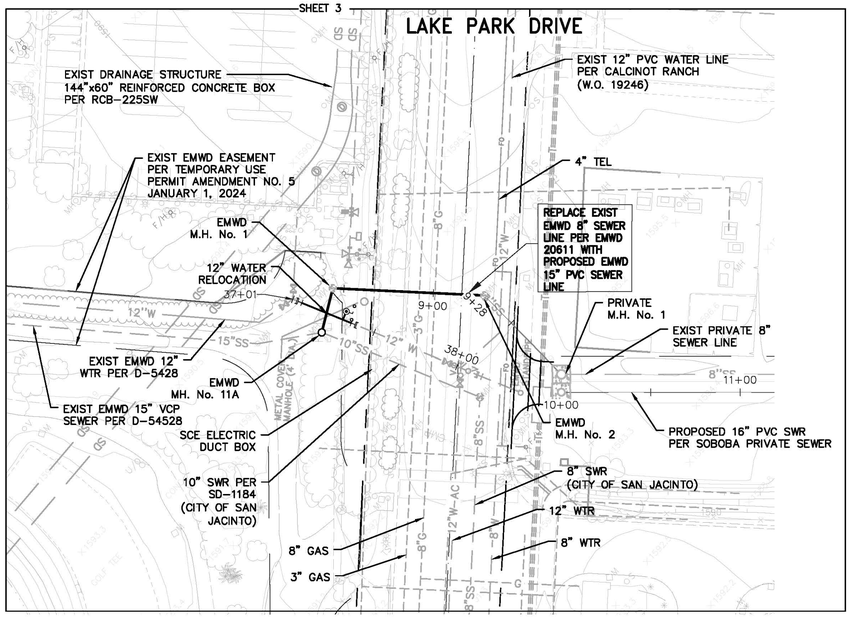
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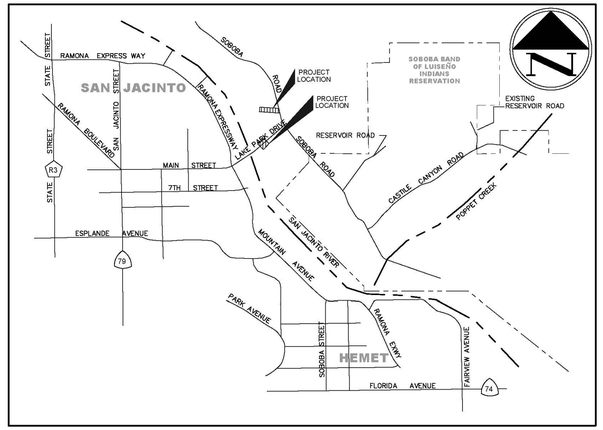
ABBREVIATIONS

AC	ASBESTOS CONCRETE
AV/AR	AIR VACUUM & AIR RELEASE
BOT	BOTTOM
C&G	CURB AND GUTTER
CG	CENTIGRADE
℄	CENTER LINE
CML&C	CONCRETE MORTAR LINED & COATED
CMP	CORRUGATED METAL PIPE
EA	EACH
EL	ELEVATION
ELECT	ELECTRICAL
E.M.W.D.	EASTERN MUNICIPAL WATER DISTRICT
EP	EDGE OF PAVEMENT
EXIST	EXISTING
GB	GRADEBREAK
HORZ	HORIZONTAL
HS	HORSESHOE
INV	INVERT ELEVATION
LF	LINEAR FOOT
MH	MANHOLE
No.	NUMBER
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
PROP	PROPOSED
RCB	REINFORCED CONCRETE BOX
ROW	RIGHT OF WAY
S	SLOPE
SCE	SOCAL EDISON
STA	STATION
STD. DWG.	STANDARD DRAWING
SWR	SEWER
TEL	TELECOMMUNICATIONS
TOR	TOP OF RIM
UNK	UNKNOWN
VCP	VITRIFIED CLAY PIPE
VERT	VERITCAL
W/	WITH
WO	WORK ORDER
WTR	WATER
X-ING	CROSSING

LEGEND

- EXISTING RIGHT OF WAY
- EXISTING CENTERLINE
- EXISTING WATER LINE
- EXSITING EASEMENT
- EXISTING ELECTRICAL LINE
- EXISTING TELEPHONE LINE
- EXISTING GAS LINE
- EXISTING POWER POLE
- PROPOSED SEWER LINE
- PROPOSED MANHOLE
- PROPOSED MANHOLE PER SOBOBA PLANS
- EXISTING SEWER LINE
- EXISTING FENCE LINE
- EXISTING GUTTER EDGE
- EXISTING CURB
- EXISTING EDGE OF PAVEMENT
- EXISTING MANHOLE
- EXISTING STORM DRAIN
- PROPOSED CONCRETE APRON
- PROPOSED WATER LINE
- PROPOSED SEWER LINE PER SOBOBA PLANS
- PROPOSED CONCRETE APRON PER SOBOBA PLANS



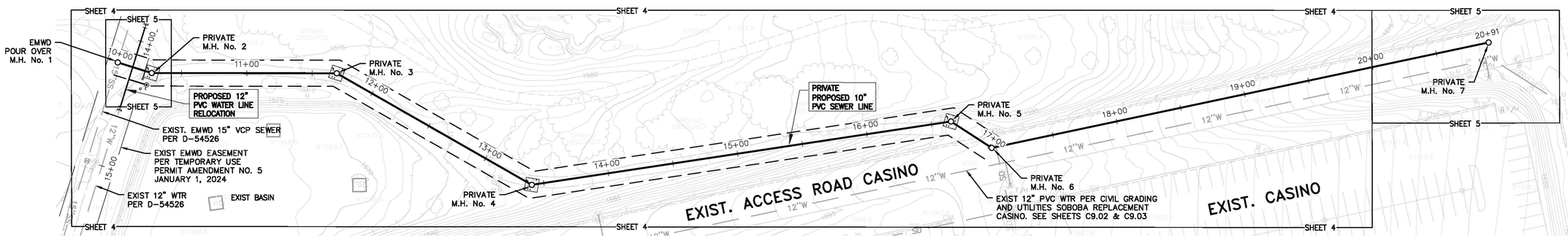


LAKE PARK INDEX MAP

SCALE: 1"=40'

SEWER QUANTITIES TABLE			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	16" PVC SEWER	111	LF
2	REMOVE EX 8" PVC SEWER	111	LF
3	10" PVC SEWER	1,091	LF
4	POUR OVER 60" MH	1	EA
5	48" PRECAST REINFORCED CONCRETE MANHOLE	6	EA
6	60" PRECAST REINFORCED CONCRETE MANHOLE	2	EA
7	CONNECT TO EXIST MH & RE-CHANNEL MH BASE	2	EA
8	2 1/2" THICK ASPHALT CONCRETE	0.28	TON
	6" CLASS II AGGREGATE BASE	6.48	CY
9	REDWOOD HEADER	163	LF

WATER QUANTITIES TABLE			
ITEM NO.	DESCRIPTION	QUANTITY	UNIT
1	12" PVC C-900 DR-18	64	LF
2	12" CML&C CL150	30	LF
3	CUT EX. 12" WL & CONNECT	4	EA
4	45° ELBOW	8	EA
5	1" AV/AR ASSEMBLY	2	EA



OLIVE RANCH INDEX MAP

SCALE: 1"=40'

BENCHMARK:
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CITY OF SAN JACINTO

APPROVED BY:

CITY ENGINEER _____ DATE _____

PRESSURE ZONE: 1807

DIG ALERT

Call: TOLL FREE
1-800-227-2600 OR 811

TWO FULL WORKING DAYS BEFORE YOU DIG

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MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

ERSC INC.COM
1851 W. Redlands Blvd.
Redlands, Ca. 92373
909.890.1255
Engineering Resources of Southern California

UNDER THE SUPERVISION OF:

MAHMOUD AHMADI ZADEH RCE NO. 58784 DATE

REGISTERED PROFESSIONAL ENGINEER
MAHMOUD AHMADI ZADEH
No.C 58784
CIVIL
STATE OF CALIFORNIA

WATER / SEWER APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER _____ DATE _____

APPROVALS

	INITIAL	DATE
PROJECT ENG.		

CITY OF SAN JACINTO
RIVERSIDE COUNTY, CALIFORNIA

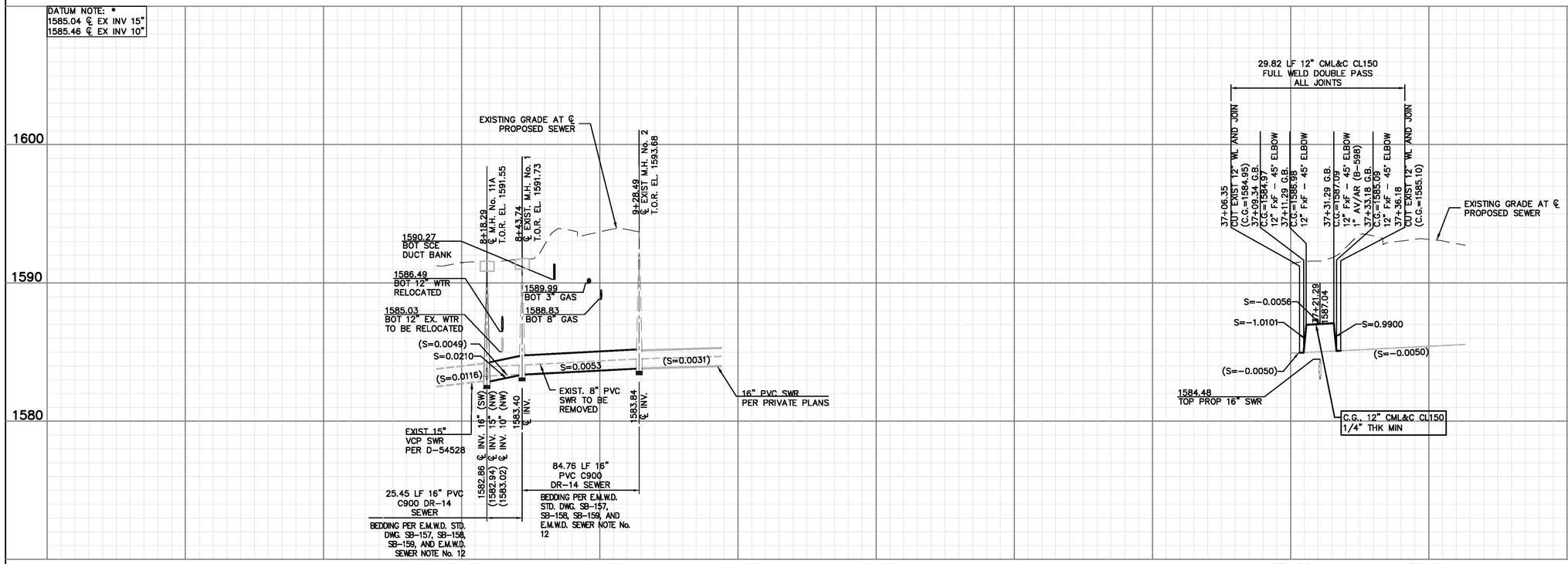
LAKE PARK AND OLIVE RANCH SEWER AND WATER RELOCATION IMPROVEMENT PLANS
INDEX SHEET

I.D.	U7
S.A.	42/31
W.O.	16-655
C.O.	
COORD.	47C-60
SHEET:	2 OF 6
	D-

FILE NAME, PATH, & DATE

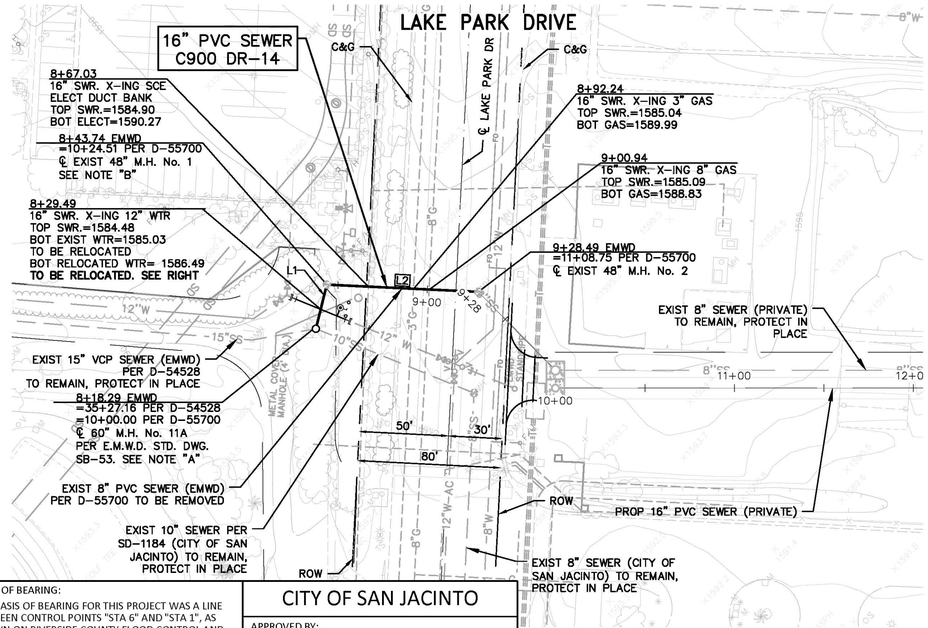
DATUM NOTE: *
1585.04 ℄ EX INV 15"
1585.46 ℄ EX INV 10"

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.



PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

SEWER DATA		
LINE #	DISTANCE	BEARING
L1	25.45	S61° 24' 32.54"W
L2	84.76	N39° 51' 19.31"W

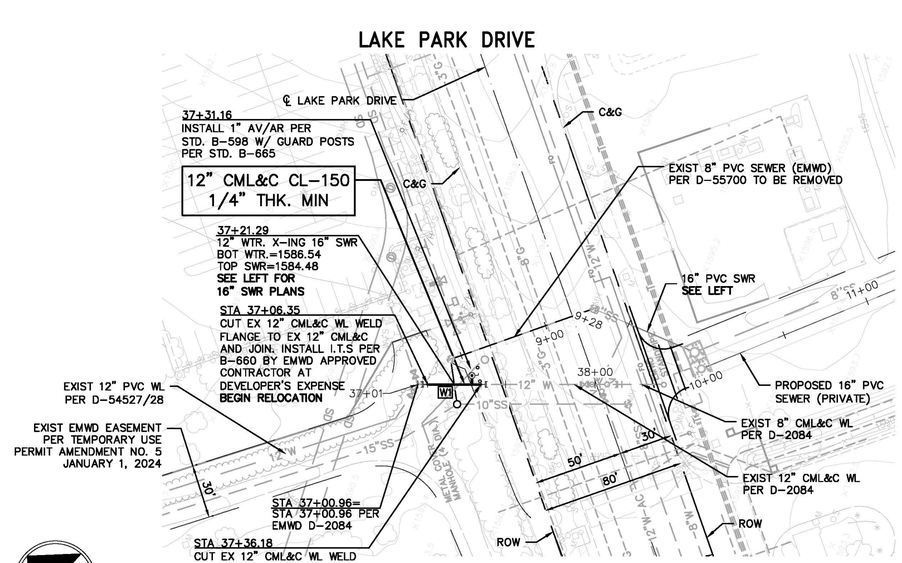


NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

NOTE "B"

- CORE DRILL EXIST MANHOLE No. 11A AND CONNECT 16" PVC SEWER, RECHANNEL MH BASE.



WATER DATA		
LINE #	DISTANCE	BEARING
W1	29.8	N20° 23' 44.42"W

WATER RELOCATION PLAN

0' 20' 40' 80' 120' 160'
GRAPHIC SCALE IN FEET
1" = 40'

BENCHMARK:
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CITY OF SAN JACINTO
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TWO FULL WORKING DAYS BEFORE YOU DIG

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ERSC INC.COM 1861 W. Redlands Blvd. Redlands, Ca. 92373 909.890.1255
Engineering Resources of Southern California
UNDER THE SUPERVISION OF:
MAHMOUD AHMADI ZADEH RCE NO. 58784 DATE

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI ZADEH No.C 58784 CIVIL STATE OF CALIFORNIA

WATER / SEWER APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT
CIVIL ENGINEER DATE

APPROVALS

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PROJECT ENG.		

CITY OF SAN JACINTO
RIVERSIDE COUNTY, CALIFORNIA

LAKE PARK SEWER & WATER RELOCATION IMPROVEMENT PLANS
PLAN AND PROFILE
16-INCH SEWER STA 8+43.95 TO STA 10+00.00 & 12-INCH WATER RELOCATION STA 37+06.35 TO STA 37+36.18

I.D.	U7
S.A.	42/31
W.O.	16-655
C.O.	
COORD.	47C-60
SHEET:	3 OF 6
	D-

FILE NAME, PATH, & DATE

DATUM NOTE: *
1568.34 ℄ INV 10"
1567.92 ℄ EX INV 12"

NOTE: CONTRACTOR SHALL PROTECT IN PLACE ALL UTILITIES UNLESS OTHERWISE NOTED.

10+00.00 EMWD ℄ 60" M.H. No. 1 T.O.R. EL 1576.64

10+27.23 PRIVATE ℄ M.H. No. 2 T.O.R. EL. 1574.89

11+68.80 PRIVATE ℄ M.H. No. 3 T.O.R. EL. 1575.40

13+40.71 PRIVATE ℄ M.H. No. 4 T.O.R. EL. 1578.35

16+65.13 PRIVATE ℄ M.H. No. 5 T.O.R. EL. 1596.17

20+90.87 PRIVATE ℄ M.H. No. 6 T.O.R. EL. 1597.49

EXISTING GRADE AT ℄ PROPOSED SEWER

IDENTICAL POINTS

CDF PER E.M.W.D. SPECIFICATIONS SECTION 02252

5' 5'

1569.57 BOT 12" RELOCATED WTR

1568.42 BOT 12" EX WTR TO BE RELOCATED

S=0.0036

S=0.0335

S=0.0840

S=0.0830

1568.34 ℄ INV. 10" (W) (1567.92) ℄ INV. 15" (SW)

1567.76 ℄ INV.

1568.26 ℄ INV.

1568.88 ℄ INV.

1579.77 ℄ INV.

1582.85 ℄ INV.

17+30.00 1585.18

20+00.00 1607.86

PRIVATE 27.24 LF 10" PVC C900 DR-14 SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

PRIVATE 141.57 LF 10" PVC C900 DR-14 SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

PRIVATE 171.92 LF 10" PVC C900 DR-14 SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

PRIVATE 324.41 LF 10" PVC C900 DR-14 SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

PRIVATE 37.31 LF 10" PVC C900 DR-14 SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

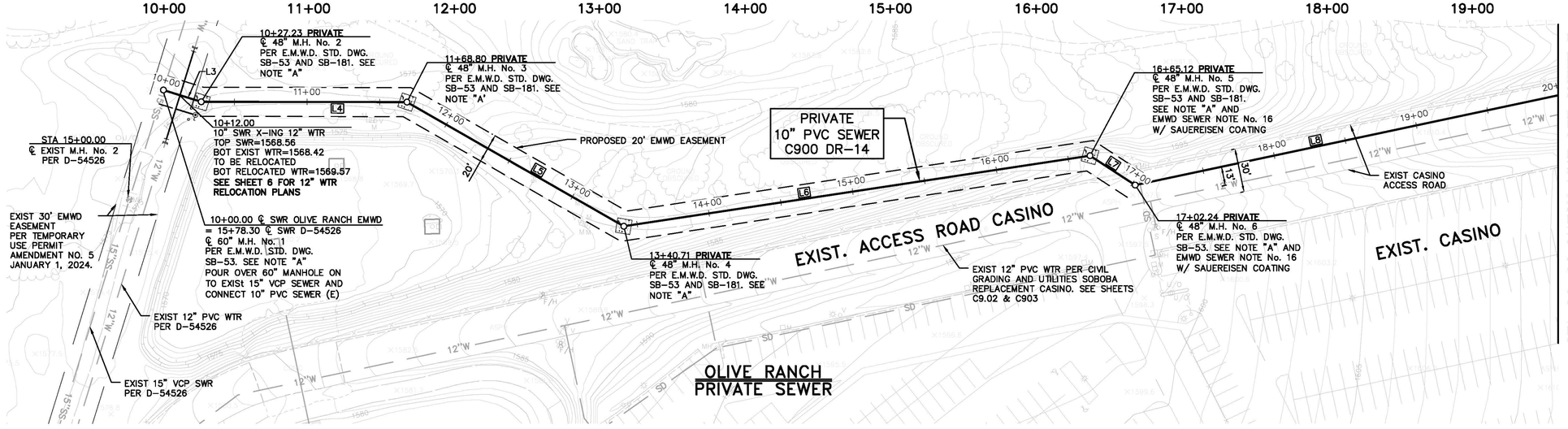
PRIVATE 7.44 LF 10" PVC SEWER
BEDDING PER E.M.W.D. STD. DWG. SB-157, SB-158, SB-159, AND E.M.W.D. SEWER NOTE No. 12

STA 20+00 MATCH LINE SEE SHEET 5

PROFILE SCALE
VERT: 1 in = 4 ft.
HORZ: 1 in = 40 ft.

10+00 11+00 12+00 13+00 14+00 15+00 16+00 17+00 18+00 19+00 20+00

1580 1570 1560 1550 1610 1600 1590 1580



SEWER DATA		
LINE #	DISTANCE	BEARING
L3	27.23	S72° 43' 55.87"E
L4	141.57	S89° 54' 47.81"E
L5	171.92	S60° 12' 36.38"E
L6	324.41	N81° 23' 54.25"E
L7	37.12	S56° 59' 12.53"E
L8	297.75	N78° 00' 47.47"E

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER

0' 20' 40' 80' 120' 160'

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CIVIL ENGINEER DATE

APPROVALS

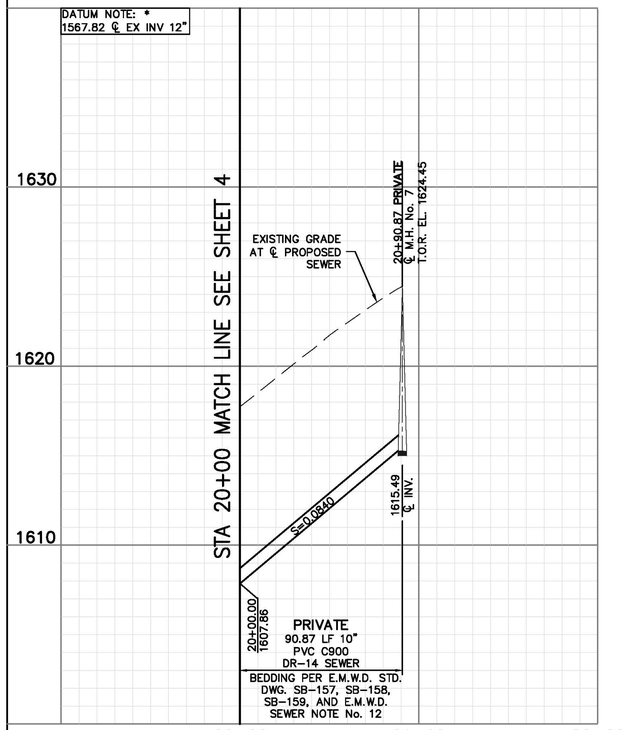
	INITIAL	DATE
PROJECT ENG.		

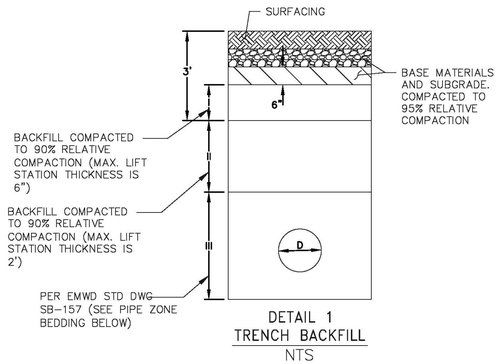
CITY OF SAN JACINTO
RIVERSIDE COUNTY, CALIFORNIA

OLIVE RANCH SEWER IMPROVEMENT PLANS
PLAN AND PROFILE
10-INCH SEWER STA 10+00.00 TO STA 20+00.00

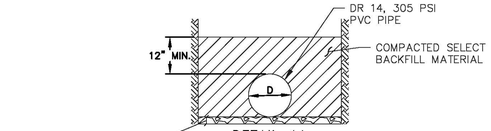
I.D. U7
S.A. 42/31
W.O. 16-655
C.O.
COORD. 47C-60
SHEET: 4 OF 6
D-

FILE NAME, PATH, & DATE



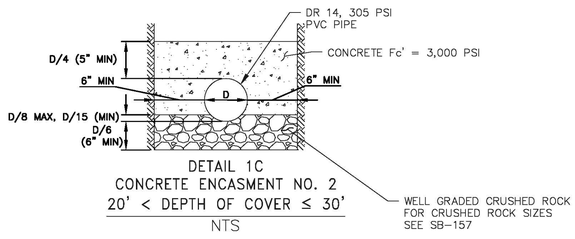


DETAIL 1
TRENCH BACKFILL
NTS

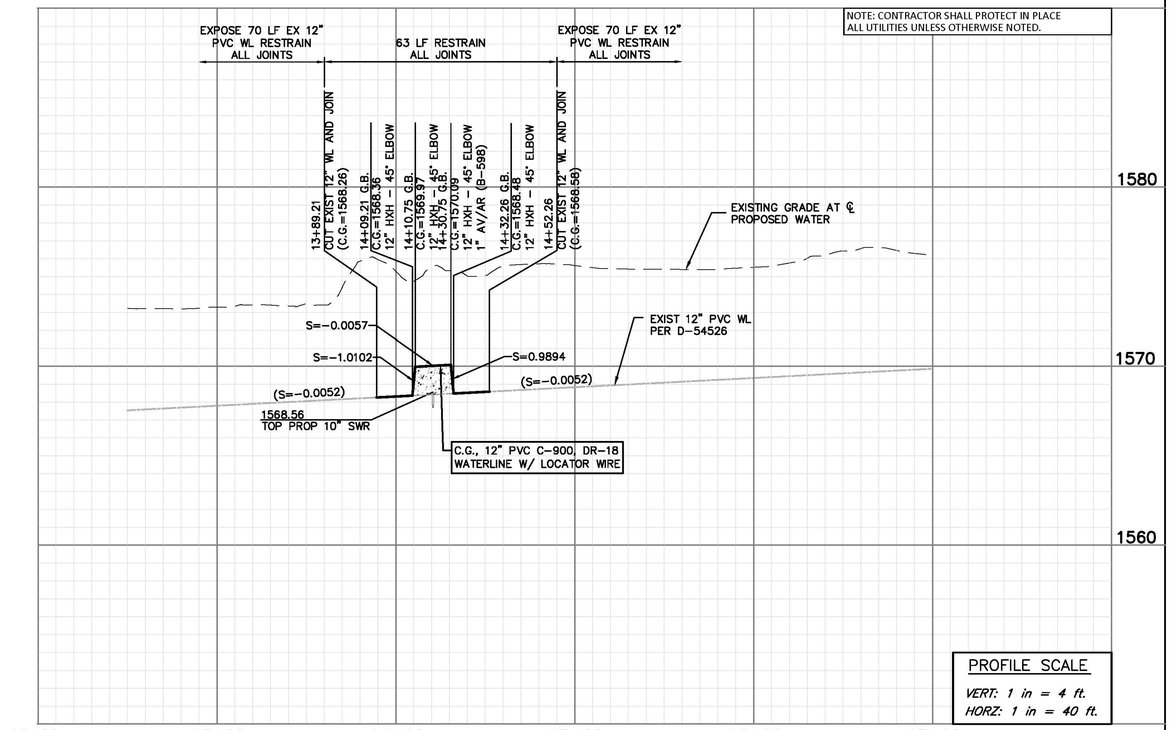


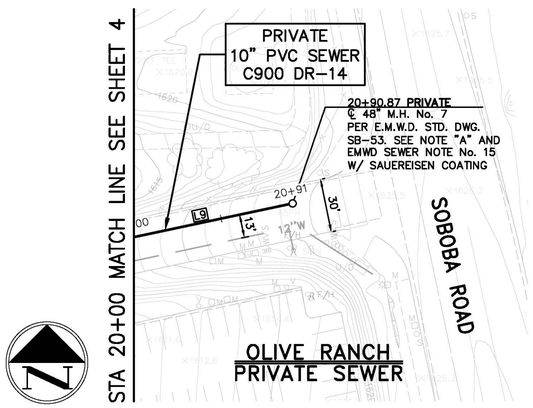
DETAIL 1A
CLASS D
4' ≤ DEPTH OF COVER ≤ 9'
NTS

DETAIL 1B
CLASS B
9' < DEPTH OF COVER ≤ 20'
NTS



DETAIL 1C
CONCRETE ENCASMENT NO. 2
20' < DEPTH OF COVER ≤ 30'
NTS

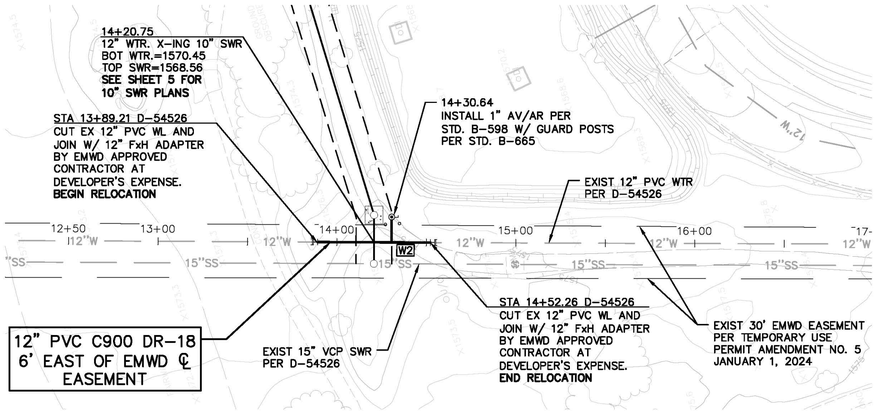




SEWER DATA		
LINE #	DISTANCE	BEARING
L9	90.87	N78° 00' 47.47"E

NOTE "A"

GRIND EMWD LETERING ON MANHOLE COVER



WATER RELOCATION PLAN

WATER DATA		
LINE #	DISTANCE	BEARING
W2	63.1	S17° 16' 04.13"W

0' 20' 40' 80' 120' 160'

GRAPHIC SCALE IN FEET
1" = 40'

BENCHMARK:

THE BENCH MARK FOR THIS PROJECT WAS CONTROL POINT "STA 6" AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4, SOUTH RANGE 1 WEST, SAN BERNARDINO MERIDIAN 740'± SOUTHEASTERLY FROM MAIN STREET, ALONG THE WESTERLY LEVEE OF THE SAN JACINTO RIVER, AS SHOWN ON SAID MAP. ELEV. 1611.35

BASIS OF BEARING:

THE BASIS OF BEARING FOR THIS PROJECT WAS A LINE BETWEEN CONTROL POINTS "STA 6" AND "STA 1", AS SHOWN ON RIVERSIDE COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT MAP OF SECTION 36, TOWNSHIP 4 SOUTH, RANGE 1 WEST, SAN BERNARDINO MERIDIAN, TAKEN AS N28°11'24"W, AS CALCULATED AND MEASURED

CITY OF SAN JACINTO

APPROVED BY:

CITY ENGINEER DATE

DIG ALERT

Call: TOLL FREE 1-800-227-2600 OR 811

TWO FULL WORKING DAYS BEFORE YOU DIG

FILE NAME, PATH, & DATE

REVISIONS

MARK	DATE	INITIAL	DESCRIPTION	APPR.	DATE

ERSC INC.com
1851 W. Redlands Blvd. Redlands, Ca. 92373 909.890.1255
Engineering Resources of Southern California

UNDER THE SUPERVISION OF:

MAHMOUD AHMADI ZADEH RCE NO. 58784 DATE

REGISTERED PROFESSIONAL ENGINEER MAHMOUD AHMADI ZADEH No.C 58784 CIVIL STATE OF CALIFORNIA

WATER / SEWER APPROVED FOR POTENTIAL OPERATIONS AND MAINTENANCE
EASTERN MUNICIPAL WATER DISTRICT

CIVIL ENGINEER DATE

APPROVALS

	INITIAL	DATE
PROJECT ENG.		

CITY OF SAN JACINTO
RIVERSIDE COUNTY, CALIFORNIA

OLIVE RANCH SEWER & WATER RELOCATION IMPROVEMENT PLANS
PLAN AND PROFILE
10-INCH SEWER STA 20+00.00 TO STA 20+90.87 & 12-INCH WATER RELOCATION STA 13+89.21 TO STA 14+52.26

I.D.	U7
S.A.	42/31
W.O.	16-655
C.O.	
COORD.	47C-60
SHEET:	5 OF 6
	D-

Appendix D

Dewatering Plan

Preliminary Groundwater Management Plan for Construction Activities on Soboba Springs Golf Course

Soboba Septic-to-Sewer Project

Although groundwater is not expected to be encountered during microtunneling and deep trenching activities associated with the Soboba Septic-to-Sewer Project, the following plan outlines operational steps to address groundwater, if encountered:

1) **Scope and Applicability of Plan.** This Plan shall apply to all construction activities or other ground disturbing activities on the Soboba Springs Golf Course regarding the Soboba Septic-to-Sewer Project. All persons and other entities performing any activity following within the scope of this Plan, including, without limitation, EMWD and its vendors, contractors, or other agents, and any project management group and its vendors, contractors, or other agents, (collectively, the "Contractor"), shall abide by the provisions set forth herein.
2) **Geotechnical Investigation.** EMWD is conducting geotechnical investigations of the microtunneling receiving pit location on the golf course. This will provide more information on the likelihood of encountering groundwater during the construction process.
3) **Dewatering Plan.** If it is determined that groundwater may be encountered, a detailed dewatering plan will be developed by EMWD or its geotechnical consultant. This will identify the specific equipment and techniques that will be used along with an estimate on the amount of water, any potential contamination, testing methodology, and location(s) of proposed discharge. The dewatering plan will include a map showing the work area, equipment location and discharge location.
4) **Pile Installation.** Prior to excavating the receiving pit, piles will be driven or drilled to support the walls of the excavation. Depending on the type of pile and installation technique, this may further confirm the presence of groundwater.
5) **If Groundwater is Encountered During Construction Activities**. The Contractor will stop work in the excavation (other than to stabilize the site) and Soboba Casino Resort Executive Leadership will be notified. The Contractor will then implement the dewatering plan. Working with Soboba Casino Resort Executive Leadership, the Contractor will bring all dewatering equipment onsite and set up, prior to restarting excavation.
6) **Water Quality.** Upon encountering groundwater, the Contractor will sample the water to determine if any contamination is present. The quality of the groundwater will determine the necessary treatment to avoid any adverse impacts. Temporary sediment settling (TSS) tanks, aka "Baker Tanks" will be used to provide for sediment removal and to ensure that any changes in groundwater quality can be addressed prior to discharge. Water will be allowed to settle in the tank as needed to ensure effective separation of solids. Water quality will be monitored to verify that the water is clear of suspended solids before discharge.
7) **Water Sampling.** The Contractor will test water to ensure it meets all safety and environmental standards before any discharge:
    a. **Sample Collection:** Collect water samples following proper protocols per appropriate State and Federal regulations in order to avoid contamination (see below for these regulations). Use laboratories certified by the California Environmental Laboratory Accreditation Program for testing; the nearest lab is Babcock Laboratories, Inc.,

approximately 23 miles northwest at 6100 Quail Valley Ct, Riverside, CA 92507. The water will be tested to ensure compliance with the appropriate California and federal laws and regulations for irrigation and surface water discharge, including:

i. Federal: Clean Water Act, particularly the National Pollutant Discharge Elimination System requirements for surface water discharges, and EPA Water Quality Criteria, specifically the national recommended water quality criteria for the protection of aquatic life and recreation.
ii. California: Porter-Cologne Water Quality Control Act, State Water Resources Control Board Requirements, Regional Water Quality Control Board (RWQCB) Basin Plan, and Irrigation Water Quality Guidelines: Standards applicable for water used in irrigation to protect soil health and plant life.

b. Laboratory Tests and Compliance Verification: Test for the following potential contaminants relevant to irrigation and surface water discharge:

i. Total Suspended Solids (TSS)
ii. pH Levels
iii. Oil and Grease
iv. Nutrients (e.g. nitrates and phosphates)
v. Heavy Metals (e.g. lead, arsenic, mercury)
vi. Pesticides and Herbicides
vii. Other Relevant Parameters as required by local regulations

Review laboratory results against legal and regulatory standards, usually included within the report by the testing laboratory. Ensure all contaminant levels are within allowable limits for safe irrigation and pond discharge before continuing operations.

8) Actions Based on Test Results: Based on the laboratory results, the following could be done:

a. If Water Meets Standards: Safely discharge the water into the golf course pond or use the water for irrigation within landscaped areas of the golf course.

b. If Water Exceeds Contaminant Limits: Notify the relevant environmental agencies as required. Arrange for water treatment to meet discharge standards, or if treatment is not feasible, coordinate safe transport to an approved disposal facility.

Appendix E

Air Quality Modeling

Appendix E

Air Quality Modeling

Soboba Septic to Sewer Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Soboba Septic to Sewer
Construction Start Date	7/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.50
Precipitation (days)	22.4
Location	33.78150314316068, -116.92167208336488
County	Riverside-South Coast
City	Unincorporated
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5622
EDFZ	11
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Linear	19.6	Mile	108	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-2*	Limit Heavy-Duty Diesel Vehicle Idling
Construction	C-9	Use Dust Suppressants
Construction	C-10-A	Water Exposed Surfaces
Construction	C-11	Limit Vehicle Speeds on Unpaved Roads

* Qualitative or supporting measure. Emission reductions not included in the mitigated emissions results.

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.67	2.25	16.0	21.0	0.05	0.59	15.6	16.2	0.54	1.64	2.18	—	5,867	5,867	0.24	0.08	2.30	5,900
Mit.	2.67	2.25	16.0	21.0	0.05	0.59	2.02	2.61	0.54	0.28	0.83	—	5,867	5,867	0.24	0.08	2.30	5,900
% Reduced	—	—	—	—	—	—	87%	84%	—	83%	62%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.75	2.31	17.1	20.5	0.05	0.65	15.6	16.2	0.60	1.64	2.24	—	5,831	5,831	0.24	0.09	0.07	5,863
Mit.	2.75	2.31	17.1	20.5	0.05	0.65	2.02	2.66	0.60	0.28	0.88	—	5,831	5,831	0.24	0.09	0.07	5,863
% Reduced	—	—	—	—	—	—	87%	84%	—	83%	61%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.90	1.60	11.5	14.6	0.04	0.42	10.5	10.9	0.39	1.10	1.49	—	4,161	4,161	0.16	0.06	0.71	4,184

Mit.	1.90	1.60	11.5	14.6	0.04	0.42	1.38	1.80	0.39	0.20	0.58	—	4,161	4,161	0.16	0.06	0.71	4,184
% Reduced	—	—	—	—	—	—	87%	84%	—	82%	61%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	0.29	2.09	2.66	0.01	0.08	1.91	1.99	0.07	0.20	0.27	—	689	689	0.03	0.01	0.12	693
Mit.	0.35	0.29	2.09	2.66	0.01	0.08	0.25	0.33	0.07	0.04	0.11	—	689	689	0.03	0.01	0.12	693
% Reduced	—	—	—	—	—	—	87%	84%	—	82%	61%	—	—	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.42	0.35	2.82	4.10	0.01	0.09	0.19	0.28	0.08	0.04	0.12	—	678	678	0.03	0.02	0.54	685
2026	2.67	2.25	16.0	21.0	0.05	0.59	15.6	16.2	0.54	1.64	2.18	—	5,867	5,867	0.24	0.08	2.30	5,900
2027	2.61	2.20	15.3	20.8	0.05	0.55	15.6	16.1	0.50	1.64	2.14	—	5,854	5,854	0.22	0.08	2.08	5,886
2028	0.35	0.29	2.38	4.38	0.01	0.08	0.13	0.21	0.07	0.03	0.10	—	706	706	0.02	0.01	0.38	710
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.75	2.31	17.1	20.5	0.05	0.65	15.6	16.2	0.60	1.64	2.24	—	5,831	5,831	0.24	0.09	0.07	5,863
2026	2.66	2.24	16.0	20.3	0.05	0.59	15.6	16.2	0.54	1.64	2.18	—	5,819	5,819	0.22	0.09	0.06	5,850
2027	2.60	2.19	15.3	20.1	0.05	0.55	15.6	16.1	0.50	1.64	2.14	—	5,807	5,807	0.22	0.08	0.05	5,838
2028	2.52	2.13	14.4	19.9	0.05	0.50	15.6	16.1	0.46	1.64	2.10	—	5,798	5,798	0.22	0.08	0.05	5,828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.49	0.41	3.08	3.85	0.01	0.11	2.16	2.28	0.10	0.23	0.34	—	989	989	0.04	0.02	0.21	995
2026	1.90	1.60	11.5	14.6	0.04	0.42	10.5	10.9	0.39	1.10	1.49	—	4,161	4,161	0.16	0.06	0.71	4,184

2027	1.86	1.56	11.0	14.4	0.04	0.39	10.5	10.9	0.36	1.10	1.46	—	4,153	4,153	0.16	0.06	0.64	4,175
2028	0.20	0.17	1.28	2.08	< 0.005	0.04	0.56	0.60	0.04	0.06	0.10	—	430	430	0.02	0.01	0.08	432
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.09	0.07	0.56	0.70	< 0.005	0.02	0.39	0.42	0.02	0.04	0.06	—	164	164	0.01	< 0.005	0.03	165
2026	0.35	0.29	2.09	2.66	0.01	0.08	1.91	1.99	0.07	0.20	0.27	—	689	689	0.03	0.01	0.12	693
2027	0.34	0.29	2.00	2.63	0.01	0.07	1.91	1.98	0.07	0.20	0.27	—	688	688	0.03	0.01	0.11	691
2028	0.04	0.03	0.23	0.38	< 0.005	0.01	0.10	0.11	0.01	0.01	0.02	—	71.2	71.2	< 0.005	< 0.005	0.01	71.5

2.3. Construction Emissions by Year, Mitigated

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

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.42	0.35	2.82	4.10	0.01	0.09	0.19	0.28	0.08	0.04	0.12	—	678	678	0.03	0.02	0.54	685
2026	2.67	2.25	16.0	21.0	0.05	0.59	2.02	2.61	0.54	0.28	0.83	—	5,867	5,867	0.24	0.08	2.30	5,900
2027	2.61	2.20	15.3	20.8	0.05	0.55	2.02	2.56	0.50	0.28	0.79	—	5,854	5,854	0.22	0.08	2.08	5,886
2028	0.35	0.29	2.38	4.38	0.01	0.08	0.13	0.21	0.07	0.03	0.10	—	706	706	0.02	0.01	0.38	710
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	2.75	2.31	17.1	20.5	0.05	0.65	2.02	2.66	0.60	0.28	0.88	—	5,831	5,831	0.24	0.09	0.07	5,863
2026	2.66	2.24	16.0	20.3	0.05	0.59	2.02	2.61	0.54	0.28	0.83	—	5,819	5,819	0.22	0.09	0.06	5,850
2027	2.60	2.19	15.3	20.1	0.05	0.55	2.02	2.56	0.50	0.28	0.79	—	5,807	5,807	0.22	0.08	0.05	5,838
2028	2.52	2.13	14.4	19.9	0.05	0.50	2.02	2.52	0.46	0.28	0.74	—	5,798	5,798	0.22	0.08	0.05	5,828
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.49	0.41	3.08	3.85	0.01	0.11	0.32	0.43	0.10	0.05	0.15	—	989	989	0.04	0.02	0.21	995
2026	1.90	1.60	11.5	14.6	0.04	0.42	1.38	1.80	0.39	0.20	0.58	—	4,161	4,161	0.16	0.06	0.71	4,184
2027	1.86	1.56	11.0	14.4	0.04	0.39	1.38	1.77	0.36	0.20	0.56	—	4,153	4,153	0.16	0.06	0.64	4,175

2028	0.20	0.17	1.28	2.08	< 0.005	0.04	0.11	0.15	0.04	0.02	0.06	—	430	430	0.02	0.01	0.08	432
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.09	0.07	0.56	0.70	< 0.005	0.02	0.06	0.08	0.02	0.01	0.03	—	164	164	0.01	< 0.005	0.03	165
2026	0.35	0.29	2.09	2.66	0.01	0.08	0.25	0.33	0.07	0.04	0.11	—	689	689	0.03	0.01	0.12	693
2027	0.34	0.29	2.00	2.63	0.01	0.07	0.25	0.32	0.07	0.04	0.10	—	688	688	0.03	0.01	0.11	691
2028	0.04	0.03	0.23	0.38	< 0.005	0.01	0.02	0.03	0.01	< 0.005	0.01	—	71.2	71.2	< 0.005	< 0.005	0.01	71.5

3. Construction Emissions Details

3.1. Demolition (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.31	2.72	3.47	0.01	0.09	—	0.09	0.08	—	0.08	—	508	508	0.02	< 0.005	—	510
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipm	0.38	0.31	2.72	3.47	0.01	0.09	—	0.09	0.08	—	0.08	—	508	508	0.02	< 0.005	—	510
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.58	0.74	< 0.005	0.02	—	0.02	0.02	—	0.02	—	109	109	< 0.005	< 0.005	—	109
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.0	18.0	< 0.005	< 0.005	—	18.0
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.62	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	113	113	< 0.005	< 0.005	0.41	114
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.4	57.4	< 0.005	0.01	0.12	60.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.01	105
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.5	57.5	< 0.005	0.01	< 0.005	60.2
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.4	22.4	< 0.005	< 0.005	0.04	22.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.01	12.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	0.01	3.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.03	2.03	< 0.005	< 0.005	< 0.005	2.13

3.2. Demolition (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.31	2.72	3.47	0.01	0.09	—	0.09	0.08	—	0.08	—	508	508	0.02	< 0.005	—	510
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.38	0.31	2.72	3.47	0.01	0.09	—	0.09	0.08	—	0.08	—	508	508	0.02	< 0.005	—	510
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.58	0.74	< 0.005	0.02	—	0.02	0.02	—	0.02	—	109	109	< 0.005	< 0.005	—	109

Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	18.0	18.0	< 0.005	< 0.005	—	18.0
Dust From Material Movement	—	—	—	—	—	—	0.00	0.00	—	0.00	0.00	—	—	—	—	—	—	—
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.62	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	113	113	< 0.005	< 0.005	0.41	114
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.4	57.4	< 0.005	0.01	0.12	60.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.04	0.47	0.00	0.00	0.10	0.10	0.00	0.02	0.02	—	104	104	< 0.005	< 0.005	0.01	105
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.07	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	57.5	57.5	< 0.005	0.01	< 0.005	60.2

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	22.4	22.4	< 0.005	< 0.005	0.04	22.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.3	12.3	< 0.005	< 0.005	0.01	12.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.71	3.71	< 0.005	< 0.005	0.01	3.77
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.03	2.03	< 0.005	< 0.005	< 0.005	2.13

3.3. Construction (grading, excavation, trenching) (2025) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.54	2.13	16.7	18.0	0.05	0.65	—	0.65	0.59	—	0.59	—	5,128	5,128	0.21	0.04	—	5,146
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.47	—	36.9	36.9	< 0.005	0.01	< 0.005	38.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.37	0.31	2.41	2.60	0.01	0.09	—	0.09	0.09	—	0.09	—	743	743	0.03	0.01	—	745
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	2.00	2.00	< 0.005	0.20	0.20	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.60
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.44	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	123	123	< 0.005	< 0.005	—	123
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.37	0.37	< 0.005	0.04	0.04	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.93
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.21	2.51	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	557	557	0.03	0.02	0.06	564
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.13	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	< 0.005	0.02	0.01	115
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.7	81.7	< 0.005	< 0.005	0.14	82.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.01	16.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.75

3.4. Construction (grading, excavation, trenching) (2025) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.54	2.13	16.7	18.0	0.05	0.65	—	0.65	0.59	—	0.59	—	5,128	5,128	0.21	0.04	—	5,146
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.32	1.32	< 0.005	0.13	0.13	—	36.9	36.9	< 0.005	0.01	< 0.005	38.7
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.41	2.60	0.01	0.09	—	0.09	0.09	—	0.09	—	743	743	0.03	0.01	—	745
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.18	0.18	< 0.005	0.02	0.02	—	5.34	5.34	< 0.005	< 0.005	< 0.005	5.60
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.44	0.48	< 0.005	0.02	—	0.02	0.02	—	0.02	—	123	123	< 0.005	< 0.005	—	123
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005	—	0.88	0.88	< 0.005	< 0.005	< 0.005	0.93
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.21	2.51	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	557	557	0.03	0.02	0.06	564
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.13	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	109	109	< 0.005	0.02	0.01	115
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.03	0.38	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	81.7	81.7	< 0.005	< 0.005	0.14	82.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	15.8	15.8	< 0.005	< 0.005	0.01	16.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.5	13.5	< 0.005	< 0.005	0.02	13.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	2.62	2.62	< 0.005	< 0.005	< 0.005	2.75

3.5. Construction (grading, excavation, trenching) (2026) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.46	2.07	15.7	17.9	0.05	0.59	—	0.59	0.54	—	0.54	—	5,130	5,130	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.47	—	36.2	36.2	< 0.005	0.01	0.07	38.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.46	2.07	15.7	17.9	0.05	0.59	—	0.59	0.54	—	0.54	—	5,130	5,130	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.47	—	36.3	36.3	< 0.005	0.01	< 0.005	38.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.76	1.48	11.2	12.8	0.03	0.42	—	0.42	0.39	—	0.39	—	3,664	3,664	0.15	0.03	—	3,677

Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	9.87	9.87	< 0.005	0.99	0.99	—	25.9	25.9	< 0.005	< 0.005	0.02	27.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.04	2.33	0.01	0.08	—	0.08	0.07	—	0.07	—	607	607	0.02	< 0.005	—	609
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.80	1.80	< 0.005	0.18	0.18	—	4.28	4.28	< 0.005	< 0.005	< 0.005	4.50
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.17	3.09	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	593	593	0.03	0.02	2.01	602
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	< 0.005	0.02	0.22	113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.19	2.34	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	545	545	0.01	0.02	0.05	552
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	< 0.005	0.02	0.01	113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.75	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	394	394	0.01	0.02	0.62	400
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	76.8	76.8	< 0.005	0.01	0.07	80.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.3	65.3	< 0.005	< 0.005	0.10	66.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3

3.6. Construction (grading, excavation, trenching) (2026) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.46	2.07	15.7	17.9	0.05	0.59	—	0.59	0.54	—	0.54	—	5,130	5,130	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.32	1.32	< 0.005	0.13	0.13	—	36.2	36.2	< 0.005	0.01	0.07	38.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.46	2.07	15.7	17.9	0.05	0.59	—	0.59	0.54	—	0.54	—	5,130	5,130	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.32	1.32	< 0.005	0.13	0.13	—	36.3	36.3	< 0.005	0.01	< 0.005	38.0
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.76	1.48	11.2	12.8	0.03	0.42	—	0.42	0.39	—	0.39	—	3,664	3,664	0.15	0.03	—	3,677
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.89	0.89	< 0.005	0.09	0.09	—	25.9	25.9	< 0.005	< 0.005	0.02	27.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.32	0.27	2.04	2.33	0.01	0.08	—	0.08	0.07	—	0.07	—	607	607	0.02	< 0.005	—	609
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.16	0.16	< 0.005	0.02	0.02	—	4.28	4.28	< 0.005	< 0.005	< 0.005	4.50
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.17	3.09	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	593	593	0.03	0.02	2.01	602
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	< 0.005	0.02	0.22	113
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.19	2.34	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	545	545	0.01	0.02	0.05	552

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	< 0.005	0.02	0.01	113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.14	0.12	0.15	1.75	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	394	394	0.01	0.02	0.62	400
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	76.8	76.8	< 0.005	0.01	0.07	80.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.32	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	65.3	65.3	< 0.005	< 0.005	0.10	66.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.7	12.7	< 0.005	< 0.005	0.01	13.3

3.7. Construction (grading, excavation, trenching) (2027) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.41	2.02	15.0	17.9	0.05	0.54	—	0.54	0.50	—	0.50	—	5,131	5,131	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.47	—	35.5	35.5	< 0.005	0.01	0.06	37.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	2.41	2.02	15.0	17.9	0.05	0.54	—	0.54	0.50	—	0.50	—	5,131	5,131	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.47	—	35.6	35.6	< 0.005	0.01	< 0.005	37.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72	1.44	10.7	12.8	0.03	0.39	—	0.39	0.36	—	0.36	—	3,665	3,665	0.15	0.03	—	3,677
Dust From Material Movement	—	—	—	—	—	—	0.19	0.19	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	9.87	9.87	< 0.005	0.99	0.99	—	25.4	25.4	< 0.005	< 0.005	0.02	26.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	1.95	2.33	0.01	0.07	—	0.07	0.07	—	0.07	—	607	607	0.02	< 0.005	—	609
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	1.80	1.80	< 0.005	0.18	0.18	—	4.20	4.20	< 0.005	< 0.005	< 0.005	4.40
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.15	2.86	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	582	582	0.01	0.02	1.81	590
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.11	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.02	0.20	111
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.17	2.16	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	535	535	0.01	0.02	0.05	542
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.02	0.01	110
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.13	1.62	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	387	387	0.01	0.01	0.56	392
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.3	75.3	< 0.005	0.01	0.06	78.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.30	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.1	64.1	< 0.005	< 0.005	0.09	64.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.8. Construction (grading, excavation, trenching) (2027) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.41	2.02	15.0	17.9	0.05	0.54	—	0.54	0.50	—	0.50	—	5,131	5,131	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—

Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.32	1.32	< 0.005	0.13	0.13	—	35.5	35.5	< 0.005	0.01	0.06	37.3
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.41	2.02	15.0	17.9	0.05	0.54	—	0.54	0.50	—	0.50	—	5,131	5,131	0.21	0.04	—	5,148
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.32	1.32	< 0.005	0.13	0.13	—	35.6	35.6	< 0.005	0.01	< 0.005	37.3
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.72	1.44	10.7	12.8	0.03	0.39	—	0.39	0.36	—	0.36	—	3,665	3,665	0.15	0.03	—	3,677
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.89	0.89	< 0.005	0.09	0.09	—	25.4	25.4	< 0.005	< 0.005	0.02	26.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	0.26	1.95	2.33	0.01	0.07	—	0.07	0.07	—	0.07	—	607	607	0.02	< 0.005	—	609
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	0.16	0.16	< 0.005	0.02	0.02	—	4.20	4.20	< 0.005	< 0.005	< 0.005	4.40

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.15	2.86	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	582	582	0.01	0.02	1.81	590
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.11	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.02	0.20	111
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.17	2.16	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	535	535	0.01	0.02	0.05	542
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	105	105	< 0.005	0.02	0.01	110
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.13	1.62	0.00	0.00	0.40	0.40	0.00	0.09	0.09	—	387	387	0.01	0.01	0.56	392
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.09	0.02	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	75.3	75.3	< 0.005	0.01	0.06	78.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.30	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	64.1	64.1	< 0.005	< 0.005	0.09	64.9
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	12.5	12.5	< 0.005	< 0.005	0.01	13.1

3.9. Construction (grading, excavation, trenching) (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.35	1.97	14.1	17.8	0.05	0.50	—	0.50	0.46	—	0.46	—	5,134	5,134	0.21	0.04	—	5,152
Dust From Material Movement	—	—	—	—	—	—	0.27	0.27	—	0.03	0.03	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	14.7	14.7	< 0.005	1.47	1.47	—	34.8	34.8	< 0.005	0.01	< 0.005	36.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.50	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	181	181	0.01	< 0.005	—	181
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.49	0.49	< 0.005	0.05	0.05	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.28
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.9	29.9	< 0.005	< 0.005	—	30.0
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.09	0.09	< 0.005	0.01	0.01	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.16	0.17	2.01	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	525	525	0.01	0.02	0.04	532
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	103	103	< 0.005	0.02	< 0.005	108
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.7	18.7	< 0.005	< 0.005	0.02	19.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	< 0.005	3.81
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.10	3.10	< 0.005	< 0.005	< 0.005	3.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.63

3.10. Construction (grading, excavation, trenching) (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	2.35	1.97	14.1	17.8	0.05	0.50	—	0.50	0.46	—	0.46	—	5,134	5,134	0.21	0.04	—	5,152
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	0.06	0.02	< 0.005	< 0.005	1.32	1.32	< 0.005	0.13	0.13	—	34.8	34.8	< 0.005	0.01	< 0.005	36.5
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.50	0.63	< 0.005	0.02	—	0.02	0.02	—	0.02	—	181	181	0.01	< 0.005	—	181
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.04	0.04	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.28
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.09	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	29.9	29.9	< 0.005	< 0.005	—	30.0
Dust From Material Movement	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	0.20	0.20	< 0.005	< 0.005	< 0.005	0.21
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.16	0.17	2.01	0.00	0.00	0.56	0.56	0.00	0.13	0.13	—	525	525	0.01	0.02	0.04	532
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.12	0.03	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	103	103	< 0.005	0.02	< 0.005	108
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.7	18.7	< 0.005	< 0.005	0.02	19.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	3.63	3.63	< 0.005	< 0.005	< 0.005	3.81
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.10	3.10	< 0.005	< 0.005	< 0.005	3.14
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.60	0.60	< 0.005	< 0.005	< 0.005	0.63

3.11. Linear, Paving (2028) - Unmitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.26	2.34	3.77	0.01	0.08	—	0.08	0.07	—	0.07	—	574	574	0.02	< 0.005	—	576
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Roa Equipment	0.30	0.26	2.34	3.77	0.01	0.08	—	0.08	0.07	—	0.07	—	574	574	0.02	< 0.005	—	576
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.10	0.08	0.76	1.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	185	185	0.01	< 0.005	—	186
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Roa d Equipm ent	0.02	0.02	0.14	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.7	30.7	< 0.005	< 0.005	—	30.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.62	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	< 0.005	< 0.005	0.38	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	122	122	< 0.005	< 0.005	0.01	124
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.0	40.0	< 0.005	< 0.005	0.05	40.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.62	6.62	< 0.005	< 0.005	0.01	6.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Linear, Paving (2028) - Mitigated

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

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.26	2.34	3.77	0.01	0.08	—	0.08	0.07	—	0.07	—	574	574	0.02	< 0.005	—	576
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.30	0.26	2.34	3.77	0.01	0.08	—	0.08	0.07	—	0.07	—	574	574	0.02	< 0.005	—	576
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.10	0.08	0.76	1.22	< 0.005	0.02	—	0.02	0.02	—	0.02	—	185	185	0.01	< 0.005	—	186
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.7	30.7	< 0.005	< 0.005	—	30.8
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.62	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	133	133	< 0.005	< 0.005	0.38	135
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.04	0.47	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	122	122	< 0.005	< 0.005	0.01	124
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.0	40.0	< 0.005	< 0.005	0.05	40.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.62	6.62	< 0.005	< 0.005	0.01	6.71
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Linear, Grubbing & Land Clearing	7/1/2025	10/18/2025	5.00	78.0	—
Construction (grading, excavation, trenching)	Linear, Grading & Excavation	10/19/2025	1/18/2028	5.00	587	—
Linear, Paving	Linear, Paving	1/19/2028	7/1/2028	5.00	118	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Demolition	Dumpers/Tenders	Diesel	Average	1.00	6.00	16.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Construction (grading, excavation, trenching)	Crawler Tractors	Diesel	Average	1.00	2.00	87.0	0.43
Construction (grading, excavation, trenching)	Sweepers/Scrubbers	Diesel	Average	1.00	2.00	36.0	0.46
Construction (grading, excavation, trenching)	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Construction (grading, excavation, trenching)	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Construction (grading, excavation, trenching)	Dumpers/Tenders	Diesel	Average	2.00	6.00	16.0	0.38
Construction (grading, excavation, trenching)	Other Construction Equipment	Diesel	Average	1.00	6.00	376	0.38
Construction (grading, excavation, trenching)	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Construction (grading, excavation, trenching)	Graders	Diesel	Average	1.00	2.00	148	0.41
Construction (grading, excavation, trenching)	Cranes	Diesel	Average	1.00	6.00	367	0.29
Construction (grading, excavation, trenching)	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37
Construction (grading, excavation, trenching)	Welders	Diesel	Average	1.00	3.00	46.0	0.45
Construction (grading, excavation, trenching)	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
Construction (grading, excavation, trenching)	Off-Highway Trucks	Diesel	Average	3.00	3.00	376	0.38

Linear, Paving	Tractors/Loaders/Back	Diesel	Average	1.00	6.00	84.0	0.37
Linear, Paving	Paving Equipment	Diesel	Average	1.00	6.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	1.00	6.00	36.0	0.38
Linear, Paving	Plate Compactors	Diesel	Average	1.00	6.00	8.00	0.43

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Demolition	Dumpers/Tenders	Diesel	Average	1.00	6.00	16.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Construction (grading, excavation, trenching)	Crawler Tractors	Diesel	Average	1.00	2.00	87.0	0.43
Construction (grading, excavation, trenching)	Sweepers/Scrubbers	Diesel	Average	1.00	2.00	36.0	0.46
Construction (grading, excavation, trenching)	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Construction (grading, excavation, trenching)	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Construction (grading, excavation, trenching)	Dumpers/Tenders	Diesel	Average	2.00	6.00	16.0	0.38
Construction (grading, excavation, trenching)	Other Construction Equipment	Diesel	Average	1.00	6.00	376	0.38
Construction (grading, excavation, trenching)	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Construction (grading, excavation, trenching)	Graders	Diesel	Average	1.00	2.00	148	0.41
Construction (grading, excavation, trenching)	Cranes	Diesel	Average	1.00	6.00	367	0.29
Construction (grading, excavation, trenching)	Tractors/Loaders/Backhoes	Diesel	Average	1.00	4.00	84.0	0.37

Construction (grading, excavation, trenching)	Welders	Diesel	Average	1.00	3.00	46.0	0.45
Construction (grading, excavation, trenching)	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
Construction (grading, excavation, trenching)	Off-Highway Trucks	Diesel	Average	3.00	3.00	376	0.38
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Linear, Paving	Paving Equipment	Diesel	Average	1.00	6.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	1.00	6.00	36.0	0.38
Linear, Paving	Plate Compactors	Diesel	Average	1.00	6.00	8.00	0.43

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	8.00	18.5	LDA,LDT1,LDT2
Demolition	Vendor	0.00	10.2	HHDT,MHDT
Demolition	Hauling	0.83	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Construction (grading, excavation, trenching)	—	—	—	—
Construction (grading, excavation, trenching)	Worker	43.0	18.5	LDA,LDT1,LDT2
Construction (grading, excavation, trenching)	Vendor	0.00	10.2	HHDT,MHDT
Construction (grading, excavation, trenching)	Hauling	1.59	20.0	HHDT
Construction (grading, excavation, trenching)	Onsite truck	2.00	5.00	HHDT
Linear, Paving	—	—	—	—

Linear, Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	8.00	18.5	LDA,LDT1,LDT2
Demolition	Vendor	0.00	10.2	HHDT,MHDT
Demolition	Hauling	0.83	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Construction (grading, excavation, trenching)	—	—	—	—
Construction (grading, excavation, trenching)	Worker	43.0	18.5	LDA,LDT1,LDT2
Construction (grading, excavation, trenching)	Vendor	0.00	10.2	HHDT,MHDT
Construction (grading, excavation, trenching)	Hauling	1.59	20.0	HHDT
Construction (grading, excavation, trenching)	Onsite truck	2.00	5.00	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	10.0	18.5	LDA,LDT1,LDT2
Linear, Paving	Vendor	0.00	10.2	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

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

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	—	—	108	5,600	—
Construction (grading, excavation, trenching)	7,450	—	108	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Linear	32.7	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

2028	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

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

5.18.2.2. Mitigated

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

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	26.1	annual days of extreme heat
Extreme Precipitation	3.55	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	34.9	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

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

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

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

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	93.6

AQ-PM	17.9
AQ-DPM	3.52
Drinking Water	40.1
Lead Risk Housing	26.7
Pesticides	43.4
Toxic Releases	11.8
Traffic	15.0
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	0.00
Haz Waste Facilities/Generators	4.94
Impaired Water Bodies	0.00
Solid Waste	59.2
Sensitive Population	—
Asthma	76.5
Cardio-vascular	93.1
Low Birth Weights	38.5
Socioeconomic Factor Indicators	—
Education	55.8
Housing	3.27
Linguistic	33.9
Poverty	69.5
Unemployment	70.9

7.2. Healthy Places Index Scores

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

Indicator	Result for Project Census Tract
Economic	—

Above Poverty	48.35108431
Employed	7.827537534
Median HI	51.76440395
Education	—
Bachelor's or higher	35.41639933
High school enrollment	25.6255614
Preschool enrollment	90.94058771
Transportation	—
Auto Access	83.51084306
Active commuting	9.713845759
Social	—
2-parent households	31.83626331
Voting	32.49069678
Neighborhood	—
Alcohol availability	97.0101373
Park access	6.467342487
Retail density	2.96419864
Supermarket access	13.02450917
Tree canopy	2.989862697
Housing	—
Homeownership	81.57320672
Housing habitability	68.17656872
Low-inc homeowner severe housing cost burden	74.22045425
Low-inc renter severe housing cost burden	23.81624535
Uncrowded housing	62.77428461
Health Outcomes	—
Insured adults	32.06723983
Arthritis	0.0

Asthma ER Admissions	31.2
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	18.3
Cognitively Disabled	21.0
Physically Disabled	22.7
Heart Attack ER Admissions	4.8
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	32.4
SLR Inundation Area	0.0
Children	40.5
Elderly	41.5
English Speaking	92.3
Foreign-born	7.9

Outdoor Workers	61.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	78.4
Traffic Density	4.3
Traffic Access	23.0
Other Indices	—
Hardship	59.6
Other Decision Support	—
2016 Voting	46.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	34.0
Healthy Places Index Score for Project Location (b)	39.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

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

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Off-Road Equipment	See Construction Equipment Provided by Client.
Construction: Demolition	Demolition of lift station.
Construction: Trips and VMT	See construction assumptions. Default values from road construction land use subtype used to estimate worker trips. Hauling trips include cy for asphalt, well-graded crushed rock, and concrete. Onsite truck trips include cy for 6" base, 6" subgrade, and backfill utilized from excavated material.
Construction: Construction Phases	See Construction duration provided by Client.
Construction: Paving	Only gravity mains require paving.

Appendix F

Biological Reports

Appendix F-1

Biological Resources Assessment

Biological Resources Assessment

Soboba Septic to Sewer Conversion Project
Riverside County, CA



November 2024

acorn environmental

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Section 1 | Introduction

1.1 PURPOSE OF ASSESSMENT

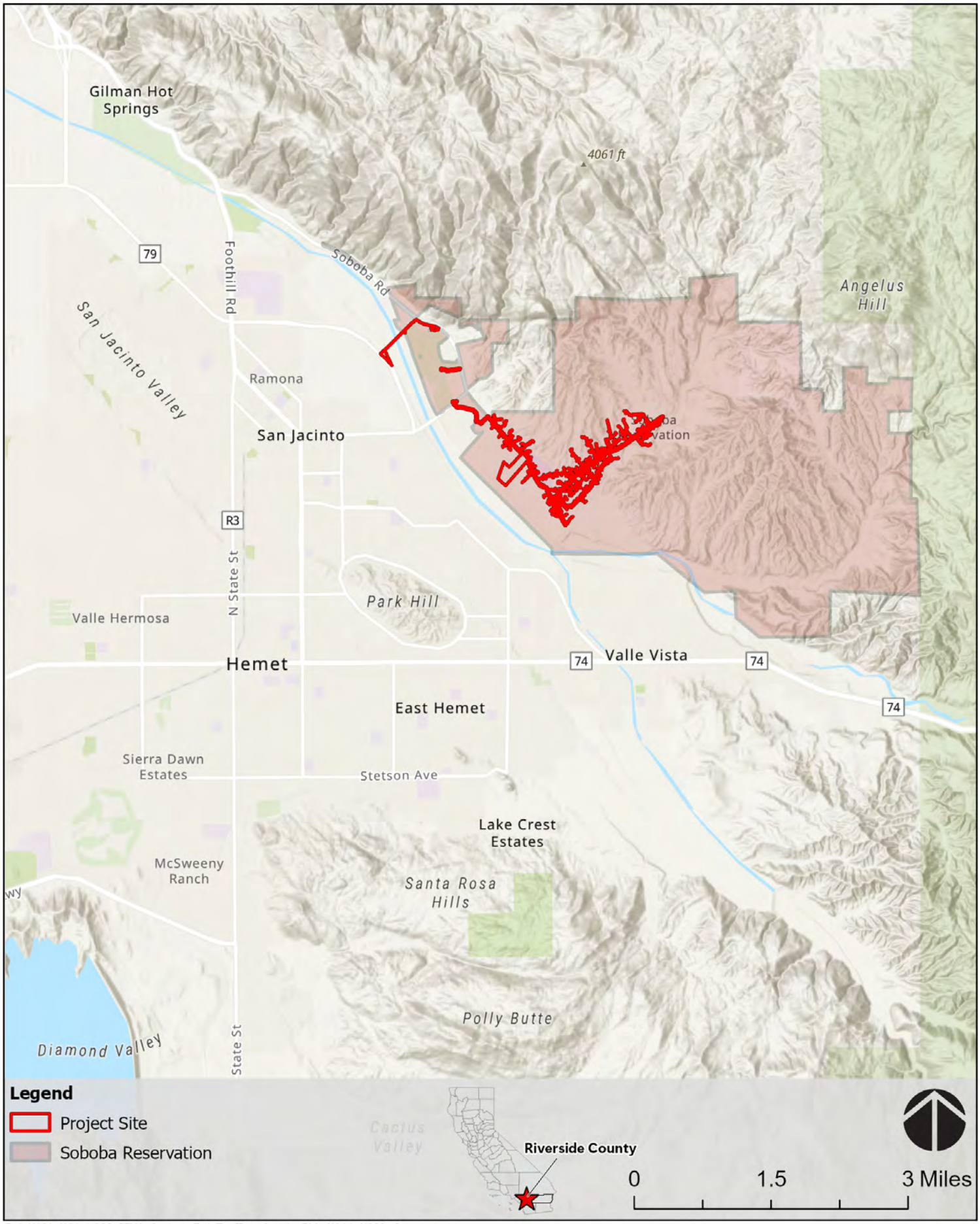
This assessment provides information about the biological resources within the Project Site, the regulatory environment affecting such resources, potential project-related impacts upon these resources, and recommendations to reduce the significance of these impacts.

1.2 DESCRIPTION OF PROPOSED PROJECT AND PROJECT SITE

This Biological Resources Assessment was conducted across approximately 139.4 acres located within and adjacent to the Soboba Reservation in Riverside County, California (Project Site). **Figure 1** and **Figure 2** show the location of the Project Site, and **Figure 3** presents an aerial photograph of the Project Site and the immediate vicinity.

The Soboba Band of Luiseño Indians (Tribe) is requesting State and federal grant funding to construct the Septic-to-Sewer Conversion Project (Proposed Project). The goal of the Proposed Project is to connect Tribal residences and other development that currently rely on aging septic tanks and seepage pits to the regional wastewater treatment facility operated by the Eastern Municipal Water District (EMWD). The majority of the Project Site occurs within the Tribe's Reservation, with small portions located off-Reservation within the City of San Jacinto and County of Riverside. The Proposed Project includes approximately 19.6 miles of new sewer pipeline and necessary lift stations both on and off the Tribal Reservation. These pipelines will serve Tribal residential and administration buildings. The Proposed Project is expected to support 824 existing and proposed connections, including new customers on the Reservation and upgraded connections for off-Reservation customers. Sewer laterals would generally follow existing roadway alignments or be located within driveways or other disturbed areas. Pipeline crossings of culverted federally jurisdictional drainages will be accomplished by jack and bore.

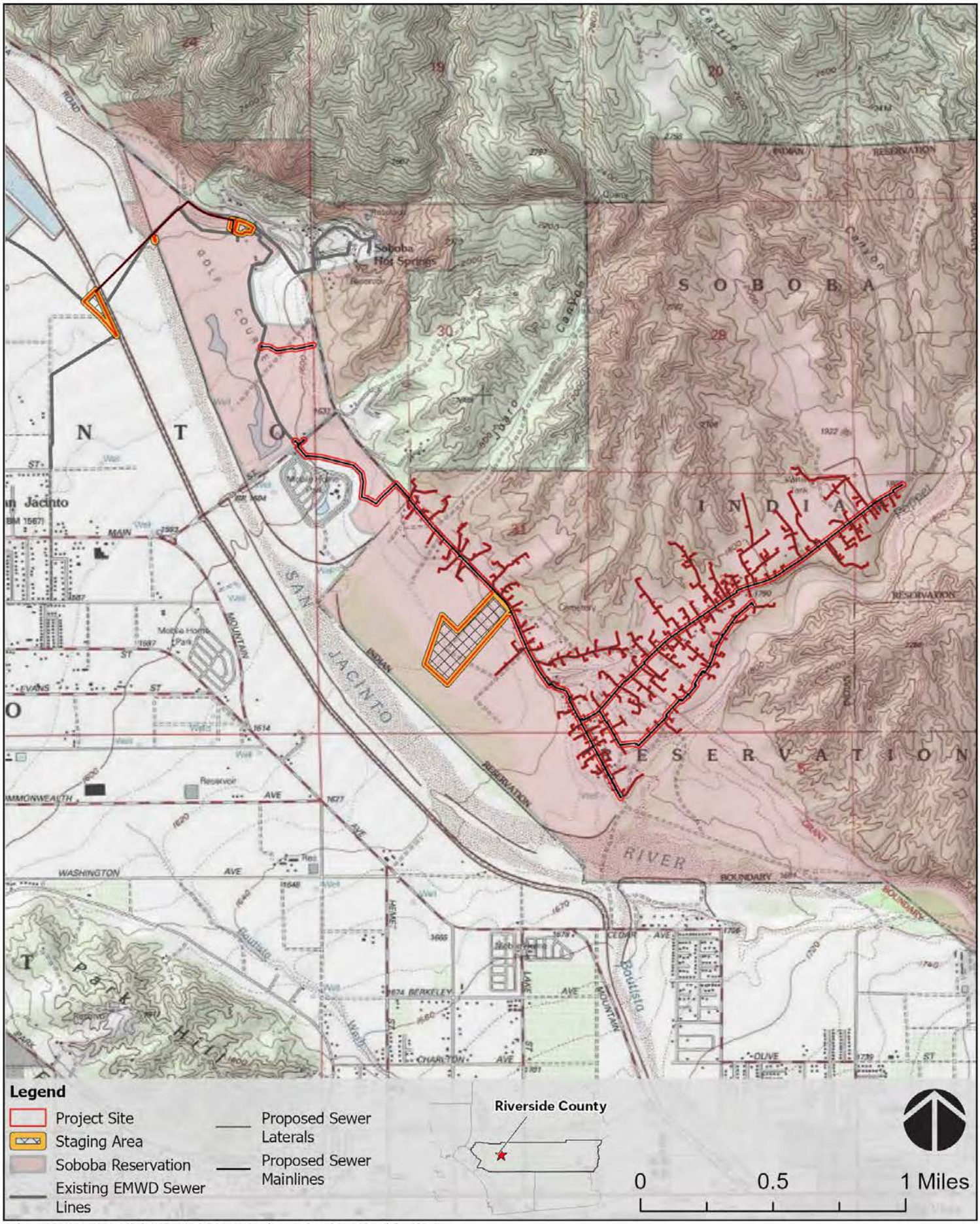
The Proposed Project also includes a permanent pipeline below the San Jacinto River that will serve the Reservation and existing non-Tribal customers within EMWD's service area that rely on an aging, temporary pipeline below the River. This 15-inch gravity mainline will be a total of 3,840 feet, with approximately 2,200 feet occurring on the Reservation within the Tribe's existing golf course, and the remaining 1,640 feet microtunneled below the San Jacinto River off-Reservation. The microtunneling bore pits would be staged outside of the levees and ordinary high water mark (OHWM). The 15-inch gravity line will be encased in a larger 48-inch steel casing pipe for protection. A low-density cellular backfill material consisting of foam and a water-cement mixture will be pumped into the annular space between the pipe and casing. The segment of pipeline below the San Jacinto River will be microtunneled a minimum of 10.5 feet below the river bottom and has been designed such that natural long-term river scouring will not affect the pipeline integrity. A small levee access ramp is proposed to connect the existing golf cart path and the terminus of the existing levee for future maintenance needs in this area, which will require 0.2 acres of disturbance. Existing infrastructure will be properly decommissioned through a mixture of demolition, filling and abandonment, or slurry-filling. Three staging areas totaling approximately 34 acres are proposed for equipment and materials. A site plan is provided in **Figure 4a** and **4b**.



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

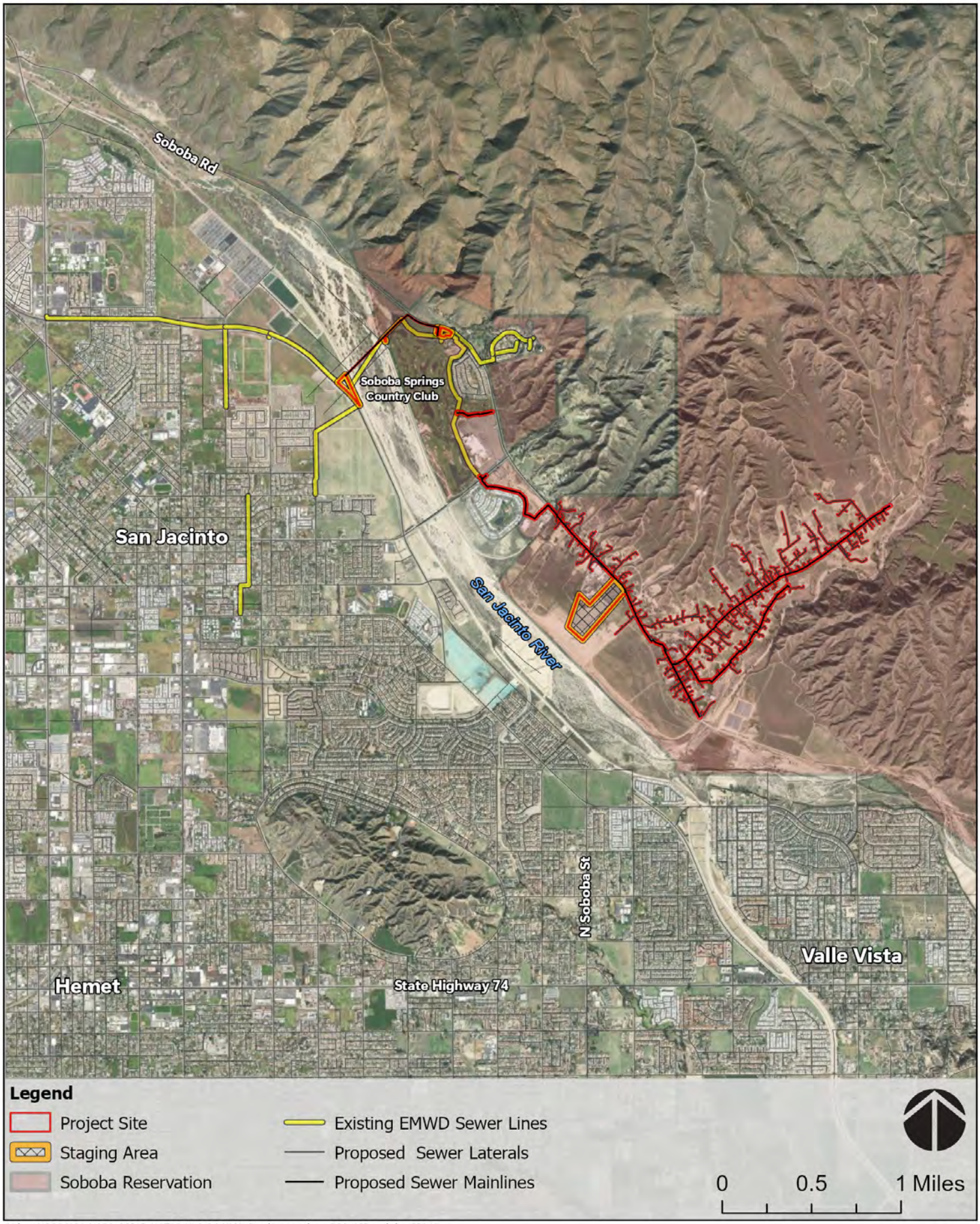
FIGURE 1

REGIONAL LOCATION



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Copyright:© 2013 National Geographic Society, i-cubed

FIGURE 2
SITE AND VICINITY



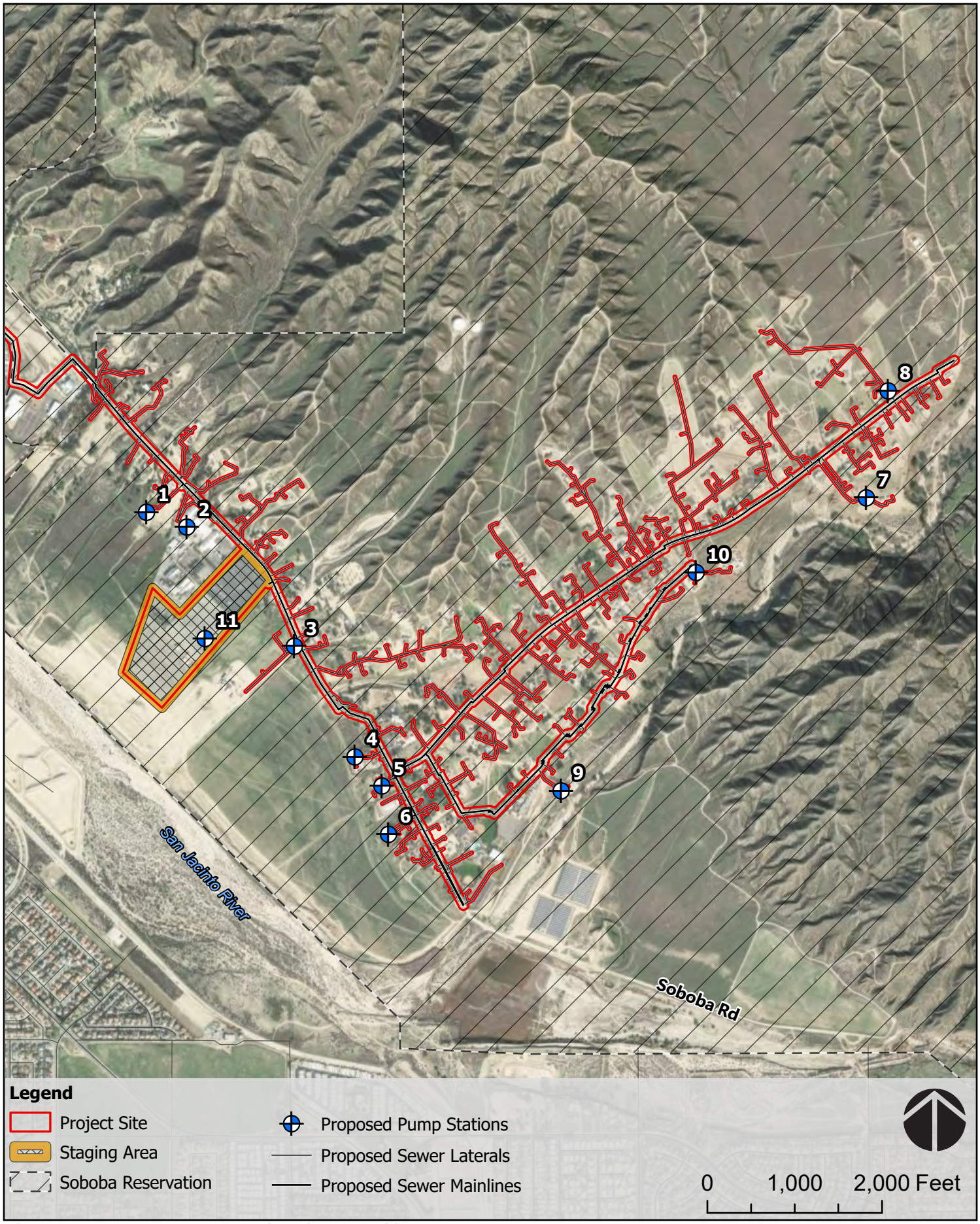
Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 3
AERIAL OVERVIEW



FIGURE 4a

PROPOSED PROJECT - NORTHERN DETAIL



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 4b

PROPOSED PROJECT - SOUTHERN DETAIL

The vast majority of proposed pipelines would be constructed using open cut trenching, which requires clearing of the pipeline alignment, saw cutting pavement where necessary, excavation of the trench up to approximately 30 feet in depth and 6 feet in width, pipeline installation, backfill operations, and surface restoration. Construction will begin in July 2025 and last for approximately 3 years.

1.3 REGULATORY SETTING

1.3.1 Federal

Federal Endangered Species Act (FESA)

The FESA protects species that are at risk of extinction and provides for the conservation of the ecosystems on which they depend. The U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmosphere Administration, Fisheries Service (NOAA Fisheries) share responsibility for implementing FESA. Generally, USFWS manages terrestrial and freshwater species, while NOAA Fisheries is responsible for marine and anadromous species. Threatened and endangered species on the federal list (50 CFR Sections 17.11 and 17.12) are protected from take, which is defined as direct or indirect harm. If "take" of a listed species is incidental to an otherwise lawful activity, this triggers the need for consultation under Section 7 of the FESA for federal agencies.

Pursuant to requirements of the FESA, a federal agency reviewing a proposed project within its jurisdiction must determine whether a federally listed species may be present on the site and whether the proposed project will have a potentially significant impact upon such species. Under the FESA, habitat loss is considered an impact to the species.

In addition, the agency is required to determine whether the project is likely to jeopardize the continued existence of any species that is proposed for listing under the FESA or to result in the destruction or adverse modification of critical habitat proposed to be designated for such species (16 USC Section 1536[3], [4]). Therefore, project-related impacts to these species, or their habitats, would be considered significant.

A separate Biological Assessment (BA) has been prepared for the Proposed Project to facilitate USFWS consultation under Section 7 of FESA.

Magnuson-Stevens Act and Sustainable Fisheries Act

The Magnuson–Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) is the primary law that governs marine fisheries management in U.S. federal waters. First passed in 1976, the Magnuson-Stevens Act fosters the long-term biological and economic sustainability of marine fisheries. Its objectives include: preventing overfishing; rebuilding overfished stocks; increasing long-term economic and social benefits; ensuring a safe and sustainable supply of seafood; and protecting habitat that fish need to spawn, breed, feed, and grow to maturity.

The Sustainable Fisheries Act of 1996 (Public Law 104-297) amended the Magnuson-Stevens Act to establish new requirements for fishery management councils to identify and describe Essential Fish Habitat (EFH) and to protect, conserve, and enhance EFH for the benefit of fisheries. EFH is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. The Sustainable Fisheries Act also established a federal EFH consultation process that advises federal agencies

to avoid, minimize, mitigate, or otherwise offset adverse effects on EFH. Consultation is required if a federal agency has authorized, funded, or undertaken part or all of a proposed activity and the action will adversely affect EFH.

An adverse effect includes direct or indirect physical, chemical, or biological alternations to waters or substrate, species and their habitat, quality and/or quantity of EFH, or other ecosystem components. If a federal agency determines that an action will not adversely affect EFH, and NOAA Fisheries agrees, no consultation is required. A 2002 update to EFH regulations allowed fishery management councils to designate Habitat Areas of Particular Concern, specific areas within EFH that have extremely important ecological functions and/or are especially vulnerable to degradation.

Migratory Bird Treaty Act (MBTA)

Migratory birds are protected under the MBTA of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered take under federal law. As such, project-related disturbances must be reduced or eliminated during the nesting season.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 to protect bald eagles and was later amended to include golden eagles (16 USC Subsection 668-668). This act prohibits take, possession, and commerce of bald and golden eagles and associated parts, feathers, nests, or eggs with limited exceptions. The definition of take is the same as the definition under the FESA. The USFWS established five recovery programs in the mid-1970s based on geographical distribution of the species, with California located in the Pacific Recovery Region. Habitat conservation efforts in the Pacific Recovery Region, including laws and management practices at federal, state, and community levels, have helped facilitate bald eagle population increases. Critical habitat for bald and golden eagles was not designated as part of the Pacific Recovery Plan created under FESA. Likewise, critical habitat was not designated by regulation under FESA.

In 1995, the USFWS reclassified the bald eagle from endangered to threatened under FESA in the contiguous 48 states, excluding Michigan, Minnesota, Wisconsin, Oregon, and Washington where it had already been listed as threatened. In 2007, the bald eagle was federally delisted under FESA. However, the provisions of the act remain in place for protection of bald and golden eagles.

Clean Water Act (Sections 404 and 401)

Any project that involves discharge of dredged or fill material into jurisdictional Waters of the U.S. must first obtain authorization from the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act (CWA). Projects requiring a 404 permit under the CWA also require a Section 401 certification from either the U.S. Environmental Protection Agency (USEPA) for federal trust land, or the Regional Water Quality Control Board (RWQCB) for non-trust land within California. These two agencies also administer the National Pollutant Discharge Elimination System (NPDES) general permits for construction activities disturbing one acre or more. Effective September 8, 2023, the USEPA and the USACE have issued

a new final rule in the Code of Federal Regulations to conform the definition of 'waters of the United States' to the 2023 Supreme Court's May 25, 2023 decision in Sackett vs. EPA. Under the new final rule, tributaries and wetlands must have a continuous surface connection to navigable waterways to be considered jurisdictional under the CWA. Only those relatively permanent, standing, or continuously flowing bodies of water meet the current definition. In certain states where litigation regarding this definition is ongoing, the pre-2015 definition of waters of the U.S. is in effect. California is not one of these states and currently operates under the definition as promulgated under the new final rule.

1.3.2 State

California Endangered Species Act

The California Endangered Species Act (CESA) declares that certain plant or animal species will be given protection by the State because they are of ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. The CESA established that it is State policy to conserve, protect, restore, and enhance State-listed species and their habitats. Under State law, plant and animal species may be formally listed by the California Fish and Game Commission, and those species that are listed are protected from take under CESA. CESA authorizes take that is ancillary to an otherwise lawful activity provided that one of the following occurs:

- For federally and State-listed species: a federal incidental take permit is issued in accordance with Section 10 of the FESA and the California Department of Fish and Wildlife (CDFW) certifies the incidental take statement.
- For State listed species that are not federally listed: an incidental take permit is acquired from CDFW consistent with CESA (California Fish & Game Code § 2080.1[a]).

California Fish and Game Code

The California Fish and Game Code defines "take" (Section 86) and prohibits take of a species listed under the CESA (California Fish and Game Code Section 2080), or otherwise special status (California Fish and Game Code Section 3511, 4700, and 5050). Section 2081(b) and (c) of the CESA allows CDFW to issue an incidental take permit for a State-listed species if specific criteria outlined in Title 14 CCR Section 783.4(a), (b) and CDFW Code Section 2081(b) are met. The CDFW Code Section 3503 also states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird except as otherwise provided by the code. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the taxonomic order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the U.S. Secretary of the Interior under provisions of the MBTA. CDFW cannot provide take authorization under the CESA for impacts to migratory birds.

Native Plant Protection Act of 1977

The Native Plant Protection Act of 1977 and implementing regulations in Section 1900 et seq. of the California Fish and Game Code designate special-status plant species and provide specific protection measures for identified populations. The CDFW administers the Native Plant Protection Act.

1.3.3 Local

Riverside County General Plan

Chapter 5 of the County of Riverside General Plan contains the County's Multipurpose Open Space Element and contains the County's goals and policies related to biological resources. This includes water resources, forestry resources, vegetation communities, open spaces, and conservation plans. According to the General Plan, the purpose of the Multipurpose Open Space Element is to "addresses protecting and preserving natural resources, agriculture and open space areas, managing mineral resources, preserving and enhancing cultural resources, and providing recreational opportunities for the citizens of Riverside County."

Riverside County Municipal Code

The Riverside County Municipal Code Chapter 12.24.050 requires a permit for the removal of native trees. According to County Code, the planning director may approve tree removal permits if tree removal would not result in increased erosion/ flow of surface water and if one or more of the following are met: (1) the tree presents a public health hazard; (2) the tree density is so great that thinning is necessary to the overall health of the treed area; (3) 50 percent of trees on a property are maintained, with at least half of these in the front yard/visible from the public road; or (4) tree removal is part of construction of residences within an area zoned for residences. Chapter 13.12 provides requirements related to stormwater and other discharges protective of water resources.

Western Riverside County Multi-Species Habitat Conservation Plan

The Western Riverside County Multi-Species Habitat Conservation Plan (MSHCP) covers the western portion of Riverside County. However, Reservation lands are excluded from the plan area; therefore, the on-Reservation portions of the Project Site are not considered part of the plan area. The following off-Reservation portions of the Project Site are subject to the MSHCP: the portion of the gravity main alignment that will be installed under the San Jacinto River; the portion of the mainline that will be installed under Lake Park Drive; and the portions of the gravity main that will be installed under Soboba Road (near the Soboba fire station) where the road is County-owned. According to the MSHCP, the plan has the following three overarching goals:

- Biological Goal: In the MSHCP Plan Area, Conserve Covered Species and their Habitats.
- Economic Goal: Improve the future economic development in the County by providing an efficient, streamlined regulatory process through which Development can proceed in an efficient way. The MSHCP and the General Plan will provide the County with a clearly articulated blueprint describing where future Development should and should not occur.
- Social Goal: Provide for permanent open space, community edges, and recreational opportunities, which contribute to maintaining the community character of Western Riverside County.

The MSHCP provides a streamlined review of proposed development projects and a review of potential impacts and necessary avoidance and minimization measures for federally-listed species.

The MSHCP, in addition to being a Habitat Conservation Plan, is also considered a Natural Communities Conservation Plan (NCCP). An NCCP Permit issued through the MSHCP by CDFW provides a streamlined

review of proposed development projects and a review of potential impacts and necessary avoidance and minimization measures for State-listed species.

City of San Jacinto General Plan

Chapter 6 of the City of San Jacinto's 2040 General Plan contains the City's Resource Management Element and the City's goals related to biological resources. According to the City's General Plan, the goal of biological resource protection is to "preserve and enhance biological communities that contribute to the region's biodiversity, with a special focus on sensitive, rare, or endangered plant and wildlife species in accordance with state and federal resource agency requirements." Additionally, the City's General Plan aims to address its conservation and resource protection goal through "[cooperating] with the County of Riverside to develop and manage preserve areas within the urban landscape. During the review of development proposals, use the Western Riverside County MSHCP Habitat Conservation Plan (particularly Section 3.2.13 San Jacinto Valley Area Plan) to help assess potential project impacts and mitigation requirements."

Section 2 | Environmental Setting

The Project Site is located within the Western Transverse Ranges geographic subregion, which is contained within the Southwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al., 2012). The climate is in Zone 19 "Southern California Interior Valley Thermal Belts," which is an interior climate that is only partially influenced by the ocean. This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately cold winters (Sunset Western Garden Collection, 2024). The Project Site is at the boundary of two ecological subsections: 1) San Jacinto Foothills – Cahuilla Mountains; and 2) San Jacinto Mountains (County of Riverside, 2003).

The topography of the Project Site is a series of river terraces and alluvial fans at the terminus of various canyons and arroyos that are tributary to the San Jacinto River. The Project Site is at the base of the foothills on the western flank of the San Jacinto Mountains that separate the San Jacinto River Basin to the west from the Coachella Valley to the east. A major levee is present on the southwestern side of the San Jacinto River, and a minor levee is present on the northeastern side at the Tribe's golf course located partially within the Project Site. The elevation ranges from approximately 1,560 to 1,865 feet above sea level. In general, the topography of the Project Site is gently sloping to the southwest towards the San Jacinto River floodplain.

The land uses of the Project Site are primarily transportation corridors, as well as rural residential driveways, commercial land uses, a golf course, open space and preserve lands, flood control district levees and basins, gaming facility, and educational and recreational facilities. The surrounding land uses are rural residential, suburban residential, commercial, Tribal Reservation lands, State and federal land (San Bernardino National Forest), and grazing land.

Section 3 | Methods

3.1 PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

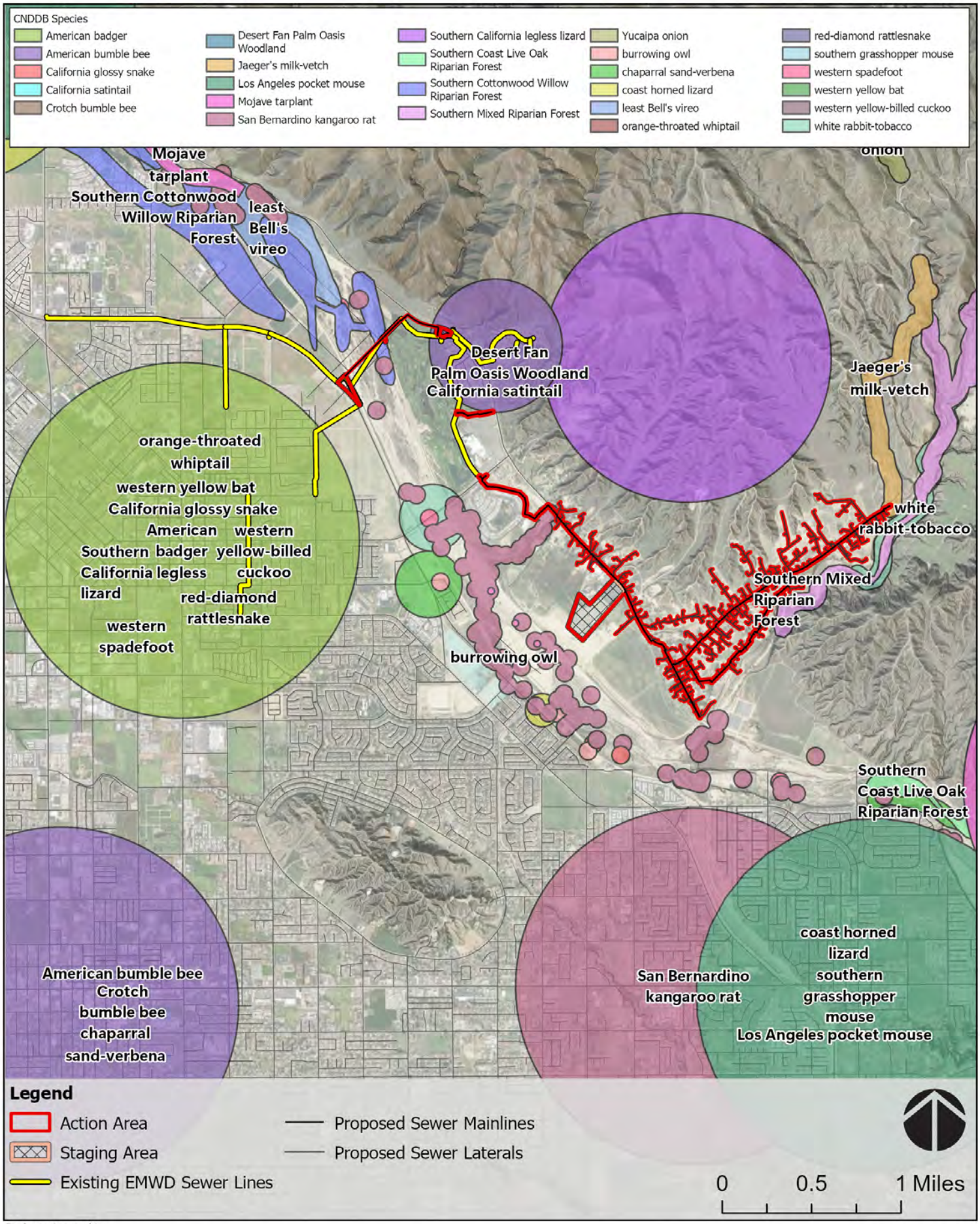
- United States Geologic Service (USGS) topographic quadrangles of the Project Site and vicinity
- Aerial photography of the Project Site
- CNDDB, electronically updated monthly by subscription (**Figure 5**)
- A query of the California Native Plant Society's (CNPS) database *Inventory of Rare and Endangered Plants of California* (online edition)
- USFWS National Wetlands Inventory (NWI) mapper (USFWS, 2024)
- USFWS species list (**Attachment A**)

3.2 FIELD SURVEYS

Senior biologist Dr. Geo Graening conducted biological field assessments on February 7 and April 18, 2024 and collected data on wildlife and plant species present, as well as habitat types and jurisdictional waters. Variable-intensity pedestrian surveys were performed. Fauna and flora observed were recorded in a field notebook and identified to the lowest possible taxon. Survey efforts emphasized the search for federal and State listed species that had documented occurrences in the CNDDB within the vicinity of the Project Site or were identified in the USFWS species list. Habitat types occurring in the Project Site were mapped on aerial photographs and information on habitat conditions and the suitability of habitats to support listed species was also recorded. The Project Site was also formally assessed for the presence of potentially jurisdictional water features and other biologically-sensitive aquatic habitats. Philippe Vergne, a certified kangaroo rat biologist holding U.S. Fish and Wildlife Permit No. TE068072-5, performed a protocol habitat assessment for kangaroo rats (both *Dipodomys merriami parvus* and *D. stephensi*) and other small mammals on April 18 and 27, 2024 over the entire Project Site (ENVIRA Consulting, 2024).

3.3 MAPPING AND OTHER ANALYSES

Locations of species' occurrences and habitat boundaries within the Project Site were mapped using hand-held GPS receivers, and color aerial photographs were interpreted and the data was digitized to produce habitat maps. The boundaries of potentially jurisdictional water resources within the Project Site were identified and measured in the field and similarly digitized to calculate acreages and to produce aquatic resources delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS Pro, ESRI, Inc.). Vegetation communities were classified by Vegetation Series using the CNPS Vegetation Classification system (CNPS, 2024b). Wetlands and other aquatic habitats were classified using USFWS National Wetlands Inventory Classification System for Wetland and Deepwater Habitats, or "Cowardin class" (Cowardin et al., 1979). A formal wetland delineation was conducted and identified features based upon the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the USACE Wetlands Delineation Manual (Environmental Laboratory, 1987). Corresponding data points were selected and data sheets generated. The delineation will be submitted to USACE for verification. Species' habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); Calflora (2024); CDFW (2024); and University of California at Berkeley (2024).



Earthstar Geographics,
Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 6
CNDDB RESULTS

Section 4 | Results

4.1 INVENTORY OF FLORA AND FAUNA

Plant species detected during the field surveys of the Project Site are listed in **Attachment B**. Few animals were observed during the surveys of the Project Site because much of the fauna are secretive or nocturnal, and the Project Site is subject to human activities from the adjacent developed areas (commercial, golf course, residential, roadways). The animals that were detected are as follows: pine siskin (*Spinus pinus*); yellow warbler (*Setophaga petechia*); lesser goldfinch (*Spinus psaltria*); Bewick's wren (*Thryomanes bewickii*); house wren (*Troglodytes aedon*); California towhee (*Melozone crissalis*); turkey vulture (*Cathartes aura*); red-tailed hawk (*Buteo jamaicensis*); American kestrel (*Falco sparverius*); mourning dove (*Zenaida macroura*); American crow (*Corvus brachyrhynchos*); side-blotched lizard (*Uta stansburiana*); Audubon's cottontail (*Sylvilagus audubonii*); California ground squirrel (*Otospermophilus beecheyi*); Botta's pocket gopher (*Thomomys bottae*); coyote (*Canis latrans*); and dog (*Canis familiaris*).

4.2 TERRESTRIAL HABITATS

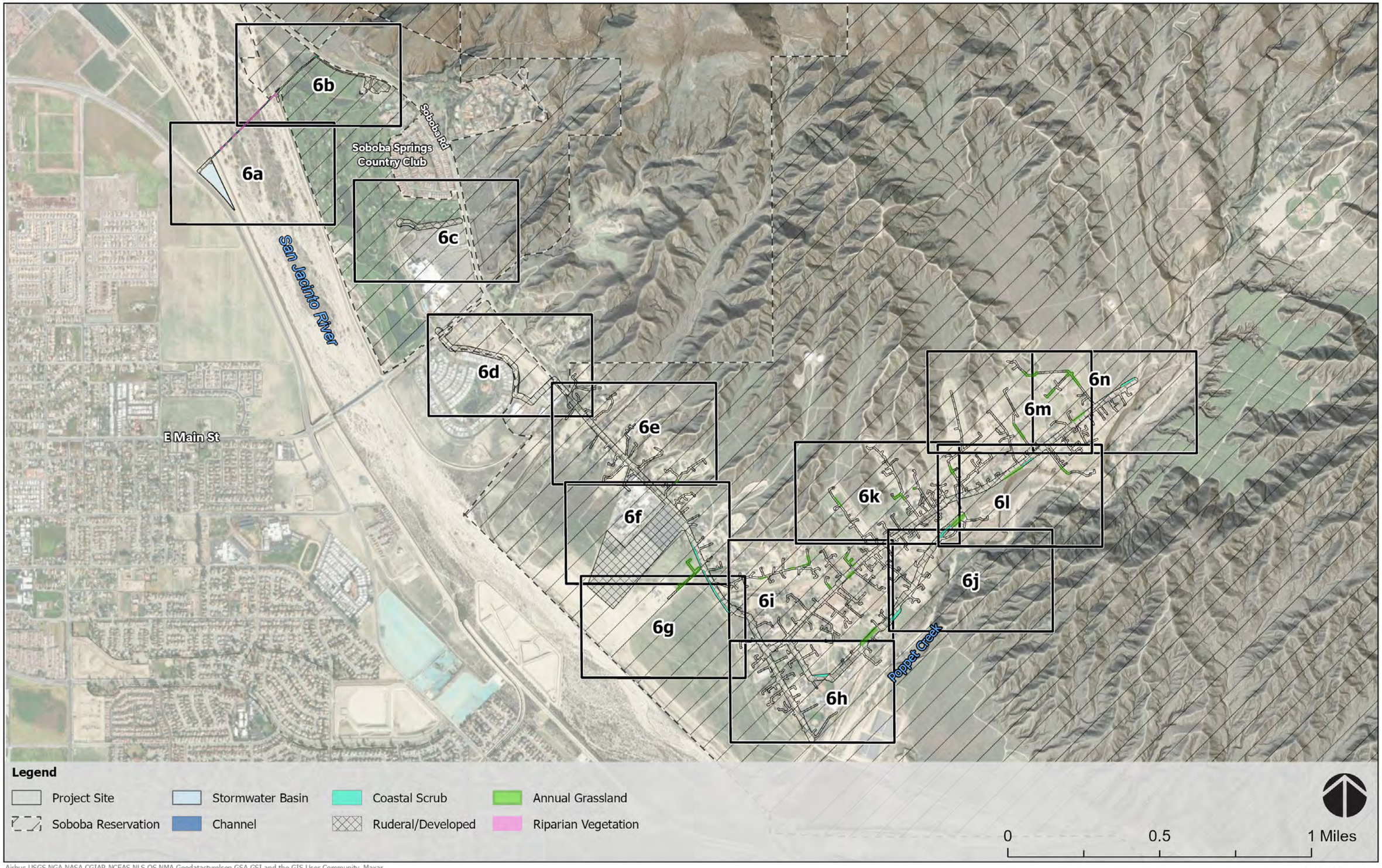
An overview of terrestrial and aquatic habitat types identified within the Project Site is included as **Figure 6a-n**. Terrestrial habitats observed within the Project Site are coastal scrub, annual grassland, and ruderal/developed. These habitats are summarized in **Table 1** and described in detail below. Representative site photos are included as **Attachment C**. Aquatic habitats are discussed in the next section.

Table 1: Habitat Types (Terrestrial and Aquatic)

Habitat Type	Acreage within Project Site
Coastal Scrub	2.64
Annual Grassland	2.36
Developed/Disturbed	130.3
Channels	0.41
Riparian	0.37
Stormwater Basins	3.31

4.2.1 Coastal Scrub

In the Project Site, coastal scrub occurs in areas of high sun exposure that have not been cleared or graded, and primarily on alluvial fans and river terraces. It also occurs in islands of river washes. Characteristic species observed within this habitat type are California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), scalebroom (*Lepidospartum squamatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, *S. apiana*), though sage was not the dominant species. This habitat comprises 2.64 acres of the Project Site.



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 6
HABITATS



FIGURE: 6a
HABITATS



FIGURE: 6b
HABITATS

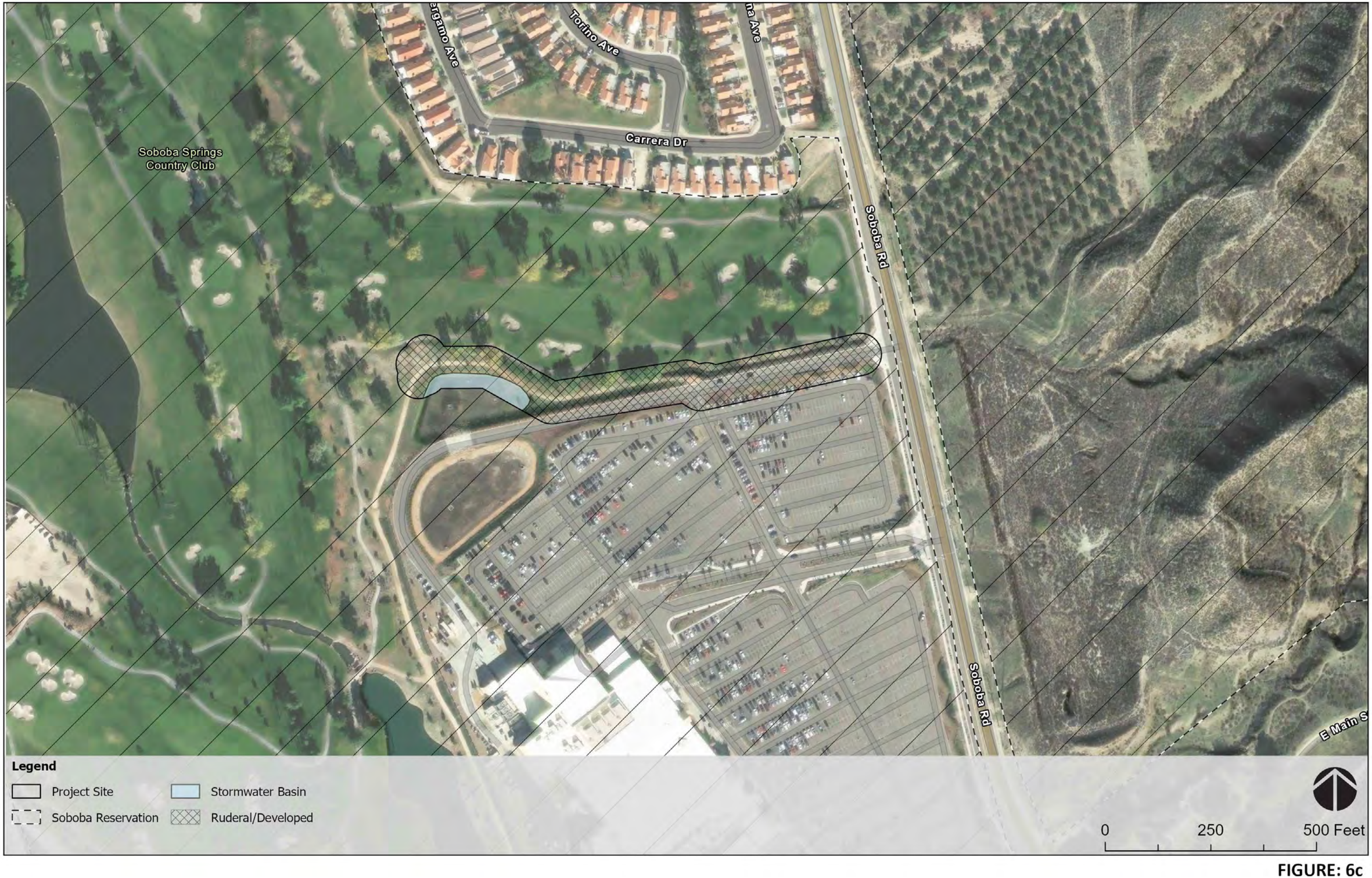


FIGURE: 6c
HABITATS

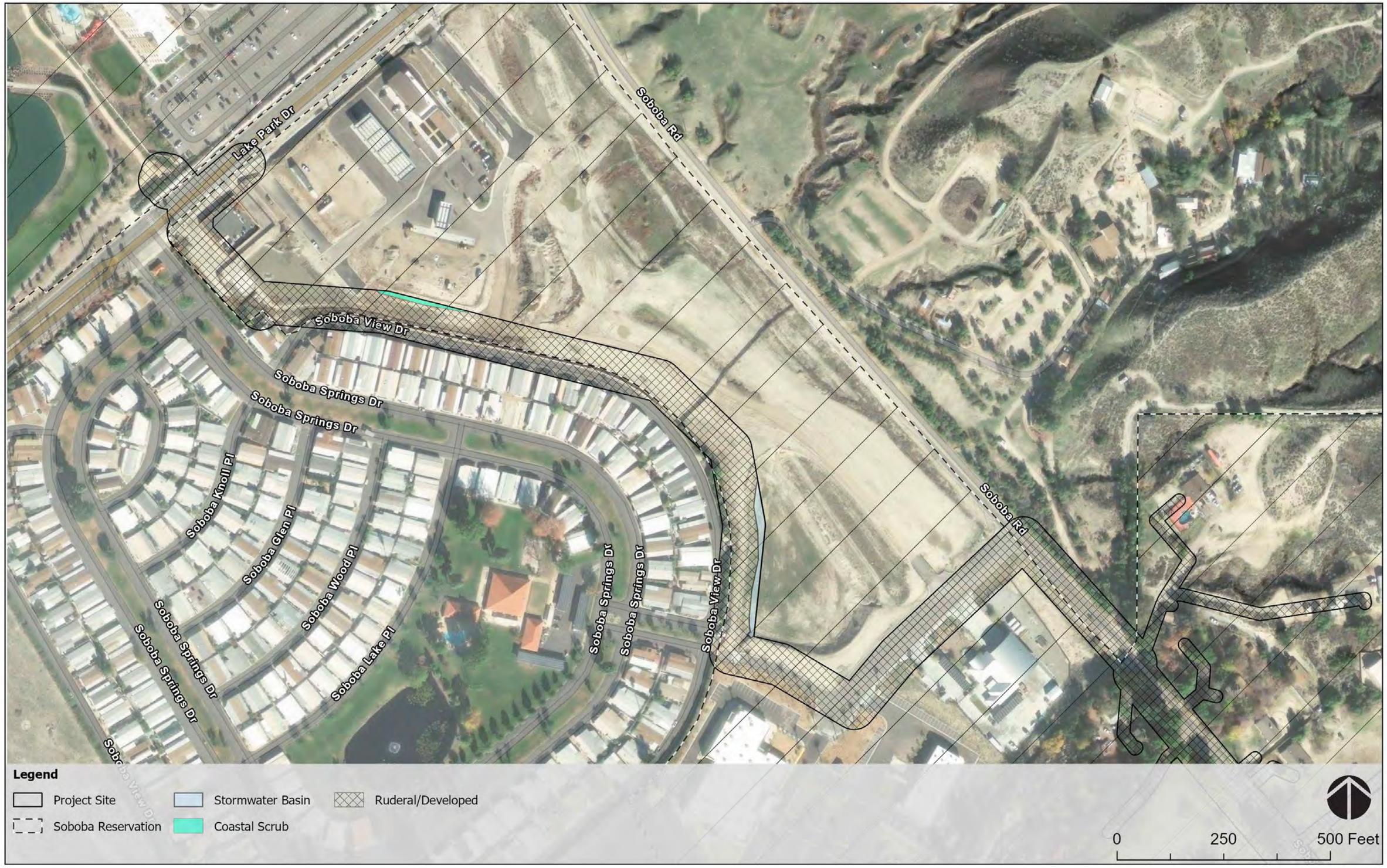


FIGURE: 6d
HABITATS



FIGURE: 6e
HABITATS



FIGURE: 6f
HABITATS

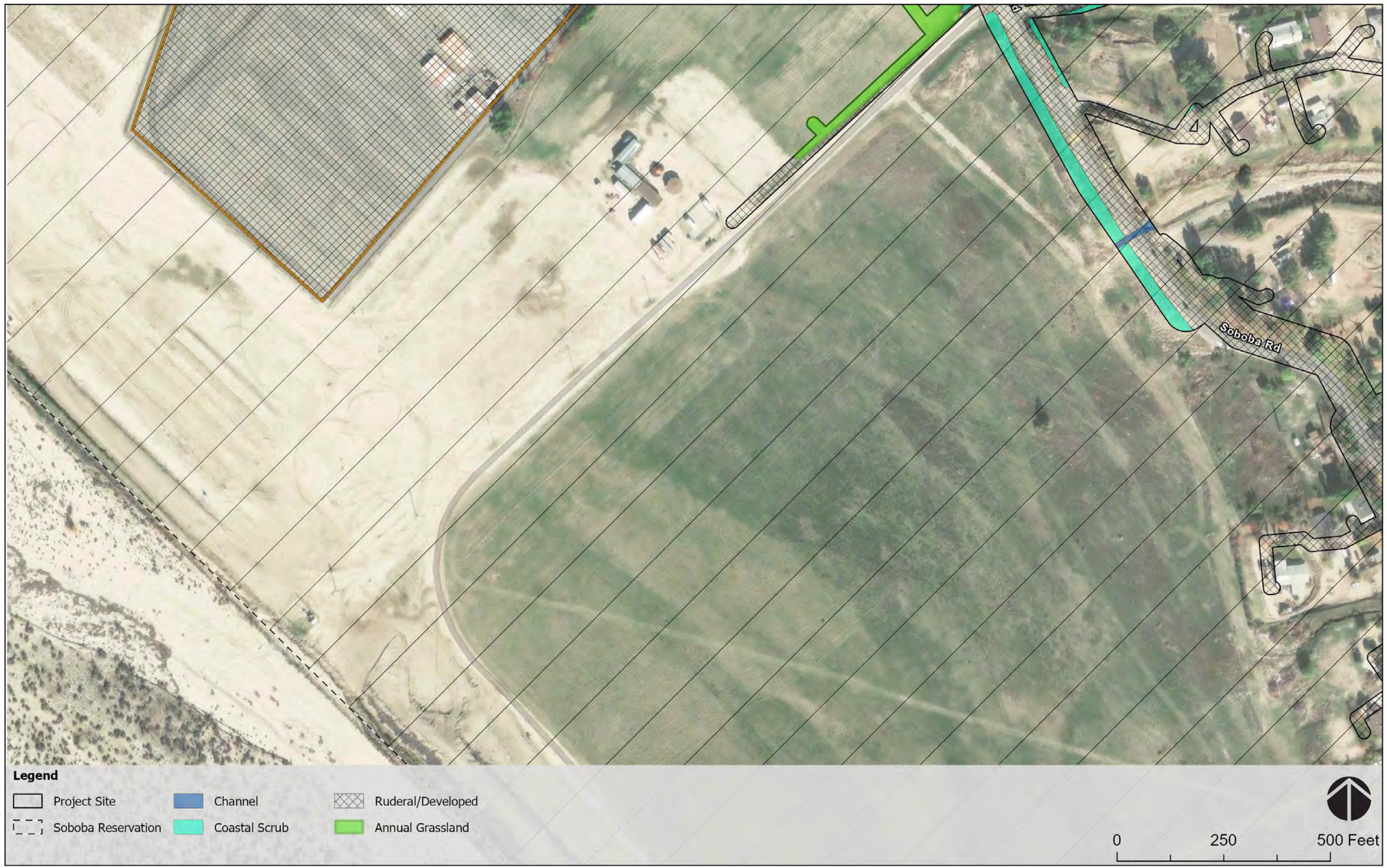


FIGURE: 6g
HABITATS

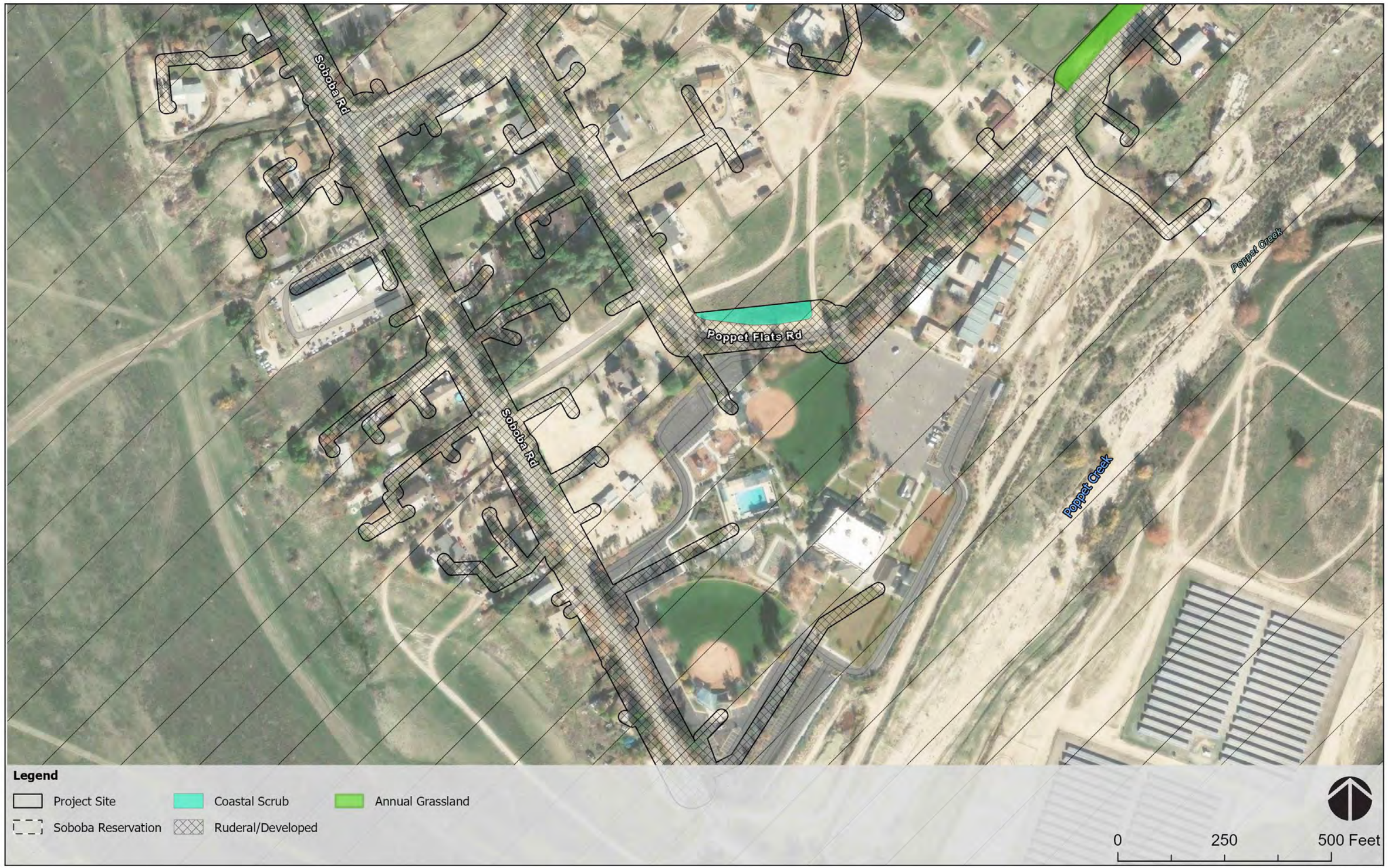


FIGURE: 6h
HABITATS



FIGURE: 6i
HABITATS



FIGURE: 6j
HABITATS



FIGURE: 6k
HABITATS



FIGURE: 6l
HABITATS



FIGURE: 6m
HABITATS



FIGURE: 6n
HABITATS

4.2.2 Annual Grassland

In areas subject to grading, grazing, or field agriculture, non-native annual grasslands occur. These communities are dominated by several species of grasses that have evolved to persist in concert with human agricultural practices such as wild oats (*Avena* spp.), chess and other bromes (*Bromus* spp.), barley (*Hordeum* spp.), rye grasses (*Lolium* spp.), rat-tail fescue (*Vulpia myuros*), and Mediterranean schismus (*Schismus barbatus*). Weedy forbs are also present, especially shortpod mustard (*Hirschfeldia incana*). This habitat comprises 2.36 acres of the Project Site.

4.2.3 Ruderal/Developed

Developed land is intensively used with much of the land paved or covered by structures or landscaping. Vegetation in these areas generally consists of non-native ornamental species (e.g., grass in a golf course fairway and greens and residential lawns, flowerbeds, shrubs, and decorative trees). Some of these areas are cleared areas that are generally devoid of vegetation. Ruderal habitats are disturbed lands that contain species tolerant of disturbance, which are primarily non-native European grasses and weedy forbs. Landscaped areas and clumps of wooded areas are also present. Some consist of stands of Eucalyptus (*Eucalyptus* spp.), but there are remnants of coast live oak woodlands in a few places. This habitat comprises 130.3 acres of the Project Site.

4.3 AQUATIC HABITATS

An Aquatic Resources Delineation was completed according to USACE standards as part of the survey efforts (Acorn Environmental, 2024). The Project Site contains three potentially jurisdictional channels and other non-jurisdictional linear drainage features, as well as jurisdictional riparian areas and non-jurisdictional stormwater basins. These habitats are described below and are shown on **Figure 6**.

4.3.1 Channels

Potentially Federally Jurisdictional Channels

There are three federally jurisdictional channels in the Project Site. The San Jacinto River crosses the Project Site where a gravity main is proposed to be microtunneled below the channel. It is a braided intermittent channel that is a mixture of river wash and islands of riparian habitat. River wash is a substrate of sand and gravel deposited by flood events. Vegetation is very sparse and consists of colonizers and other early successional species from riparian or grassland communities. Persistent vegetation consists primarily of willow saplings, annual grasses, and mustards. Reeds (*Juncus* spp.) and rushes (*Carex* spp., *Scirpus* spp.) are present in wetter areas.

Under Soboba Road northwest of the tribal administrative building, there is a double box culvert that conveys flow from an unnamed ephemeral channel in an arroyo towards the San Jacinto River. Upstream of this culvert, disturbed scrub vegetation is dominant (e.g. Russian thistle, shortpod mustard). After discharging from the box culverts, the channel continues westward towards San Jacinto River. The channel terminates in a sandy agricultural field 1,700 feet short of the active channel of the San Jacinto River.

Southeast of the fire station on Soboba Road, there is a pipe culvert that transmits stormflows from Juaro Canyon and from road ditches towards the San Jacinto River. Upstream of the Project Site, the channel

has coastal scrub vegetation. This elliptical pipe culvert discharges into a ruderal field and has created a small alluvial fan. The discharge point is at least 1,500 feet from the San Jacinto River.

Non-Jurisdictional Drainages

There are also non-jurisdictional drainage features in the Project Site, including upland swales, small pipe culverts, and other manmade stormwater control features. At the intersection of Castile Canyon Road and Soboba Road there is a stormwater catchment system. Storm flows dissipate through a long open culvert into a sandy agricultural field 1,400 feet short of the San Jacinto River. There are no wetlands associated with the stormflow discharge point; upland plants are dominant (mustard, barley, chamomile, and tree tobacco). Under Soboba Road at the parking lot of the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches towards the San Jacinto River. This culvert discharges overland onto a large, paved parking lot, where it evaporates, or dissipates as sheetflow to a ruderal field. The discharge point is 2,300 feet from the riverbank. Along Soboba Road near the entrance to the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches under Soboba Road towards the San Jacinto River. This culvert discharges into the former stormwater and landscaping facilities.

4.3.2 Wetlands

There are no wetlands, such as freshwater marshes or vernal pools, within the Project Site.

4.3.3 Riparian

Within the San Jacinto River channel between river washes, there are islands of riparian communities that are either riparian woodland or riparian scrub habitats. Dominant tree species of riparian woodland are sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), and several species of willow (*Salix* spp.), but upland trees can also be present, such as coast live oak (*Quercus agrifolia*) and California walnut (*Juglans californica*). The riparian woodlands have an understory of box elder (*Acer negundo*), big-leaf maple (*A. macrophyllum*), stinging nettle (*Urtica dioica*), poison oak (*Toxicodendron diversilobum*), and wild grape (*Vitis girdiana*).

Riparian scrub communities are variable and consist of stands of tamarisk (*Tamarix* spp.) or giant reed (*Arundo donax*), or mixed communities of Mexican elderberry (*Sambucus mexicana*), mulefat (*Baccharis salicifolia*), salt grass (*Distichlis spicata*), wild cucumber (*Marah macrocarpus*), mugwort (*Artemisia douglasiana*), or relatively pure stands of willow and blackberry thickets. This habitat comprises 0.37 acres of the Project Site.

Because these riparian habitats are within the active channel of the San Jacinto River, are regularly flooded, and contain water-dependent (hydrophytic) vegetation, they are considered potentially-jurisdictional water resources.

4.3.4 Stormwater Basins

The Project Site is adjacent to, or partially within, three stormwater retention basins that have been excavated in uplands, totaling approximately 3.31 acres. These stormwater facilities are described below but are not expected to be subject to federal or state jurisdiction.

There is a flood control basin along West Ramona Expressway. This area is proposed as a material laydown/equipment storage area. This feature is not mapped by NWI. The basin is actively maintained, barren and has no hydrophytes. Soils in the basin are not hydric, and the seasonally-ponded water is a result of off-channel stormwater control facilities associated with roadways.

There is a stormwater basin at the edge of the service road between the casino facilities and the golf course facilities; this basin receives stormwater from the casino parking lots and an upper basin. A gravity sewer main will be installed very near this basin.

Near the Project Site is a stormwater retention basin located south of Lake Park Drive near Soboba View Drive; the basin is kept free of vegetation and has no wetland habitats. A gravity sewer main will be installed very near this basin.

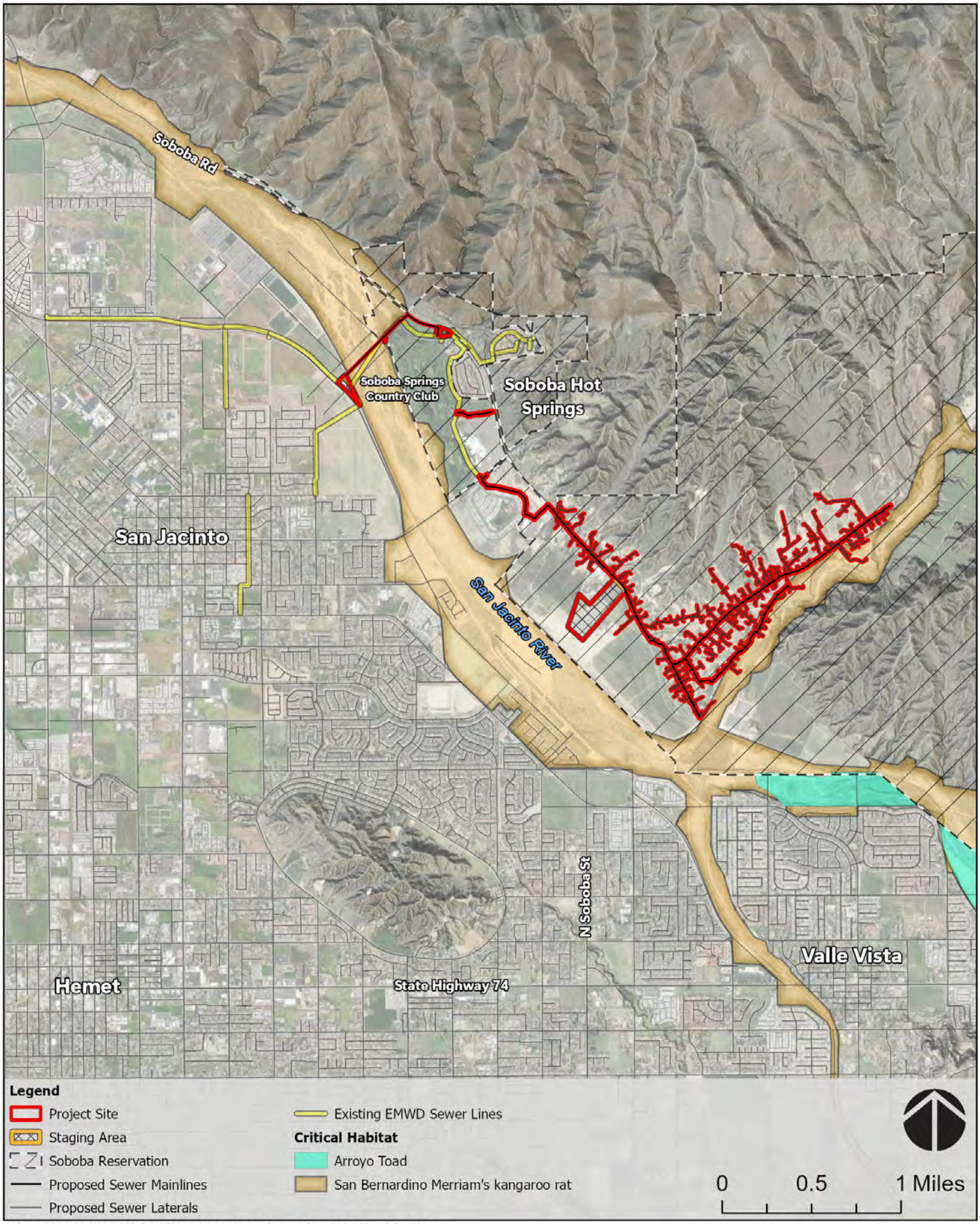
4.4 CRITICAL HABITAT, ESSENTIAL FISH HABITAT, AND SENSITIVE HABITAT

The Project Site is adjacent to, and partially within, federally-designated critical habitat for San Bernardino Merriam's Kangaroo Rat (*Dipodomys merriami parvus*). The Project Site overlaps this critical habitat designation in two locations: on the eastern end of the proposed sewer main and laterals along Poppet Flats Road and some of the proposed sewer laterals along Castile Canyon Road; and on the western end of the Project Site in the San Jacinto River where the proposed gravity main would be installed under the channel. Critical habitat for arroyo toad (*Anaxyrus californicus*) occurs approximately 0.5 mile east of the Project Site along the floodplain of the upper San Jacinto River and Bautista Creek within Subunit 9a, which is the western-most extent of the Subunit. The location of these critical habitats are shown on **Figure 7**. The Project Site is not adjacent to, or within, any other designated USFWS critical habitat or NMFS critical habitat or essential fish habitat (NMFS, 2024a and b; USFWS, 2024).

The CEQA guidelines define sensitive habitat as riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS. The CNDDB maps the sensitive habitat “Southern Cottonwood Willow Riparian Forest” in the Project Site where the gravity main line is proposed to be installed under the San Jacinto River channel; CNDDB also maps “Southern Mixed Riparian Forest” in Poppet Creek, near the Project Site. The field surveys confirmed that the only sensitive habitat found with the Project Site is riparian habitat, and this riparian habitat is found only where the proposed gravity main will be installed under the San Jacinto River channel.

The MSHCP broadly defines all riparian/riverine habitat and vernal pool habitat as sensitive. There is riparian / riverine habitat in only one location of the Project Site—where the proposed gravity main will be installed below the San Jacinto River channel. The Project Site does not contain any vernal pools.

Sensitive habitats are also identified in the MSHCP by specific planning areas called “criteria cells,” which are 160 acres in size and are designated for the creation of habitat preserves. After excluding the portions of the Project Site that are owned by non-signatories to the MSHCP (the Tribe and EMWD), the remaining portions of the Project Site are located in three cells:



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 7
CRITICAL HABITAT

- Criteria Cell 2996, where a proposed mainline crosses Lake Park Drive;
- Criteria Cell 3100, where a proposed mainline will be installed under Soboba Road near the fire station; and
- Criteria Cell 2893, where the proposed gravity main will be microtunneled below the San Jacinto River channel.

The MSHCP conservation criterion for Cell Group Z, which contains cells 2893 and 2996, is the conservation of grassland habitat west of the San Jacinto River with connectivity to grassland habitats in adjacent cells south of East Main Street/Lake Park Drive in San Jacinto; no new habitat conservation is identified for cell 3100. No habitat conservation is targeted in the location of the Project Site. These three cells are part of a Core Area (Core 5). A Core Area is a block of habitat of appropriate size, configuration, and vegetation characteristics to generally support the life history requirements of one or more Covered Species. Core 5 is focused on the upper San Jacinto River corridor. Planning Species for which habitat is provided within Proposed Core 5 are: mountain yellow-legged frog (*Rana muscosa*), arroyo toad, least Bell's vireo (*Vireo bellii pusillus*), southwestern willow flycatcher (*Empidonax traillii extimus*), San Bernardino kangaroo rat, and Los Angeles pocket mouse (*Perognathus longimembris brevinasus*). Projects within Core Areas must assess potential impacts to the Planning Species and their suitable habitat for that Core Area.

4.5 WILDLIFE USE AND MOVEMENT

Active bird nests were not observed, though vegetation and structures suitable for a variety of nesting birds occur throughout the Project Site. Unique wildlife features such as nursery sites and rookeries were not observed. Wildlife movement corridors are generally absent from the Project Site as the Project Site consists primarily of roads, driveways, residences, and a golf course. The exception is the part of the Project Site that is in the San Jacinto River, which is an important wildlife corridor.

4.6 SPECIAL-STATUS SPECIES

For the purposes of this assessment, “special status” is defined to be species that are:

- Listed as endangered, threatened, proposed, or candidate for listing under FESA;
- Listed as endangered, threatened, rare, or proposed for listing, under CESA;
- Designated as endangered or rare, pursuant to California Fish and Game Code (§1901);
- Designated as fully protected, pursuant to California Fish and Game Code (§3511, §4700, or §5050);
- Designated as a species of special concern by CDFW;
- Plants considered to be rare, threatened or endangered in California by CNPS; this consists of species on Lists 1A, 1B, and 2 of the CNPS Ranking System; or
- Plants listed as rare under the California Native Plant Protection Act.

4.6.1 Reported Occurrences of Special-status Species

No special-status species were detected during the field surveys described in **Section 3.2**. Based on the database queries performed as described in **Section 3.1**, there are no known historical records of special-status species within the Project Site. However, the CNDDB reports some occurrences of listed species and other special-status species near the Project Site. These occurrence records are associated with the San Jacinto River corridor outside of the Project Site, including the following plants: white rabbit-tobacco

(*Pseudognaphalium leucocephalum*) and Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*); and the following animals: San Bernardino Merriam's kangaroo rat, least Bell's vireo, western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), western spadefoot (*Spea hammondii*), and southern California legless lizard (*Anniella stebbinsi*).

4.6.2 Potential for Special-status Species to Occur in the Project Site

A list of special-status species that occur in the vicinity of the Project Site was compiled from CNDDB queries (**Figure 5**), species lists from USFWS and CNPS (**Attachment A**; CNPS, 2024), and the MSHCP. A species table is included as **Attachment D** and provides the species name, status, and habitat requirements of these special-status species. **Attachment D** provide an analysis of the potential for each species to occur within the Project Site, and the following section provides a more detailed analysis of all species that have at least a moderate potential to occur within the Project Site

The potential for each special status species to occur in the Project Site was evaluated in **Attachment D** according to the following criteria:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), or is outside of the known range of the species.
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

The MSHCP identifies Covered Species via general requirements and the specific requirements for the applicable Area Plan Subunits. The MSHCP general requirements require that all projects assess potential impacts to these species groupings: narrow endemic plant species, fairy shrimp, and riparian birds.

"Narrow endemic plant species" are defined in the MSHCP as those species that are highly restricted by their habitat affinities, edaphic requirements or other ecological factors, and for which specific conservation measures have been identified in Table 6-1 of Volume I of the MSHCP (County of Riverside, 2003). However, the Project Site is not in a Narrow Endemic Plant Species Survey Area, which means that these narrow endemic plant species are less likely to occur in the Project Site and botanical surveys are not mandatory (County of Riverside, 2003).

Fairy shrimp (*Branchinecta lynchi, Linderiella santarosae, Streptocephalus woottoni*) also require special consideration. Within the Project Site, there are no vernal pools or seasonal wetlands or soils that create hardpans. Therefore, fairy shrimp have no potential to occur in the Project Site and are not discussed further (**Attachment D**).

Riparian birds must be considered, and the relevant riparian bird species were assessed in **Section 4.6.4** below.

In addition to narrow endemic plant species, fair shrimp, and riparian birds, the MSHCP requires additional consideration of species particular to the Core Area/Subunit that a project is located within. The Project Site is in Core 5, and the Planning Species for Core 5 are: mountain yellow-legged frog, arroyo toad, least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, and Los Angeles pocket mouse. Projects within Core Areas must assess potential impacts to the corresponding Planning Species for that Core Area. The Project Site is also located in the MSHCP's Subunit 3: Upper San Jacinto River/Bautista Creek, and the Planning Species for Subunit 3 are: arroyo toad; mountain yellow-legged frog; burrowing owl; Cooper's hawk; least Bell's vireo; southwestern willow flycatcher; yellow warbler; Quino checkerspot butterfly; bobcat; Los Angeles pocket mouse; mountain lion; San Bernardino kangaroo rat; southwestern pond turtle; and slender-horned spine flower.

4.6.3 Special-Status Plants

San Diego Ambrosia (*Ambrosia pumila*)

The range of San Diego ambrosia is limited to southern California from western Riverside County, south through western San Diego County, to central Baja California, Mexico (USFWS, 2024). The nearest occurrences of this federally endangered plant are over 20 miles away from the Project Site in the Perris/Lake Elsinore region and the Murrieta/Temecula region (USFWS, 2024). This plant inhabits coarse substrates near drainages and in upland areas on clay slopes, sparse grasslands, river terraces, pools, and alkali playas (USFWS, 2024). The Project Site is outside of the current range of the species and lacks the requisite habitats; the exception is the portion of the Proposed Project in the San Jacinto River where a gravity main will be installed deep under the channel.

Slender-horned Spineflower (*Dodecahema leptoceras*)

Slender-horned spineflower is the only narrow endemic plant species identified by the MSHCP as having the potential to occur in Subunit 3. However, the Project Site is not in a Narrow Endemic Plant Species Survey Area, which means that these narrow endemic plant species are less likely to occur in the Project Site and botanical surveys are not mandatory (County of Riverside, 2003).

Slender-horned spineflower is federally and State listed as endangered. It is endemic to southwestern California, and occurs only in Los Angeles, San Bernardino, and Riverside counties (USFWS, 2024). It is found in areas prone to drought, and plants usually occur in isolated patches of large floodplain habitats categorized as alluvial scrub (USFWS, 2024). This species is mostly found in sandy soils in association with mature alluvial scrub and cryptogamic crusts. The CNDDB reports the nearest occurrence to be three miles to the east of the Project Site in the upper San Jacinto River. The majority of the Project Site does not contain floodplain / alluvial scrub habitat. The only portion of the Project Site that has suitable habitat for Slender-horned spineflower occurs only in small patches within the Project Site where coastal scrub is present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road and at the upper end of some of the proposed lateral lines.

4.6.4 Special-Status Mammals

San Bernardino Kangaroo Rat (*Dipodomys merriami parvus*)

The historic range of the federally endangered San Bernardino kangaroo rat, a rare subspecies of the Merriam's kangaroo rat (*Dipodomys merriami*), was the area from the Menifee Valley in Riverside County

north to the San Bernardino Valley in San Bernardino County (USFWS, 2002). The San Jacinto River and its major tributary streams provide one of the last large blocks of habitat for the species, and because of this, a large portion of the San Jacinto River and the lower portion of Poppet Creek were designated critical habitat (the San Jacinto River-Bautista Creek Unit 3). The Project Site overlaps this critical habitat designation in two locations: on the eastern end of the proposed sewer alignments along Poppet Flats Road and Castile Canyon Road and on the western end of the Project Site in the San Jacinto River where the proposed gravity main would be installed under the channel.

The San Bernardino kangaroo rat is typically found in alluvial fan scrub along washes (Western Riverside County Regional Conservation Authority, 2016). It prefers sandy loam substrates where it is able to dig simple, shallow burrows (FWS, 2002). Reports from the CNDDB and recent trapping efforts have established that San Bernardino kangaroo occurs in the San Jacinto River (channel and floodplain) and in Poppet Creek near the confluence with the San Jacinto River. It previously occurred south of Lake Park Drive near Soboba View Drive, but that population was relocated to a preserve. Potential habitat for San Bernardino kangaroo rat occurs only in small patches within the Project Site where coastal fan scrub is present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road; at the upper end of some of the proposed lateral lines; and on the western end of the Project Site at the boundary of the Soboba Springs golf course and in the riparian habitat of the San Jacinto River.

To gather more information about the presence or absence of San Bernardino kangaroo rat, a protocol field investigation by USFWS-permitted biologist Philippe Vergne was completed in April 2024 to determine if the potential for San Bernardino kangaroo rat was high enough to warrant trapping efforts (ENVIRA Consulting, 2024). Mr. Vergne confirmed that suitable habitat is present in small patches in the Project Site where coastal scrub occurs. However, Mr. Vergne did not detect San Bernardino kangaroo rat or its sign (scat, tracks, dust bowls, and burrows), and concluded that San Bernardino kangaroo rat does not currently inhabit the Project Site (ENVIRA Consulting, 2024). This conclusion was also based upon the lack of active burrows or ground squirrel colonies, the poor condition of the natural habitats in the Project Site (which are subject to various human disturbances), and previous kangaroo rat trapping surveys that Mr. Vergne has performed (ENVIRA Consulting, 2024). Mr. Vergne reported that San Bernardino kangaroo rat is present in parts of the San Jacinto River floodplain and was present in the south of Lake Park Drive near Soboba View Drive before he relocated all kangaroo rats to a preserve, in compliance with a Biological Opinion issued for a separate project.

Stephen's Kangaroo Rat (*Dipodomys stephensi*)

The federally endangered Stephens' kangaroo rat occurs in western Riverside County and in San Diego County, with some of the largest populations occurring in MSHCP core areas; however, the Project Site is not in a core area as designated by the MSHCP (Western Riverside County Regional Conservation Authority, 2015). The Stephens' kangaroo rat is found almost exclusively in open grasslands or sparse shrublands (Western Riverside County Regional Conservation Authority, 2015). Potential habitat for Stephens' rat occurs only in small patches within the Project Site where scrub and grassland habitats are present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road; at the upper end of some of the proposed lateral lines; and on the western end of the Project Site at the boundary of the Soboba Springs golf course.

The CNDDB has historical occurrence records (at least 20 years old) of Stephens' kangaroo rat in the general vicinity of the Project Site, including the Potrero Preserve, at San Jacinto Reservoir, and in Bautista Canyon. To gather more information about the presence or absence of Stephen's kangaroo rat, a protocol

field investigation by USFWS-permitted biologist Philippe Vergne was completed in April 2024 (ENVIRA Consulting, 2024). Mr. Vergne confirmed that suitable habitat is present in small patches in the Project Site where scrub and grassland occurs. However, Mr. Vergne did not detect Stephen's kangaroo rat or its sign (scat, tracks, dust bowls, and burrows), and concluded that this species does not currently inhabit the Project Site (ENVIRA Consulting, 2024). This conclusion was also based upon the lack of active burrows or ground squirrel colonies, the poor condition of the natural habitats in the Project Site (which are subject to various human disturbances), and previous kangaroo rat trapping surveys that Mr. Vergne has performed (ENVIRA Consulting, 2024). Mr. Vergne reported that Stephen's kangaroo rat was not trapped in protocol surveys for projects adjacent to the Project Site, such as the Soboba Casino expansion project area and a development located south of Lake Park Drive near Soboba View Drive.

San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*)

San Diego black-tailed jackrabbit is a CDFW species of special concern that occurs primarily in arid regions with short grass (Leichleitner, 1958). The San Diego black-tailed jackrabbit occurs throughout the MSHCP Plan Area in grasslands, Riversidean sage scrub, Riversidean alluvial fan sage scrub, Great Basin sagebrush, desert scrub, and juniper and oak woodlands. (County of Riverside, 2003). The nearest occurrence of San Diego black-tailed jackrabbit reported in the CNDDB is 7 miles to southwest near the city of Winchester. The San Diego black-tailed jackrabbit has a moderate potential to occur in portions of the Project Site that contain grassland and coastal scrub habitat.

San Diego Desert Woodrat (*Neotoma lepida intermedia*)

The San Diego desert woodrat is a CDFW species of special concern that is found throughout the MSHCP Plan Area in sage scrub and chaparral wherever there are rock outcrops, boulders, cactus patches, and dense undergrowth (County of Riverside, 2003). The nearest occurrences of San Diego desert woodrat reported in the CNDDB is about 2 miles downstream from the Project Site, in the San Jacinto River floodplain. The San Diego desert woodrat has a moderate potential to occur in portions of Project Site containing coastal scrub habitat.

Southern Grasshopper Mouse (*Onychomys torridus ramona*)

The southern grasshopper mouse is a CDFW species of special concern that is found in desert areas, especially scrub habitats with friable soils for digging, where it feeds on arthropods, especially scorpions and crickets. The nearest occurrences of southern grasshopper mouse reported in the CNDDB is about 1 mile upstream from the Project Site, in the San Jacinto River. The southern grasshopper mouse has a moderate potential to occur in the portions of the Project Site containing coastal scrub habitat.

Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*)

The Los Angeles pocket mouse is a CDFW species of special concern that inhabits lower elevation grasslands and coastal scrub communities with sandy soils. It may not always dig extensive burrows, but instead hide under brush and litter instead. The San Jacinto River is a Core Area for this MSHCP Covered Species (Western Riverside County Regional Conservation Authority, 2016). The nearest occurrences of Los Angeles pocket mouse reported in the CNDDB are about one mile from the Project Site, in locations in the San Jacinto River both upstream and downstream of the Project Site. The Los Angeles pocket mouse has a moderate potential to occur in the portions of the Project Site containing coastal scrub habitat.

4.6.5 Special-Status Reptiles and Amphibians

Arroyo Toad (*Anaxyrus californicus*)

The federally endangered Arroyo toad occurs primarily along coastal drainages and requires shallow, slow-moving streams and riparian habitats with natural flooding regimes and that maintain areas of open, sparsely vegetated, sandy stream channels and terraces (USFWS, 2024). Optimal breeding habitat consists of low gradient stream reaches that have shallow pools with fine textured substrates (i.e., sand or gravel). Upland habitats include coastal scrub, chaparral, grassland, and oak woodland. Arroyo toads have also been found in agricultural fields.

Designated Critical Habitat for this species is found approximately 0.5 mile east of the Project Site along the floodplain of the upper San Jacinto River and Bautista Creek within Subunit 9a, which is the western-most extent of the Subunit. The nearest occurrence of Arroyo toad that is reported in the CNDDB is 10 miles to the southeast. The average dispersal distance of Arroyo toad is approximately 1.9 miles (USFWS, 1999). Therefore, the nearest known population is over five times the average dispersal distance of this species. Thus, the likelihood of this species dispersing into the Project Site is low. Within the Project Site, there is suitable aquatic habitat for Arroyo Toad only in the channel of the San Jacinto River. The other streams that run through the Project Site (Juaro Canyon and unnamed channels) are small, low-order (Order 1 and 2) headwater tributaries that do not contain enough water resources to create aquatic habitat. The Arroyo toad is found in larger, higher-order streams (Order 3 to 6) (USFWS, 2024).

Southwestern Pond Turtle (*Actinemys pallida*)

The southwestern pond turtle is known to occur within the central Coast Range of southern California south from the middle of Monterey Bay to Baja California (USFWS, 2024). This species is currently proposed for listing as threatened status under FESA. Courtship occurs between April through November within aquatic habitat. Eggs are buried within upland habitat within 500 meters of aquatic habitat where disturbance is low, typically from May to July. Hatching occurs anywhere from approximately three months to over five months from oviposition, and some hatchlings will overwinter within the nest. Southwestern pond turtles will aestivate a portion of the winter either within aquatic habitat or in upland habitat up to 500 meters from aquatic habitat. Southwestern pond turtles generally forage in water and, although they can forage over land, require water to swallow foraged food. Basking habitat is required (USFWS, 2024).

Southwestern pond turtles require both aquatic and terrestrial habitats. They use permanent and seasonal aquatic habitats including rivers, sloughs, lakes, reservoirs, ponds, and irrigation canals. They lay eggs in nests dug in soil near a water source. They may estivate and hibernate underwater, soft bottom mud, or on land by burying themselves in loose soil or entering California ground squirrel burrows (Nafis, 2024). The nearest record of southwestern pond turtle reported in the CNDDB is over 13 miles away from the Project Site. The longest overland migration of this species was measured at 3 miles, noting that this dispersal occurred during mild weather conditions with short distances between water features (USFWS, 2024). There is no suitable habitat within the Project Site for southwestern pond turtle except in the San Jacinto River channel. This San Jacinto River is the only water resource that contains water for a long enough period for the needs of southwestern pond turtle. The majority of the Project Site is upland habitat that experiences high levels of human activity and intensive land management. Thus, southwestern pond turtle has a low potential to occur in the Project Site.

4.6.6 Special-Status Birds

White-tailed kite (*Elanus leucurus*)

The white-tailed kite is a fully protected species by CDFW. Suitable breeding habitat for white-tailed kite consists of riparian scrub, woodland, and forest, peninsular juniper woodland and scrub, and oak woodland and forest (County of Riverside, 2003). Foraging habitat consists of open grasslands, oak savannas, meadows, or marshes. The nearest occurrence of white-tailed kite reported in the CNDDB is 7 miles to the southwest near the city of Winchester. There is a moderate potential for white-tailed kite to occur in the San Jacinto River portion of Project Site.

Coastal California Gnatcatcher (*Polioptila californica californica*)

The coastal California gnatcatcher is a small, nonmigratory bird restricted to coastal Southern California and Baja California, Mexico (USFWS, 2024). Proposed critical habitat for this federally threatened species is located about 10 miles southwest of the Project Site near Winchester (USFWS, 2003). The coastal California gnatcatcher typically inhabits sage scrub habitat in arid washes, on mesas, and on slopes of coastal hills. The nearest occurrence of coastal California gnatcatcher reported in the CNDDB is 7 miles to the northwest of the Project Site in the San Jacinto River and 6 miles to the south of the Project Site near Diamond Valley Lake. The edges of the Project Site contain some coastal scrub habitat where proposed lateral sewer lines extend to the edge of developed lands, but these habitats are not dominated by the coastal sage scrub vegetation community. Thus, coastal California gnatcatcher has a low potential to occur in the Project Site, and only in the areas containing coastal scrub habitat.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*)

For nesting, the southwestern willow flycatcher requires dense riparian habitats with cottonwood, willow, or tamarisk vegetation in broad open river valleys and mountain meadows (USFWS, 2024). Saturated soils, standing water or nearby streams, pools, or marshes are a component of nesting habitat (USFWS, 2024). This species is both state and federally endangered. The nearest occurrence of southwestern willow flycatcher reported in the CNDDB is 14 miles to the southwest of the Project Site. The Project Site contains suitable habitat only in the San Jacinto River portion of the Project Site where there are stands of riparian habitat.

Least Bell's vireo (*Vireo bellii pusillus*)

The breeding habitat for the state and federally endangered Least Bell’s vireo is willow-dominated riparian woodlands, although it also forages and sometimes nests in neighboring mulefat scrub, oak woodlands, and chaparral (USFWS, 2024). The nearest occurrence of least Bell’s vireo reported in the CNDDB is in the San Jacinto River approximately 0.25-mile from the western edge of the Project Site. The only portion of the Project Site that contains willow-dominated riparian woodlands, or any riparian habitat at all, is in the San Jacinto River where the proposed gravity line will be installed underground.

Section 5 | Impact Analyses and Recommended Avoidance and Minimization Measures

This section establishes the impact criteria, then analyzes potential project-related impacts upon the known biological resources within the Project Site, and then suggests avoidance and minimization measures to reduce these impacts.

The significance of impacts to biological resources depends upon the proximity and quality of vegetation communities and wildlife habitats, the presence or absence of special-status species, and the effectiveness of measures implemented to protect these resources from Project-related impacts. As defined by CEQA, the Project would be considered to have a significant adverse impact on biological resources if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a special-status species in local or regional plans, policies, or regulations, or by USFWS or CDFW
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by USFWS or CDFW
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- 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 county or municipal 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 governmental habitat conservation plan.

5.1 IMPACTS TO SPECIAL-STATUS SPECIES

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

No direct impacts to special-status species are expected from implementation of the Proposed Project because no known populations have been detected in project areas. Most of the Project Site consists of road corridors that are subject to traffic, road and weed maintenance, and other human activities, which discourages occupation by special-status species. Suitable habitat for various special-status species occurs in the small portions of the Project Site that contain natural habitats. These areas occur on the edges of the Project Site, such as in the San Jacinto River channel or the terminuses of the lateral sewer lines that

extend out to residences. Following is a discussion of focal species and potential project-related impacts to their suitable habitat.

Special-status Plants

No special-status plant species were determined to have a high potential to occur in the Project Site. According to the Western Riverside County Regional Conservation Authority (2024), the Project Site is not in a narrow endemic plant survey area, so special-status plants are unlikely to occur in the Project Site.

Habitat for San Diego ambrosia within the Project Site is limited to the San Jacinto River. At the San Jacinto River, ground disturbance will be limited to the excavation of bore pits at the golf course near the edge of the San Jacinto River bank and the proposed levee access ramp in ruderal habitat on the outside of the levee; these areas of ground disturbance do not involve the river bed that constitutes potential San Diego ambrosia habitat. The gravity main will be installed at least 10.5 feet below the river channel, so there will be no disturbance to this area of suitable habitat. Thus, implementation of the Proposed Project would have no impact upon San Diego Ambrosia.

Suitable habitat for slender-horned spineflower occurs only in small patches within the Project Site where coastal scrub is present along Poppet Flats Road and at the upper end of some of the proposed lateral lines. Trenching will be required within coastal scrub at these locations, and this will disturb existing vegetation. These areas will be restored following construction such that loss of habitat would not occur. To ensure that slender-horned spineflower is not present in work areas, a pre-construction survey for slender-horned spineflower will be performed. If this species is observed, it will be avoided. If unavoidable, mitigation in **Section 5.1.2** outlines a salvage and mitigation program to salvage individuals where possible and re-plant this species where salvage fails. With implementation of this conservation measure, implementation of the Proposed Project would have a less-than-significant impact upon on slender-horned spineflower.

Special-status Mammals

Six special-status mammal species (San Bernardino kangaroo rat, Stephen's kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse) have the potential to occur in the Project Site where suitable habitat is present. These areas consist of small patches of coastal scrub and grassland habitat in the eastern end of the proposed sewer alignments along Poppet Flats Road and at the upper ends of some of the proposed lateral lines, and in the riparian habitat of the San Jacinto River. The Proposed Project will require temporary ground disturbance in some areas of suitable habitat, but there will be no permanent habitat conversion. The only permanent, above-ground project component is the proposed levee access ramp that would impact 0.2 acres of developed/disturbed habitat. The Project Site does not contain any known populations of these six special-status mammal species, but populations occur nearby (according to CNDDB records and trapping survey results).

Because there is a possibility that San Bernardino kangaroo rat, Stephen's kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, or Los Angeles pocket mouse could migrate into construction areas, conservation measures have been identified in **Section 5.1.2** to address this issue. These measures include a pre-construction clearance survey for kangaroo rats and other special-status mammals by a qualified biologist, construction best management practices, worker environmental awareness training, and periodic biological monitoring. With these conservation measures

implemented, the Proposed Project will have a less-than-significant impact upon San Bernardino kangaroo rat, Stephen's kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse.

Special-status Reptiles and Amphibians

Arroyo toad and southwestern pond turtle both have only a low potential to occur in the Project Site. According to the Western Riverside County Regional Conservation Authority (2024), the Project Site is not in an amphibian survey area. Known populations of arroyo toad and southwestern pond turtle are well beyond their recorded dispersal distances. Within the Project Site, there is suitable aquatic habitat for arroyo toad and southwestern pond turtle only in the San Jacinto River.

The Proposed Project will require temporary ground disturbance in some areas of suitable habitat, but there will be no permanent habitat conversion. Near the San Jacinto River, ground disturbance will be limited to the excavation of a bore pit within the golf course near the San Jacinto River bank; this temporary construction footprint is less than 400 square feet. The only permanent, above-ground project component is the proposed levee access ramp that would impact 0.2 acres of developed/disturbed habitat. The gravity main will be microtunneled at least 10.5 feet below the river channel. Because there is still a possibility that arroyo toad or southwestern pond turtle could migrate into construction areas, conservation measures have been identified to address this issue. These measures include a pre-construction survey for arroyo toad, construction best management practices, worker environmental awareness training, and periodic biological monitoring. Finally, although construction activities have the potential to degrade nearby aquatic habitat, protective measures have been identified for this project to ensure that aquatic habitats are not degraded during construction. Therefore, implementation of the Proposed Project would have a less-than-significant impact upon arroyo toad and southwestern pond turtle.

Special-status Birds

Special-status bird species may occur in the vicinity of the Project Site, including white-tailed kite, coastal California gnatcatcher, southwestern willow flycatcher, and least Bell's vireo. Within the Project Site, suitable habitat occurs primarily in the San Jacinto River channel; suitable habitat also occurs on the outer edges of the Project Site where coastal scrub habitat is present. The vast majority of the sewer alignments are located in ruderal and developed habitats that do not provide high-quality nesting habitat for birds. There are some trees, shrubs, tall grasses, and poles within the Project Site that may provide suitable nesting and perching habitat for special-status or other protected migratory or nesting birds. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by removal of vegetation and indirectly impacted by noise, vibration, and other construction-related disturbance. Avoidance and minimization measures, including pre-construction nesting bird surveys and periodic biological monitoring, have been identified to address these potential adverse effects to special-status birds, and nesting birds in general.

5.1.2 Recommended Measures

Pre-Construction Botanical Survey

Prior to any construction activities that would disturb coastal scrub habitat, a qualified biologist or botanist shall perform a pre-construction botanical survey within these areas to ensure that slender-

horned spineflower is not present in work areas. Although this species is conspicuous year-round, the botanical survey would ideally be performed in the blooming period (from April to July). The pre-construction botanical survey shall be valid for no more than three years; if construction within coastal scrub habitat is not initiated within three years after the botanical surveys, the survey shall be repeated during the appropriate blooming period.

If slender-horned spineflower is detected, these plants shall be avoided and demarcated with exclusion fencing and signage. Where avoidance is not possible, a plant salvage and mitigation program shall be implemented. Project activities within 50 feet of the identified plants shall be delayed until after a qualified biologist has prepared a plant salvage and mitigation program, the outline of which is described below. The plant salvage and mitigation program shall be submitted to CDFW and USFWS for approval prior to impacting any listed plants.

The plant salvage and mitigation program shall consist of the following:

- Identification of the number and locations of impacted plants
- Salvage/mitigation options to include collection of seeds and sowing of the seeds in the fall/winter in suitable habitats where construction has been completed
- Management actions such as covering with a weed-free mulch like sterile (pasteurized) wheat straw, and removal of weeds or supplemental watering
- A monitoring and adaptive management program that outlines success criteria and actions to be taken should such criteria not be met

Worker Awareness Training and Construction Monitoring

Prior to construction, all construction workers will take part in an environmental awareness program conducted by a qualified biologist. Special-status species to be covered in the program are: San Bernardino kangaroo rat, Stephen's kangaroo rat, San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, Los Angeles pocket mouse, southwestern pond turtle, arroyo toad, and general nesting birds. This training shall include a description of the listed species with the potential to occur in the work area, their habitat needs, an explanation of the status of the species and protection under federal and/or State law, and a list of the measures being taken to avoid or reduce impacts to the species during project construction. The curriculum shall also identify the limits of the construction areas and restrictions on movement of personnel and equipment and applicable construction best management practices. The awareness program will be conducted at the start of construction and thereafter as required for new construction personnel. The training shall include a handout or video containing all training information. The project manager shall use these training materials to train any additional construction personnel that were not in attendance at the first meeting, prior to starting work on the project.

Periodic biological monitoring of the active work areas shall be performed no less than once a week by a qualified biologist familiar with the ecosystems and flora and fauna of the region, or by a designated Tribal monitor who has been trained by the qualified biologist. The biological monitor shall be granted the authority to halt work in the instance of any encroachments into protected habitat or the discovery of any listed species in the Project Site. In the very unlikely circumstance that a listed species is encountered, it shall be immediately relocated out of harm's way by the monitoring biologist.

Special-status Mammal Protection Measures

A pre-construction survey for San Bernardino and Stephen's kangaroo rats shall be conducted within two weeks of groundbreaking in any area containing coastal scrub habitat, grassland habitat, or in the vicinity of the San Jacinto River channel that will be subject to ground-disturbing activities. The pre-construction surveys shall also survey for San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse. The survey shall be performed by a Service-approved biologist. If no individuals or sign of kangaroo rats or other special-status mammals are detected, work may begin immediately. If individuals, active burrows, or fresh signs of kangaroo rats are detected, protocol trapping surveys shall be conducted. If San Bernardino or Stephen's kangaroo rats are present, the USFWS shall be consulted and avoidance measures implemented. This may consist of project re-alignment or the translocation of kangaroo rats. If special-status mammals including San Diego black-tailed jackrabbit, San Diego desert woodrat, Southern grasshopper mouse, and Los Angeles pocket mouse are detected, avoidance measures should be implemented in consultation with CDFW. This may consist of project re-alignment or the translocation of the special-status mammals.

Construction Best Management Practices

- Because kangaroo rats are nocturnal, no construction activity shall take place at night. In particular, trenching, backfilling, compacting, and other ground-disturbing activities are restricted to daylight hours.
- Trenches shall be filled or tightly covered at the end of each work day. For trenches that must remain open, animal escape mechanisms shall be installed. This may consist of putting boards in trenches or creating shallow slopes at the ends of trenches so that animals may crawl out.
- Ensure that there are no animals present before trenches are filled or pipes are used.
- Pipe openings shall be covered so that no animals are able to enter pipes.
- Do not feed animals; do not litter; ensure that trash receptacles are closed tightly.
- Before any ground disturbance begins, the contractor will delineate and mark all limits of construction to be clearly visible to all personnel. All construction-related activities by contractors, subcontractors, or their agents and equipment (including staging, materials storage, and personnel parking areas) will be restricted to the designated limits of construction and staging areas.
- All disturbed areas will be restored to their original condition. Trenches will be backfilled and compacted, and the original ground contours restored. Paved areas will be repaved. Unpaved areas will be reseeded with a native seed mix and mulch applied (or other similar soil stabilization measures will be implemented).

Aquatic Animal Protection During Construction

To ensure that southwestern pond turtle and arroyo toad are not present in construction areas, pre-construction clearance surveys shall be conducted by a qualified biologist where construction activities occur within 100 feet of a channel. These surveys shall be conducted within 14 days of the commencement of ground-disturbing activities in or near any channel. If either of these species is discovered during the survey, project activities shall not begin until USFWS has been consulted and avoidance and minimization measures established and then implemented. This may consist of project re-alignment or the translocation of the animals and the erection of exclusionary fence at that location.

Protection of Nesting Birds During Construction

If construction activities occur during the nesting season (February 15 to August 31), pre-construction surveys for the presence of nesting birds shall be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed. Avoidance measures shall include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged. Avoidance buffers may vary in size depending on the species' life history requirements, habitat characteristics, project-related activities, and disturbance levels.

5.2 IMPACTS TO SENSITIVE HABITATS

Will the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Sensitive habitats within the Project Site included designated critical habitat for San Bernardino kangaroo rat, riparian habitat, channels, and grassland identified as habitat important for grassland connectivity in MSHCP Criteria Cells 2893 and 2996. Channels are discussed in **Section 5.3**, and riparian habitat has been avoided through project design.

The Project Site is adjacent to, and partially within, designated critical habitat for San Bernardino Kangaroo Rat in two locations: on the western end of the Project Site in the San Jacinto River where the proposed gravity line would be installed at least 10.5 feet under the channel; and on the eastern end of the proposed sewer alignments along Poppet Flats Road and Castile Canyon Road. At the San Jacinto River portion of the Project Site, ground disturbance will be limited to the excavation of a receiving pit outside of the San Jacinto River bank within the disturbed area at the edge of the golf course; this temporary construction footprint is less than 400 square feet. Access to this bore pit will be through the golf course. On the other end of the river crossing, the bore pit will be excavated on the outside of the levee in a ruderal area. The gravity main will be installed at least 10.5 feet below the river channel.

Some of the proposed sewer mains and laterals along Poppet Flats Road and Castile Canyon Road are within mapped critical habitat for San Bernardino kangaroo rat, but the pipelines will be installed primarily within roads and other ruderal and developed areas that do not contain suitable habitat for San Bernardino kangaroo rat. The proposed sewer line installations will require pavement cutting, trenching to bury the lines deep underground, and surface restoration to pre-project conditions. This will temporarily disturb a long but narrow path of ground, and the disturbed areas will be restored to their original conditions and re-vegetated or re-paved. No permanent habitat conversion will occur. Conservation measures have been prescribed to ensure that implementation of the Proposed Project will have a less than significant impact upon San Bernardino Kangaroo Rat critical habitat.

The MSHCP broadly defines all riparian/riverine habitat and vernal pool habitat as sensitive. There is riparian / riverine habitat in only one location of the Project Site—where the proposed gravity main will be installed below the San Jacinto River channel. The Project Site does not contain any vernal pools. Sensitive habitats are also identified in the MSHCP by specific planning areas called "criteria cells," which are 160 acres in size and are eligible for the creation of land preserves. After excluding the portions of the

Project Site that are owned by non-signatories to the MSHCP (the Tribe and EMWD), the remaining portions of the Project Site are located in three cells:

- Criteria Cell 2996, where the proposed gravity main crosses Lake Park Drive;
- Criteria Cell 3100, where the proposed gravity main will be installed under Soboba Road near the fire station; and
- Criteria Cell 2893, where the proposed gravity main will be installed under the San Jacinto River channel.

The MSHCP conservation criterion for Cell Group Z, which contains cells 2893 and 2996 are the conservation of grassland habitat west of the San Jacinto River with connectivity to grassland habitats in adjacent cells south of East Main Street/Lake Park Drive; no new habitat conservation is identified for cell 3100. No habitat conservation is targeted in the location of the Project Site. Grasslands within the Project Site are extremely limited and degraded due to the presence of non-native species and adjacent development. These areas would only be temporarily impacted and would be restored following construction. Therefore, there would be no loss of grassland habitat within criteria cells. This would be a less-than-significant impact.

5.2.1 Recommended Measures

No avoidance or minimization measures are required.

5.3 IMPACTS TO AQUATIC RESOURCES

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

Federally Jurisdictional Waters of the U.S. and Waters of the State

Three drainages were delineated in the Aquatic Resources Delineation (Acorn Environmental, 2024) as potentially meeting the jurisdictional criteria for federal waters of the U.S. These were identified as the San Jacinto River channel, Juaro Canyon channel, and an unnamed channel. These three drainages may also meet the criteria to be considered waters of the State. However, while the Juaro Canyon channel and the unnamed channel may otherwise meet the definition of waters of the State, their location on the Soboba Reservation is not within the State's jurisdiction. The San Jacinto River is not on the Reservation and therefore could be waters of the U.S. and waters of the State.

The two culverted waters of the U.S. channels (Juaro Canyon and unnamed) would not be impacted by project construction activities because the proposed sewer pipelines would be drilled below the culverts within the roadway using jack-and-bore technique, and no direct or indirect impacts to the channels would occur.

Installation of the gravity mainline under the San Jacinto River (waters of the U.S. and waters of the State) will be accomplished by microtunneling, and the entry and exit boring pits are located outside of the levees to avoid any direct impacts to the stream channel or its banks. However, microtunneling uses drilling lubricants such as bentonite clay. To ensure that drilling lubricants do not accidentally rise to the surface via fractures in bedrock (an event known as "frac-out"), a frac-out contingency plan will be created

and implemented to avoid the potential for significant indirect impacts to water quality. There are no other waters of the State on the portions of the Project Site outside of the Tribal Reservation.

Other Non-Jurisdictional Drainages

The majority of the sewer pipe alignments are in roads and will not impact any natural habitats, with the exception of the three waters of the U.S. drainages discussed above. While there are no other jurisdictional channels on the Reservation, there are small water features or man-made storm drain systems that convey runoff through and around developed components on the Reservation. During construction, surface water quality has the potential to be degraded from storm water transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling. Water protection measures have been prescribed to address this potential adverse effect.

Implementation of the Proposed Project will have a beneficial effect upon the environment by the replacement of aging septic systems and seepage pits with a sewer collection system and centralized sewage treatment. Septic systems inject unsanitized water, which can contain chemicals, excess nutrients, and bacteria, into the ground, which can contribute incrementally to environmental degradation, especially to aquatic habitats. The retirement of these septic systems is expected to result in the restoration of normal nutrient cycling in terrestrial habitats and improved water quality in aquatic habitats.

5.3.2 Recommended Measures

Water Resource Protection

On Tribal trust land, the Tribe must enroll in the USEPA's 2022 Construction General Permit. On non-federal land, the landowner must enroll under the State Water Quality Control Board's 2022 Construction General Permit prior to the initiation of construction. In conjunction with enrollment under either of these permit programs, a Storm Water Pollution Prevention Plan, Erosion Control Plan, and a Hazardous Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials.

The installation of the gravity mainline under the San Jacinto River will be accomplished by microtunneling, which uses drilling lubricants (such as bentonite clay). To ensure that drilling lubricants do not accidentally rise to the surface during micro-tunneling, a frac-out contingency plan will be created and implemented.

5.4 IMPACTS TO WILDLIFE MOVEMENT, CORRIDORS, OR NURSERY SITES

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

No designated wildlife corridors exist within the majority of the Project Site. The exception is the part of the Project Site that is below the San Jacinto River, which is an important wildlife corridor. The San Jacinto

River contains fishery resources but is not within designated Essential Fish Habitat or NMFS critical habitat for any fish species. Impacts to the San Jacinto River corridor were avoided by project design (use of microtunneling instead of trenching and locating entrance and receiving pits outside of the river corridor). The San Jacinto River will also be protected by implementation of the conservation measures described previously (e.g., worker environmental awareness training, biological monitoring, and construction best management practices).

5.4.1 Recommended Measures

No avoidance or minimization measures are required.

5.5 CONFLICT WITH POLICIES, ORDINANCES, HABITAT CONSERVATION PLANS, OR NATURAL COMMUNITY CONSERVATION PLAN

Will the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? Will the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Implementation of the Proposed Project does not require the removal of mature trees, so there will be no conflict with applicable tree ordinances off-Reservation. There are no tree ordinances governing the on-Reservation portions of the Project Site.

The off-Reservation portions of the Project Site are located within Criteria Cells of the MSHCP: the portion of the gravity main alignment that will be installed under the San Jacinto River (Criteria Cell 2893); the portion of the mainline that will be installed within Lake Park Drive (Criteria Cell 2996); and the 350-foot length of the mainline that will be installed under Soboba Road (near the Soboba fire station) where the road is County-owned (Criteria Cell 3100).

MSHCP Consistency Analysis

Three off-Reservation portions of the Project Site are located within Criteria Cells of Subunit 3, Upper San Jacinto River/Bautista Creek and within Core Area 5; however, only one of the three areas (the San Jacinto River portion) requires a detailed consistency analysis. The other two portions of the Project Site (Lake Park Drive and Soboba Road) are designated as Covered Roads and these two project areas are paved roads with no natural habitats. Thus, while they are within Criteria Cells, these project areas are not eligible for Reserve Assembly because they are Covered Roads. The MSHCP does not include existing roads within the Criteria Area in the total acreage of Additional Reserve Lands and are not included in the MSHCP Conservation Area. These two project areas will only require temporary disturbance to pavement and road beds. Applicable MSHCP construction best management practices (MSHCP Volume 1, Appendix C, Standard BMPs and MSHCP Volume 1, Section 7.5.3, Construction Guidelines) are included as recommended measures in **Section 5.5.1** below. As such, these two portions of the Project Site are consistent with the MSHCP and do not require land preservation.

The remaining project area below the San Jacinto River is further analyzed for consistency with the MSHCP. Land disturbance during construction is temporary and is confined to two small areas of the microtunneling at the entry pit (about 250 square feet) and the receiving pit (about 150 square feet). A small staging area approximately 3.4 acres in size would be located on EMWD property adjacent to the entry pit on the southwestern side of the river that is currently graded and used for stormwater retention. None of these areas is eligible for Reserve Assembly because they are already developed lands. The entry pit and staging area are located adjacent to West Ramona Expressway at the outside base of a levee on an unpaved EMWD service road and the receiving pit is located on the Soboba Springs Golf Course in a landscaped area. In between these pits, the proposed gravity mainline will be installed at least 10.5 feet below the San Jacinto River channel. Water resource protection measures have been prescribed to ensure that the microtunneling procedure does not impact water quality in the San Jacinto River. In addition, the construction activities will comply with the MSHCP best management practices (cited previously). This Project Site is near sensitive habitat (San Jacinto river and riparian habitat) and riparian bird habitat, and to be consistent with the MSHCP, potential impacts to the following categories need to be analyzed: riparian/riverine resources; vernal pools; fairy shrimp; and riparian birds.

Riparian/riverine resources exist in the Project Site only where the gravity mainline will be installed under the San Jacinto River. Impacts to the San Jacinto River corridor will be avoided by project design (use of microtunneling instead of trenching, and locating entrance and receiving pits outside of the river corridor and levees). The San Jacinto River will also be protected by implementation of the conservation measures described previously (e.g., worker environmental awareness training, biological monitoring, and construction best management practices). There are no vernal pools in or near the Project Site. There is no habitat for fairy shrimp in or near the Project Site. Riparian birds could utilize the Project Site primarily in the San Jacinto River channel; suitable habitat also occurs on the outer edges of the Project Site where coastal scrub habitat is present. Project implementation will not result in any habitat loss for riparian birds. Riparian birds will be protected by performance of pre-construction nesting bird surveys, as well as the implementation of worker environmental awareness training, biological monitoring, and construction best management practices. Thus, implementation of the Proposed Project is consistent with the MSHCP goal of the protection of riparian/riverine resources, vernal pools, fairy shrimp, and riparian birds.

Finally, to be consistent with the MSHCP, land development projects must not impact conservation criteria or Planning Species that are designated in Cell Group Z, the Subunit 3, Upper San Jacinto River/Bautista Creek, or in Core Area 5. The MSHCP conservation criterion for Cell Group Z, which contains cells 2893 and 2996 are the conservation of grassland habitat west of the San Jacinto River with connectivity to grassland habitats in adjacent cells south of East Main Street/Lake Park Drive; no new habitat conservation is identified for cell 3100. No habitat conservation is targeted in the location of the Project Site. Implementation of the Proposed Project will not create new barriers to animal movement and will not result in the permanent loss of grassland habitats, although temporary disturbances may occur to small grassland patches. These areas will be restored and reseeded. The Planning Species for Core Area 5 are mountain yellow-legged frog, arroyo toad, least Bell's vireo, southwestern willow flycatcher, San Bernardino kangaroo rat, and Los Angeles pocket mouse. These Planning Species are not likely to occur in the Project Site, and conservation measures were prescribed to avoid construction-related impacts. Therefore, the Proposed Project is consistent with the MSHCP.

5.5.2 Recommended Measures

The following measures are identified by the MSHCP as construction BMPs that would be applicable to the Proposed Project and were not previously identified as recommended measures:

- Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- The footprint of disturbance shall be minimized to the maximum extent feasible. Access to site shall be via pre-existing access routes to the greatest extent possible.
- The upstream and downstream limits of projects disturbance plus lateral limits of disturbance on either side of channels shall be clearly defined and marked in the field and reviewed by the biologist prior to initiation of work.
- Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- Exotic species that prey upon or displace target species of concern should be permanently removed from the site to the extent feasible.
- To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
- Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

Section 6 | References

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Section 7 | Qualifications of Surveyors and Authors

7.1.1 G.O. Graening, Ph.D., M.S.E.

G. O. Graening holds a Doctorate in Biological Sciences and a Master of Science in Biological Engineering and is a certified arborist (International Society of Arboriculture). Dr. Graening has over 30 years of experience in environmental assessment and research, including the performance of numerous biological assessments, wetland delineations, and habitat restoration projects. Dr. Graening also served as an adjunct professor of biology at California State University Sacramento for 10 years and was an active researcher in the area of conservation biology and groundwater ecology.

7.1.2 Kelli Raymond, B.S.

Ms. Raymond holds a B.S. in Animal Biology with a focus on Wildlife Ecology. She has approximately 10 years of experience collecting field data and preparing environmental assessments. Ms. Raymond has worked in several states across the U.S. performing biological resources surveys, including plant surveys, bat acoustic and flyout monitoring, and wildlife utilization monitoring. She also has experience live handling numerous wildlife species, including fish, migratory birds, and big game. Ms. Raymond is experienced in the preparation of Biological Assessments and Section 7 consultation with both the USFWS and NMFS under the federal Endangered Species Act.

Appendix A

USFWS Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:
Project Code: 2024-0050005
Project Name: Soboba Tribe Sewer Line Project

February 15, 2024

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

To Whom It May Concern:

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

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

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

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

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2024-0050005
Project Name: Soboba Tribe Sewer Line Project
Project Type: Utility Infrastructure Maintenance
Project Description: installation of sewer mains and laterals on tribal lands
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.78595835,-116.89560534475483,14z



Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 15 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Threatened

BIRDS

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

REPTILES

NAME	STATUS
Southwestern Pond Turtle *Actinemys pallida* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3762	Endangered

INSECTS

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

CRUSTACEANS

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
San Jacinto Valley Crownscale *Atriplex coronata var. notatior* There is **final** critical habitat for this species. However, no *actual* acres or miles were designated due to exemptions or exclusions. See Federal Register publication for details. Species profile: https://ecos.fws.gov/ecp/species/4353	Endangered
Slender-horned Spineflower *Dodecahema leptoceras* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4007	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* https://ecos.fws.gov/ecp/species/2060#crithab	Final

IPAC USER CONTACT INFORMATION

Agency: Acorn Environmental
Name: G.O. Graening
Address: 343 Carpenter Hill Road
City: Folsom
State: CA
Zip: 95630
Email ggraening@gmail.com
Phone: 9164525442

Appendix B

List of Plant Species Observed

Plant Species Observed in the Project Site

Common Name	Scientific Name
Sand verbena	*Abronia* sp.
Menzies fiddleneck	*Amsinckia menziesii*
California sagebrush	*Artemisia californica*
Tarragon	*Artemisia dracunculus*
Milk vetch	*Astragalus* sp.
Saltbush	*Atriplex* sp.
Wild oat	*Avena barbata*
Q-tips	*Bombycilaenta californica*
Foxtail chess	*Bromus madritensis*
Cheatgrass	*Bromus tectorum*
Sedge	*Carex* sp.
Indian paintbrush	*Castilleja exserta*
Sand pygmyweed	*Crassula connata*
Clearwater cryptantha	*Cryptantha intermedia*
Prairie clover	*Dalea* sp.
California encelia	*Encelia californica*
Brittlebush	*Encelia farinosa*
California goldenbush	*Ericameria ericoides*
California buckwheat	*Eriogonum fasciculatum*
Buckwheat	*Erigonum* sp.
Redstem stork's bill	*Erodium cicutarium*
Red gum	*Eucalyptus camaldulensis*
Broom snakeweed	*Gutierrezia sarothrae*
Shortpod mustard	*Hirschfeldia incana*
Mouse barley	*Hordeum murinum*
Yellow bush penstemon	*Keckiella antirrhinoides*
Miniature lupine	*Lupinus bicolor*
Desert dandelion	*Malacothrix* sp.
Laurel sumac	*Malosma laurina*
Sweetclover	*Melilotus* sp.
Tree tobacco	*Nicotiana glauca*
California suncup	*Oenothera californica*
Olive	*Olea europaea*
Stinknet	*Oncosiphon piluliferum*
Pricklypear	*Opuntia* sp.
Panicgrass	*Panicum* sp.
Phacelia	*Phacelia minor*
Date palm	*Phoenix dactilifera*
Ornamental pine	*Pinus* sp.
Sycamore	*Platanus racemosa*
Cottonwood	*Populus fremontii*
Castor bean	*Ricinus communis*
Lemonadeberry	*Rhus integrifolia*
Sugarbush	*Rhus ovata*
Sandbar willow	*Salix exigua*
Red willow	*Salix laevigata*
Russian thistle	*Salsola tragus*

Chia	*Salvia columbariae*
Mexican elderberry	*Sambucus mexicana*
Pepper tree	*Schinus molle*
Arabian grass	*Schismus* sp.
Marigold	*Tagetes* sp.
Saltcedar	*Tamarix parviflora*
Gorse	*Ulex* sp.

Appendix C

Site Photographs



Figure 1: Typical Dirt Driveway



Figure 2: Typical Paved Roadway



Figure 3: Paved Roadway with Drainage Ditch



Figure 4: Stormwater Retention Pond



Figure 5: Dirt Path Within Golf Course



Figure 6: San Jacinto River

Acorn Environmental taken February 7, 2024

SITE PHOTOGRAPHS

Appendix D

Special-Status Species Table

Special-Status Species with Potential to Occur in the Vicinity of the Project Site

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
Mammals			
Pallid bat *Antrozous pallidus*	CSSC	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.	Roosting habitat not present. Low potential to forage in portions of project site containing scrub or grassland habitat. Project implementation requires very little disturbance to marginal habitat.
Dulzura pocket mouse *Chaetodipus californicus femoralis*	SSC	Variety of habitats including coastal scrub, chaparral, and grassland in San Diego County. Attracted to grass-chaparral edges.	None. Outside of known range.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	SSC	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	None. Outside of known range.
Pallid San Diego pocket mouse *Chaetodipus fallax pallidus*	SSC	Desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. Sandy herbaceous areas, usually in association with rocks or coarse gravel.	None. Outside of known range. No suitable habitat present.
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 & ceilings. Roosting sites limited. Extremely sensitive to human disturbance.	Low potential to forage in San Jacinto River portion of project site. Project implementation will not disturb river or riparian habitat.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	FE, SCE, SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Moderate potential to occur in portions of project site containing scrub habitat. Protocol surveys did not detect species in project site.
Stephens' kangaroo rat *Dipodomys stephensi*	FE, ST	Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass & filaree. Will burrow into firm soil.	Moderate potential to occur in portions of project site containing scrub habitat. Protocol surveys did not detect species in project site.
Western yellow bat *Lasiurus xanthinus*	SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Low potential to occur in San Jacinto River portion of project site. Project implementation will not disturb trees or riparian habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	SSC	Intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges. Coastal sage scrub habitats in southern California.	Moderate potential to occur in portions of project site containing scrub habitat. Existing scrub habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
San Diego desert woodrat *Neotoma lepida intermedia*	SSC	Coastal scrub of southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops and rocky cliffs and slopes.	Moderate potential to occur in portions of project site containing scrub habitat. Existing scrub habitat is degraded. Project

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
			implementation requires very little disturbance to marginal habitat.
Southern grasshopper mouse *Onychomys torridus ramona*	SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Moderate potential to occur in portions of project site containing scrub habitat. Existing scrub habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles basin. Open ground with fine sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Moderate potential to occur in portions of project site containing scrub habitat. Existing scrub habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
American badger *Taxidea taxus*	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils, and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low potential to occur in portions of project site containing scrub habitat. Existing scrub habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Palm Springs round-tailed ground squirrel *Xerospermophilus tereticaudus chlorus*	SSC	Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall.	None. Outside of known range.
Birds			
Tricolored blackbird *Agelaius tricolor*	ST, SSC	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	None. No suitable habitat present.
Golden eagle *Aquila chrysaetos*	SSC	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Low. Foraging habitat only in grassland areas. The habitat present is degraded. No trees will be disturbed for project implementation.
Burrowing owl *Athene cunicularia*	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Low potential to occur in portions of project site containing grassland or scrub habitat. The habitat present is degraded. Project implementation requires very little disturbance to marginal habitat.
Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	SSC	Southern California coastal sage scrub. Wrens require tall opuntia cactus for nesting and roosting.	None. No suitable habitat present.
Northern harrier *Circus hudsonius*	CSSC	Inhabits prairies, open areas, and marshes.	Low. Foraging habitat only. The grassland habitat present is degraded. Project implementation requires very little disturbance to marginal habitat.

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, w/ lower story of blackberry, nettles, or wild grape.	Low potential to occur in San Jacinto River portion of project site. Project implementation will not disturb trees or riparian habitat.
Black swift *Cypseloides niger*	SSC	Coastal belt of Santa Cruz and Monterey County; central and southern Sierra Nevada; San Bernardino and San Jacinto mountains. Breeds in small colonies on cliffs behind or adjacent to waterfalls in deep canyons and sea-bluffs above the surf.	None. No suitable habitat present.
White-tailed kite *Elanus leucurus*	SSC	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Moderate potential to forage in San Jacinto River portion of project site. The grassland habitat present is degraded. Project implementation requires very little disturbance to marginal habitat.
Southwestern willow flycatcher *Empidonax traillii extimus*	FE, SE	Riparian woodlands in southern California.	Moderate potential to occur in San Jacinto River portion of project site. Project implementation will not disturb trees or riparian habitat.
Yellow-breasted chat *Icteria virens*	SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Low potential to occur in San Jacinto River portion of project site. Project implementation will not disturb trees or riparian habitat.
Loggerhead shrike *Lanius ludovicianus*	SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub, and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Low potential to occur in San Jacinto River portion of project site. Project implementation will not disturb trees or riparian habitat.
Coastal California gnatcatcher *Polioptila californica californica*	FT, SSC	Obligate, permanent resident of coastal sage scrub below 2,500 ft in southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Moderate potential to occur in portions of project site containing scrub habitat. The habitat present is degraded. Project implementation requires very little disturbance to marginal habitat.
Purple martin *Progne subis*	SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	None. No suitable habitat present.
Yellow warbler *Setophaga petechia*	SSC	Usually arrives in California in April, and mostly gone by October. Usually found in riparian deciduous habitats in summer. Also breeds in montane chaparral, and in open ponderosa pine and mixed conifer habitats with substantial amounts of brush (CDFW, 2005).	Low potential to occur in San Jacinto River portion of project site. Project implementation will not disturb trees or riparian habitat.
Le Conte's thrasher *Toxostoma lecontei*	SSC	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	None. No suitable habitat present.

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Least Bell's vireo *Vireo bellii pusillus*	FE, SE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite.	Moderate potential to nest or forage in San Jacinto River portion of project site. CNDDB reports populations nearby. Project implementation will not disturb trees or riparian habitat.
Yellow-headed blackbird *Xanthocephalus xanthocephalus*	SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds. Nests only where large insects such as *odonata* are abundant, nesting timed with maximum emergence of aquatic insects.	None. No suitable habitat present.
Reptiles			
Southwestern Pond Turtle *Actinemys pallida*	FPT	Eggs are buried within upland habitat within 500 meters of aquatic habitat where disturbance is low, typically from May to July. Hatching occurs from approximately three months to over five months from oviposition, and some hatchlings overwinter within the nest. Will aestivate a portion of the winter up to 500 meters from aquatic habitat. The longest overland migration was measured at 5 km, noting this occurred during mild weather conditions with short distances between water features (USFWS, 2023).	Moderate potential to occur in San Jacinto River portion of project site, but outside of known population dispersal range. Project implementation will not disturb river or riparian habitat.
Southern California legless lizard *Anniella stebbinsi*	SSC	Common in several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub types. Found primarily in areas with sandy or loose organic soils or where there is plenty of leaf litter (CDFW, 2000).	Low potential to occur in portions of project site containing scrub habitat. Existing scrub habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Coastal whiptail *Aspidoscelis tigris stejnegeri*	SSC	Found in deserts and semiarid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. Ground may be firm soil, sandy, or rocky.	Low potential to occur in portions of project site containing riparian or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Southern rubber boa *Charina umbratica*	ST	Restricted to the San Bernardino and San Jacinto mountains; found in a variety of montane forest habitats. Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs.	None. No suitable habitat present.
San Diego banded gecko *Coleonyx variegatus abbotti*	SSC	Coastal and cismontane southern California. Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	Low potential to occur in portions of project site containing scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Red-diamond rattlesnake *Crotalus ruber*	SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Low potential to occur in portions of project site containing scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
Coast horned lizard *Phrynosoma blainvillii*	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Low potential to occur in portions of project site containing scrub habitat or in San Jacinto River floodplain. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Amphibians			
Arroyo toad *Anaxyrus californicus*	FE, SSC	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	Moderate potential to occur in portions of project site containing scrub habitat or in San Jacinto River floodplain. Project site is not with a known occupied area. Project implementation will not disturb river or riparian habitat.
Southern mountain yellow-legged frog *Rana muscosa*	FE, SE	Federal listing refers to populations in the San Gabriel, San Jacinto, and San Bernardino mountains only. Always encountered within a few feet of water. Tadpoles may require 2 - 4 years to complete their aquatic development.	None. No suitable habitat present.
Western spadefoot *Spea hammondii*	SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	None. No suitable habitat present.
Invertebrates			
Monarch Butterfly *Danaus plexippus*	FC	grasslands with nectar resources	None. No suitable habitat present.
Riverside Fairy Shrimp *Streptocephalus woottoni*	FE	vernal pools and other seasonal wetlands	None. No suitable habitat present.
Vernal Pool Fairy Shrimp *Branchinecta lynchi*	FT	vernal pools and other seasonal wetlands	None. No suitable habitat present.
Plants			
Chaparral sand-verbena *Abronia villosa var. aurita*	1B.1	Chaparral, coastal scrub, sandy areas. 80 – 1,600 m.	Low potential to occur in portions of project site containing scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Yucaipa onion *Allium marvinii*	1B.2	Chaparral in openings on clay soils. 760-1,065 m.	None. No suitable habitat present.
Munz's onion *Allium munzii*	FE, ST, 1B.1	Chaparral, coastal scrub, cismontane woodland, pinyon-juniper woodland, valley and foothill grassland. Heavy clay soils; grows in grasslands, and openings within shrublands or woodlands. 300 – 1,035 m.	Low potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
San Diego Ambrosia *Ambrosia pumila*	FE	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools. Alkaline (sometimes), Clay (sometimes), Disturbed areas (often), Loam (sometimes), Sandy (sometimes). 20 - 415 m.	Moderate potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded.

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
			Project implementation requires very little disturbance to marginal habitat.
Horn's milk-vetch *Astragalus hornii var. hornii*	1B.1	Meadows and seeps, playas on lake margins, alkaline sites. 60 – 850 m.	None. No suitable habitat present.
Coachella Valley milk-vetch *Astragalus lentiginosus var. coachellae*	FE, 1B.2	Sonoran desert scrub. Sandy flats, washes, outwash fans, sometimes on dunes. 60 – 360 m.	None. No suitable habitat present.
Jaeger's milk-vetch *Astragalus pachypus var. jaegeri*	1B.1	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland. Dry ridges and valleys and open sandy slopes; often in grassland and oak-chaparral. 365 – 915 m.	Low potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
San Jacinto Valley crownscale *Atriplex coronata var. notatior*	FE, 1B.1	Playas, chenopod scrub, valley and foothill grassland, vernal pools. Dry, alkaline flats in the San Jacinto River valley. 400 – 500 m.	None. No suitable habitat present.
Parish's brittlescale *Atriplex parishii*	1B.1	Alkali meadows, vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. 25 – 1,900 m.	None. No suitable habitat present.
Davidson's saltscale *Atriplex serenana var. davidsonii*	1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 3 – 250 m.	None. No suitable habitat present.
Thread-leaved brodiaea *Brodiaea filifolia*	FT, SE, 1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay	Low potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to unsuitable habitat.
San Jacinto mariposa-lily *Calochortus palmeri var. munzii*	1B.2	Lower montane coniferous forest, chaparral, meadows. Seen in open Jeffrey pine forest as well as in chaparral. 1,200 – 2,200 m.	None. No suitable habitat present.
Palmer's mariposa-lily *Calochortus palmeri var. palmeri*	1B.2	Meadows and seeps, chaparral, lower montane coniferous forest. Vernally moist places in yellow-pine forest, chaparral. 600 – 2,245 m.	None. No suitable habitat present.
Intermediate mariposa-lily *Calochortus weedii var. intermedius*	1B.2	Coastal scrub, chaparral, valley and foothill grassland. Dry, rocky open slopes and rock outcrops. 120 – 850 m.	Low potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Smooth tarplant *Centromadia pungens ssp. laevis*	1B.1	Valley and foothill grassland, chenopod scrub, meadows, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 0 - 640 m.	Low potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Parry's spineflower *Chorizanthe parryi var. parryi*	1B.1	Coastal scrub, chaparral. Dry slopes and flats; sometimes at interface of 2 veg types, such as chap and oak woodland; dry, sandy soils. 40 – 1,705 m.	Low potential to occur in portions of project site containing scrub habitat. Existing habitat is degraded. Project

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
			implementation requires very little disturbance to marginal habitat.
Long-spined spineflower *Chorizanthe polygonoides var. longispina*	1B.2	Chaparral, coastal scrub, meadows, valley and foothill grassland. Gabbroic clay. 30 – 1,450 m.	None. No suitable habitat present.
White-bracted spineflower *Chorizanthe xanti var. leucotheca*	1B.2	Mojavean desert scrub, pinyon-juniper woodland, coastal scrub (alluvial fans). Sandy or gravelly places. 300 – 1,200 m.	Low potential to occur in portions of project site containing scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Mojave tarplant *Deinandra mohavensis*	SE, 1B.3	Riparian scrub, chaparral. Low sand bars in river bed; mostly in riparian areas or in ephemeral grassy areas. 850 – 1,600 m.	Low potential to occur in portions of project site containing scrub habitat or in San Jacinto River floodplain. Project implementation requires very little disturbance to scrub habitat and none to floodplain habitat.
Slender-horned spineflower *Dodecahema leptoceras*	FE, SE, 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associations include *encelia*, *dalea*, *lepidospartum*, etc. 200 - 760 m.	Moderate potential to occur in portions of project site containing scrub habitat or in San Jacinto River floodplain. Project implementation requires very little disturbance to scrub habitat and none to floodplain habitat.
San Jacinto Mountains bedstraw *Galium angustifolium ssp. jacinticum*	1B.3	Lower montane coniferous forest. Open mixed forest. 1,630 - 1,940 m.	None. No suitable habitat present.
Alvin Meadow bedstraw *Galium californicum ssp. primum*	1B.2	Chaparral, lower montane coniferous forest. Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest-chaparral ecotone. 360 m.	None. No suitable habitat present.
Mesa horkelia *Horkelia cuneata var. puberula*	1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 70 -810 m.	Low potential to occur in portions of project site containing scrub habitat.
California satintail *Imperata brevifolia*	2B.1	Coastal scrub, chaparral, riparian scrub, Mojavean scrub, meadows and seeps (alkali). Mesic sites, alkali seeps, riparian areas. 0 – 500 m.	Low potential to occur in portions of project site containing scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	1B.1	Coastal salt marshes, playas, valley and foothill grassland, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1 – 1,400 m.	None. No suitable habitat present.
Lemon lily *Lilium parryi*	1B.2	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Wet, mountainous terrain; gen in forested areas; on shady edges of streams, in open boggy meadows & seeps. 1,300 – 2,790 m.	None. No suitable habitat present.

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Spiny-hair blazing star *Mentzelia tricuspis*	2B.1	Mojavean desert scrub. Sandy or gravelly slopes and washes.150 – 1,280 m.	None. No suitable habitat present.
San Felipe monardella *Monardella nana ssp. leptosiphon*	1B.2	Chaparral, lower montane coniferous forest. Sometimes in openings and fuelbreaks or in the understory of forest or chaparral. 1,200 – 1,855 m.	None. No suitable habitat present.
Mud nama *Nama stenocarpa*	2B.2	Marshes and swamps. Lake shores, river banks, intermittently wet areas. 5 -500 m.	None. No suitable habitat present.
Spreading navarretia *Navarretia fossalis*	1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. San Diego hardpan and San Diego claypan vernal pools; in swales and vernal pools, often surrounded by other habitat types. 30 - 665 m.	None. No suitable habitat present.
California Orcutt grass *Orcuttia californica*	FE, SE, 1B.1	Vernal pools. 15 - 660 m.	None. No suitable habitat present.
California beardtongue *Penstemon californicus*	1B.2	Chaparral, lower montane coniferous forest, pinyon-juniper woodland. Stony slopes and shrubby openings; sandy or granitic soils. 1,160 – 2,300 m.	None. No suitable habitat present.
Narrow-leaf sandpaper-plant *Petalonyx linearis*	2B.3	Mojavean desert scrub, Sonoran desert scrub. Rocky (sometimes), Sandy (sometimes).	None. No suitable habitat present.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	2B.2	Riparian woodland, cismontane woodland, coastal scrub, chaparral. Sandy, gravelly sites. 0 – 2,100 m.	Low potential to occur in portions of project site containing riparian or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Latimer's woodland-gilia *Saltugilia latimeri*	1B.2	Chaparral, Mojavean desert scrub. Rocky or sandy substrate. 400 – 1,900 m.	None. No suitable habitat present.
Southern mountains skullcap *Scutellaria bolanderi ssp. austromontana*	1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. In gravelly soils on streambanks or in mesic sites in oak or pine woodland. 425 -2,000 m.	None. No suitable habitat present.
Salt spring checkerbloom *Sidalcea neomexicana*	2B.2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 0 -1,500 m.	None. No suitable habitat present.
San Bernardino aster *Symphyotrichum defoliatum*	1B.2	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2 – 2,040 m.	Low potential to occur in portions of project site containing grassland or scrub habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
California screw moss *Tortula californica*	1B.2	Chenopod scrub, valley and foothill grassland. Moss growing on sandy soil. 10 – 1,460 m.	Low potential to occur in portions of project site containing grassland habitat. Existing habitat is degraded. Project implementation requires very little disturbance to marginal habitat.
Wright's trichocoronis *Trichocoronis wrightii var. wrightii*	2B.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools. Mud flats of vernal lakes, drying river beds, alkali meadows. 5-435 m.	None. No suitable habitat present.

Common Name *Scientific Name*	Status	Life History/Habitat*	Potential to Occur in the Project Site
* Habitat requirements are derived from the CNDDB or CNPS general and microhabitats unless otherwise noted			

Additional References:

CDFW, 2000. Life History Account for California Legless Lizard. Available online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2733. Accessed July 2024.

CDFW, 2005. Life History Account for Yellow Warbler. Available online at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=2109. Accessed July 2024.

USFWS, 2023. Species Status Assessment Report for Northwestern Pond Turtle (*Actinemys marmorata*) and Southwestern Pond Turtle (*Actinemys pallida*). Available online at: https://ecos.fws.gov/ServCat/DownloadFile/241273. Accessed July 2024.

The following describes the criteria used for the probability of a special status species' occurrence:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.

Appendix F-2

Biological Assessment

BIOLOGICAL ASSESSMENT

SOBOBA BAND OF LUISEÑO INDIANS



Soboba Septic to Sewer Conversion Project

Riverside County, CA | January 2025

Lead Agency:

Indian Health Service
California Area
650 Capitol Mall #7-100
Sacramento, CA 95814

BIOLOGICAL ASSESSMENT

SOBOBA BAND OF LUISEÑO INDIANS

Soboba Septic to Sewer Conversion Project

Riverside County, CA | January 2025

Lead Agency:

Indian Health Service
California Area
650 Capitol Mall #7-100
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Attachment A USFWS Species List (IPaC Report)
Attachment B Small Mammal Assessment
Attachment C List of Species Observed
Attachment D Site Photographs

Section 1 | Introduction

1.1 PURPOSE OF ASSESSMENT

The purpose of this Biological Assessment is to provide technical information and to review the Proposed Action in sufficient detail to determine to what extent the Proposed Action may affect threatened, endangered, or proposed species. This Biological Assessment has been prepared in accordance with legal requirements found in Section 7 (a)(2) of the Endangered Species Act (16 U.S. C 1536(c)). The purpose of a Biological Assessment is to evaluate the potential effects of an action on species listed and proposed for listing, as well as designated and proposed critical habitat, and to determine whether any such species or habitat are likely to be adversely affected by the action.

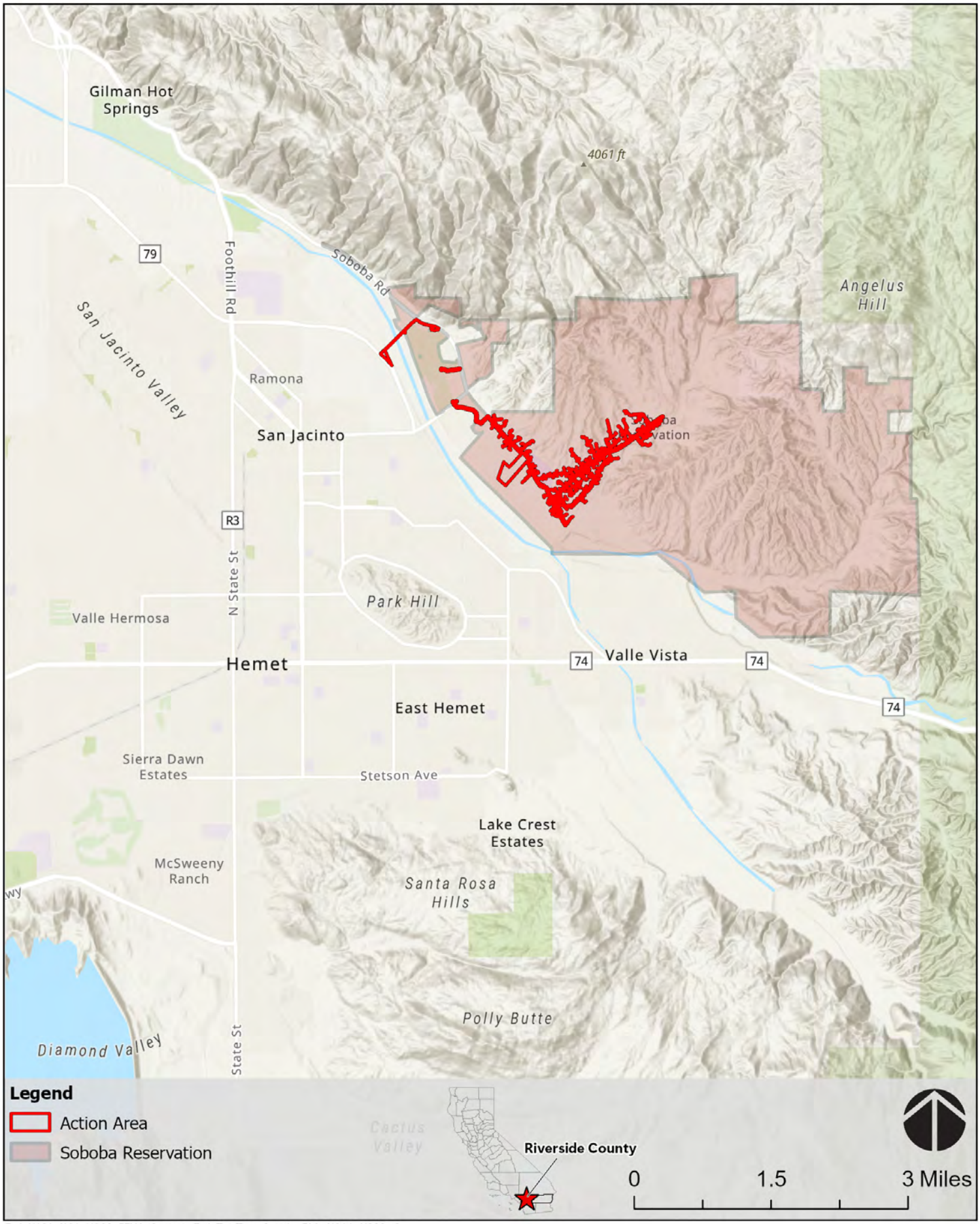
1.2 DESCRIPTION OF ACTION AREA AND PROPOSED ACTION

The Action Area consists of 139.4 acres within Riverside County, California. The Soboba Band of Luiseño Indians (Tribe) is requesting federal funding to construct the Septic-to-Sewer Conversion Project (Proposed Action). The goal of the Proposed Action is to connect Tribal residences and other development that currently relies on aging septic tanks and seepage pits to the regional wastewater treatment facility operated by the Eastern Municipal Water District (EMWD). The majority of the Action Area occurs within the Tribe's Reservation, with small portions located off-Reservation within the City of San Jacinto and County of Riverside. **Figure 1** and **Figure 2** show the location of the Action Area, and **Figure 3** presents an aerial photograph of the Action Area and the immediate vicinity.

The Proposed Action would fund the construction of approximately 27,500 feet of new 10-inch PVC sewer mainlines along with approximately 72,200 feet of sewer laterals within the Reservation. These pipelines will serve Tribal residential and administration buildings and will include a combination of gravity mainlines and forcemains, and have been intentionally sited within roadways, driveways, and other disturbed areas to the maximum extent feasible. These pipelines would be constructed primarily via open cut trenching with the surface being restored to its original condition after construction. Pipeline crossings of culverted waters of the U.S. (noted as culvert C1 and C4) would be accomplished by jack and bore.

The Proposed Action also includes funding for a permanent pipeline below the San Jacinto River that will serve the Reservation and existing non-Tribal customers within EMWD's service area that rely on an aging, temporary pipeline below the River. This 15-inch gravity mainline will be a total of 3,840 feet, with approximately 2,200 feet occurring on the Reservation within the Tribe's existing golf course, and the remaining 1,640 feet microtunneled below the San Jacinto River off-Reservation. The microtunneling bore pits would be staged outside of the levees and ordinary high water mark (OHWM). The 15-inch gravity line will be cased in a larger 48-inch steel casing pipe for protection. A low-density cellular backfill material consisting of foam and a water-cement mixture is pumped into the annular space between the pipe and casing. The segment of pipeline below the San Jacinto River will be a minimum of 10.5 feet below the river bottom and has been designed such that natural long-term river scouring will not affect the pipeline integrity. This installation method will not disturb the San Jacinto River channel.

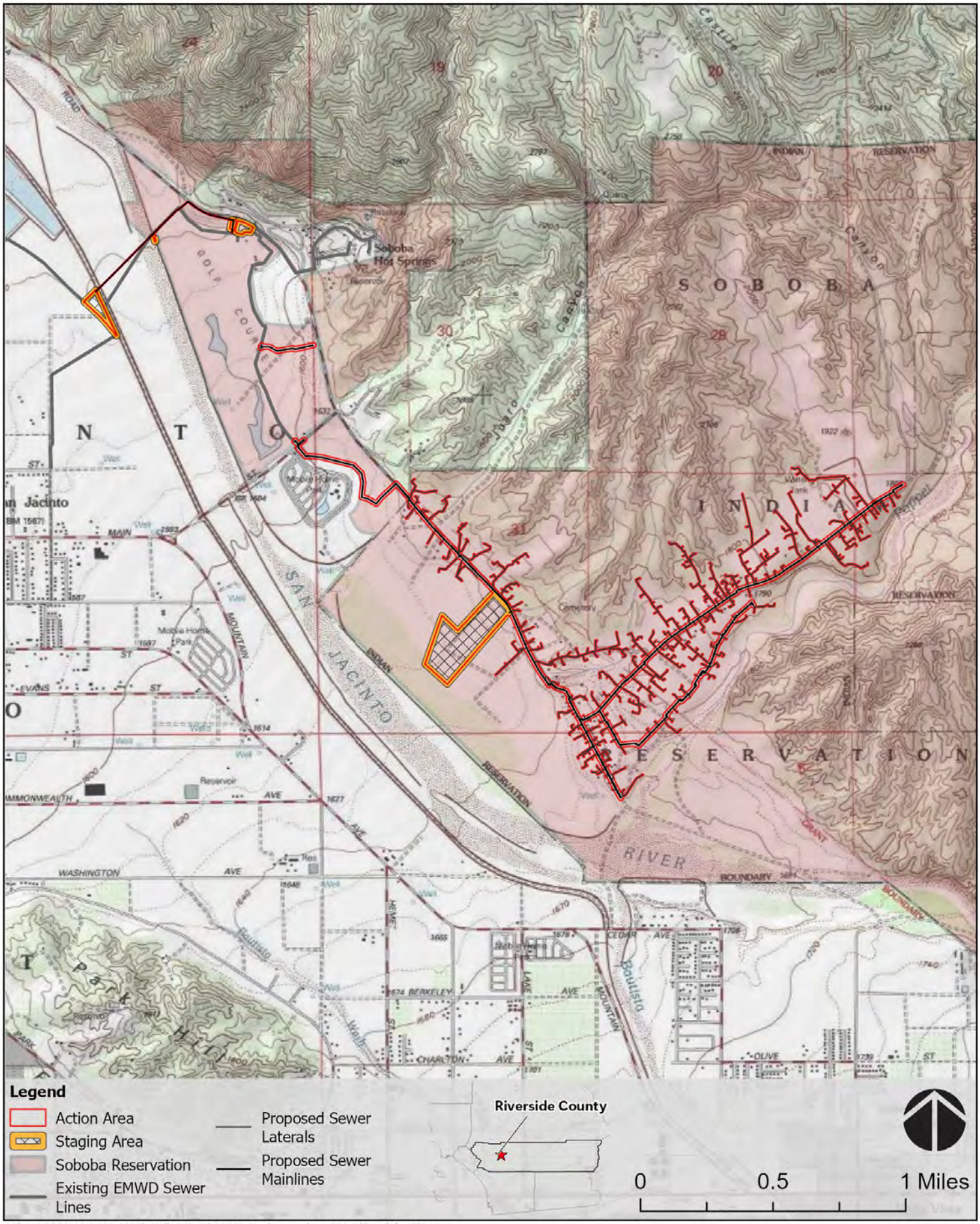
Because the San Jacinto River contains sensitive habitats and is occupied by a variety of wildlife, the project proponents decided to replace the lower-cost traditional trenching installation techniques with horizontal directional drilling, which bores and installs piping underground without disturbing the ground



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

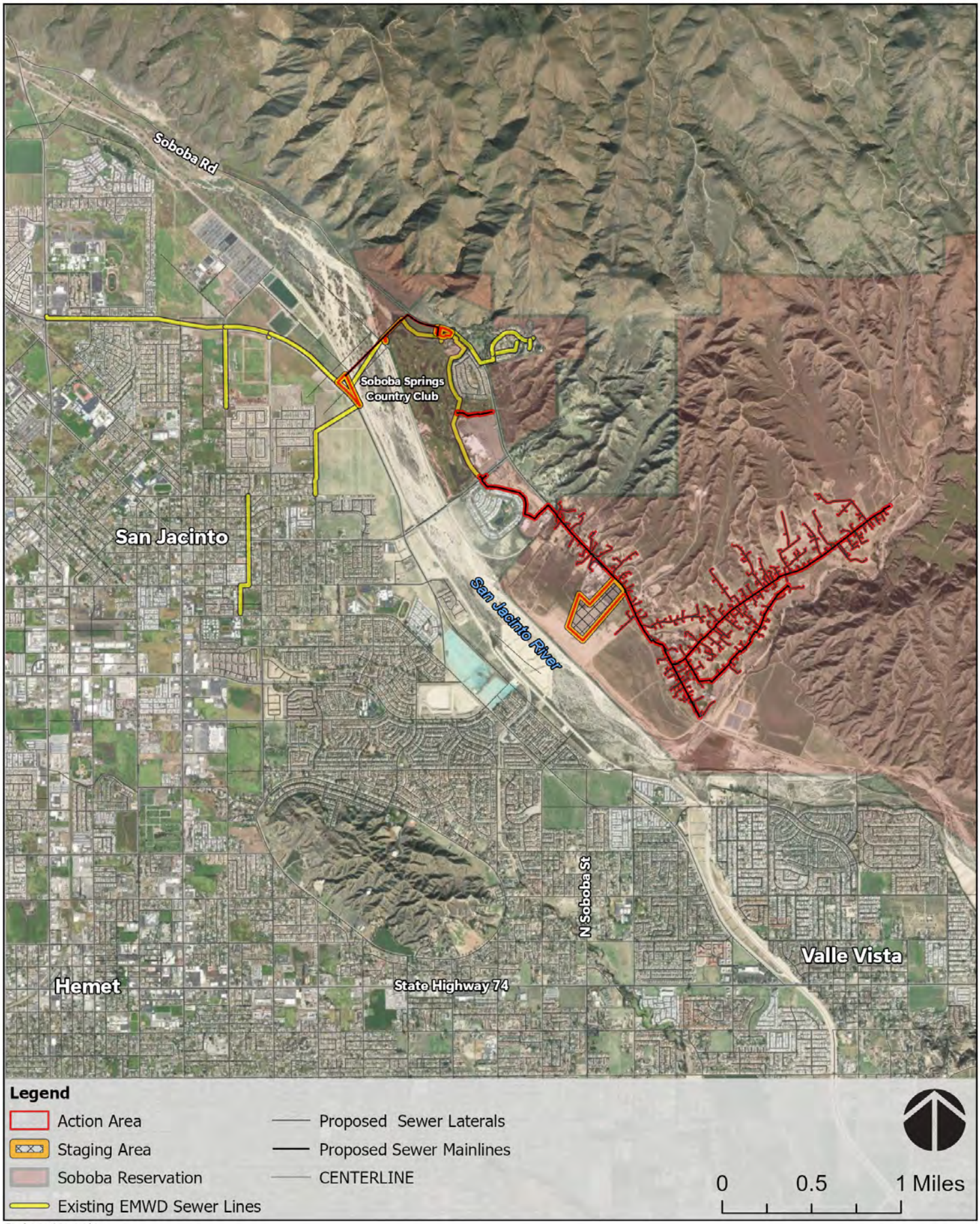
FIGURE 1

REGIONAL LOCATION



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FIGURE 2
SITE AND VICINITY



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FIGURE 3
AERIAL OVERVIEW

surface, flowing streams, or sensitive habitats. This installation method will ensure that riparian habitat is not disturbed.

For purposes of this assessment, the Action Area consists of 19.6 miles of proposed pipelines, a corridor of varying widths around each pipeline for a work area, and staging areas for construction equipment and materials. The staging areas are approximately 34 acres in total and the pipelines and surrounding work areas are approximately 105.4 acres. A small (0.2 acre) levee ramp is proposed on the northeast side of the San Jacinto River to connect the existing golf cart path to the terminus of the existing levee. A site plan is provided in **Figure 4a and 4b**. **Figures 4a and 4b** also depict some existing EMWD pipelines relevant to the Proposed Action where proposed pipelines will connect to the existing EMWD pipelines or the proposed pipelines will replace EMWD lines and they will be abandoned in place; no ground disturbance is associated with the existing EMWD pipelines.

1.3 LISTED SPECIES AND CRITICAL HABITAT

Critical Habitat

The Action Area is adjacent to, and partially within, designated critical habitat for San Bernardino Merriam's Kangaroo Rat (*Dipodomys merriami parvus*) (**Figure 5**). Critical habitat for arroyo toad is also in the vicinity; specifically, it occurs approximately 0.5 mile east of the Action Area along the floodplain of the upper San Jacinto River and Bautista Creek within Subunit 9a, which is the western-most extent of the Subunit.

USFWS Species List

An official USFWS species list was generated online using the USFWS' IPaC Trust Resource Report System (see **Attachment A**). The following protected resources were identified that may have the potential to occur in or near the Action Area:

Plants

- San Diego Ambrosia (*Ambrosia pumila*) – Endangered
- San Jacinto Valley Crownscale (*Atriplex coronata* var. *notatior*) – Endangered
- Slender-horned Spineflower (*Dodecahema leptoceras*) – Endangered
- Spreading Navarretia (*Navarretia fossalis*) – Threatened
- Thread-leaved Brodiaea (*Brodiaea filifolia*) – Threatened

Mammals

- San Bernardino Merriam's Kangaroo Rat (*Dipodomys merriami parvus*) – Endangered
- Stephens' Kangaroo Rat (*Dipodomys stephensi*) – Threatened

Birds

- Coastal California Gnatcatcher (*Polioptila californica californica*) – Threatened
- Least Bell's Vireo (*Vireo bellii pusillus*) – Endangered
- Southwestern Willow Flycatcher (*Empidonax traillii extimus*) – Endangered

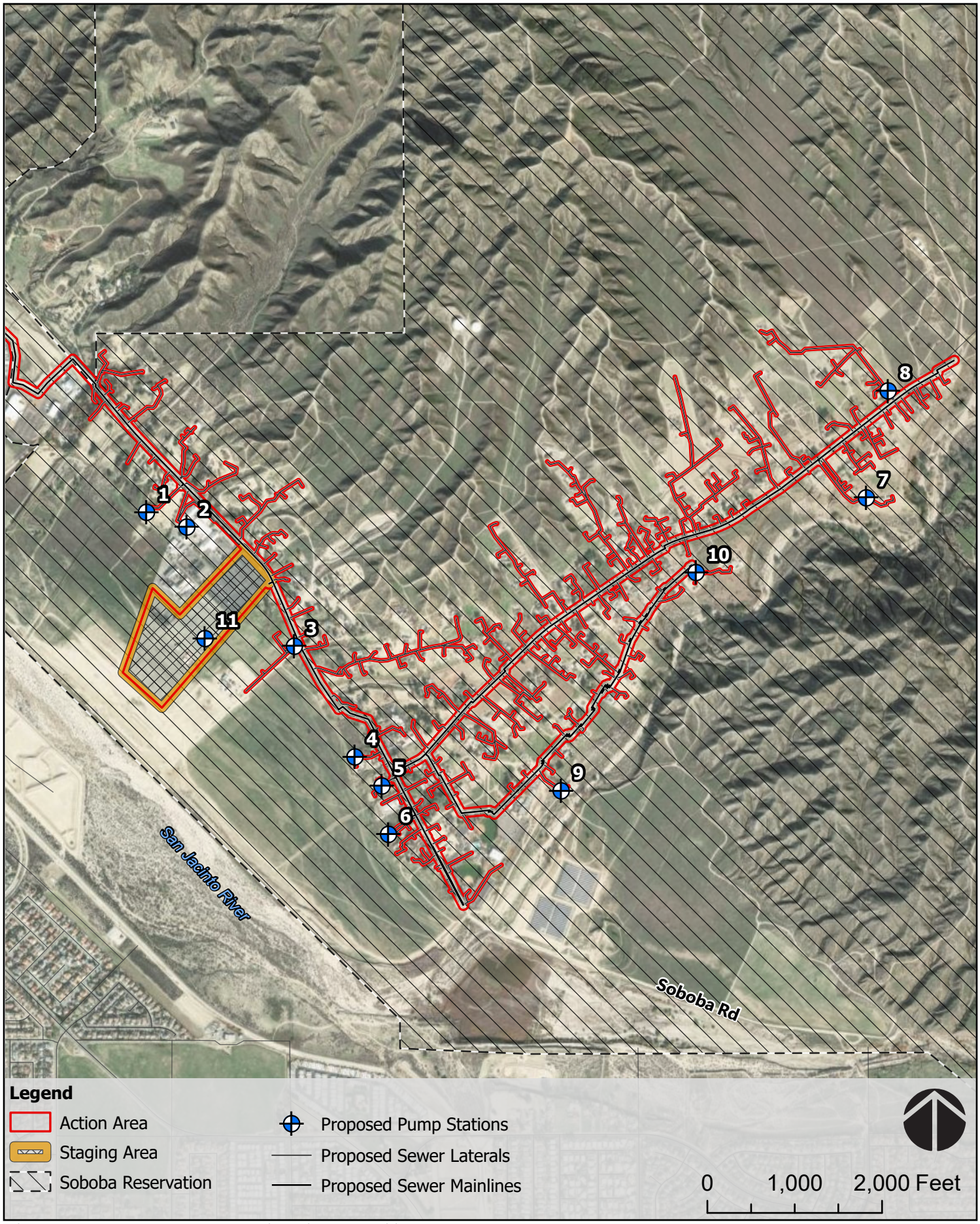
Reptiles and Amphibians

- Southwestern Pond Turtle (*Actinemys pallida*) – Proposed Threatened
- Arroyo Toad (*Anaxyrus californicus*) – Endangered



FIGURE 4a

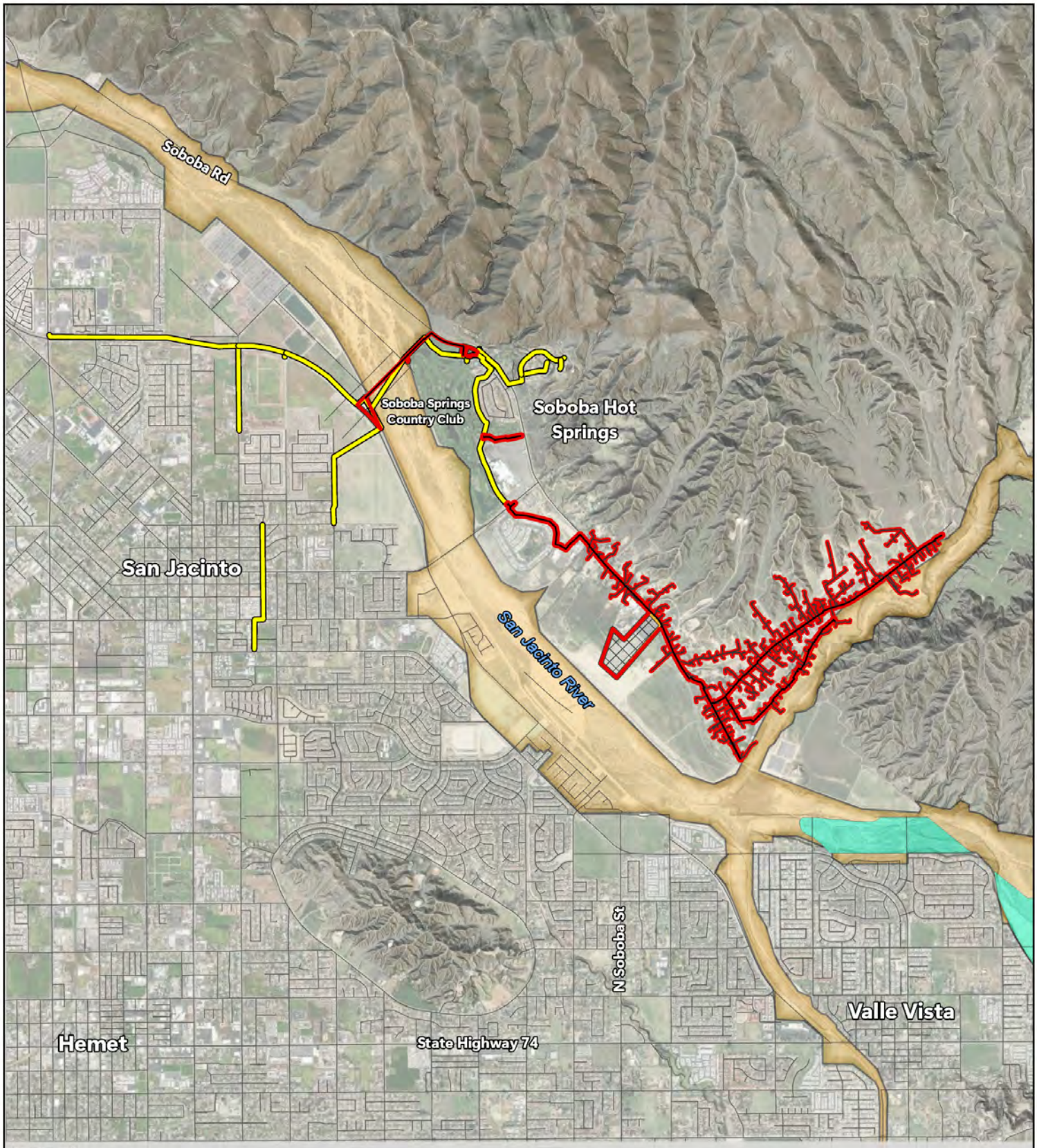
PROPOSED PROJECT - NORTHERN DETAIL



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 4b

PROPOSED PROJECT - SOUTHERN DETAIL



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 5
CRITICAL HABITAT

Insects

- Monarch Butterfly (*Danaus plexippus*) – Candidate

Crustaceans

- Riverside Fairy Shrimp (*Streptocephalus woottoni*) – Endangered
- Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) – Threatened

Additionally, under the Migratory Bird Treaty Act of 1918 (16 USC §703-711), migratory bird species and their nests and eggs that are on the federal list (50 CFR §10.13) are protected from injury or death, and project-related disturbances must be reduced or eliminated during the nesting cycle.

1.4 HISTORICAL OCCURENCES OF LISTED SPECIES

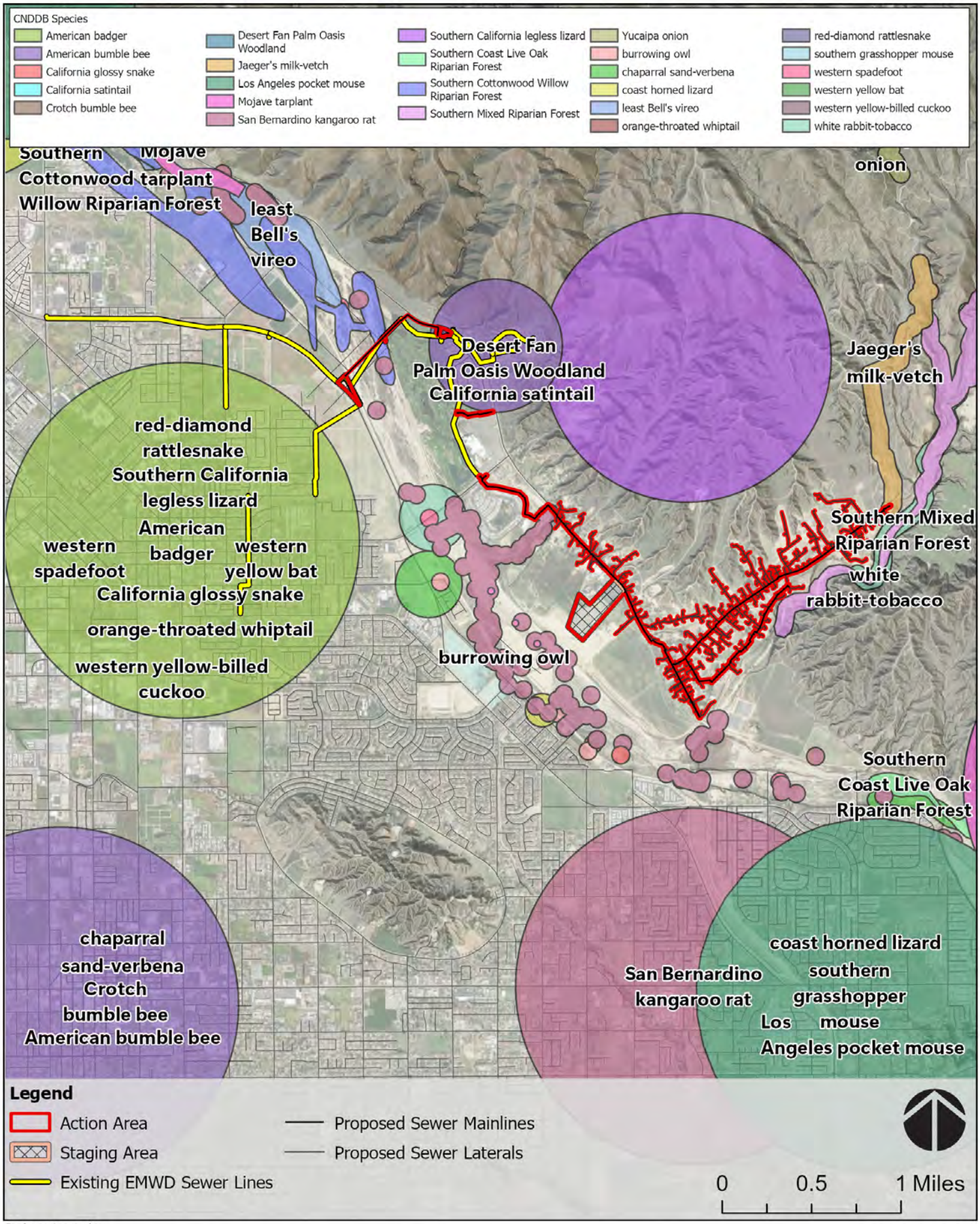
The California Natural Diversity Database (CNDDB) was queried and reported occurrences of listed species were plotted in relation to the Action Area boundary using GIS software (**Figure 6**). The CNDDB did not report any federally-listed species occurrences within the Action Area. However, there are records for federally-listed species in the vicinity, primarily in the San Jacinto River corridor. These species are: Stephens' kangaroo rat, San Bernardino Merriam's kangaroo rat, least Bell's vireo, western yellow-billed cuckoo, and western spadefoot. These records are discussed in detail later in this assessment.

1.5 HABITAT CONSERVATION PLANS

The Action Area is located within the plan area of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Note, however, that the Soboba Indian Reservation is not a signatory to the MSHCP. Thus, the on-Reservation portions of the Action Area are not subject to this plan.

1.6 CONSULTATION TO DATE

This biological assessment will be submitted by the Tribe to the U.S. Indian Health Services, who may use it to consult with the USFWS.



Earthstar Geographics, Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 6
CNDDB RESULTS

Section 2 | Methods

2.1 PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Previous biological resource studies pertaining to the Action Area or vicinity
- United States Geologic Service (USGS) 7.5 degree-minute topographic quadrangles of the Action Area and vicinity
- Aerial photography of the Action Area
- CNDDB, electronically updated monthly by subscription
- A query of the California Native Plant Society's database *Inventory of Rare and Endangered Plants of California* (online edition)
- USFWS National Wetlands Inventory (NWI) mapper
- USFWS species list (IPaC Trust Resources Report)

2.2 FIELD SURVEYS

Senior biologist Dr. Geo Graening conducted biological field assessments on February 7 and April 18, 2024, and collected data on wildlife and plant species present, as well as habitat types and potentially jurisdictional waters. Variable-intensity pedestrian surveys were performed. Fauna and flora observed were recorded in a field notebook and identified to the lowest possible taxon. Survey efforts emphasized the search for federally-listed species that had documented occurrences in the CNDDB within the vicinity of the Action Area. Habitat types occurring in the Action Area were mapped on aerial photographs and information on habitat conditions and the suitability of habitats to support listed species was also recorded. The Action Area was also formally assessed for the presence of biologically-sensitive aquatic habitats including, but not limited to, potentially jurisdictional water features, riparian zones, isolated wetlands and vernal pools.

Philippe Vergne, a certified kangaroo rat biologist holding U.S. Fish and Wildlife Permit No. TE068072-5, performed a protocol habitat assessment for kangaroo rats (both *Dipodomys merriami parvus* and *D. stephensi*) on April 18 and 27, 2024 over the entire Action Area. This assessment is presented in **Attachment B**.

2.3 MAPPING AND OTHER ANALYSIS

Locations of species' occurrences and habitat boundaries within the Action Area were recorded on color aerial photographs and then digitized to produce the habitat maps. The boundaries of potentially jurisdictional water resources within the Action Area were identified and measured in the field and similarly digitized to calculate acreage and to produce informal delineation maps. Geographic analyses were performed using geographical information system software (ArcGIS 10, ESRI, Inc.). Vegetation communities (assemblages of plant species growing in an area of similar biological and environmental factors), were classified by Vegetation Series (distinctive associations of plants, described by dominant species and particular environmental setting) using the MSHCP vegetation classification system (County of Riverside, 2003). Wetlands and other aquatic habitats were classified using USFWS National Wetlands

Inventory Classification System for Wetland and Deepwater Habitats, or “Cowardin class” (Cowardin et al., 1979; USFWS, 2007).

Informal wetland delineation methods consisted of an abbreviated, visual assessment of the three requisite wetland parameters (hydrophytic vegetation, hydric soils, hydrologic regime) defined in the U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Species’ habitat requirements and life histories were identified using the following sources: Baldwin et al. (2012); CNPS (2024), Calflora (2024); CDFW (2024b); and University of California at Berkeley (2024a,b).

Section 3 | Results of Surveys

3.1 ENVIRONMENTAL SETTING

The Action Area is located within the Western Transverse Ranges geographic subregion, which is contained within the Southwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al., 2012). The climate is in Zone 19 "Southern California Interior Valley Thermal Belts," which is an interior climate that is only partially influenced by the ocean. This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately-cold winters (Sunset Western Garden Collection, 2024). The Action Area is at the boundary of two ecological subsections: 1) San Jacinto Foothills – Cahuilla Mountains; and 2) San Jacinto Mountains (County of Riverside, 2003).

The topography of the Action Area is a series of river terraces and alluvial fans at the terminus of various canyons and arroyos that are tributary to the San Jacinto River. The Action Area is at the base of the foothills on the western flank of the San Jacinto Mountains that separate the San Jacinto River Basin to the west from the Coachella Valley to the east. A major levee is present on the western side of the San Jacinto River; a minor levee is present on the eastern side along the golf course. The elevation ranges from approximately 1,560 to 1,865 feet above sea level. In general, the topography of the Action Area is gently sloping to the west towards the San Jacinto River floodplain. The land uses of the Action Area are: open space and preserve lands; flood control district levees and basins; commercial; gaming facility; golf course; educational and recreational facilities; transportation corridors; and rural residential. The surrounding land uses are rural residential; urban residential; commercial; tribal reservation lands; state and federal land (San Bernardino National Forest); and grazing land.

3.2 INVENTORY OF FLORA AND FAUNA

Few animals were observed during the surveys of the Action Area because much of the fauna are secretive or nocturnal. The animals that were detected are as follows:

- Pine siskin (*Spinus pinus*);
- yellow warbler (*Setophaga petechia*);
- lesser goldfinch (*Spinus psaltria*);
- Bewick's wren (*Thryomanes bewickii*);
- house wren (*Troglodytes aedon*);
- California towhee (*Melozone crissalis*);
- turkey vulture (*Cathartes aura*);
- Red-tailed hawk (*Buteo jamaicensis*);
- American kestrel (*Falco sparverius*);
- mourning dove (*Zenaida macroura*);
- American crow (*Corvus brachyrhynchos*);
- side-blotched lizard (*Uta stansburiana*);
- Audubon's cottontail (*Sylvilagus audubonii*);
- California ground squirrel (*Spermophilus beecheyi*);
- Botta's pocket gopher (*Thomomys bottae*);
- coyote (*Canis latrans*); and
- dog (*Canis familiaris*).

All plant species observed during the field surveys are listed in **Attachment C**.

3.3 LISTED SPECIES OBSERVED DURING SURVEYS

No federally listed plant or animal species were observed during surveys conducted within the Action Area.

3.4 TERRESTRIAL HABITATS

The Action Area contains the following vegetation communities/habitat types: coastal scrub; riparian scrub and woodland; annual grassland; developed/disturbed; and river wash. These habitat types are mapped in **Figure 7a-n**; photos of the Action Area are presented in **Attachment D**.

Coastal Scrub

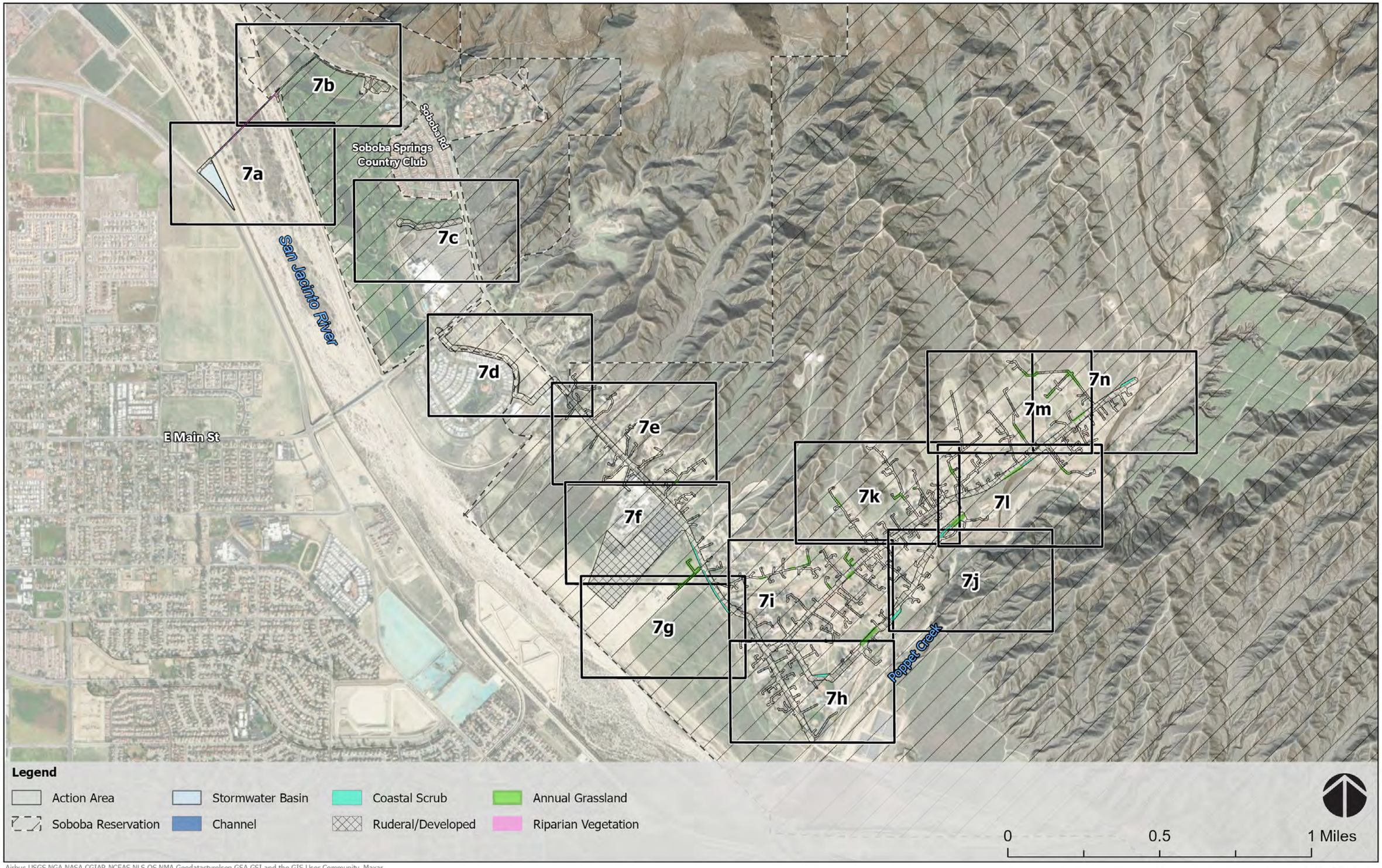
In the Action Area, coastal scrub occurs in areas of high sun exposure that have not been cleared or graded, and primarily on alluvial fans and river terraces. It can also occur in islands of river washes. Coastal scrub is made up predominantly of aromatic, drought deciduous soft-leaved shrubs, but with significant cover of larger perennial species typically found in chaparral (County of Riverside, 2003). Composition varies substantially depending on geographic factors and the successional status of the scrub community; however, characteristic species are California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), scalebroom (*Lepidospartum squamatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera, S. apiana*) (County of Riverside, 2003).

Annual Grassland

In areas subject to grading, grazing, and field agriculture, non-native annual grasslands occur. These communities are dominated by several species of grasses that have evolved to persist in concert with human agricultural practices: wild oats (*Avena* spp.), chess and other bromes (*Bromus* spp.), barley (*Hordeum* spp.), rye grasses (*Lolium* spp.), rat-tail fescue (*Vulpia myuros*), and Mediterranean schismus (*Schismus barbatus*) (County of Riverside, 2023). Weedy forbs are also present, especially shortpod mustard (*Hirschfeldia incana*).

Developed/Disturbed

Developed land is intensively used with much of the land paved or covered by structures or landscaping. Vegetation in these areas generally consists of non-native ornamental species (grass in the fairways and greens and residential lawns, flowerbeds, shrubs, and decorative trees) or cleared areas that are generally devoid of vegetation. Disturbed lands contain species adapted to ruderal habitats, which are primarily non-native European grasses and weedy forbs. Clumps of wooded areas are also present. Some consist of stands of non-native Eucalyptus (*Eucalyptus* spp.), but there are remnants of coast live oak woodlands in a few places.



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FIGURE 7
HABITATS



FIGURE: 7a
HABITATS



FIGURE: 7b
HABITATS



FIGURE: 7c
HABITATS

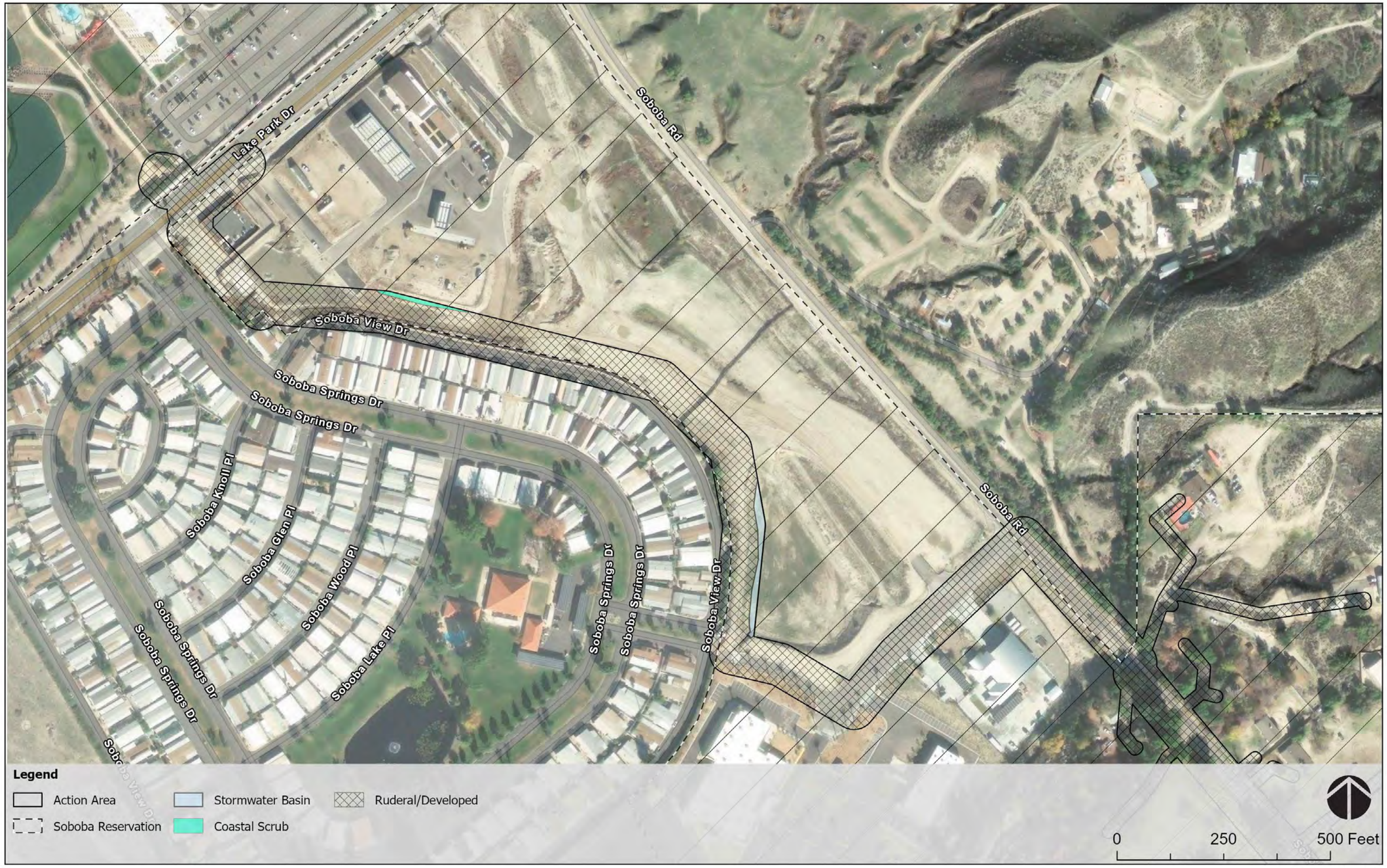


FIGURE: 7d
HABITATS



FIGURE: 7e
HABITATS



FIGURE: 7f
HABITATS

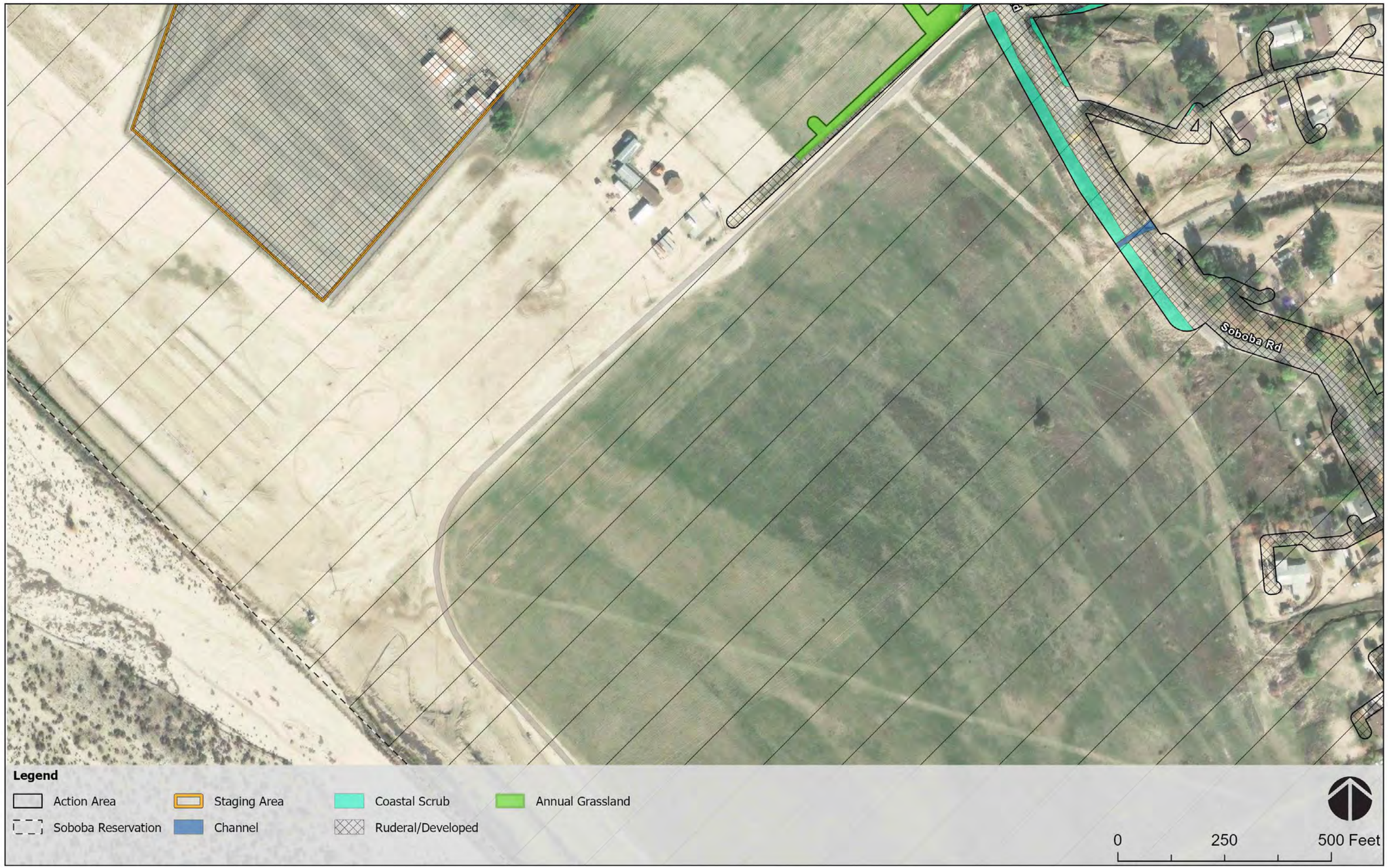


FIGURE: 7g
HABITATS

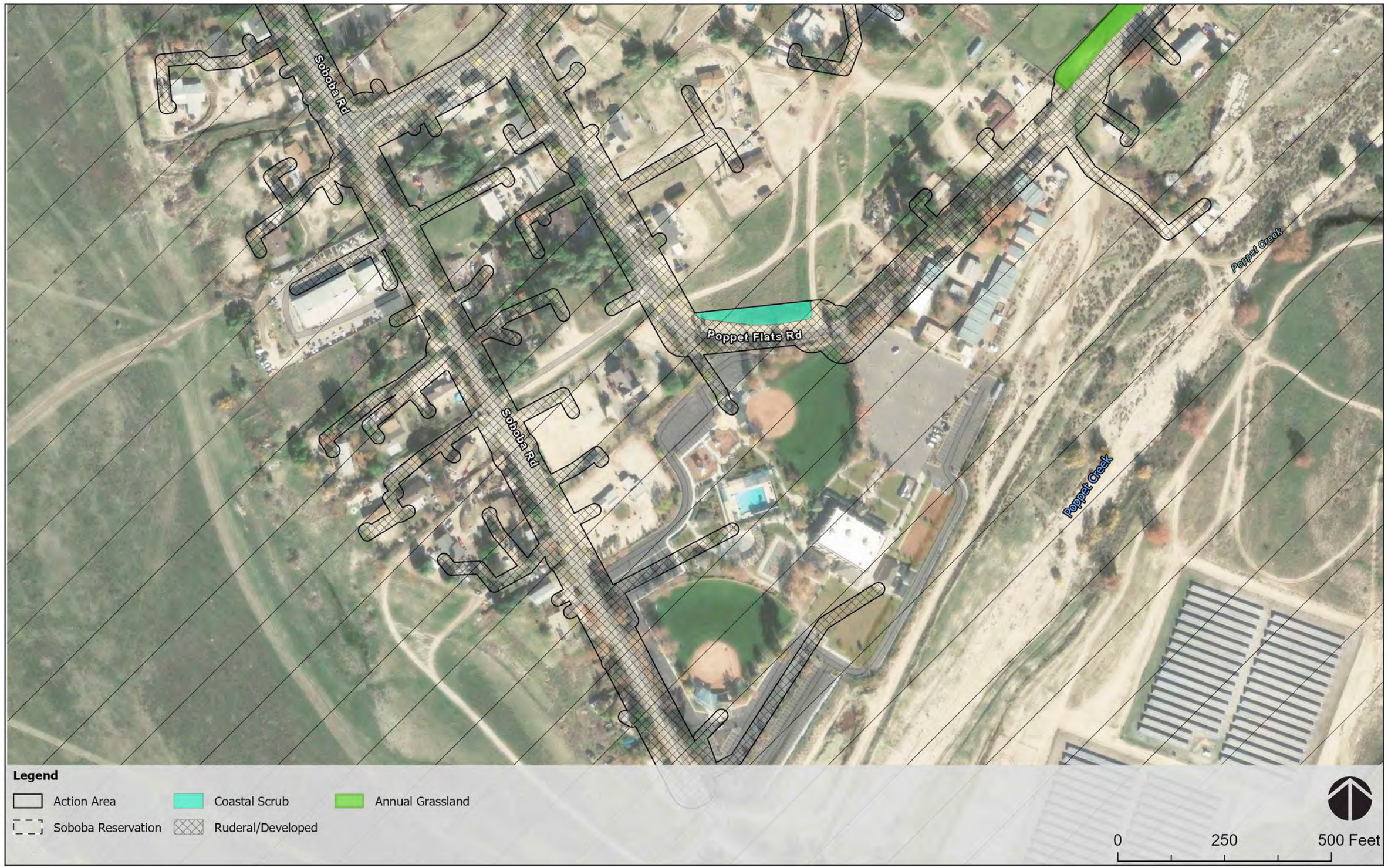


FIGURE: 7h
HABITATS



FIGURE: 7i
HABITATS



FIGURE: 7j
HABITATS



FIGURE: 7k
HABITATS



FIGURE: 7l
HABITATS



FIGURE: 7m
HABITATS



FIGURE: 7n
HABITATS

3.5 AQUATIC HABITATS

The following features were mapped within the Action Area by the NWI (**Figure 8**): the San Jacinto River Channel (R4SBJ, riverine), and Juaro Canyon and two other unnamed channels (R4SBC, riverine). Directly adjacent to the Action Area are these additional waters: ponds on golf course (PUBHx, ponds with marshes) and Poppet Creek (R4SBA, riverine).

Channels

The proposed 15-inch gravity line will be installed under the channel and floodplain of the San Jacinto River. This portion of the San Jacinto River is protected by levees that were constructed by U.S. Army Corps of Engineers (USACE) and Riverside County Flood Control and Water Conservation District. The levees are maintained today by the Riverside County Flood Control and Water Conservation District. In this portion of the Action Area, the San Jacinto River is a braided intermittent channel that is a mixture of river wash and islands of riparian scrub vegetation. River wash is a substrate of sand and gravel deposited by flood events. Vegetation is very sparse and consists of colonizers and other early successional species from riparian or grassland communities. Persistent vegetation consists primarily of willow saplings, annual grasses, and mustards. Reeds (*Juncus* spp.) and rushes (*Carex* spp., *Scirpus* spp.) are present in wetter areas.

At the intersection of Castile Canyon Road and Soboba Road there is a stormwater catchment system. These storm flows dissipate into a sandy agricultural field 1,400 feet short of the San Jacinto River. There are no wetlands associated with the stormflow discharge point; upland plants are dominant (mustard, barley, chamomile, and tree tobacco).

Under Soboba Road northwest of the tribal administrative building, there is a double box culvert that conveys flow from an ephemeral channel in an arroyo towards the San Jacinto River. Above this culvert, disturbed scrub vegetation is dominant (e.g. Russian thistle, shortpod mustard). After discharging from the box culverts, the channel continues westward towards San Jacinto River. The channel terminates in a sandy agricultural field 1,700 feet short of the riverbank.

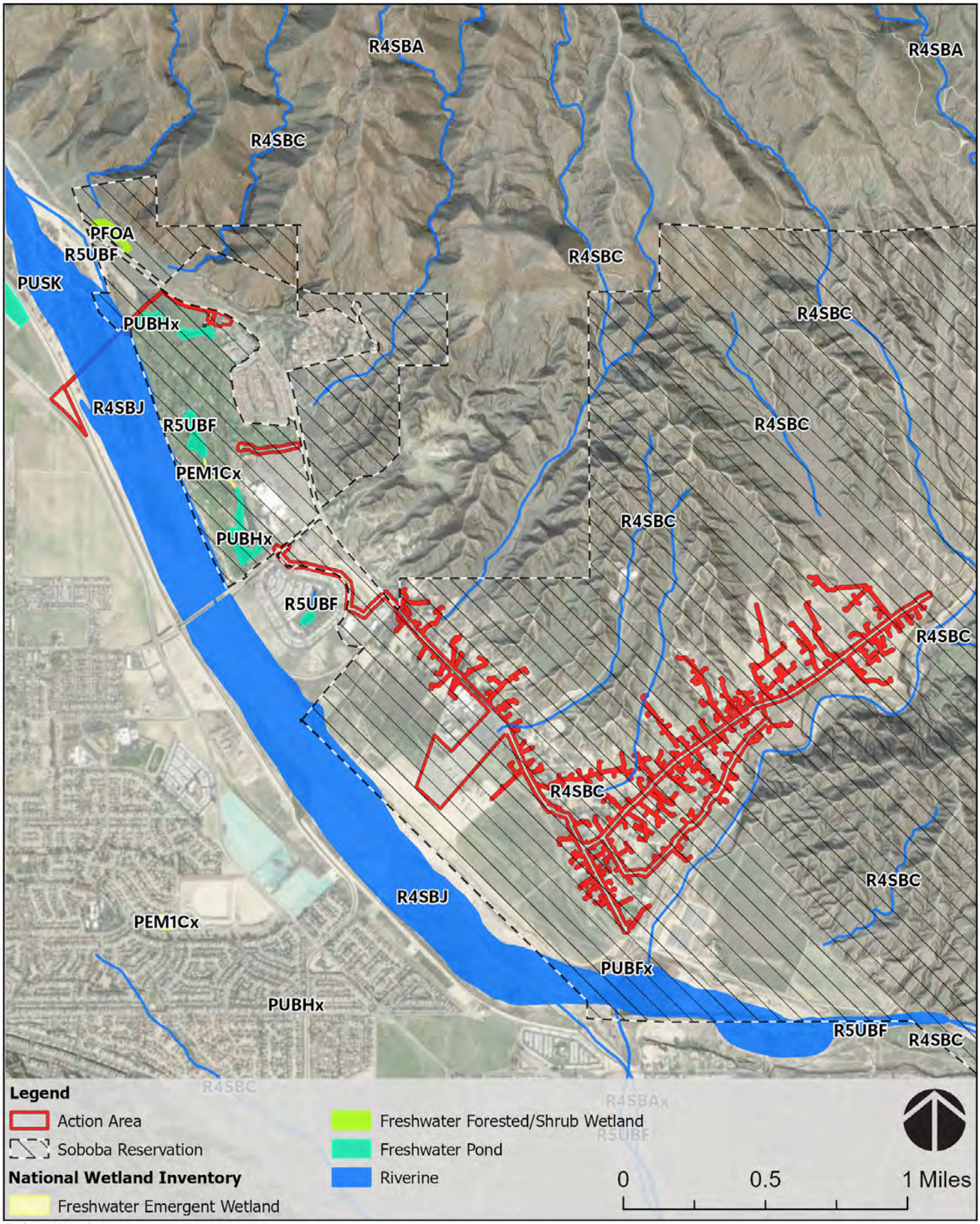
Under Soboba Road at the parking lot of the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches towards the San Jacinto River. This culvert discharges overland onto the large paved parking lot, where it evaporates, or dissipates as sheetflow to a ruderal field. The discharge point is 2,300 feet from the riverbank.

Along Soboba Road near the entrance to the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches under Soboba Road towards the San Jacinto River. This culvert discharges into the former stormwater and landscaping facilities.

South of the fire station on Soboba Road, there is a pipe culvert that transmits stormflows from Juaro Canyon and from road ditches towards the San Jacinto River. Upstream of the Action Area, the channel has coastal scrub vegetation. This elliptical pipe culvert discharges into a ruderal field and has created a small alluvial fan. The discharge point is at least 1,500 feet from the San Jacinto River.

Wetlands

There are no wetlands within the Action Area, such as freshwater marshes or vernal pools.



Earthstar Geographics,
Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User

FIGURE 8
NATIONAL WETLAND INVENTORY

Riparian

Within the San Jacinto River channel between river washes, there are islands of riparian communities that are either riparian woodland or riparian scrub. Riparian woodland consists of one or more deciduous tree species with an assorted understory of shrubs and herbs, all of which are tolerant of periodic flooding (County of Riverside, 2023). Dominant tree species are sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), and several species of willow (*Salix* spp.), but upland trees can also be present, such as coast live oak (*Q. agrifolia*) and California walnut (*Juglans californica*). The understory of riparian woodlands contains box elder (*Acer negundo*), big-leaf maple (*A. macrophyllum*), stinging nettle (*Urtica dioica*), poison oak (*Toxicodendron diversilobum*), and wild grape (*Vitis girdiana*). Riparian scrub communities are variable, and can consist of stands of tamarisk (*Tamarix* spp.) or giant reed (*Arundo donax*), or they can be mixed communities of willows, Mexican elderberry (*Sambucus mexicana*), mulefat (*Baccharis salicifolia*), salt grass (*Distichlis spicata*), wild cucumber (*Marah macrocarpus*), mugwort (*Artemisia douglasiana*), willow and blackberry thickets, etc. (County of Riverside, 2023). Because these riparian habitats are within the active channel of the San Jacinto River, because they are regularly flooded, and because they contain water-dependent (hydrophytic) vegetation, they are considered potentially jurisdictional water resources.

Stormwater Basins

The Action Area is adjacent to, or partially within, three stormwater retention basins that have been excavated in uplands. These stormwater facilities are described below but are not expected to be subject to federal or state jurisdiction.

There is a flood control basin along West Ramona Expressway, approximately 3.0 acres in size. This area is proposed as a material laydown/equipment storage area. This feature is not mapped by NWI. The basin is barren and has no hydrophytes, soils are not hydric, and the seasonally ponded water is a result of off-channel stormwater control facilities associated with roadways.

There is a stormwater basin at the edge of the service road between the casino facilities and the golf course facilities; this basin receives stormwater from the casino parking lots and an upper basin. A gravity main will be installed very near this basin.

There is a stormwater retention basin located at the Horseshoe Grande Project near Soboba View Drive; the basin is kept free of vegetation and has no wetland habitats. A gravity main will be installed very near this basin.

Section 4 | Species Accounts

4.1 PLANTS

San Diego Ambrosia (*Ambrosia pumila*) – Endangered

The range of San Diego ambrosia is limited to southern California from western Riverside County, south through western San Diego County, to central Baja California, Mexico (USFWS, 2024). The nearest occurrences are over 20 miles away from the Action Area in the Perris/Lake Elsinore region and the Murrieta/Temecula region (USFWS, 2024). This plant inhabits coarse substrates near drainages and in upland areas on clay slopes, sparse grasslands, river terraces, pools, and alkali playas (USFWS, 2024). The Action Area is outside of the current range of the species and lacks the requisite habitats; the exception is the portion of the proposed Action Area within the San Jacinto River where a gravity main will be installed deep under the channel.

San Jacinto Valley Crownscale (*Atriplex coronata var. notatior*) – Endangered

San Jacinto Valley crownscale is restricted to seasonally dry saline wetlands, including alkali vernal meadows and the shallower parts of alkali vernal pools (USFWS, 2024). The crownscale is found only on soils which are both saline and which contain carbonate salts, referred to as sodic soils (USFWS, 2024). None of the soils within the Action Area are sodic soils, and the Action Area does not contain saline wetlands or alkali habitats. The MSHCP confirms this, stating that the only saline-alkali soils in the MSHCP plan area are the Traver-Domino-Willows soil association, and these saline-alkali soil habitats are largely restricted to the floodplain areas of the San Jacinto River at the inlet to Lake Elsinore and at Salt Creek over 20 miles from the Action Area (County of Riverside, 2003). Therefore, there is no potential for San Jacinto Valley crownscale to occur in the Action Area.

Slender-horned Spineflower (*Dodecahema leptoceras*) – Endangered

Slender-horned spineflower is endemic to southwestern California and occurs only in Los Angeles, San Bernardino, and Riverside counties (USFWS, 2024). It is found in areas prone to drought, and plants usually occur in isolated patches of large floodplain habitats categorized as alluvial scrub, a type of coastal scrub habitat (USFWS 2024). This species is mostly found in sandy soils in association with mature alluvial scrub and cryptogamic crusts. The CNDDB reports the nearest occurrence to be three miles to the east of the Action Area in the upper San Jacinto River. The majority of the Action Area does not contain coastal scrub habitat. The only portion of the Action Area that has suitable habitat for Slender-horned spineflower occurs in small patches within the Action Area where coastal scrub is present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road; and at the upper end of some of the proposed lateral lines.

Spreading Navarretia (*Navarretia fossalis*) – Threatened

Spreading navarretia is endemic to southern California and Baja California, Mexico, where it occurs only in seasonally wet areas, such as vernal pools, and typically these habitat areas have alkaline soils (USFWS 2024). The MSHCP confirms this, stating that spreading navarretia occurs only in saline-alkali soils in the MSHCP Plan Area (Traver-Domino-Willows soil associations), and these saline-alkali soil habitats are largely restricted to the floodplain areas of the San Jacinto River at the inlet to Lake Elsinore and at Salt

Creek over 20 miles from the Action Area (County of Riverside, 2003). The Action Area does not contain any vernal pools and does not have any saline-alkali soils. Therefore, there is no potential for spreading navarretia to occur in the Action Area.

Thread-leaved Brodiaea (*Brodiaea filifolia*) – Threatened

The range of this species extends from the foothills of the San Gabriel Mountains at Glendora in Los Angeles County, east to Arrowhead Hot Springs in the western foothills of the San Bernardino Mountains in San Bernardino County, and south through eastern Orange and western Riverside counties to the City of San Diego (USFWS, 2024). The CNDDB reports the nearest occurrence of thread-leaved brodiaea to be 10 miles to the west in the lower San Jacinto River. This species typically grows in herbaceous plant communities such as grassland communities, alkali playa, and in vernal pools, and requires clay soils (County of Riverside, 2003; USFWS, 2023). The Action Area primarily contains sandy soils and does not contain clay soil types. The MSHCP maps the following clay soil types in the MSHCP Plan Area: Bosanko, Auld, Altamont, and Porterville series (County of Riverside, 2003); these soil types do not occur within the Action Area. Therefore, thread-leaved brodiaea is unlikely to occur in the Action Area.

4.2 MAMMALS

San Bernardino Merriam's Kangaroo Rat (*Dipodomys merriami parvus*) – Endangered

The historic range of the San Bernardino kangaroo rat, a rare subspecies of the Merriam's kangaroo rat (*Dipodomys merriami*), was the area from the Menifee Valley in Riverside County north to the San Bernardino Valley in San Bernardino County (USFWS, 2002). The San Jacinto River and its major tributary streams provide one of the last large blocks of habitat for the species, and because of this, a large portion of the San Jacinto River and the lower portion of Poppet Creek were designated critical habitat (the San Jacinto River-Bautista Creek Unit 3). The Action Area overlaps this critical habitat designation in two locations: on the eastern end of the proposed sewer alignments along Poppet Flats Road; and on the western end of the Action Area in the San Jacinto River where the proposed 15-inch gravity mainline would be installed under the channel (**Figure 5**).

The San Bernardino kangaroo rat is typically found in coastal scrub along washes (Western Riverside County Regional Conservation Authority, 2016). It prefers sandy loam substrates where it is able to dig simple, shallow burrows (USFWS, 2002). Reports from the CNDDB and recent trapping efforts have established that San Bernardino kangaroo rat occurs in the San Jacinto River (channel and floodplain) and in Poppet Creek near the confluence with the San Jacinto River. It previously occurred at the Horseshoe Grande property, but that population was relocated to a preserve. Potential habitat for San Bernardino kangaroo rat occurs only in small patches within the Action Area where coastal scrub is present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road; at the upper end of some of the proposed lateral lines; and in the riparian habitat of the San Jacinto River.

To gather more information about the presence or absence of San Bernardino kangaroo rat, a protocol field investigation by USFWS-permitted biologist Philippe Vergne was completed in April 2024 to determine if the potential for San Bernardino kangaroo rat was high enough to warrant trapping efforts (**Attachment B**). Mr. Vergne confirmed that suitable habitat is present in small patches in the Action Area where coastal scrub occurs. However, Mr. Vergne did not detect San Bernardino kangaroo rat or its sign (scat, tracks, dust bowls, and burrows), and concluded that San Bernardino kangaroo rat does not

currently inhabit the Action Area (**Attachment B**). This conclusion was also based upon the lack of active burrows or ground squirrel colonies, the poor condition of the natural habitats in the Action Area (which are subject to various human disturbances), and previous kangaroo rat trapping surveys that Mr. Vergne has performed (**Attachment B**). Mr. Vergne reported that San Bernardino kangaroo rat is present in parts of the San Jacinto River floodplain and was present in the Horseshoe Grande property before he relocated all kangaroo rats to a preserve, in compliance with a Biological Opinion issued for a separate project.

Stephens' Kangaroo Rat (*Dipodomys stephensi*) – Threatened

The Stephens' kangaroo rat occurs in western Riverside County and in San Diego County, with some of the largest populations occurring in MSHCP core areas; however, the Action Area is not in a core area as designated by the MSHCP (Western Riverside County Regional Conservation Authority, 2015). The Stephens' kangaroo rat is found almost exclusively in open grasslands or sparse shrublands (Western Riverside County Regional Conservation Authority, 2015). Potential habitat for Stephens' kangaroo rat occurs only in small patches within the Action Area where coastal scrub and grassland habitats are present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road; at the upper end of some of the proposed lateral lines; and on the western end of the Action Area at the boundary of the Soboba Springs golf course.

The CNDDB has historical occurrence records (at least 20 years old) of Stephens' kangaroo rat in the general vicinity of the Action Area, including the Potrero Preserve, at San Jacinto Reservoir, and in Bautista Canyon. To gather more information about the presence or absence of Stephen's kangaroo rat, a protocol field investigation by USFWS-permitted biologist Philippe Vergne was completed in April 2024 (**Attachment B**). Mr. Vergne confirmed that suitable habitat is present in small patches in the Action Area where scrub and grassland occurs. However, Mr. Vergne did not detect Stephen's kangaroo rat or its sign (scat, tracks, dust bowls, and burrows), and concluded that this species does not currently inhabit the Action Area (**Attachment B**). This conclusion was also based upon the lack of active burrows or ground squirrel colonies, the poor condition of the natural habitats in the Action Area (which are subject to various human disturbances), and previous kangaroo rat trapping surveys that Mr. Vergne has performed (**Attachment B**). Mr. Vergne reported that Stephen's kangaroo rat was not trapped in protocol surveys for projects adjacent to the Action Area, such as the Soboba Casino expansion project and the Horseshoe Grande/Soboba Springs development.

4.3 BIRDS

Coastal California Gnatcatcher (*Polioptila californica californica*) – Threatened

The coastal California gnatcatcher is a small, nonmigratory bird, and is restricted to coastal Southern California and Baja California, Mexico (USFWS, 2024). Proposed critical habitat is located about 10 miles southwest of the Action Area near Winchester (USFWS, 2003). The coastal California gnatcatcher typically inhabits sage scrub habitat in arid washes, on mesas, and on slopes of coastal hills. The nearest occurrences of coastal California gnatcatcher reported in the CNDDB are 6 miles to south of the Action Area near Diamond Valley Lake and 7 miles to the northwest of the Action Area in the San Jacinto River. The edges of the Action Area have some coastal scrub habitat where proposed lateral sewer lines extend to the edge of developed lands, but these habitats are not dominated by the coastal sage scrub vegetation community. Thus, coastal California gnatcatcher has a low potential to occur in the Action Area, and only in the areas containing coastal scrub habitat.

Least Bell's Vireo (*Vireo bellii pusillus*) – Endangered

The breeding habitat for Least Bell's vireo is willow-dominated riparian woodlands, although it also forages and sometimes nests in neighboring mulefat scrub, oak woodlands, and chaparral (USFWS, 2024). The nearest occurrence of least Bell's vireo reported in the CNDDB is in the San Jacinto River, a quarter-mile from the western edge of the Action Area. The only portion of the Action Area that contains willow-dominated riparian woodlands, or any riparian habitat at all, is in the San Jacinto River.

Southwestern Willow Flycatcher (*Empidonax traillii extimus*) – Endangered

The southwestern willow flycatcher requires dense riparian habitats with cottonwood, willow, or tamarisk vegetation in broad open river valleys and mountain meadows for nesting (USFWS, 2024). Saturated soils, standing water, or nearby streams, pools, or marshes are a component of nesting habitat (USFWS, 2024). The nearest occurrence of southwestern willow flycatcher reported in the CNDDB is 14 miles to the southwest of the Action Area. The Action Area contains suitable habitat in the San Jacinto River, where there are stands of riparian forest and scrub.

4.4 REPTILES AND AMPHIBIANS

Southwestern Pond Turtle (*Actinemys pallida*) – Proposed Threatened

The southwestern pond turtle is known to occur within the central Coast Range of southern California south from the middle of Monterey Bay to Baja California (USFWS, 2024). Courtship occurs between April through November within aquatic habitat. Eggs are buried within upland habitat within 500 meters of aquatic habitat where disturbance is low, typically from May to July. Hatching occurs anywhere from approximately three months to over five months from oviposition, and some hatchlings will overwinter within the nest. Southwestern pond turtles will aestivate a portion of the winter either within aquatic habitat or in upland habitat up to 500 meters from aquatic habitat. The longest overland migration of this species was measured at 5 kilometers, noting that this dispersal occurred during mild weather conditions with short distances between water features. Southwestern pond turtles generally forage in water and, although they can forage over land, require water to swallow foraged food. Basking habitat is required (USFWS, 2024).

Southwestern pond turtles require both aquatic and terrestrial habitats. They use permanent and seasonal aquatic habitats including rivers, sloughs, lakes, reservoirs, ponds, and irrigation canals. They lay eggs in nests dug in soil near a water source. They may estivate and hibernate underwater, soft bottom mud, or on land by burying themselves in loose soil or entering California ground squirrel burrows (Nafis, 2024). The nearest record of southwestern pond turtle reported in the CNDDB is over 13 miles away from the Action Area. There is suitable habitat within the Action Area in the San Jacinto River channel. The San Jacinto River is the only water resource that contains water for a long enough period for the needs of southwestern pond turtle. The majority of the Action Area is upland habitat that experiences high levels of human activity and intensive land management.

Arroyo Toad (*Anaxyrus californicus*) – Endangered

The Arroyo toad occurs primarily along coastal drainages and requires shallow, slow-moving streams and riparian habitats with natural flooding regimes and that maintain areas of open, sparsely vegetated, sandy stream channels and terraces (USFWS, 2024). Optimal breeding habitat consists of low gradient stream reaches that have shallow pools with fine textured substrates (i.e., sand or gravel). Upland habitats include

coastal scrub, chaparral, grassland, and oak woodland. Arroyo toads have also been found in agricultural fields.

Designated critical habitat for this species is found approximately 0.5 mile east of the Action Area along the floodplain of the upper San Jacinto River and Bautista Creek within Subunit 9a, which is the western-most extent of the Subunit. The nearest occurrence of Arroyo toad that is reported in the CNDDB is 10 miles to the southeast. The Arroyo toad is found in larger, higher-order streams (Order 3 to 6) (USFWS, 2024). Within the Action Area, there is suitable aquatic habitat for Arroyo toad only in the San Jacinto River channel. The other streams that run through the Action Area (Juaro Canyon and unnamed channels) are small, low-order (Order 1 and 2) headwater tributaries that do not contain enough water resources to create aquatic habitat.

4.5 INVERTEBRATES

Monarch Butterfly (*Danaus plexippus*) – Candidate

The monarch is a candidate species and not yet formerly proposed for listing. During the breeding season, monarchs lay their eggs on their obligatory milkweed host plant (primarily plants in the genus *Asclepias*, but also *Cynanchum*, *Funastrum*, *Gonolobus*, and *Matelea*), and larvae emerge after two to five days (USFWS 2024). Larvae develop through five molts over a period of 9 to 18 days, feeding on milkweed and sequestering toxic chemicals as a defense against predators. The larva then pupates into a chrysalis before emerging 6 to 14 days later as an adult butterfly. There are multiple generations of monarchs produced during the breeding season, with most adult butterflies living approximately two to five weeks; overwintering adults enter into reproductive diapause (suspended reproduction) and live six to nine months (USFWS, 2024).

Monarchs in temperate climates, such as western North America, undergo long-distance migration, and live for an extended period of time. In the fall, monarchs begin migrating to their overwintering sites. This migration can take monarchs distances of over 3,000 km and last for over two months. In early spring (February-March), surviving monarchs break diapause and mate at the overwintering sites before dispersing. The same individuals that undertook the initial southward migration begin flying back through the breeding grounds and their offspring start the cycle of generational migration over again (USFWS, 2024). According to USFWS (2023), the Action Area is generally within an Early Breeding Zone.

The biological surveys performed in 2024 did not detect milkweed species (e.g. *Asclepias* spp.), and in general, the Action Area does not contain large tracts of grasslands, but instead has small isolated patches in habitats dominated by scrub. Grassland patches that do occur in the Action Area are often mowed or seasonally trimmed, and cannot sustain sufficient wildflower resources to be of use to large butterfly populations. Therefore, monarch butterfly is unlikely to occur in the Action Area, and, if it does, is expected to occur as individuals that are moving toward significant nectar resources in intact grassland habitats elsewhere.

Riverside Fairy Shrimp (*Streptocephalus woottoni*) – Endangered

Riverside fairy shrimp live in vernal pools and other non-vegetated ephemeral pools (USFWS 2024). The nearest occurrence reported by the CNDDB is 15 miles to the west of the Action Area. The Action Area does not contain vernal pools, seasonal wetlands, or soils that create hardpans and thus the Riverside fairy shrimp has no potential to occur in the Action Area.

Vernal Pool Fairy Shrimp (*Branchinecta lynchi*) – Threatened

Vernal pool fairy shrimp are endemic to the grasslands of California's Central Valley, Central Coast mountains, and South Coast mountains, where they occur in rain-filled pools. These habits are small, clear-water depression pools and grassed swales with confining layers, such as hardpans or basalt flows, earth slumps, or basalt-flow depression pools (USFWS, 2024). The nearest occurrence reported by the CNDDB is 16 miles to the northwest of the Action Area. The Action Area does not contain vernal pools or seasonal wetlands or soils that create hardpans and thus the vernal pool fairy shrimp has no potential to occur in the Action Area.

Section 5 | Effects of the Action

Based on guidance provided by the ESA Section 7 Effects Determination Guidance, possible effects determinations for the Proposed Action are:

- **No effect:** The proposed action will not affect the listed species or critical habitat.
- **May affect but is not likely to adversely affect:** The proposed action may affect a listed species in a way that is discountable, insignificant, or completely beneficial. Discountable effects are extremely unlikely to occur; insignificant effects are impacts small enough that they never reach the scale where a take occurs, and completely beneficial effects are positive effects without any adverse effects to the species.
- **May affect and is likely to adversely affect:** The proposed action may either directly or indirectly, or through its interrelated and interdependent actions, adversely affect a listed species.

These guidelines were used in determining conclusions of this BA and are discussed for the critical habitat, listed species, and migratory birds below.

5.1 POTENTIAL ADVERSE EFFECTS ON CRITICAL HABITAT

A large portion of the San Jacinto River and the lower portion of Poppet Creek were designated critical habitat (the San Jacinto River-Bautista Creek Unit) for San Bernardino kangaroo rat. The Action Area overlaps this critical habitat designation in two locations: on the western end of the Action Area in the San Jacinto River where the proposed 15-inch gravity line would be installed at least 10.5 feet under the channel; and on the eastern end of the proposed sewer alignments along Poppet Flats Road.

At the San Jacinto River portion of the Action Area, ground disturbance will be limited to a small (0.2 acre) levee ramp to connect the golf cart path with the terminus of the existing levee through developed/disturbed habitats, and the temporary excavation of a bore pit outside of the San Jacinto River bank within the disturbed area at the edge of the golf course. The temporary construction footprint associated with the bore pit is less than 400 square feet. Access to this bore pit will be through the golf course. On the other end, the bore pit will be excavated on the outside of the levee in a ruderal area. The gravity main will be installed at least 10.5 feet below the river channel.

Some of the proposed sewer mains and laterals along Poppet Flats Road are within mapped critical habitat for San Bernardino kangaroo rat, but the pipes will be installed primarily under roads and other ruderal and developed areas that do not contain suitable habitat for San Bernardino kangaroo rat. The proposed sewer line installations will require trenching to bury the lines deep underground. This will temporarily disturb a long but narrow path of ground, and the disturbed areas will be restored to their original conditions and re-vegetated or re-paved. No permanent habitat conversion will occur. Conservation measures, including pre-construction biological surveys, worker environmental awareness training, construction best management practices, and monitoring, will ensure that no kangaroo rats are present during construction. Therefore, implementation of the Proposed Action may affect, but not likely adversely affect, critical habitat for San Bernardino kangaroo rat.

5.2 POTENTIAL ADVERSE EFFECTS ON LISTED SPECIES

San Diego Ambrosia

The Action Area is outside of the current range of the species and lacks the requisite habitats (coarse substrates near drainages); the exception is the portion of the Proposed Action that would install a gravity mainline under the San Jacinto River. At the San Jacinto River, ground disturbance will be limited to the excavation of bore pits at the golf course near the edge of the San Jacinto River bank and the proposed levee ramp in ruderal habitat on the outside of the levee; these areas of ground disturbance do not involve the river substrates that constitute San Diego Ambrosia habitat. The gravity main will be installed at least 10.5 feet below the river channel, so there will be no disturbance to this area of suitable habitat. Thus, implementation of the Proposed Action would have no effect on San Diego Ambrosia.

San Jacinto Valley Crownscale

The Action Area does not contain the requisite habitats (sodic soils in saline wetlands or alkali habitats) for this species. Therefore, there is no potential for San Jacinto Vally crownscale to occur in the Action Area. Implementation of the Proposed Action would have no effect on San Jacinto Valley crownscale.

Slender-horned Spineflower

The majority of the Action Area does not contain the requisite habitat for slender-horned spineflower. Suitable habitat occurs only in small patches within the Action Area where coastal scrub is present. These areas consist of on the eastern end of the proposed sewer alignments along Poppet Flats Road; and at the upper end of some of the proposed lateral lines.

Along Poppet Flats Road and at the upper end of some of the proposed lateral lines, trenching will be required within coastal scrub and this will disturb existing vegetation. To ensure that slender-horned spineflower is not present in work areas, a pre-construction survey for slender-horned spineflower will be performed. With implementation of this and other conservation measures, implementation of the Proposed Action would have no effect on slender-horned spineflower.

Spreading Navarretia

The Action Area does not contain the requisite habitats (vernal pools and saline-alkali soils) for spreading navarretia. Therefore, there is no potential for spreading navarretia to occur in the Action Area. Implementation of the Proposed Action would have no effect on spreading navarretia.

Thread-leaved Brodiaea

This species typically grows in herbaceous plant communities such as grasslands, alkali playas, and in vernal pools, and requires clay soil. The Action Area does not contain these habitat types and the soil types that are present are not clay, but primarily sandy. The proposed sewer lines are located almost entirely in ruderal/developed habitats. Therefore, thread-leaved brodiaea is unlikely to occur in the Action Area. Implementation of the Proposed Action would have no effect on thread-leaved brodiaea.

San Bernardino Kangaroo Rat

Potential habitat for San Bernardino kangaroo rat occurs only in small patches within the Action Area where coastal scrub is present. These areas consist of the eastern end of the proposed sewer alignments

along Poppet Flats Road; at the upper ends of some of the proposed lateral lines; and in the riparian habitat of the San Jacinto River.

The Action Area does not contain any known populations of San Bernardino kangaroo rats; this is based upon a CNDDB query, the results of previous trapping surveys in the vicinity, as well as a focused survey performed by ENVIRA Consulting for this Proposed Action. However, there are San Bernardino kangaroo rats in the vicinity, as individuals were trapped by ENVIRA within 1 mile of the Action Area under a Biological Opinion issued for a separate project. Because there is a possibility, although unlikely, that San Bernardino kangaroo rats could migrate into construction areas, conservation measures have been identified to address this issue. These measures include a pre-construction survey for San Bernardino kangaroo rats by a permit-holding biologist, construction best management practices, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed Action is not expected to result in the direct take (mortality) of San Bernardino kangaroo rats during construction.

The Proposed Action will require temporary ground disturbance in some areas of suitable habitat (coastal scrub), but there will be no permanent habitat conversion or indirect take from habitat loss. These areas are currently unoccupied by San Bernardino kangaroo rats and are subject to existing human activities such as weed control. At the San Jacinto River, ground disturbance will be limited to the excavation of bore pits outside the edge of the San Jacinto River bank and levees as well as a proposed levee ramp that would impact 0.2 acre of developed/disturbed habitat; the gravity main will be installed at least 10.5 feet below the river channel.

Therefore, implementation of the Proposed Action may affect, but is not likely to adversely affect, San Bernardino kangaroo rat.

Stephens' Kangaroo Rat

Potential habitat for Stephens' kangaroo rat occurs only in small patches within the Action Area where coastal scrub and grassland habitats are present. These areas consist of the eastern end of the proposed sewer alignments along Poppet Flats Road; at the upper end of some of the proposed lateral lines; and the riparian habitat within the San Jacinto River channel.

The Action Area does not contain any known populations of Stephens' kangaroo rats; this is based upon a CNDDB query, the results of previous trapping surveys in the vicinity, as well as a focused survey performed by ENVIRA Consulting for this Proposed Action. The nearest population of Stephens' kangaroo rat is at the Portrero Preserve, over 3 miles away from the Action Area. Because there is a possibility, although unlikely, that Stephens' kangaroo rats could migrate into construction areas, conservation measures have been identified to address this issue. These measures include a pre-construction survey for Stephens' kangaroo rats by a permit-holding biologist, construction best management practices, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed Action is not expected to result in the direct take (mortality) of Stephens' kangaroo rats.

The Proposed Action will require temporary ground disturbance in some areas of suitable habitat, but there will be no permanent habitat conversion or indirect take from habitat loss. These areas are currently unoccupied by Stephens' kangaroo rats and are subject to existing human activities such as weed control. At the San Jacinto River, ground disturbance will be limited to the excavation of bore pits outside the edge

of the San Jacinto River bank and levees as well as a proposed levee ramp that would impact 0.2 acre of developed/disturbed habitat; the gravity main will be installed at least 10.5 feet below the river channel.

Therefore, implementation of the Proposed Action would have no effect on Stephens' kangaroo rat.

Coastal California Gnatcatcher

The edges of the Action Area have some coastal scrub habitat where proposed lateral sewer lines extend to the edge of developed lands, but these habitats are not dominated by the coastal sage scrub vegetation community. Additionally all coastal scrub habitat in the Action Area is adjacent to existing roadways and thus represents marginal habitat. Thus, coastal California gnatcatcher has a low potential to occur in the Action Area, and only in the areas containing coastal scrub habitat.

The conservation measures specified for this project include a pre-construction survey for nesting birds and the implementation of avoidance measures if nesting birds are detected, as well as biological monitoring and construction best management practices. These conservation measures will ensure that no coastal California gnatcatchers are adversely affected. Implementation of the Proposed Action would have no effect on coastal California gnatcatcher.

Least Bell's Vireo

The Action Area contains suitable habitat in the San Jacinto River where the proposed gravity line will be microtunneled at least 10.5 feet below the riverbed. As designed, the Proposed Action will not result in temporary or permanent disturbance of any riparian vegetation. At the San Jacinto River, ground disturbance will be limited to the excavation of bore pits on the golf course near the edge of the San Jacinto River bank and in ruderal habitat on the outside of the levee; this temporary construction footprint is less than 400 square feet. In addition, the proposed levee access ramp would impact 0.2 acre of developed/disturbed habitat. Conservation measures specified for this project include a pre-construction survey for nesting birds and the implementation of avoidance measures if nesting birds are detected, as well as biological monitoring and construction best management practices. These conservation measures will ensure that no least Bell’s vireo are adversely affected. Implementation of the Proposed Action would have no effect on least Bell’s vireo.

Southwestern Willow Flycatcher

The Action Area contains suitable habitat in the San Jacinto River where the proposed gravity line will be microtunneled at least 10.5 feet below the riverbed. As designed, the Proposed Action will not result in temporary or permanent disturbance of any riparian vegetation. At the San Jacinto River, ground disturbance will be limited to the excavation of bore pits on the golf course near the edge of the San Jacinto River bank and in ruderal habitat on the outside of the levee; this temporary construction footprint is less than 400 square feet. In addition, the proposed levee access ramp would impact 0.2 acre of developed/disturbed habitat. Conservation measures specified for this project include a pre-construction survey for nesting birds and the implementation of avoidance measures if nesting birds are detected, as well as biological monitoring and construction best management practices. These conservation measures will ensure that no southwestern willow flycatcher are adversely affected. Implementation of the Proposed Action would have no effect on southwestern willow flycatcher.

Southwestern Pond Turtle

There is suitable habitat within the Action Area in the San Jacinto River channel. The Action Area does not contain any known populations of southwestern pond turtle; the nearest record of southwestern pond turtle reported in the CNDDB is over 13 miles away from the Action Area. The longest overland migration of this species was measured at 3 miles. As the nearest known population is more than four times the longest known overland migration of this species, it is considered unlikely to disperse through the Action Area. Further, land that would be temporarily disturbed by the Proposed Action adjacent to the San Jacinto River would be limited to developed land within the golf course and the barren stormwater detention pond. Neither of these areas provide suitable nesting or aestivation habitat. Therefore, potential for southwestern pond turtle to occur within the Action Area is limited to low potential within the San Jacinto River channel and a low potential for individuals to disperse through the Action Area within undeveloped lands.

Because there is a possibility, although unlikely, that southwestern pond turtle could migrate into construction areas, conservation measures have been identified to address this issue. These measures include a pre-construction survey for southwestern pond turtle, construction best management practices, worker environmental awareness training, and periodic biological monitoring. With these conservation measures implemented, the Proposed Action is not expected to result in the direct take (mortality) of southwestern pond turtle.

The Proposed Action will require temporary ground disturbance, but there will be no permanent habitat conversion or indirect take from habitat loss. At the San Jacinto River, ground disturbance will be limited to the excavation of a bore pit on the golf course near the San Jacinto River bank; this temporary construction footprint is less than 400 square feet. The gravity main will be installed at least 10.5 feet below the river channel. The only permanent, above-ground project component is the proposed levee access ramp that would impact 0.2 acre of developed/disturbed habitat. Finally, although construction activities have the potential to degrade nearby aquatic habitat, protective measures have been identified for this project to ensure that aquatic habitats are not degraded during construction. Therefore, implementation of the Proposed Action would have no effect on southwestern pond turtle.

Arroyo Toad

Within the Action Area, there is suitable aquatic habitat for arroyo toad only in in the San Jacinto River; upland areas immediately adjacent to rivers may provide terrestrial habitat. The Action Area does not contain any known populations of arroyo toad; the nearest record of arroyo toad reported in the CNDDB is 10 miles away from the Action Area. The average dispersal distance of Arroyo toad is approximately 1.9 miles (USFWS, 1999). Therefore, the nearest known population is over five times the average dispersal distance of this species. Thus, the likelihood of this species dispersing through the Action Area is low. Further, land that would be temporarily disturbed by the Proposed Action adjacent to the San Jacinto River would be limited to developed land within the golf course and the barren stormwater detention pond. Neither of these areas provide suitable aestivation habitat. Therefore, potential for Arroyo toad to occur within the Action Area is limited to low potential within the San Jacinto River channel and a low potential for individuals to disperse through the Action Area within undeveloped lands.

Because there is a possibility that arroyo toad could migrate into construction areas, conservation measures have been identified to address this issue. These measures include a pre-construction survey for arroyo toad, construction best management practices, worker environmental awareness training, and

periodic biological monitoring. With these conservation measures implemented, the Proposed Action is not expected to result in the direct take (mortality) of arroyo toad.

The Proposed Action will require temporary ground disturbance in some areas of suitable habitat, but there will be no permanent habitat conversion or indirect take from habitat loss. At the San Jacinto River, ground disturbance will be limited to the excavation of a bore pit at the golf course near the San Jacinto River bank; this temporary construction footprint is less than 400 square feet. The gravity main will be microtunneled at least 10.5 feet below the river channel. The only permanent, above-ground project component is the proposed levee access ramp that would impact 0.2 acre of developed/disturbed habitat. Finally, although construction activities have the potential to degrade nearby aquatic habitat, protective measures have been identified for this project to ensure that aquatic habitats are not degraded during construction. Therefore, implementation of the Proposed Action would have no effect on arroyo toad.

Monarch Butterfly

There are no known roosting monarch populations in, or near, the Action Area and the Action Area is not in an overwintering zone. Thus, implementation of the Proposed Action is not expected to result in direct take of a population. The biological surveys performed in 2024 did not detect milkweed species (e.g. *Asclepias* spp.), and, in general, the Action Area does not contain large tracts of grasslands, but instead has small isolated patches in habitats dominated by scrub. Grassland patches that do occur in the Action Area are often mowed or seasonally trimmed, and cannot sustain sufficient wildflower resources to be of use to large butterfly populations. Therefore, monarch butterfly is unlikely to occur in the Action Area, and if it does, is expected to be as individuals that are moving toward significant nectar resources in intact grassland habitats offsite. Installation of the sewer lines will temporarily impact a very small amount of grassland habitat. Therefore, implementation of the Proposed Action would have no effect on Monarch Butterfly.

Riverside Fairy Shrimp

The Action Area does not contain the requisite habitats (vernal pools and other seasonal wetlands) for Riverside fairy shrimp. Therefore, there is no potential for Riverside fairy shrimp to occur in the Action Area. Implementation of the Proposed Action would have no effect on Riverside fairy shrimp.

Vernal Pool Fairy Shrimp

The Action Area does not contain the requisite habitats (vernal pools and other seasonal wetlands) for vernal pool fairy shrimp. Therefore, there is no potential for vernal pool fair shrimp to occur in the Action Area. Implementation of the Proposed Action would have no effect on vernal pool fairy shrimp.

5.3 INDIRECT EFFECTS AND CUMULATIVE EFFECTS

For the purposes of this assessment, potential indirect adverse effects consist primarily of the degradation or conversion of natural habitats that could support listed species. Construction that would occur as a result of the Proposed Action will temporarily degrade some natural habitats (coastal scrub, grassland), but the total area is small (about 5.4 acres), and those areas will be restored and re-vegetated. The majority of the sewer pipe alignments are in roads and will not impact natural habitats at all. During construction, surface water quality has the potential to be degraded from storm water transport of sediment from disturbed soils or by accidental release of hazardous materials or petroleum products from sources such as heavy equipment servicing or refueling. Water protection measures have been prescribed

to address this potential adverse effect. The installation of the gravity mainline under the San Jacinto River will be accomplished by microtunneling, which uses drilling lubricants such as bentonite clay. To ensure that drilling lubricants do not accidentally rise to the surface via fractures in bedrock (an event known as "frac-out"), a frac-out contingency plan will be created and implemented.

Implementation of the Proposed Action will have a beneficial effect upon the environment by the replacement of aging septic systems and seepage pits with a sewer collection system and centralized sewage treatment. Septic systems inject unsanitized water, full of chemicals, excess nutrients, and bacteria, into the ground, which can contribute incrementally to environmental degradation, especially to aquatic habitats. The retirement of these septic systems is expected to result in the restoration of normal nutrient cycling in terrestrial habitats and improved water quality in aquatic habitats.

Cumulative effects consist primarily of the potential growth-inducing effect of expanded sewage treatment facilities and the resulting loss of natural habitats by new land developments. However, the Proposed Action is not an expansion of sewage treatment facilities, but is a conversion of treatment types (from individual septic systems to a centralized collection system and treatment at a sanitation facility). The Proposed Action is only serving existing commercial facilities and residences, and some residences currently under construction. Therefore, the Proposed Action is not expected to have any serious cumulative effects.

5.4 POTENTIAL ADVERSE EFFECT ON MIGRATORY BIRDS

The vast majority of the sewer alignments are located in ruderal and developed habitats that do not provide high-quality nesting habitat for birds. There are some trees, shrubs, tall grasses, and poles within the Action Area that may provide suitable nesting and perching habitat for migratory birds. If construction activities are conducted during the nesting season, nesting birds could be directly impacted by removal of vegetation and indirectly impacted by noise, vibration, and other construction-related disturbance. Avoidance and minimization measures, including pre-construction nesting bird surveys, have been identified to address these potential adverse effects to migratory birds.

5.5 CONSERVATION MEASURES

The following avoidance and minimization measures should be implemented to ensure that there are no adverse effects on listed species.

Pre-Construction Botanical Survey

Prior to any construction activities that would disturb coastal scrub habitat, a qualified biologist or botanist shall perform a pre-construction botanical survey within these areas to ensure that slender-horned spineflower is not present in work areas. Although this species plants is conspicuous year-round, the botanical survey would ideally be performed in the blooming period (from April to July). The pre-construction botanical survey shall be valid for no more than three years; if construction within coastal scrub habitat is not initiated three years after the botanical surveys, they shall be repeated during the appropriate blooming period.

If a listed plant species is detected, it is recommended that these plants be avoided and demarcated with exclusion fencing and signage. Where avoidance is not possible, a plant salvage / mitigation program shall be implemented. Project activities within 50 feet of the identified plant populations shall be delayed long

enough for a qualified biologist to prepare and implement the rare plant mitigation program, the outline of which is described below. The plant salvage / mitigation program shall be submitted to the USFWS for approval prior to impacting any listed plants.

For plants that are annuals (annual life history strategy) such as the slender-horned spineflower, the mitigation program shall consist of the following: collection of seeds; sowing of the seeds in the fall/winter in suitable habitats in a preserve area; covering with a weed-free mulch, such as sterile (pasteurized) wheat straw, and periodic maintenance activities, such as the removal of weeds or supplemental watering.

Worker Awareness Training and Construction Monitoring

Prior to construction, all construction workers will take part in an environmental awareness program conducted by a qualified biologist. Special-status species to be covered in the program include, but are not limited to: slender-horned spineflower; San Diego ambrosia; San Bernardino kangaroo rat; Stephen's kangaroo rat; southwestern pond turtle; and arroyo toad. This training shall include a description of the listed species with the potential to occur in the work area, their habitat needs, an explanation of the status of the species and protection under federal and/or State law, and a list of the measures being taken to avoid or reduce impacts to the species during project construction. The curriculum shall also identify the limits of the construction areas and restrictions on movement of personnel and equipment and applicable construction best management practices. The awareness program will be conducted at the start of construction and thereafter as required for new construction personnel. The training shall include a handout or video containing all training information. The project manager shall use these training materials to train any additional construction personnel that were not in attendance at the first meeting, prior to starting work on the project.

Periodic biological monitoring of the active work areas shall be performed no less than once a week by a qualified biologist familiar with the ecosystems and flora and fauna of the region, or by a designated Tribal monitor who has been trained by the qualified biologist. The biologist shall be granted the authority to halt work in the instance of any encroachments into protected habitat or the discovery of any listed species in the Action Area. In the very unlikely circumstance that a listed species is encountered, it shall be immediately relocated out of harm's way by the monitoring biologist.

Kangaroo Rat Protection Measures

A pre-construction survey for San Bernardino and Stephen's kangaroo rats shall be conducted within two weeks of groundbreaking in any area containing coastal scrub habitat, grassland habitat, or in the San Jacinto River channel that will be subject to ground-disturbing activities. The survey shall be performed by a Service-approved biologist. If no individuals or sign of kangaroo rats are detected, work may begin immediately. If individuals, active burrows, or fresh signs of kangaroo rats are detected, protocol trapping surveys shall be conducted. If San Bernardino or Stephen's kangaroo rats are present, the USFWS shall be consulted and avoidance measures implemented. This may consist of project re-alignment or the translocation of kangaroo rats.

The biological monitor shall develop and conduct an environmental awareness education program for all construction personnel (including temporary contractors and subcontractors) before any construction work commences. At a minimum, the information presented will include (1) a description of San Bernardino and Stephen's kangaroo rats and their habitats; (2) legal status of San Bernardino and Stephen's kangaroo rats and the meaning of "take" under the Act and the ramifications of violations of

the Endangered Species Act; (3) delineation and flagging of the Action Area, and limitations on movement of personnel and equipment; and (4) construction best management practices.

Construction Best Management Practices

- Because kangaroo rats are nocturnal, no construction activity shall take place at night. In particular, trenching, backfilling, compacting, and other ground-disturbing activities are restricted to daylight hours.
- Trenches shall be filled or tightly covered at the end of each work day. For trenches that must remain open, animal escape mechanisms shall be installed. This may consist of putting boards in trenches or creating shallow slopes at the ends of trenches so that animals may crawl out.
- Ensure that there are no animals present before trenches are filled or pipes are used.
- Pipe openings shall be covered so that no animals are able to enter pipes.
- Do not feed animals; do not litter; ensure that trash receptacles are closed tightly.
- Before any ground disturbance begins, the contractor will delineate and mark all limits of construction to be clearly visible to all personnel. All construction-related activities by contractors, subcontractors, or their agents and equipment (including staging, materials storage, and personnel parking areas) will be restricted to the designated limits of construction and staging areas.
- All disturbed areas will be restored to their original condition. Trenches will be backfilled and compacted, and the original ground contours restored. Paved areas will be repaved. Unpaved areas will be reseeded with a native seed mix and mulch applied (or other similar soil stabilization measures will be implemented).

Protection of Nesting Migratory Birds During Construction

If construction activities occur during the nesting season (February 15 to August 31), pre-construction surveys for the presence of nesting migratory birds shall be conducted by a qualified biologist within 500 feet of proposed construction areas. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed in consultation with USFWS. Avoidance measures may include establishment of a buffer zone using construction fencing or the postponement of vegetation removal until after the nesting season, or until after a qualified biologist has determined the young have fledged. Avoidance buffers may vary in size depending on habitat characteristics, project-related activities, and disturbance levels.

Aquatic Animal Protection During Construction

To ensure that southwestern pond turtle and arroyo toad are not present in construction areas, pre-construction clearance surveys shall be conducted by a qualified biologist where construction activities occur within 100 feet of a channel. These surveys shall be conducted within 14 days of the commencement of ground-disturbing activities in or near any channel. If any of these species, or listed species in general, are discovered during the survey, project activities shall not begin until USFWS has been consulted and avoidance and minimization measures established and then implemented.

Water Resource Protection

On tribal trust land, the Tribe must enroll in the USEPA's 2022 Construction General Permit. On non-federal land, the landowner must enroll under the State Water Quality Control Board's 2022 Construction General Permit prior to the initiation of construction. In conjunction with enrollment under either of these permit programs, a Storm Water Pollution Prevention Plan, Erosion Control Plan, and a Hazardous

Materials Management/Spill Response Plan must be created and implemented during construction to avoid or minimize the potential for erosion, sedimentation, or accidental release of hazardous materials.

The installation of the gravity mainline under the San Jacinto River will be accomplished by microtunneling, which uses drilling lubricants (such as bentonite clay). To ensure that drilling lubricants do not accidentally rise to the surface during micro-tunneling, a frac-out contingency plan will be created and implemented.

Section 6 | References

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Section 7 | Qualifications of Preparers

G.O. Graening, Ph.D., M.S.E.

G. O. Graening holds a Doctorate in Biological Sciences and a Master of Science in Biological Engineering, and is a certified arborist (International Society of Arboriculture). Dr. Graening has 26 years of experience in environmental assessment and research, including the performance of numerous wetland delineations and aquatic restoration projects. Dr. Graening also served as an adjunct professor of biology at California State University Sacramento for 10 years and was an active researcher in the area of conservation biology and groundwater ecology.

Attachment A

USFWS Species List

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901

In Reply Refer To:
Project Code: 2024-0050005
Project Name: Soboba Tribe Sewer Line Project

February 15, 2024

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

To Whom It May Concern:

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

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

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

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

evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

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

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

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

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

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

Attachment(s):

- Official Species List

OFFICIAL SPECIES LIST

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

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

PROJECT SUMMARY

Project Code: 2024-0050005
Project Name: Soboba Tribe Sewer Line Project
Project Type: Utility Infrastructure Maintenance
Project Description: installation of sewer mains and laterals on tribal lands
Project Location:

The approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.78595835,-116.89560534475483,14z



Counties: Riverside County, California

ENDANGERED SPECIES ACT SPECIES

There is a total of 15 threatened, endangered, or candidate species on this species list.

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

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

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

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

MAMMALS

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* There is **final** critical habitat for this species. Your location overlaps the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/2060	Endangered
Stephens' Kangaroo Rat *Dipodomys stephensi (incl. D. cascus)* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3495	Threatened

BIRDS

NAME	STATUS
Coastal California Gnatcatcher *Polioptila californica californica* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8178	Threatened
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered

REPTILES

NAME	STATUS
Southwestern Pond Turtle *Actinemys pallida* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

AMPHIBIANS

NAME	STATUS
Arroyo (=arroyo Southwestern) Toad *Anaxyrus californicus* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3762	Endangered

INSECTS

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

CRUSTACEANS

NAME	STATUS
Riverside Fairy Shrimp *Streptocephalus woottoni* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8148	Endangered
Vernal Pool Fairy Shrimp *Branchinecta lynchi* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/498	Threatened

FLOWERING PLANTS

NAME	STATUS
San Diego Ambrosia *Ambrosia pumila* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8287	Endangered
San Jacinto Valley Crownscale *Atriplex coronata var. notatior* There is **final** critical habitat for this species. However, no *actual* acres or miles were designated due to exemptions or exclusions. See Federal Register publication for details. Species profile: https://ecos.fws.gov/ecp/species/4353	Endangered
Slender-horned Spineflower *Dodecahema leptoceras* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4007	Endangered
Spreading Navarretia *Navarretia fossalis* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/1334	Threatened
Thread-leaved Brodiaea *Brodiaea filifolia* There is **final** critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6087	Threatened

CRITICAL HABITATS

There is 1 critical habitat wholly or partially within your project area under this office's jurisdiction.

NAME	STATUS
San Bernardino Merriam's Kangaroo Rat *Dipodomys merriami parvus* https://ecos.fws.gov/ecp/species/2060#crithab	Final

IPAC USER CONTACT INFORMATION

Agency: Acorn Environmental
Name: G.O. Graening
Address: 343 Carpenter Hill Road
City: Folsom
State: CA
Zip: 95630
Email ggraening@gmail.com
Phone: 9164525442

Attachment B

Small Mammal Assessment

PHASE 1 SMALL MAMMAL ASSESSMENT

Soboba Septic-to-Sewer Project

Prepared for:

Soboba Band of Luiseño Indians
23906 Soboba Road
San Jacinto, CA 92583

Prepared By:

ENVIRA
Phillipe Vergne
P.O. Box 2612, Ramona, California, USA 92065
Phone 619-885-0236 E-mail PHVERGNE@AOL.COM

Survey Dates: April 18, 27, 2024

Report Date: July 23, 2024

INTRODUCTION

The focus of the phase one small mammal assessment on the Soboba Septic-to-Sewer project was to determine whether the alignment had the potential to affect San Bernardino kangaroo rat (SBKR) and other special-status small mammal species.

Two alignments were looked at (Figure 1). The only difference between the two was the area of connection with existing sewer line on the west end of the project.

METHODS

A literature review and records check was conducted for sensitive small mammal resources within the vicinity of the proposed project. In addition to the literature review, a general field survey of the project area was conducted. The field survey provided information on the existing conditions of the site and the potential for sensitive resources to be present.

Literature Review and Records Check

The literature review and records check included a review of standard field guides and texts on sensitive and non-sensitive biological resources potentially onsite, as well as the following sources:

- List of sensitive biological resources provided by the California Natural Diversity Data Base (CNDDB).
- The Status and Known Distribution of the San Bernardino Kangaroo Rat (Dipodomys merriami parvus). Field surveys conducted between 1987 and 1996 (McKernan 1997).
- Endangered and Threatened Wildlife and Plants; Final Rule to List the San Bernardino Kangaroo Rat as Endangered; and Notice of Public Hearing (U. S. Fish and Wildlife Service 1998).
- Previous trapping reports for the area

Habitat Evaluation Surveys

Mr. Philippe Vergne, a certified kangaroo rat biologist holding U.S. Fish and Wildlife Permit No. TE068072-5 and current California Department of Fish and

Wildlife (CDFW) Memorandum of Understanding, inventoried the site for burrows, small mammal sign, and evaluated the condition of the soils and plant communities on site in order to assess the potential for SBKR or other sensitive species to occur. Mr. Vergne took notes during the surveys of all plant and animal species observed.

During the survey Mr. Vergne was assisted by the Soboba Tribal Environmental Department.

The first survey occurred on April 18, of 2024 over the entire alignment.. The second on April 27, of 2024 only on the Golf Course west end.

The proposed right-of-way was searched for potential habitat and diagnostic kangaroo rat sign such as scat, tracks, dust bowls and burrows. All plant and animal species were identified by sight, call or sign (burrows, scat, tracks, skeletal remains) and recorded.

In addition, site characteristics such as soils, topography, the condition of the plant communities, and evidence of human use of the site were noted. A list of plant and wildlife species observed during the survey is included in Appendix A.

Four sensitive mammal species were identified as potentially present in the vicinity of the project site. They are the San Bernardino kangaroo rat, the northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), and the San Diego desert woodrat (*Neotoma lepida intermedia*). Of these only the San Bernardino Kangaroo rat is federally listed.

San Bernardino Kangaroo Rat Background

The San Bernardino kangaroo rat is primarily associated with a variety of sage scrub vegetation, where the common elements are the presence of sandy soils and relatively open vegetation structure (McKernan 1997). Flood events break out of the main river channel in a complex pattern, resulting in a braided appearance to the flood plain. This dynamic nature to the habitat leads to a situation where not all the alluvial scrub habitat is suitable for the kangaroo rat at any point in time.

The SBKR prefers open habitat characterized by a low stature open scrub canopy

cover of less than 22 percent. Occupied SBKR habitat also typically exhibits a reduced herbaceous cover with a low abundance of European grasses, such as brome species. This type of habitat is best described as early to intermediate phase alluvial sage scrub communities that are subject to frequent flooding/scouring. The open vegetation structure in these communities support the highest densities of SBKR.

Mature phase alluvial chaparral, which are usually located above the active channel or on higher benches are not usually occupied by SBKR, although individuals have been trapped in dense upland scrub adjacent to open habitat and SBKR populations (Vergne 2008).

The proposed project is located adjacent to USFWS Final Critical Habitat for the SBKR.

RESULTS

Soils and Topography

Soils on site are characterized as Soboba, and Tujunga loamy sand (Soil Survey Staff 2016). The topography varies from flat to slightly inclined sloping to the south and southwest,depending on location.

Current Land Use

Rural Tribal housing, development such as Tribal Offices, maintenance yards, schools, rural tribal housing, fire station, gas station and market, golf course, casino, and open space.

Plant Communities

Plant communities within the project footprint are ruderal, ornamental or developed.

Wildlife

Wildlife activity was low. One reptile species, the side-blotched lizard (*Uta stansburiana*) was observed. Most common bird species observed included mourning dove (*Zenaida macroura*) and American kestrel (). SBKR, northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego desert woodrat were not detected in the project areas. There was no sign detected for any of these focal species either. Burrows were generally lacking,

and there were no ground squirrel colonies in the project areas.

Conclusions

The proposed project occurs mostly along hard top, packed roads and developed areas. The portion under the San Jacinto River will be slant drilled and have no effect on resources. Lay down areas occur within developed areas. The project areas have a very low potential to harbor SBKR, northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego desert woodrat. Off-site areas have a greater potential to harbor these species. Because there is the possibility that small mammals will migrate into work areas, construction best management practices have been prescribed below. These practices will ensure that SBKR and other small mammals will not be impacted during construction.

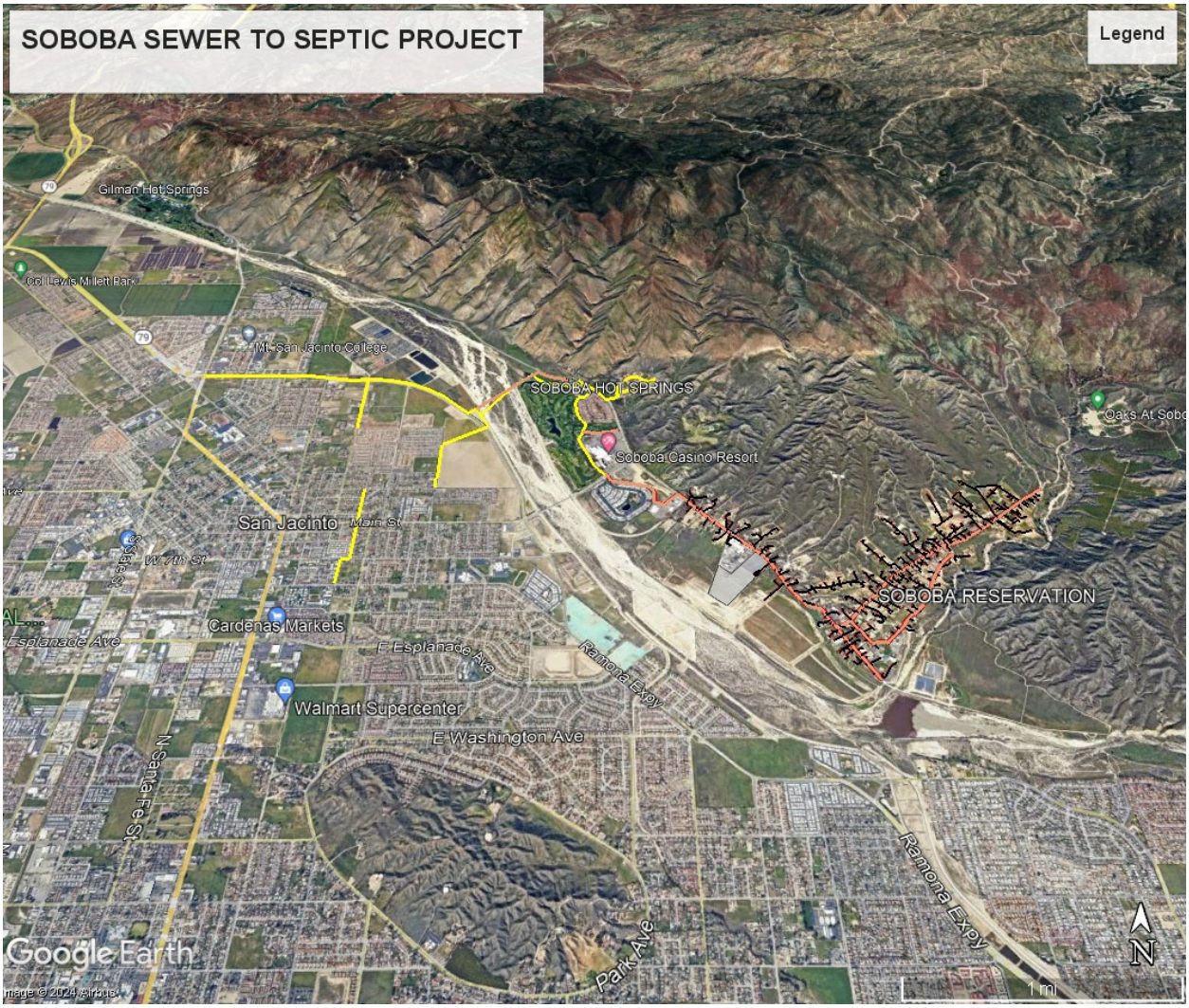
My final conclusion is that there will be no impact to SBKR from project implementation and no further studies are required.

Recommendations

Because of vicinity to occupied habitat for SBKR, the following best management practices are recommended:

1. Pre-construction surveys for SBKR and other special-status small mammals before ground disturbance occurs near scrub habitats or in the San Jacinto River floodplain
2. Check all trenches prior to backfilling.
3. Trenches at end of day should have a 45-degree angle at the end in order to allow for animals to escape.
4. Last connected pipe of the day should have entrance covered with plywood in order to stop animals from entering.

Figure 1. Soboba Sewer to Septic Project Alignment



Pictures of Sewer Line Pathway through Soboba Reservation







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Vergne Focused trapping surveys and relocation Soboba Reservation

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Appendix A Plant and Animal Species Observed

Plants

Asteraceae	**Sunflower family**
Ambrosia psilostachya	Western ragweed
Amsinckia menziesii	Fiddleneck
Cryptantha intermedia	Popcorn flower
Brassicaceae	**Mustard family**
Brassica nigra	Black mustard
*Hirschfeldia incana	Short-podded mustard
Euphorbiaceae	**Spurge family**
Chamaesyce albomarginata	Rattlesnake weed
Croton californica	Croton
Eremocarpus setigerus	Doveweed
Geraniaceae	**Geranium family**
Erodium cicutarium	Red-stemmed filaree
Poaceae	**Grass family**
Avena barbata	Slender wild oats
Bromus mollis	Soft chess
Schismus barbatus	Mediterranean grass

Taxonomy and nomenclature follow Hickman 1993

and Munz 1974.

Animals

REPTILIA	**REPTILES**
Iguanidae Uta stansburiana	**Iguanas and their allies** Side-blotched lizard
AVES	**BIRDS**
Cathartidae Cathartes aura	**Vultures** Turkey vulture
Accipitridae Buteo jamaicensis	**Kites, hawks and eagles** Red-tailed hawk
Falconidae Falco sparverius	**Caracaras and falcons** American kestrel
Columbidae Zenaida macroura	**Pigeons and doves** Mourning dove
Corvidae Corvus brachyrhynchos	**Crows and ravens** American crow
MAMMALIA	**MAMMALS**
Leporidae Sylvilagus audubonii	**Rabbits and hares** Audubon's cottontail
Sciuridae Spermophilus beecheyi	**Squirrels, chipmunks and marmots** California ground squirrel
Geomyidae Thomomys bottae	**Pocket gophers** Botta's pocket gopher
Canidae Canis latrans	**Foxes, wolves and relatives** Coyote

Attachment C

List of Species Observed

Plant Species Observed in the Project Site

Common Name	Scientific Name
Sand verbena	*Abronia* sp.
Menzies fiddleneck	*Amsinckia menziesii*
California sagebrush	*Artemisia californica*
Tarragon	*Artemisia dracunculus*
Milk vetch	*Astragalus* sp.
Saltbush	*Atriplex* sp.
Wild oat	*Avena barbata*
Q-tips	*Bombycilaenta californica*
Foxtail chess	*Bromus madritensis*
Cheatgrass	*Bromus tectorum*
Sedge	*Carex* sp.
Indian paintbrush	*Castilleja exserta*
Sand pygmyweed	*Crassula connata*
Clearwater cryptantha	*Cryptantha intermedia*
Prairie clover	*Dalea* sp.
California encelia	*Encelia californica*
Brittlebush	*Encelia farinosa*
California goldenbush	*Ericameria ericoides*
California buckwheat	*Eriogonum fasciculatum*
Buckwheat	*Erigonum* sp.
Redstem stork's bill	*Erodium cicutarium*
Red gum	*Eucalyptus camaldulensis*
Broom snakeweed	*Gutierrezia sarothrae*
Shortpod mustard	*Hirschfeldia incana*
Mouse barley	*Hordeum murinum*
Yellow bush penstemon	*Keckiella antirrhinoides*
Miniature lupine	*Lupinus bicolor*
Desert dandelion	*Malacothrix* sp.
Laurel sumac	*Malosma laurina*
Sweetclover	*Melilotus* sp.
Tree tobacco	*Nicotiana glauca*
California suncup	*Oenothera californica*
Olive	*Olea europaea*
Stinknet	*Oncosiphon piluliferum*
Pricklypear	*Opuntia* sp.
Panicgrass	*Panicum* sp.
Phacelia	*Phacelia minor*
Date palm	*Phoenix dactilifera*
Ornamental pine	*Pinus* sp.
Sycamore	*Platanus racemosa*
Cottonwood	*Populus fremontii*
Castor bean	*Ricinus communis*
Lemonadeberry	*Rhus integrifolia*
Sugarbush	*Rhus ovata*
Sandbar willow	*Salix exigua*
Red willow	*Salix laevigata*
Russian thistle	*Salsola tragus*

Chia	*Salvia columbariae*
Mexican elderberry	*Sambucus mexicana*
Pepper tree	*Schinus molle*
Arabian grass	*Schismus* sp.
Marigold	*Tagetes* sp.
Saltcedar	*Tamarix parviflora*
Gorse	*Ulex* sp.

Attachment D

Site Photographs



Figure 1: Typical Dirt Driveway



Figure 2: Typical Paved Roadway



Figure 3: Paved Roadway with Drainage Ditch



Figure 4: Stormwater Retention Pond



Figure 5: Dirt Path Within Golf Course



Figure 6: San Jacinto River

Acorn Environmental taken February 7, 2024

SITE PHOTOGRAPHS

Appendix F-3

Aquatic Resources Delineation

AQUATIC RESOURCES DELINEATION



Soboba Septic to Sewer Conversion Project

Riverside County, CA | November 2024

acorn environmental

Prepared For:

U.S. Army Corps of Engineers
Los Angeles District
915 Wilshire Blvd.
Los Angeles, CA 90017

AQUATIC RESOURCES DELINEATION

Soboba Septic to Sewer Conversion Project

Riverside County, CA | November 2024

Prepared For:

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Los Angeles District
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Section 1 | Introduction

1.1 PURPOSE AND SCOPE OF REPORT

Acorn Environmental conducted a formal delineation of jurisdictional water bodies on an approximately 139.4-acre Project Site, in Riverside County, California. The majority of the Project Site is located within the boundaries of the Reservation of the Soboba Band of Luiseño Indians (Tribe), a federally recognized tribe. This report presents the results of the field survey conducted in accordance with the USACE Wetlands Delineation Manual to determine which portions of this property may qualify as potentially jurisdictional waters of the United States (including wetlands). USACE is ultimately responsible for determining the limits of their jurisdiction, and this report has been prepared to assist the USACE with their determination. This report also identifies which off-Reservation portions of this property may qualify as potentially jurisdictional waters of the State of California. The State of California is ultimately responsible for determining the limits of their jurisdiction, and this report has also been prepared to assist State agencies with their determination.

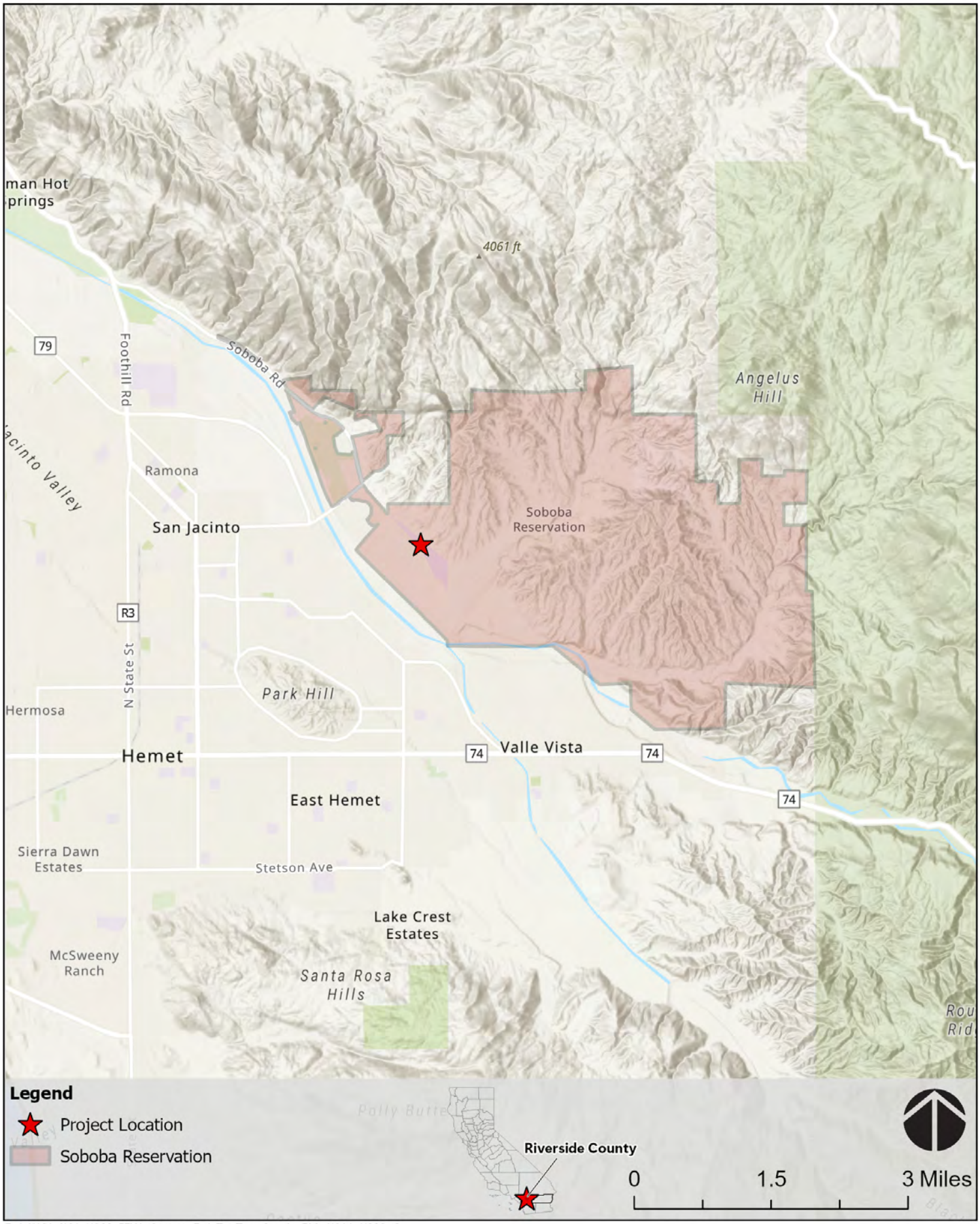
1.2 PROPOSED LOCATION AND DESCRIPTION

The Project Site is located in western Riverside County, California (**Figure 1** and **Figure 2**). The Tribe is proposing the Soboba Septic to Sewer Conversion Project (Proposed Project) to replace the use of individual septic systems on the Reservation by connecting to the regional wastewater treatment facilities of the Eastern Municipal Water District (EMWD). The Proposed Project will also replace the existing, temporary pipeline and associated facilities that convey wastewater from the Tribe's Soboba Casino Resort, through the Soboba Springs Golf Course and below the San Jacinto River. Existing non-Tribal communities within EMWD's service area that are connected to this aging, temporary pipeline include the Soboba Springs Lake Park mobile home community and other adjacent residential development. The Project Site includes all proposed sewer lines between the individual developed land uses and the existing EMWD facilities at the northern end of the San Jacinto Valley. The 139.4-acre Project Site includes the areas encompasses by proposed pipe alignments, lift stations, a proposed levee ramp, and staging areas partially within unincorporated Riverside County and within the City of San Jacinto (**Figure 2**).

Figure 3 presents an aerial photograph of the Project Site and the immediate vicinity. The Proposed Project site plan is provided in **Figure 4a** and **Figure 4b.**

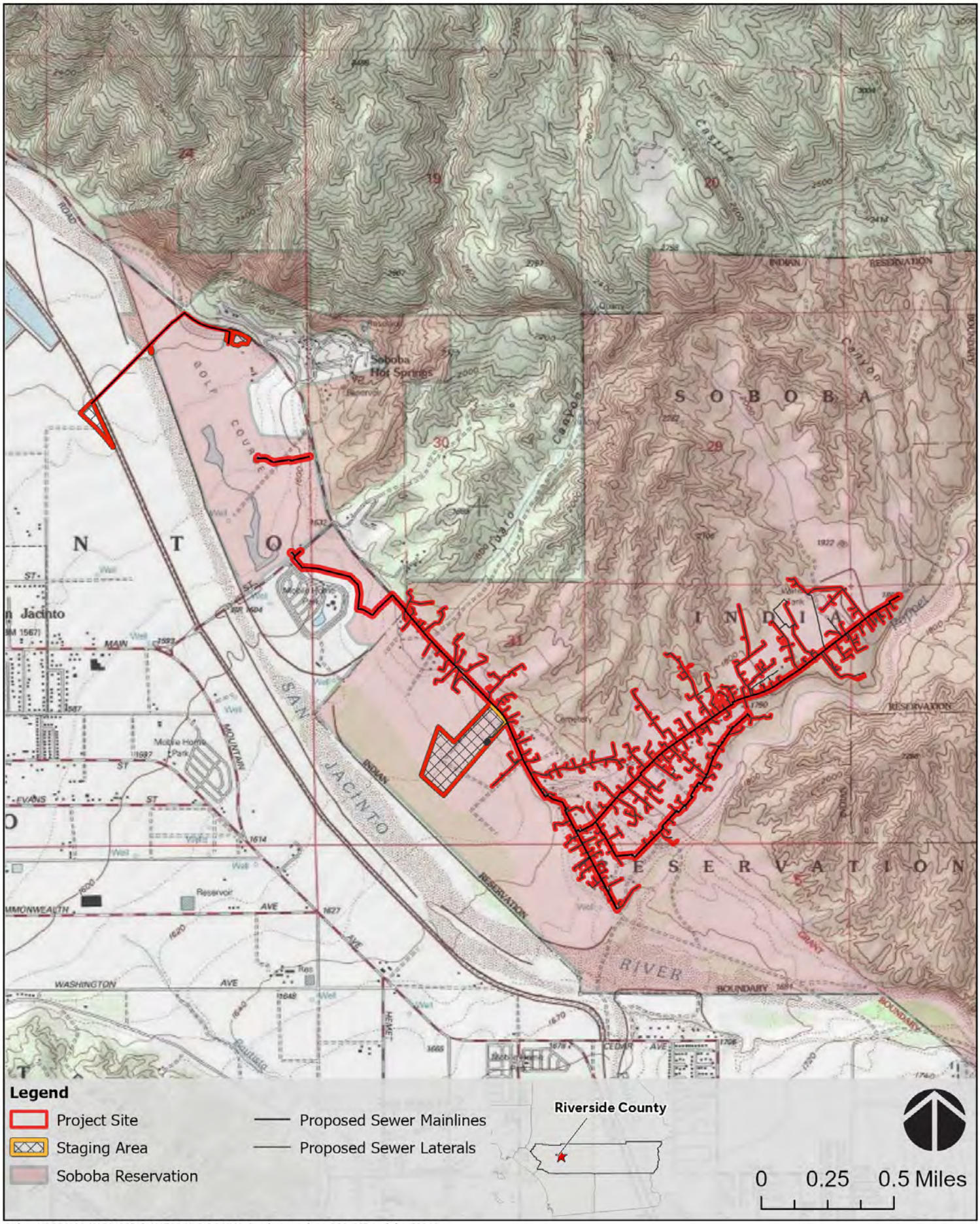
1.3 REGULATORY SETTING

Real property in California that contains water resources is subject to various federal and state regulations, and activities occurring in these water resources may require permits, licenses, variances, or similar authorization from federal, state and local agencies. Following is a brief, but not exhaustive, summary of such regulations, as they apply particularly to field delineations of jurisdictional waterbodies.



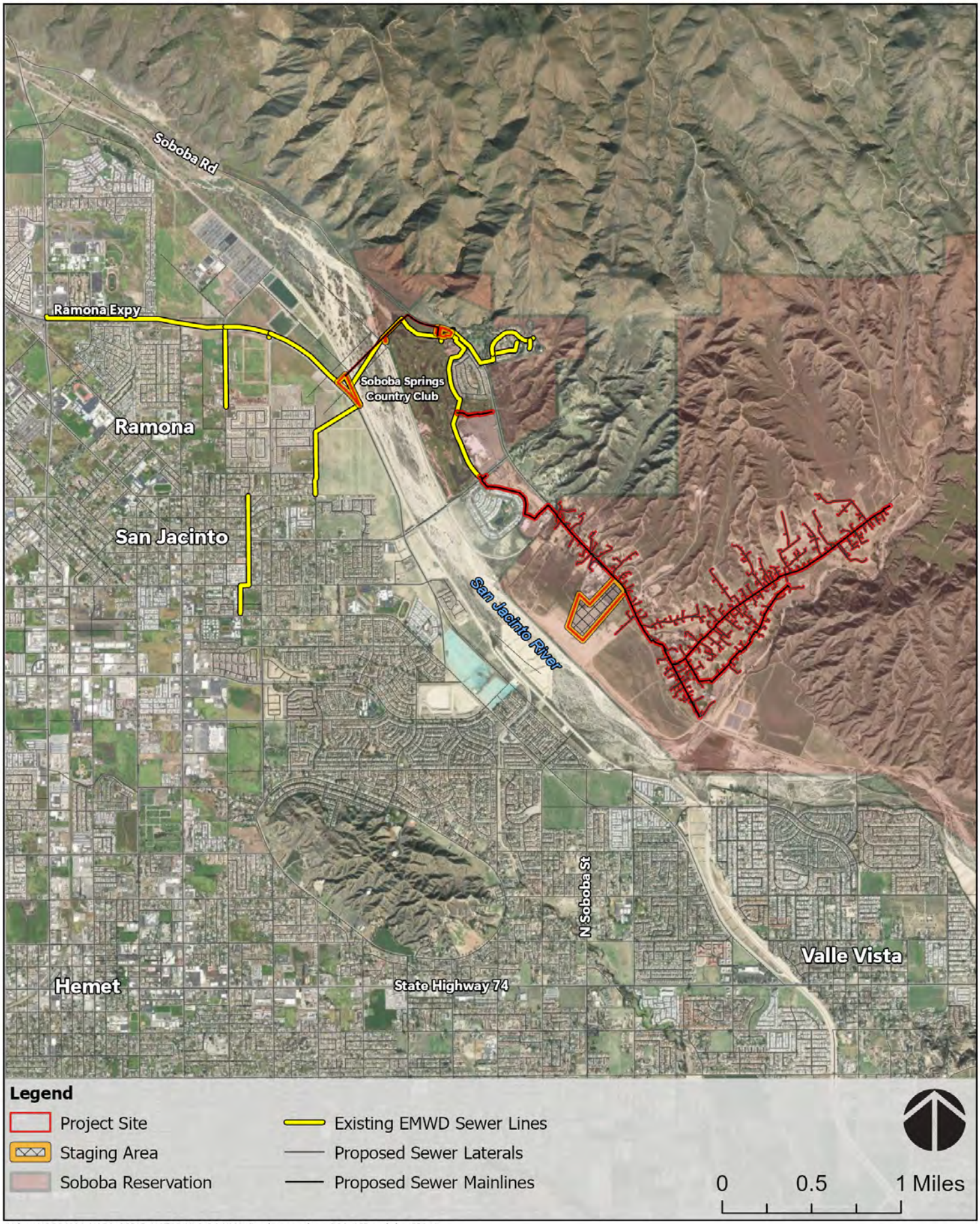
Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

FIGURE 1
REGIONAL LOCATION



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Copyright:© 2013 National Geographic Society, i-cubed

FIGURE 2
SITE AND VICINITY



Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

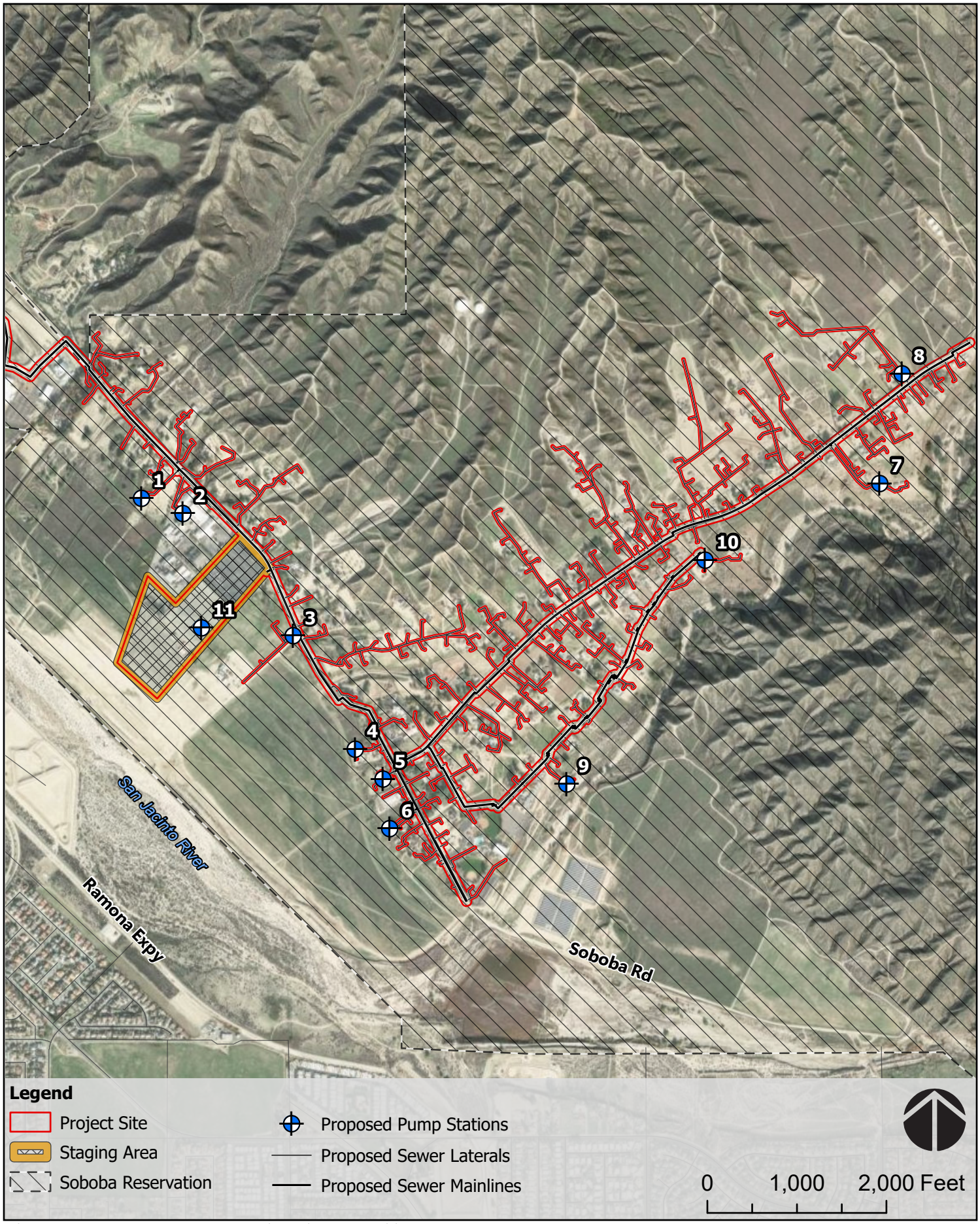
FIGURE 3
AERIAL OVERVIEW



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 4a

PROPOSED PROJECT - NORTHERN DETAIL



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 4b

PROPOSED PROJECT - SOUTHERN DETAIL

Federal Regulations

At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. In Section 404 of the CWA, waters of the US are defined as: all waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters (33 CFR Part 328). With non-tidal waters, in the absence of adjacent wetlands, the extent of federal jurisdiction is defined by the ordinary high water mark - the line on the shore established by the fluctuations of water, and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris. Wetlands are defined as: "…*those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions*." (Federal Register 1980, 1982).

Any person, firm, or agency planning to alter or work in navigable waterbodies, including the discharge of dredged or fill material, must first obtain authorization from the United States Army Corps of Engineers (USACE). Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) prohibits the obstruction or alteration of navigable waters of the US without a permit from USACE. CWA Section 301 prohibits the discharge of pollutants, including dredged or fill material, into waters of the US without a Section 404 permit from USACE (33 USC 1344). If the proposed project involves species (or their habitat) listed under the federal Endangered Species Act (FESA) of 1973, USACE must initiate consultation with U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) pursuant to Section 7 (16 USC 1536; 40 CFR Part 402). Wetland features that exhibit vernal pool characteristics may be protected under FESA or the California Endangered Species Act (CESA) because several crustaceans listed as threatened or endangered are dependent upon vernal pool habitat.

Under CWA Section 401, every applicant for a federal permit or license for any activity which may result in a discharge to a water body must obtain certification that the proposed activity will comply with State water quality standards. The applicable Regional Water Quality Control Board must certify that a USACE Section 404 Permit action meets state water quality objectives by issuing a Water Quality Certification. California Department of Fish and Wildlife (CDFW) provides comment on USACE permit actions under the Fish and Wildlife Coordination Act. Under CWA Section 402, any construction project that disturbs at least one acre of land requires enrollment in the State's construction general permitting program under the National Pollutant Discharge Elimination System and implementation of a storm water pollution prevention plan.

The United States Environmental Protection Agency (USEPA) and USACE (2008) issued joint guidance regarding Clean Water Act jurisdiction following the decision in the consolidated cases of Rapanos v. United States and Carabell v. United States. USACE and USEPA will assert jurisdiction over traditional navigable waters, and non-navigable tributaries that have relatively permanent flow, and adjacent wetlands. The agencies will decide jurisdiction on a case-by-case basis for non-navigable tributaries that do not have relatively permanent flow, and adjacent wetlands, based upon significant nexus criteria (Kennedy Test, Scalia Test). The agencies generally will not assert jurisdiction over ditches, swales or other erosional features, or isolated wetlands.

Effective September 8, 2023, the USEPA and the USACE have issued a new final rule in the Code of Federal Regulations to conform the definition of 'waters of the United States' to the 2023 Supreme Court's May 25, 2023, decision in Sackett vs. EPA. Under the new final rule, tributaries and wetlands must have a continuous surface connection to navigable waterways to be considered jurisdictional under the CWA. Only those relatively permanent, standing, or continuously flowing bodies of water meet the current definition. In certain states where litigation regarding this definition is ongoing, the pre-2015 definition of waters of the U.S. is in effect. California is not one of these states and currently operates under the definition as promulgated under the new final rule.

State Regulations

Waters of the State are regulated primarily under the California Water Code and the California Code of Regulations Title 23: Water and Title 27: Environmental Protection. All water features in California, on public and private lands, in both natural and artificial channels, including isolated wetland features and impermanent drainages that are not claimed as waters of the US, are considered waters of the State. Waters of the State are protected under the Porter-Cologne Water Quality Control Act (California Water Code, Division 7: Water Quality) and are regulated by the State Water Resources Control Board (SWRCB) and its nine Regional Water Quality Control Boards. Additional statewide regulations that protect wetlands and riparian areas are the Wetlands Conservation Policy (Executive Order W-59-93), also known as the State's "No Net Loss" Policy for Wetlands, and the Policy for Implementation and Enforcement of the Nonpoint Source Pollution Control Program (State Water Board Resolution No. 2004-0030).

All parties proposing to discharge materials that could affect off-Reservation waters of the State must file a report of waste discharge with the appropriate regional board. The regional board will then respond to the report by issuing waste discharge requirements (WDRs) in a public hearing, or by waiving WDRs (with or without conditions) for that proposed discharge. Both of the terms "discharge of waste" and "waters of the State" are broadly defined in the Porter-Cologne Act, such that discharges of waste include fill, any material resulting from human activity (including construction), or any other "discharge" that may directly or indirectly impact waters of the State.

California Fish and Game Code (§1600-1607, 5650F) protects fishery resources by regulating "*...any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake*." CDFW requires notification prior to project commencement, and issuance of a Lake or Streambed Alteration Agreement, if a proposed project will result in the alteration or degradation of off-Reservation waters of the State. The limit of CDFW jurisdiction is currently interpreted to be the "stream zone", defined as "that portion of the stream channel that restricts lateral movement of water" and delineated at "*the top of the bank or the outer edge of any riparian vegetation, whichever is more landward*". CDFW reviews the proposed actions and, if necessary, submits to the applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Streambed Alteration Agreement.

Section 2 | Environmental Setting

The Project Site is located within the Western Transverse Ranges geographic subregion, which is contained within the Southwestern California geographic subdivision of the larger California Floristic Province (Baldwin et al. 2012). The climate is in Zone 19 "Southern California Interior Valley Thermal Belts," which is an interior climate that is only partially influenced by the ocean. This region has a Mediterranean-type climate, characterized by distinct seasons of hot, dry summers and wet, moderately-cold winters (Sunset Western Garden Collection (2024). The Project Site is at the boundary of two ecological subsections: 1) San Jacinto Foothills – Cahuilla Mountains; and 2) San Jacinto Mountains (County of Riverside, 2023).

The topography of the Project Site is a series of river terraces and alluvial fans at the terminus of various canyons and arroyos that a tributary to the San Jacinto River (**Figure 2**). The Project Site is at the base of the foothills on the western flank of the San Jacinto Mountains that separate the San Jacinto River Basin to the west from the Coachella Valley to the east. A major levee is present on the south side of the San Jacinto River; a minor levee is present on the north side at the Soboba Springs golf course. The elevation ranges from approximately 1,560 to 1,865 feet above sea level. In general, the topography of the Project Site is gently sloping to the west towards the San Jacinto River floodplain. The land uses of the Project Site are: open space and preserve lands; flood control district levees and basins; commercial; gaming facility; golf course; educational and recreational facilities; transportation corridors; and rural residential. The surrounding land uses are rural residential; urban residential; commercial; open space; state and federal land (San Bernardino National Forest); and grazing land.

Section 3 | Methods

The delineation was conducted in accordance with the following:

- 1987 Corps of Engineers Wetland Delineation Manual
- 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) and
- 2008 A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.

3.1 PRELIMINARY DATA GATHERING AND RESEARCH

Prior to conducting the field survey, the following information sources were reviewed:

- Client's engineering or design drawings (where available);
- United States Geologic Survey (USGS) 7.5-degree minute topographic quadrangle maps and aerial photography;
- United States Department of Agriculture Natural Resources Conservation Service (NRCS) soil survey maps;
- Federal Emergency Management Agency (FEMA) Flood Insurance Rate (Flood Hazard Boundary) Maps;
- USFWS National Wetland Inventory Maps; and
- Any readily-available studies performed previously.

3.2 DETERMINATION PROCEDURES

The purpose of the field determination was to: 1) identify any and all water features that are subject to federal jurisdiction (i.e., waters of the US) within the Project Site; and 2) if present, determine the boundary of each water feature. The entire Project Site was assessed in such a manner as to view all areas to the degree necessary to determine the vegetation community types and the presence or absence of jurisdictional water features. Wetland field determination procedures followed the USACE Wetlands Delineation Manual technical guidelines for a Level 2 Routine Field Determination (Environmental Laboratory 1987). Additionally, the appropriate USACE regional supplement was also consulted.

The diagnostic environmental characteristics of hydrophytic vegetation, hydric soils, and wetland hydrology (i.e., 3-parameter approach) were used as the standard for determining if specific areas qualified as wetlands (Environmental Laboratory 1987). A subject area was determined to be a wetland if all 3 requisite characteristics were present; as a general rule, evidence of a minimum of one positive indicator for each parameter must be found in order to make a positive wetland determination.

Hydrophytic vegetation is defined as "...*the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation or soil saturation produce permanently or periodically saturated soils sufficient in duration to exert a controlling influence on the plant species present*." (Environmental Laboratory 1987). Hydrophytic vegetation indicators included: prevalence of vegetation; majority of dominant plant species are obligate or facultative wetland plants (hydrophytes); morphological or physiological adaptations to saturated soil conditions; and species listed on the National List of Plant

Species that Occur in Wetlands (USFWS 2006a) and the Regional List (Region 10) (USFWS 2006b). This National List divides plant species into categories based upon their frequency of occurrence in wetlands. These categories are: OBL = obligate wetland plants that occur almost always in wetlands under natural conditions (estimated probability greater than 99%); FACW = facultative wetland plants that usually occur in wetlands, but occasionally occur in non-wetlands (estimated probability 67 – 99%); FAC = facultative wetland plants that are equally likely to occur in wetlands or non-wetlands (estimated probability 34 – 66 %); FACU – facultative upland plants that usually occur in non-wetlands, but occasionally are found in wetlands (estimated probability 1 – 33 %); UPL = obligate upland plants that almost always occur in non-wetlands (estimated probability greater than 99%); NI and UNK = insufficient information to determine status; NL = not listed; NA = no agreement by Regional Panel on status; NO = species does not occur in specified region; * (asterisk) indicates tentative assignment; + (positive) or – (negative) sign indicates higher or lower frequency in its category, respectively. During field investigations, the percentage of hydrophytic plant coverage was determined based on the ratio of wetland indicator species coverage present to the total plant coverage present. More than 50 percent of the dominant plant species cover must be FAC, FACW, or OBL to meet the hydrophytic vegetation criterion.

Hydric soils are defined as soils that are "...formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part." (Environmental Laboratory 1987). A minimum of one week of inundation or 14 consecutive days of saturation during the growing season is a typical requirement. The criteria for establishing the presence of hydric soils vary among different soil types and drainage classes. Hydric soil indicators include evidence of reducing or redoximorphic conditions (including sulfidic odor, organic streaking), gleyed, mottled, or low-chroma soils, iron and manganese concretions, and low dissolved oxygen concentration (aquic moisture regime); organic soils (histosols); or mineral soils saturated and rich in organics (histic epipedon) (NRCS 2006). Richardson and Vepraskas (2001) present a thorough discussion of wetland soil science. In the absence of visible field indicators, hydric soil conditions may be determined according to two criteria: 1) all dominant plant species have an indicator status of OBL and/or FACW (at least one dominant plant species must be OBL); and 2) areas below the level of ordinary high water are frequently flooded for long duration or very long duration during the growing season and possess and aquic (reducing) moisture regime. Soils are also classified as hydric on non-hydric by NRCS (2006).

Wetland hydrology "...*encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface at some time during the growing season*" (Environmental Laboratory 1987). Many factors influence site-specific hydrology, including the precipitation, stratigraphy, topography, soil permeability, and plant cover of the site. In general, inundation or saturation must occur for at least 5 percent of the growing season to qualify as wetland hydrology. The degree of inundation or saturation at the subject site can vary widely from year to year depending on rainfall patterns within the watershed. Primary wetland hydrology indicators include visual observations of inundation or soil saturation, water marks and water-stained leaves, sediment deposits, drift lines, and drainage patterns in wetlands.

Sampling locations were established within potential wetland areas and within adjacent uplands, where present, to determine the boundary of wetlands. At each sampling point, the location was georeferenced using a GPS receiver and marked on an aerial photograph; a numbered pin flag or lathe was placed, where necessary, to assist other surveyors. Information on vegetation, soils, and hydrology was recorded on a USACE Routine Wetland Determination Data Form.

Dominant and subdominant plant species in each vegetative stratum (e.g., tree, shrub, forb) that occurred within approximately 5 to 10 feet of the sampling point were identified and recorded, and their wetland indicator status determined. All visible flora observed were recorded in a field notebook and identified to the lowest possible taxon; a hand lens was used where necessary. When a specimen could not be identified *in situ*, a photograph or voucher specimen (depending upon scientific permit requirements) was taken and identified later in the laboratory using a dissecting scope where necessary. Taxonomic determinations and nomenclature followed Baldwin et al. (2012) and University of California at Berkeley (2024).

Where necessary, a soil pit was dug with a spade to expose at least 16 inches of soil profile, and the sample evaluated for hydric soil indicators. Munsell Soil Color Charts (2000 edition, Gretagmacbeth, Inc.) were used to determine soil matrix and mottle color (hue, value, and chroma), and soil type and particle size was also noted. NRCS (1999) Soil Taxonomy handbook was referenced for soil classification where necessary. Based on the results of the 3-parameter test, the extent of each potential wetland was mapped in the field using a GPS receiver capable of submeter accuracy and/or demarcated on aerial photographs for later "heads-up" digitization. Wetlands and other aquatic habitats were classified using the USFWS "Classification System for Wetland and Deepwater Habitats", or "Cowardin class" (Cowardin et al., 1979; USFWS 2014). A determination was made whether normal environmental conditions exist; atypical conditions followed a modified procedure described in the USACE Manual (Environmental Laboratory 1987). Geographic analyses, including acreage calculations, were performed using geographical information system software (ArcGIS 10, ESRI, Inc.).

For identification of water features other than wetlands that are subject to federal or State jurisdiction, two principal field characteristics were evaluated: 1) the presence of a channel; and 2) the presence of an ordinary high water mark. The OHWM is defined in 33 CFR Part 329.11 as the line on the shore established by the fluctuations of water, and indicated by a clear, natural line impressed on the bank, shelving, changes in soil character, destruction of terrestrial vegetation, or the presence of litter and debris. Other characteristics were noted, where possible: description of hydrologic feature type, length, approximate discharge volume, gradient, range between low and high water mark, width of riparian vegetation, etc. For determination of whether these water bodies constituted waters of the US, USACE regulations (33 CRF 328) were consulted. Data sheets for these non-wetland water bodies were completed at representative locations and were included in the Appendix.

A joint USEPA/USACE memorandum dated 2008 provided guidance to implementing the Supreme Court's decision in the consolidated cases Rapanos v. United States and Carabell v. United States (hereafter referred to simply as "Rapanos") which addressed the jurisdiction over waters of the United States under the Clean Water Act. In Rapanos, the Supreme Court restricted where the federal government can apply the Clean Water Act, specifically by determining whether a wetland or tributary is a "water of the United States." According to USEPA and USACE (2008), jurisdiction will continue to be asserted over "all 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." These waters are referred to as traditional navigable waters. The agencies will also continue to assert jurisdiction over wetlands adjacent to traditional navigable waters, where "adjacent" means "bordering, contiguous, or neighboring." Finding a continuous surface connection is not required to establish adjacency under this definition (USEPA & USACE 2008).

A non-navigable tributary of a traditional navigable water is a non-navigable water body whose waters flow into a traditional navigable water either directly or indirectly by means of other tributaries. CWA

jurisdiction will continue to be held over non-navigable tributaries that are "relatively permanent" – waters that typically (e.g., except due to drought) flow year-round or waters that have a continuous flow at least seasonally (e.g., typically three months). Justice Scalia emphasizes that relatively permanent waters do not include tributaries "whose flow is 'coming and going at intervals...broken, fitful.'" Therefore, "relatively permanent" waters do not include ephemeral tributaries which flow only in response to precipitation and intermittent streams which do not typically flow year-round or have continuous flow at least seasonally (USEPA & USACE 2008). However, CWA jurisdiction over these waters will be evaluated under the significant nexus standard described next.

The agencies will assert jurisdiction over the following types of waters when they have a significant nexus with a traditional navigable water: (1) non-navigable tributaries that are not relatively permanent, (2) wetlands adjacent to non-navigable tributaries that are not relatively permanent, and (3) wetlands adjacent to, but not directly abutting, a relatively permanent tributary (e.g., separated from it by uplands, a berm, dike or similar feature). The agencies will assess the flow characteristics and functions of the tributary itself, together with the functions performed by any wetlands adjacent to that tributary, to determine whether collectively they have a significant nexus with traditional navigable waters. A waterbody possesses the requisite nexus, and thus becomes jurisdictional, if the waterbody, either alone or in combination with similarly situated lands in the region, significantly affects the chemical, physical, and biological integrity of other covered waters more readily understood as 'navigable' (USEPA & USACE 2008).

To assist in the interpretation of the Rapanos criteria, the USACE Jurisdictional Determination Form Instructional Guidebook was consulted (USACE & USEPA 2007).

Section 4 | Results

4.1 FIELD SURVEY

Dr. G. O. Graening conducted the field assessment on February 7 and April 18, 2024. Variable-intensity pedestrian surveys were performed of the Project Site, modified to account for differences in terrain, vegetation density, and visibility. Sampling points were established at key locations and analyzed for the presence or absence of wetland (or for channels, OHWM) indicators; these points are documented in the Data Sheets in **Attachment A**. The results of the analyses of Project Site vegetation, soils, and hydrology are presented in the following sections, followed by the recommended jurisdictional determinations.

4.2 VEGETATION COMMUNITIES

All flora sighted within the Project Site during the field survey are listed in **Attachment B**. Obligate wetland plants are present within the Project Site. The Project Site contains the following vegetation communities/habitat types: coastal scrub; annual grassland; developed/disturbed; and riparian. These habitat types are discussed below; photos of the Project Site are presented in **Attachment C**.

Coastal Scrub

In the Project Site, coastal scrub occurs in areas of high sun exposure that have not been cleared or graded, and primarily on alluvial fans and river terraces. It can also occur in islands of river washes. Coastal scrub is made up predominantly of aromatic, drought deciduous soft-leaved shrubs, but with significant cover of larger perennial species typically found in chaparral (County of Riverside 2003). Composition varies substantially depending on geographic factors and the successional status of the scrub community; however, characteristic species are California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), scalebroom (*Lepidospartum squamatum*), laurel sumac (*Malosma laurina*), California encelia (*Encelia californica*), and several species of sage (e.g., *Salvia mellifera*, *S. apiana*) (County of Riverside 2003).

Annual Grassland

In areas subject to grading, grazing, field agriculture, non-native annual grasslands occur. These communities are dominated by several species of grasses that have evolved to persist in concert with human agricultural practices: wild oats (*Avena* spp.), chess and other bromes (*Bromus* spp.), barley (*Hordeum* spp.), rye grasses (*Lolium* spp.), rat-tail fescue (*Vulpia myuros*), and Mediterranean schismus (*Schismus barbatus*) (County of Riverside 2023). Weedy forbs are also present, especially shortpod mustard (*Hirschfeldia incana*).

Developed / Disturbed

Developed land is intensively used with much of the land paved or covered by structures or landscaped. Vegetation in these areas generally consists of non-native ornamental species (grass in the fairways and greens and residential lawns, flowerbeds, shrubs, and decorative trees) or cleared areas that are generally devoid of vegetation. Disturbed lands contain species adapted to ruderal habitats, which are primarily non-native European grasses and weedy forbs. Clumps of wooded areas are also present. Some consist of

stands of Eucalyptus (*Eucalyptus* spp.), but there are remnants of coast live oak woodlands in a few places.

Riparian

Within the San Jacinto River channel between river washes, there are islands of riparian communities that are either riparian woodland or riparian scrub habitats. Dominant tree species of riparian woodland are sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), white alder (*Alnus rhombifolia*), and several species of willow (*Salix* spp.), but upland trees can also be present, such as coast live oak (*Quercus agrifolia*) and California walnut (*Juglans californica*). The riparian woodlands have an understory of box elder (*Acer negundo*), big-leaf maple (*A. macrophyllum*), stinging nettle (*Urtica dioica*), poison oak (*Toxicodendron diversilobum*), and wild grape (*Vitis girdiana*).

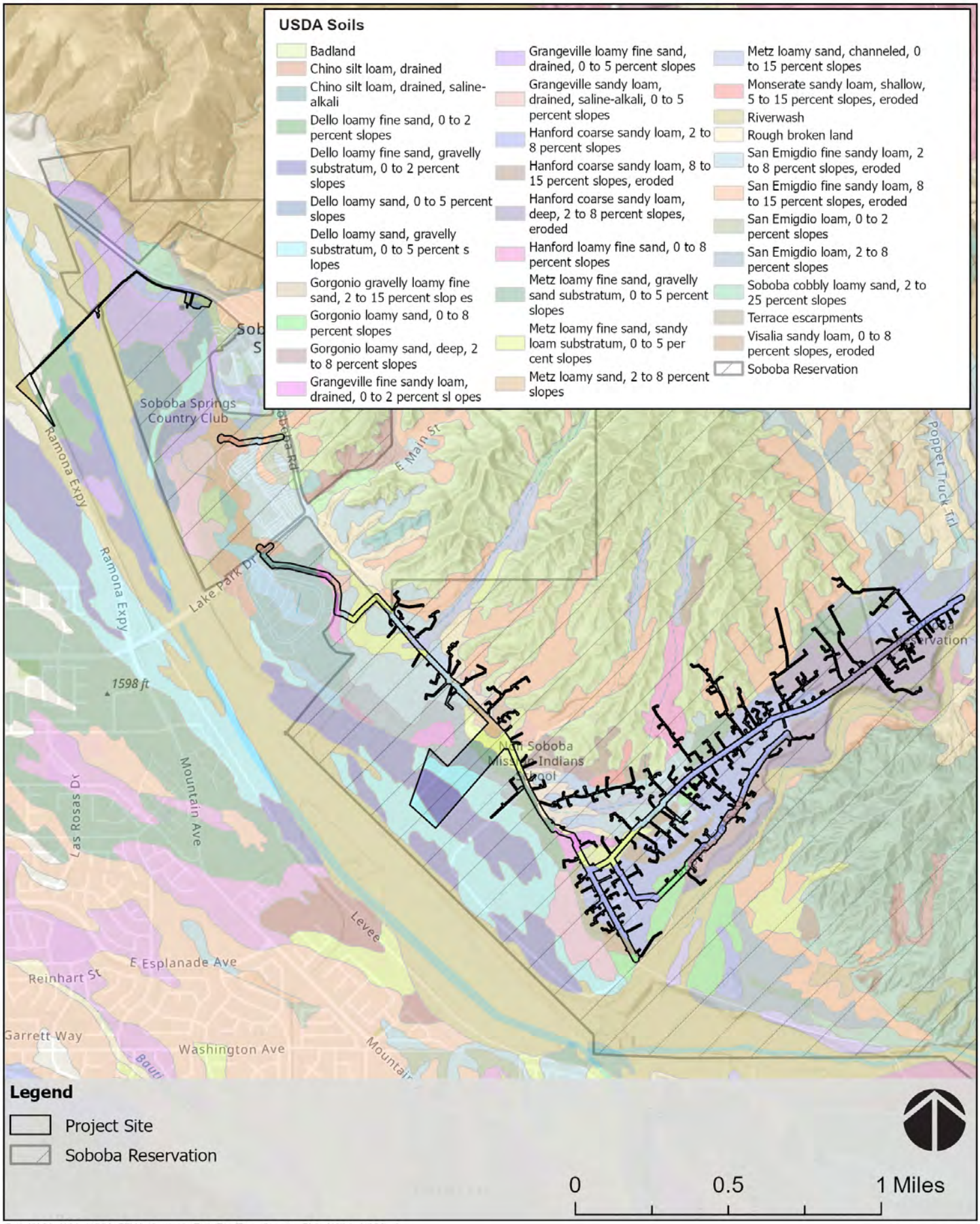
Riparian scrub communities are variable and consist of stands of tamarisk (*Tamarix* spp.) or giant reed (*Arundo donax*), or mixed communities of Mexican elderberry (*Sambucus mexicana*), mulefat (*Baccharis salicifolia*), salt grass (*Distichlis spicata*), wild cucumber (*Marah macrocarpus*), mugwort (*Artemisia douglasiana*), or relatively pure stands of willow and blackberry thickets. This habitat comprises 0.37 acres of the Project Site.

Because these riparian habitats are within the active channel of the San Jacinto River, are regularly flooded, and contain water-dependent (hydrophytic) vegetation, they are considered potentially-jurisdictional water resources.

4.3 SOIL TYPES

Digital soil survey maps from NRCS' SSURGO 2.2 Database were consulted for this study (NRCS 2024), and mapped soil units occurring within the Project Site are mapped in **Figure 5** and are listed as follows:

- BaG: Badland (458160)
- Ce: Chino silt loam, drained (458186)
- Cf: Chino silt loam, drained, saline-alkali (458187)
- DgB: Dello loamy sand, 0 to 5 percent slopes (458210)
- DoA: Dello loamy fine sand, 0 to 2 percent slopes (458213)
- DrA: Dello loamy fine sand, gravelly substratum, 0 to 2 percent slopes (458215)
- GhC: Gorgonio loamy sand, 0 to 8 percent slopes (458252)
- GlC: Gorgonio loamy sand, deep, 2 to 8 percent slopes (458255)
- GoB: Grangeville loamy fine sand, drained, 0 to 5 percent slopes (458258)
- GpB: Grangeville sandy loam, drained, saline-alkali, 0 to 5 percent slopes (458259)
- GrB: Grangeville sandy loam, sandy substratum, drained, 0 to 5 percent slopes (458260)
- GtA: Grangeville fine sandy loam, drained, 0 to 2 percent slopes (458262)
- GvB: Grangeville fine sandy loam, saline-alkali, 0 to 5 percent slopes (458265)
- HaC: Hanford loamy fine sand, 0 to 8 percent slopes (458273)
- HcC: Hanford coarse sandy loam, 2 to 8 percent slopes (458275)
- HeC2: Hanford coarse sandy loam, deep, 2 to 8 percent slopes, eroded (458278)
- HcD2: Hanford coarse sandy loam, 8 to 15 percent slopes, eroded (458276)
- MdC: Metz loamy sand, 2 to 8 percent slopes (458302)



Esri, NASA, NGA, USGS, FEMA, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community

FIGURE 5
SOIL TYPES

- MgB: Metz loamy fine sand, gravelly sand substratum, 0 to 5 percent slopes (458305)
- MhB: Metz loamy fine sand, sandy loam substratum, 0 to 5 per cent slopes (458306)
- MnD2: Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded (458312)
- RsC: Riverwash (458354)
- RuF: Rough broken land (458356)
- SeC2: San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded (458359)
- SeD2: San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded (458360)
- SgA: San Emigdio loam, 0 to 2 percent slopes (458362)
- SgC: San Emigdio loam, 2 to 8 percent slopes (458363)
- TeG: Terrace escarpments (458375)
- VlC2: Visalia sandy loam, 0 to 8 percent slopes, eroded (458391

Note that none of these mapped soil units within the Project Site were designated "hydric" by NRCS. NRCS provides this disclaimer: "*Lists of hydric soils along with soil survey maps are good off-site ancillary tools to assist in wetland determinations, but they are not a substitute for observations made during on-site investigations*." (http://soils.usda.gov/use/hydric/overview.html).

4.4 HYDROLOGY

The general direction of surface runoff from the Project Site is to the west into the San Jacinto River channel. The river emerges from the San Jacinto Mountains, entering the relatively flat San Jacinto Valley about seven miles upstream of the Project Site. Annual precipitation in the upper watershed ranges from about 13 inches in the Project Site to about 35 inches at Mt. San Jacinto. Several major drainage courses merge to contribute to this watershed upstream of the Project Site, but none of these join the river within the project area. The San Jacinto River and its tributaries are intermittent, responding primarily to intense or prolonged storm events that generate runoff. Downstream of the Project Site, the San Jacinto River flows about 23 miles to Railroad Canyon Reservoir, which overflows occasionally to Lake Elsinore. Very rarely, Lake Elsinore spills into the Santa Ana River. The two other tributaries, Poppet and Indian Creeks, enter the San Jacinto River on the right (northeast) bank within the Reservation.

This portion of the San Jacinto River within the Project Site is protected by levees that were constructed by USACE and Riverside County Flood Control and Water Conservation District. The levees are maintained today by Riverside County Flood Control and Water Conservation District.

According to the FEMA Flood Hazard Boundary Map of the region, some of the Project Site is located within a flood zone (Zone A – inside the 100-year floodplain) and some areas are outside of any flood zone (Zone X, either outside the 500-year floodplain or outside the 100-year floodplain because of reduced flood risk due to levee). The portions of the Project Site that are in Zone A are those areas in the San Jacinto River channel inside the levees and a few areas on the Tribe's Reservation at the lowest altitudes near the confluence of Poppet Creek and the San Jacinto River. Because wetlands often occur within floodplains, these FEMA Flood Hazard Boundary Maps may assist the delineator in determining if wetland hydrology exists within the Project Site.

4.5 NATIONAL WETLANDS INVENTORY / PREVIOUS DELINEATIONS

No previously published wetland delineation reports were identified or made known to the author. The

USFWS National Wetland Inventory (NWI) digital maps of the Project Site were also consulted (**Figure 6**). Regional mapped wetland features are shown, where illustrative. The following features were mapped within the Project Site by the NWI:

- the channel of the San Jacinto River and associated riverine wetlands (Cowardin Class R4SBJ)
- ponds on golf course and associated lacustrine wetlands (Cowardin Class PUBHx)
- Poppet Creek (Cowardin Class R4SBA)
- Juaro Canyon and three other unnamed channels (Cowardin Class R4SBC)

Note, however, that this database was not used to conclude that a wetland was present or absent in the Project Site.

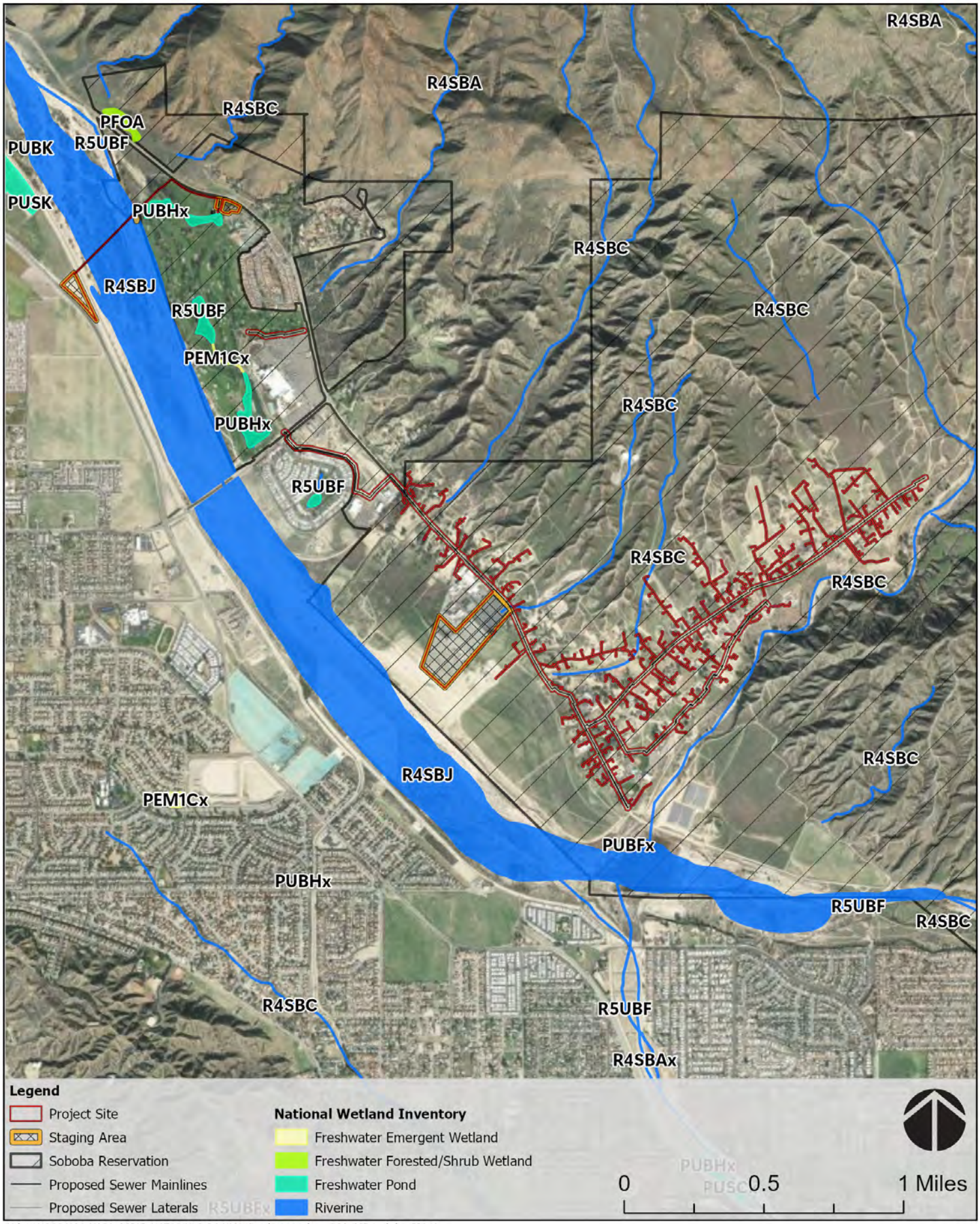
4.6 DELINEATION RESULTS AND JURISDICTIONAL RECOMMENDATIONS

All hydrologic features were identified and mapped within the Project Site and subjected to the delineation criteria set forth by each regulatory agency. These features are summarized below and are mapped in **Figure 7** and **Figure 8a** through **8n**. This delineation map has not been verified by USACE or SWRCB, and thus represents an unofficial demarcation of the potential limits of jurisdiction. Various survey points were established for the delineation of this Project Site, and corresponding data sheets can be found in **Attachment A**.

Channels and Other Linear Drainage Features

Data Point CCR: Storm Culverts at Castile Canyon Intersection

At the intersection of Castile Canyon Road and Soboba Road there is a stormwater catchment and conveyance system. Two corrugated metal pipe culverts, each 18 inches in diameter and approximately 60 feet long, collect ephemeral stormwater flows from Castile Canyon Road and residences and send it under Soboba Road. A 4-foot-wide trapezoidal concrete canal collects this water and sends it westward towards the San Jacinto River. Where the canal terminates, an erosive gully has formed. However, these storm flows dissipate into a sandy agricultural field 1,400 feet short of the riverbank. Thus, there is no direct hydrologic connectivity between this stormwater discharge point and San Jacinto River. There are also no wetlands associated with the stormflow discharge point; upland plants are dominant (mustard, barley, chamomile, and tree tobacco). Flow is not relatively permanent, but is ephemeral. This stormwater facility is not expected to be subject to federal jurisdiction. It would not be subject to state jurisdiction as it is located within the Reservation.



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Maxar

FIGURE 6

NATIONAL WETLAND INVENTORY

Aquatic Resources Classification			Aquatic Resource Size		
Aquatic Resource Name	**Cowardin**	**Location (Lat/Long)**	**(sq. ft.)**	**(acre)**	**(linear feet)**
Channels					
C1 (unnamed)	R4SBC	33.7762, -116.9136	1438	0.033	100
C4 (Juaro Canyon)	R4SBC	33.7846, -116.9209	1123	0.026	101
SJR (San Jacinto River)	R3UB2	33.7978, -116.9425	13471	0.309	667
		Total Channels	**16032**	**0.368**	**868**
Wetlands					
San Jacinto riparian	R3UBKx	33.7991, -116.9409	16030	0.368	
		Total Wetlands	16030	**0.368**	

Latitude: 33.8039028°N
Longitude: 116.9551436°W

SJR (San Jacinto River) braided channel and riparian islands

UP 1

RIP 1

SJR

San Jacinto River

Juaro Canyon

Castille Canyon

C4

Juaro Canyon (Data point C4) channel in pipe culvert

C3

C2

C1B

C1A

C1

CCR

C1 (Unnamed channel) channel in box culvert

Poppet Creek

Latitude: 33.7683489°N
Longitude: 116.8776407°W

Legend

Project Site
Staging Area
Sewer Laterals
Sewer Mainlines
Data Point
Pipe Culvert
Pipe Culvert and Data Point

Non-jurisdictional
Stormwater Basin
Channel

Jurisdictional
Channel
Riparian Wetlands

Delineator: Dr. G.O. Graening, July 22, 2024

0 0.5 1 Miles

Airbus, USGS, NGA, NASA, CGIAR, NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community, Maxar

FIGURE 7
AQUATIC RESOURCES DELINEATION MAP

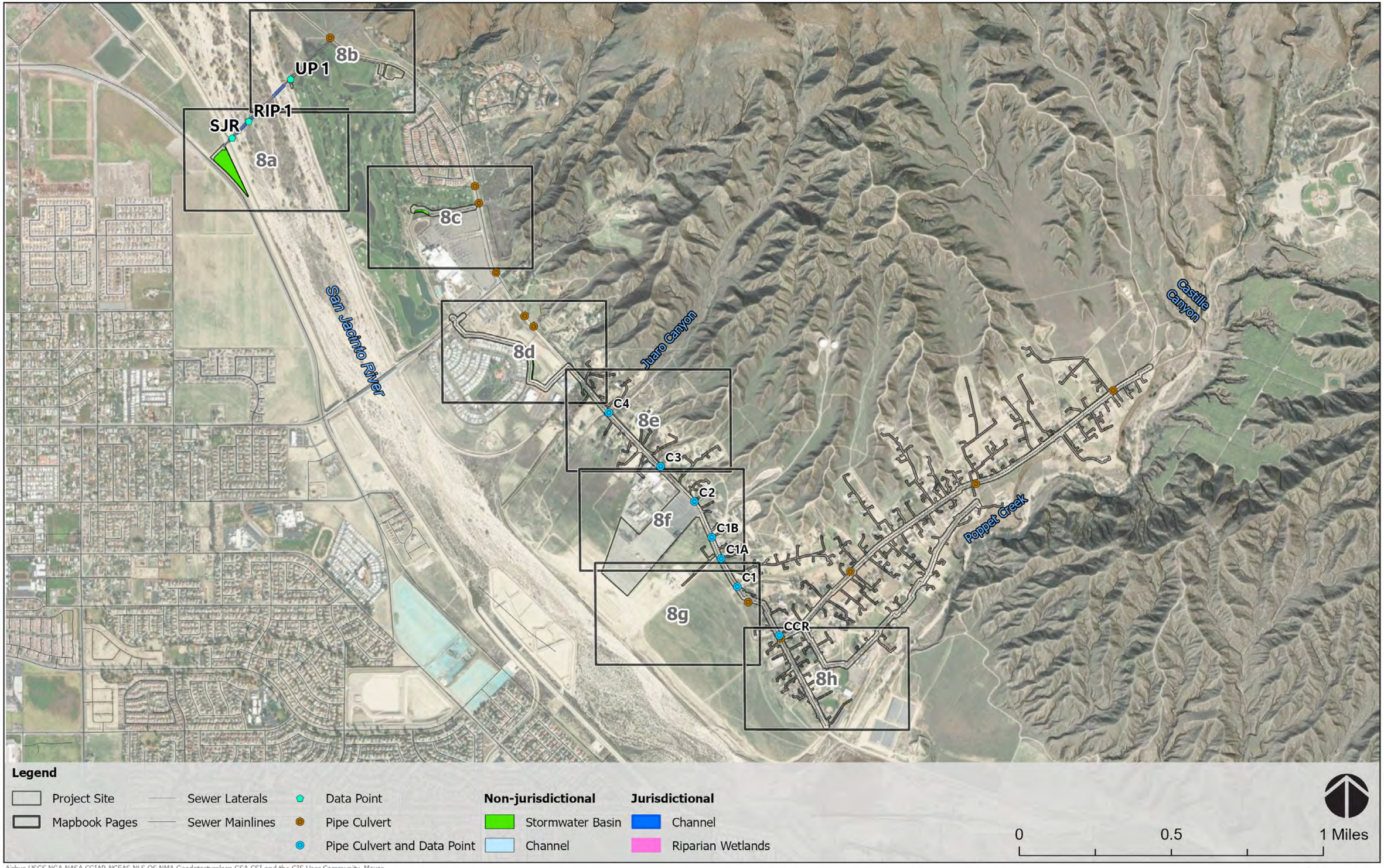
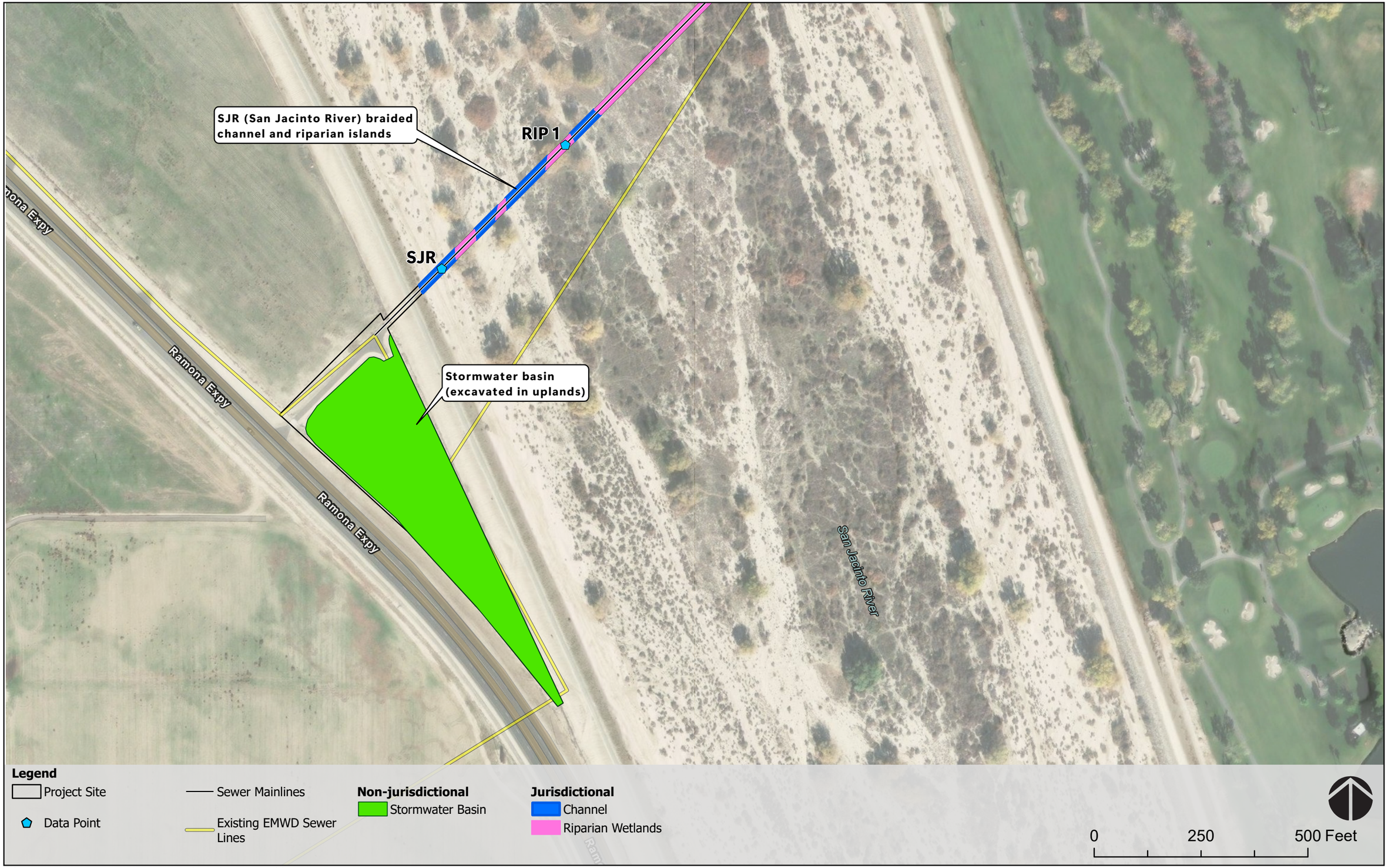


FIGURE 8

AQUATIC RESOURCES DELINEATION MAPBOOK OVERVIEW



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

FIGURE: 8a
DELINATION MAP DETAIL



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FIGURE: 8b
DELINATION MAP DETAIL



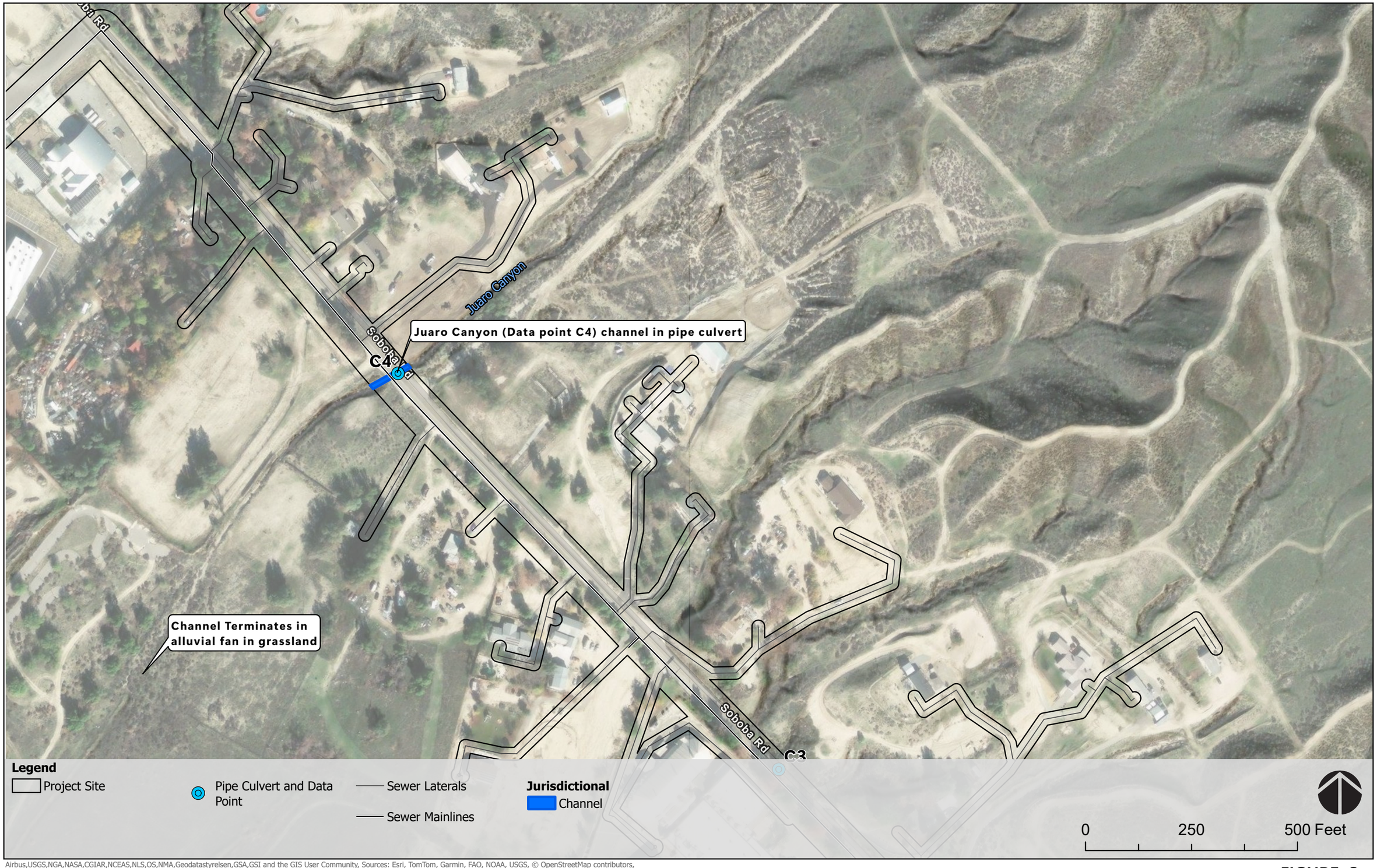
Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

FIGURE: 8c
DELINATION MAP DETAIL



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FIGURE: 8d
DELINATION MAP DETAIL



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FIGURE: 8e
DELINATION MAP DETAIL



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FIGURE: 8f
DELINATION MAP DETAIL



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FIGURE: 8g
DELINATION MAP DETAIL



Airbus,USGS,NGA,NASA,CGIAR,NCEAS,NLS,OS,NMA,Geodatastyrelsen,GSA,GSI and the GIS User Community, Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, Maxar

FIGURE: 8h
DELINATION MAP DETAIL

Data Point C1: Unnamed Channel

Under Soboba Road northwest of the tribal administrative building (near the residential driveway of 23880 Soboba Road), there is a double box culvert that conveys flow from an intermittent channel in an arroyo towards the San Jacinto River. Above this culvert, the unnamed channel is approximately 25 feet wide (OHWM) with a sandy/gravelly bottom. Upland disturbed coastal scrub vegetation is dominant (e.g. Russian thistle, shortpod mustard). At the culvert, rip rap and concrete aprons are present to protect from scour. There are two box culverts, each 6 feet by 3 feet. After discharging from the box culverts, the channel continues westward towards the San Jacinto River. The channel terminates in a sandy agricultural field 1,700 feet short of the riverbank, a small alluvial fan has formed; ephemeral flows dissipate into this field. Thus, there is no hydrologic connectivity between this stormwater discharge point and San Jacinto River, but this criterion is not always necessary in the Arid Southwest region (USACE 2001). Instead, the qualifying criterion is the size of the channel and the contributing watershed; these are sufficiently large for the channel to qualify as a tributary to the San Jacinto River. There are no wetlands associated with the stormflow discharge point; upland annual grasses are dominant (primarily *Hordeum* spp.). The NWI maps this feature as riverine R4SBC (intermittent, streambed, cobble-gravel); NWI also shows it terminating at Soboba Road. Flow is not relatively permanent, but is seasonal. Channel indicators are present. This channel is expected to be subject to federal jurisdiction. It would not be subject to state jurisdiction as it is located within the Reservation.

Within the Project Site, there is 100 linear feet (0.033 acre) of this channel delineated; at the project alignment, the channel is 12 feet wide (OHWM), but constrained inside the double box culvert.

Data Points C1A and C1B: Road Relief Ditches

At two locations, pipe culverts under Soboba Road transmit stormflows from road relief ditches towards the San Jacinto River. At location C1A, there is corrugated metal pipe culvert, 24 inches in diameter and approximately 60 feet long. At location C1B, there is a corrugated metal pipe culvert, 18 inches in diameter and approximately 45 feet long. Both of these culvert discharges dissipate into ruderal fields that are at least 2,000 feet away from the riverbank. Thus, there is no direct hydrologic connectivity between these stormwater discharge points and the San Jacinto River. These ditches are not mapped in the NWI. Flow is not relatively permanent, but is ephemeral. Channel indicators are absent. These small stormwater facilities are not expected to be subject to federal jurisdiction. It would not be subject to state jurisdiction as it is located within the Reservation.

Data Point C2

Under Soboba Road at the parking lot of the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches towards the San Jacinto River. This corrugated metal pipe culvert is 36 inches in diameter and approximately 50 feet long. This culvert discharges overland onto the large paved parking lot, where it evaporates or dissipates as sheetflow to a ruderal field. The discharge point is 2,300 feet from the riverbank. Thus, there is no direct hydrologic connectivity between this stormwater discharge point and the San Jacinto River. The NWI maps this feature as R4SBC: intermittent, streambed, cobble-gravel; NWI shows it terminating in the parking lot. Flow is not relatively permanent, but is ephemeral. This isolated channel is not expected to be subject to federal jurisdiction because of the lack of connectivity to relatively-permanent channels and flow is not relatively permanent. It would not be subject to state jurisdiction as it is located within the Reservation.

Data Point C3

Along Soboba Road near the entrance to the former casino, there is a pipe culvert that transmits stormflows from arroyos and from road ditches under Soboba Road towards the San Jacinto River. This corrugated metal pipe culvert is 12 inches in diameter and approximately 40 feet long. This culvert discharges into the former stormwater and landscaping facilities. The discharge point is at least 2,000 feet from the riverbank. Thus, there is no direct hydrologic connectivity between this stormwater discharge point and the San Jacinto River. It is not mapped in the NWI. It was assigned the Cowardin Class of R5SBC (ephemeral, streambed, cobble-gravel). Flow is not relatively permanent, but is ephemeral. This channel is not expected to be subject to federal jurisdiction because of the connectivity to relatively-permanent channels and the small volume of stormflow and lack of some channel indicators. It would not be subject to state jurisdiction as it is located within the Reservation.

Data Point C4: Juaro Canyon

South of the fire station on Soboba Road, there is a pipe culvert that transmits stormflows from Juaro Canyon and from road ditches towards the San Jacinto River. Upstream of the Project Site, the channel width is about 15 feet (OWHM) and has coastal scrub vegetation. This elliptical pipe culvert is 64 inch by 43 inches in diameter and approximately 40 feet long under Soboba Road. This culvert discharges into a ruderal field and has created a small alluvial fan. The discharge point is at least 1,500 feet from the riverbank. Thus, there is no direct hydrologic connectivity between this stormwater discharge point and San Jacinto River, but this criterion is not always necessary in the Arid Southwest region (USACE 2001). Instead, the qualifying features are the size of the channel and the contributing watershed; these are sufficiently large for the channel to qualify as a tributary to the San Jacinto River. The NWI maps this feature as riverine R4SBC (intermittent, streambed, cobble-gravel); NWI also shows it terminating at Soboba Road. Flow is not relatively permanent, but is seasonal. This channel is expected to be subject to federal jurisdiction. It would not be subject to state jurisdiction as it is located within the Reservation.

Within the Project Site, there is 101 linear feet (0.026 acre) of this channel delineated; at the project alignment, the channel is 5 feet wide (OHWM), but is constrained inside the pipe culvert.

Data Point SJR: San Jacinto River

Within the Project Site, the San Jacinto River is a braided intermittent channel that is 1,380 feet wide (OHWM): this length is made up of alternating channels (667 linear feet in total) and riparian wetlands (713 linear feet in total). With a buffer of 10 feet on each side of the alignment, the delineated area of channels totals 0.309 acres and the delineated area of riparian wetlands totals 0.368 acres. The NWI combines the channels and wetlands into one large riverine feature with Cowardin Class R3UB2 (upper perennial, unconsolidated bottom, sand). Flow is intermittent. This channel is subject to federal and state jurisdiction.

Wetlands and Open Water

Riparian Wetlands in the San Jacinto River Channel

The NWI classifies the riparian wetlands as Cowardin Class R3SB7 (riverine wetlands, streambed, vegetated). These islands are vegetated with riparian woodland habitat (coast live oak and cottonwood trees) or riparian willow scrub habitat. These wetlands are subject to federal and state jurisdiction. The delineated area of riparian wetlands totals 0.368 acres.

Storm Basins

Within the Project Site, there are several stormwater retention basins that have been excavated in uplands. These stormwater facilities are described below and are not expected to be subject to federal or state jurisdiction.

- There is a stormwater basin at the edge of the service road between the casino facilities and the golf course facilities; this basin receives stormwater from the casino parking lots and an upper basin. A gravity mainline will be installed very near this basin.
- There is another stormwater retention basin located at the Horseshoe Grande Project near Soboba View Drive; this basin is 2.1 acres in size. This feature is not mapped by NWI. The basin has ruderal, upland vegetation and does not have hydrophytes or hydric soils.
- There is a flood control basin along West Ramona Expressway, approximately 3.0 acres in size. This feature is not mapped by NWI. The basin is barren and has no hydrophytes, soils are not hydric, and the seasonally-ponded water is a result of off-channel stormwater control facilities.

Water Resources Potentially Subject to Federal Jurisdiction

All identified hydrologic features were subjected to the 3-parameter test, the Hydrology Criterion (Scalia Test), and the Sackett Test. Furthermore, the arid conditions of the Project Site required consultation with the USACE (2008) guidance. In arid lands, USACE defines their jurisdiction as follows:

> "*In dry-land fluvial systems typical of the Arid West, a clear natural scour line impressed on the bank, recent bank erosion, destruction of native terrestrial vegetation, and the presence of litter and debris are the most commonly used physical characteristics to indicate the OHWM*." (USACE 2008).

Based upon these criteria, three features within the Project Site were determined to be potentially subject to USACE jurisdiction (see **Table 1** below):

- C1 (unnamed channel)
- C4 (Juaro Canyon)
- SJR (San Jacinto River)(a combination of river channel wash and wetlands)

OHWM indicators for all three channels were: shelving or drift lines; sediment deposits or scouring; destruction/absence of vegetation; and litter/debris packing. Riparian wetlands were detected within the Project Site, in the San Jacinto River channel (see **Table 1** below).

Table 1. Summary of Water Features Potentially Subject to Federal Jurisdiction

Aquatic Resources Classification			Aquatic Resource Size		
Aquatic Resource Name	**Cowardin**	**Location (Lat/Long)**	**(sq. ft.)**	**(acre)**	**(linear feet)**
Channels					
C1 (unnamed)	R4SBC	33.7762, -116.9136	1438	0.033	100
C4 (Juaro Canyon)	R4SBC	33.7846, -116.9209	1123	0.026	101
SJR (San Jacinto River)	R3UB2	33.7978, -116.9425	13471	0.309	667
		Total Channels	**16032**	**0.368**	**868**
Wetlands					
San Jacinto riparian	R3UBKx	33.7991, -116.9409	16030	0.368	
		Total Wetlands	**16030**	**0.368**	

Upland Features Not Expected To Be Subject to Federal Jurisdiction

The other drainage features delineated—CCR, C1A, C1B, C2, and C3—are understood not to be jurisdictional. They all fail the Scalia Test for relatively permanent flow. The also fail the connectivity criterion as they terminate in uplands at least one thousand feet from the nearest jurisdictional channel (San Jacinto River). They all fall under the category described by USEPA and USACE (2008) as:

> "*Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) are generally not waters of the United States because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters. In addition, ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water are generally not waters of the United States because they are not tributaries or they do not have a significant nexus to downstream traditional navigable waters*."

Water Resources Potentially Subject to State Jurisdiction

All identified off-Reservation hydrologic features were subjected to the 3-parameter test, the broad (and vague) definition of waters of the State as currently enforced by SWRCB, and the "stream zone" as currently enforced by CDFW. Based upon these criteria, one feature within the Project Site was determined to be potentially subject to State jurisdiction, SJR (San Jacinto River)(a combination of river channel wash and and riparian wetlands). No vernal pools or other isolated wetlands were detected within the off-Reservation portion of the Project Site. The aquatic habitats (river wash and riparian wetlands) inside the levees of the San Jacinto River meet the criteria of the "stream zone" as regulated by CDFW.

Upland Features Not Expected To Be Subject to State Jurisdiction

All of the identified off-Reservation features (i.e., SJR and riparian wetlands) are anticipated to be subject to State jurisdiction.

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Section 6 | Qualifications of Surveyors and Authors

G.O. Graening, Ph.D., M.S.E.

G. O. Graening holds a Doctorate in Biological Sciences and a Master of Science in Biological Engineering, and is a certified arborist (International Society of Arboriculture). Dr. Graening has 30 years of experience in environmental assessment and research, including the performance of numerous wetland delineations and aquatic restoration projects. Dr. Graening also served as an adjunct professor of biology at California State University Sacramento for 10 years and was an active researcher in the area of conservation biology and groundwater ecology.

Attachment A

Wetland Delineation Data Sheets

DATA SHEET - ROUTINE DETERMINATION: NON-WETLAND WATERS OF US

Project ID: Soboba Sewer Project
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: Feb 7 2024
State:
County:
Township, Range, Section:
Plant Community:
Sample Plot: C1

VEGETATION

Species	% Cover	Dominant?	Indicator Status		Species	% Cover	Dominant?	Indicator Status
					Salsola	5	N	UPL

Width of Riparian Vegetation:

Comments/Notes:

SOILS

Mapped Soil Unit: "Rough Broken Land"
Taxonomy:
Drainage Class:
Matches Profile? Y On hydric soils list? No

Comments/Notes:

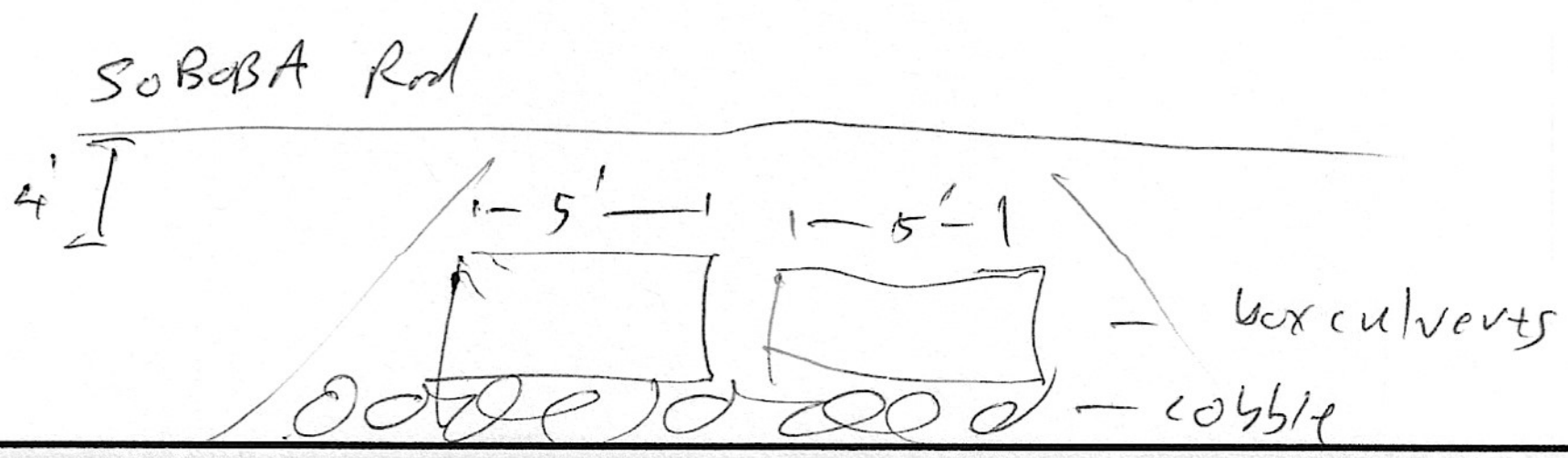
HYDROLOGY

Is water present? No
Depth of surface water: 0
Flow rate:
Or depth to saturated soil:
Is a channel present? Yes
Channel width: 10 to 15 ft

Ordinary High Water Mark Indicators Present:			
	Inundated		
	Shelving	✓	Destruction of vegetation
	Water marks / stained leaves	✓	Exposed cobble / bedrock
	Drift lines	✓	Litter/debris present
✓	Sediment deposits	✓	Recent bank erosion

Comments/Notes:

SKETCH OF CHANNEL CROSS-SECTION



WATERS OF THE US DETERMINATION

OHWM Present? YES
Hydrophytic Vegetation? NO
Wetland Hydrology? YES

Is this feature a potential Waters of the US? YES

Comments/Notes:

DATA SHEET - ROUTINE DETERMINATION: NON-WETLAND WATERS OF US

Project ID: Soboba Sewer Project
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: 2/7/2024
State:
County:
Township, Range, Section:
Plant Community:
Sample Plot: C1B

VEGETATION

Species	% Cover	Dominant?	Indicator Status		Species	% Cover	Dominant?	Indicator Status
None								

Width of Riparian Vegetation:

Comments/Notes:

SOILS

Mapped Soil Unit:
Taxonomy:
Drainage Class:
Matches Profile?
On hydric soils list?

Comments/Notes:

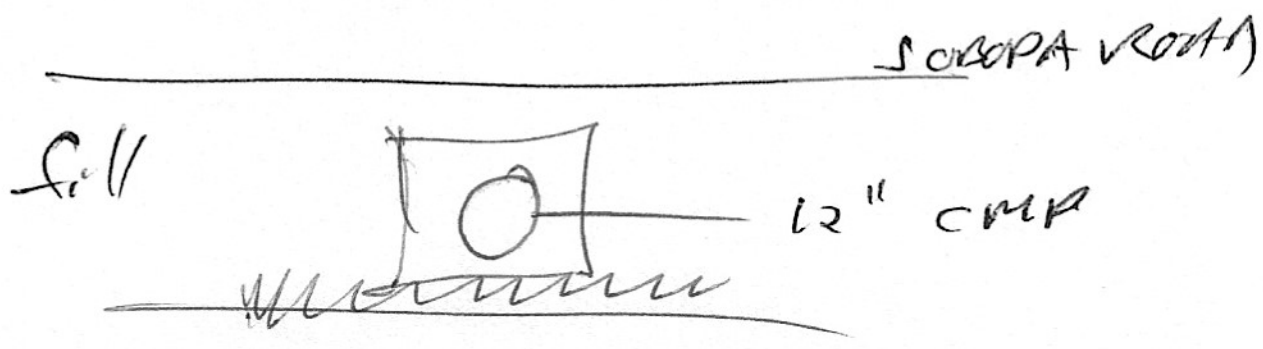
HYDROLOGY

Is water present? NO
Depth of surface water:
Flow rate:
Or depth to saturated soil:
Is a channel present? Y/E
Channel width: 2 feet

Ordinary High Water Mark Indicators Present:			
	Inundated		
	Shelving		Destruction of vegetation
	Water marks / stained leaves		Exposed cobble / bedrock
✓	Drift lines		Litter/debris present
✓	Sediment deposits		Recent bank erosion

Comments/Notes:

SKETCH OF CHANNEL CROSS-SECTION



WATERS OF THE US DETERMINATION

OHWM Present? N
Hydrophytic Vegetation? N
Wetland Hydrology? N

Is this feature a potential Waters of the US? NO

Comments/Notes:

DATA SHEET - ROUTINE DETERMINATION: NON-WETLAND WATERS OF US

Project ID: Soboba Sewer Project
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: Feb 7, 2024
State:
County:
Township, Range, Section:
Plant Community:
Sample Plot: C2

VEGETATION

Species	% Cover	Dominant?	Indicator Status		Species	% Cover	Dominant?	Indicator Status
None								

Width of Riparian Vegetation:

Comments/Notes:

SOILS

Mapped Soil Unit: MhB Metz loamy fine sand
Taxonomy:
Drainage Class:
Matches Profile? N On hydric soils list? No

Comments/Notes:

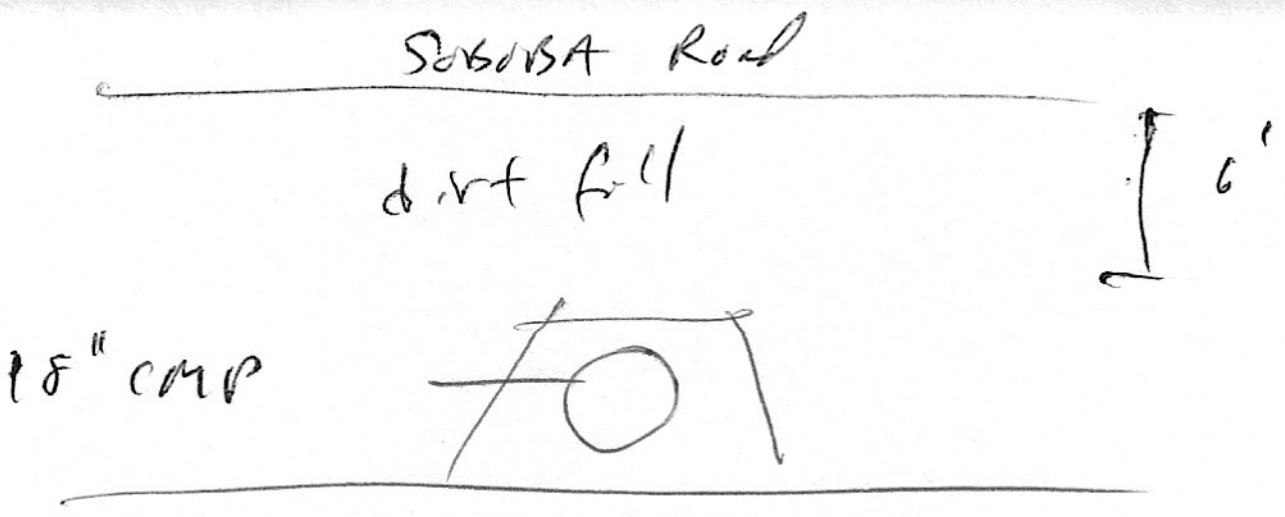
HYDROLOGY

Is water present? No
Depth of surface water:
Flow rate:
Or depth to saturated soil:
Is a channel present? YES
Channel width: 6 ft

Ordinary High Water Mark Indicators Present:			
	Inundated		
	Shelving		Destruction of vegetation
✓	Water marks / stained leaves		Exposed cobble / bedrock
✓	Drift lines		Litter/debris present
	Sediment deposits		Recent bank erosion

Comments/Notes: flows thru parking lot

SKETCH OF CHANNEL CROSS-SECTION



WATERS OF THE US DETERMINATION

OHWM Present? N
Hydrophytic Vegetation? N
Wetland Hydrology? N

Is this feature a potential Waters of the US? N / YES

Comments/Notes:

DATA SHEET - ROUTINE DETERMINATION: NON-WETLAND WATERS OF US

Project ID: Soboba Sewer Project
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: Feb. 7, 2023
State:
County:
Township, Range, Section:
Plant Community:
Sample Plot: C3

VEGETATION

Species	% Cover	Dominant?	Indicator Status		Species	% Cover	Dominant?	Indicator Status
upland grasses			UPL					

Width of Riparian Vegetation:

Comments/Notes:

SOILS

Mapped Soil Unit:
Taxonomy:
Drainage Class:
Matches Profile?
On hydric soils list?

Comments/Notes:

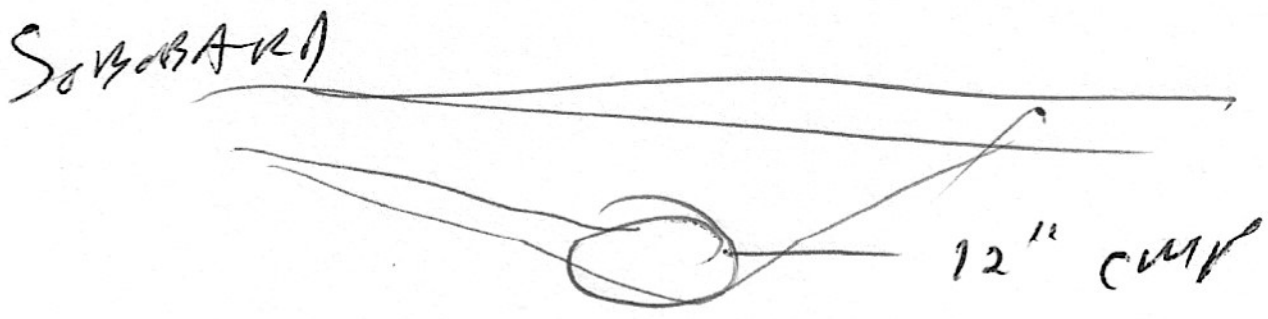
HYDROLOGY

Is water present? No
Depth of surface water:
Flow rate:
Or depth to saturated soil:
Is a channel present? No
Channel width:

Ordinary High Water Mark Indicators Present:			
	Inundated		
	Shelving		Destruction of vegetation
✓	Water marks / stained leaves		Exposed cobble / bedrock
	Drift lines	✓	Litter/debris present
✓	Sediment deposits		Recent bank erosion

Comments/Notes:

SKETCH OF CHANNEL CROSS-SECTION



WATERS OF THE US DETERMINATION

OHWM Present?
Hydrophytic Vegetation?
Wetland Hydrology?

Is this feature a potential Waters of the US? No

Comments/Notes:

DATA SHEET - ROUTINE DETERMINATION: NON-WETLAND WATERS OF US

Project ID: Soboba Sewer Project
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: Feb 7, 2023
State:
County:
Township, Range, Section:
Plant Community:
Sample Plot: C4

VEGETATION

Species	% Cover	Dominant?	Indicator Status		Species	% Cover	Dominant?	Indicator Status
upland grasses or cobble								

Width of Riparian Vegetation:

Comments/Notes:

SOILS

Mapped Soil Unit:
Taxonomy:
Drainage Class:
Matches Profile?
On hydric soils list?

Comments/Notes:

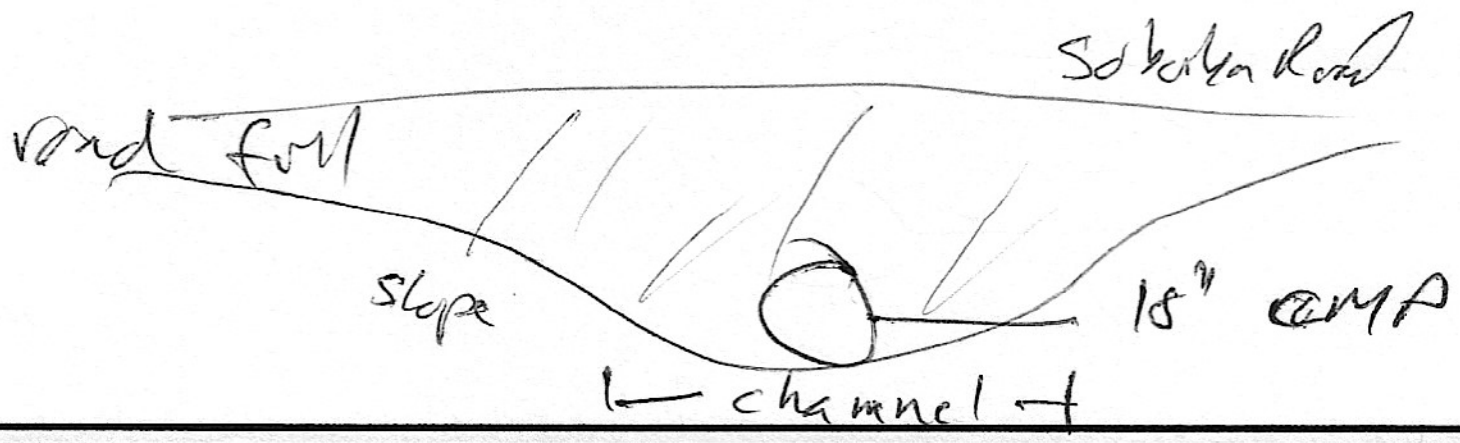
HYDROLOGY

Is water present? No
Depth of surface water:
Flow rate:
Or depth to saturated soil:
Is a channel present? Yes
Channel width: 5 to 15 ft

Ordinary High Water Mark Indicators Present:			
	Inundated		
	Shelving		Destruction of vegetation
	Water marks / stained leaves		Exposed cobble / bedrock
	Drift lines		Litter/debris present
	Sediment deposits		Recent bank erosion

Comments/Notes:

SKETCH OF CHANNEL CROSS-SECTION



WATERS OF THE US DETERMINATION

OHWM Present? Yes
Hydrophytic Vegetation? No
Wetland Hydrology? Yes

Is this feature a potential Waters of the US? Yes

Comments/Notes:

DATA SHEET - ROUTINE DETERMINATION: NON-WETLAND WATERS OF US

Project ID: Salyda Septic to Sewer
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: 4/8/24
State:
County:
Township, Range, Section:
Plant Community:
Sample Plot: SJR

VEGETATION

Species	% Cover	Dominant?	Indicator Status		Species	% Cover	Dominant?	Indicator Status
no veg								

Width of Riparian Vegetation:

Comments/Notes:

SOILS

Mapped Soil Unit:
Taxonomy:
Drainage Class:
Matches Profile? On hydric soils list?

Comments/Notes: color = 2.5Y 7/1

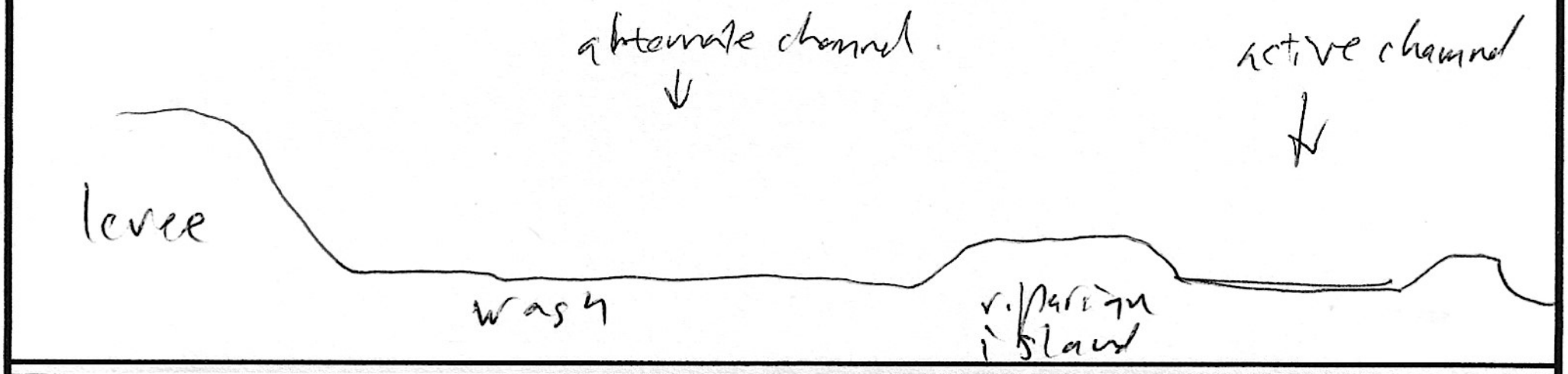
HYDROLOGY

Is water present? no
Depth of surface water:
Flow rate:
Or depth to saturated soil: 1 inch
Is a channel present? yes
Channel width: 100+ feet

Ordinary High Water Mark Indicators Present:			
	Inundated		
	Shelving	✓	Destruction of vegetation
	Water marks / stained leaves		Exposed cobble / bedrock
✓	Drift lines		Litter/debris present
✓	Sediment deposits	—	Recent bank erosion

Comments/Notes:

SKETCH OF CHANNEL CROSS-SECTION



WATERS OF THE US DETERMINATION

OHWM Present? Y
Hydrophytic Vegetation? N
Wetland Hydrology? Y

Is this feature a potential Waters of the US? Y

Comments/Notes:

DATA FORM - ROUTINE WETLAND DETERMINATION

Project ID: Scholz Septic to Sewer
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: 4/18/24
State: California
County:
Township, Range, Section:
Plant Community:
Sample Plot: RIP 1

VEGETATION

Tree stratum	% Cover	Dominant?	Indicator status
Platanus	30	Y	OBL
Q. agrifolia	30		UPL

Shrub stratum	% Cover	Dominant?	Indicator status

Hebaceous stratum	% Cover	Dominant?	Indicator status
Carex	10	N	OBL

Percent of dominant species that are OBL, FACW, or FAC (excluding FAC-): 40 of ~~70~~ = 57 %

Comments:

HYDROLOGY

Depth of surface water: n/a
Depth to free water in pit: > 10 "
Depth to saturated soil: ~ 5 "

Primary Indicators:		Secondary Indicators:	
	Inundated		Oxidized rhizosphere in upper 12 in.
X	Saturated in upper 12 in.		
	Water marks	X	Water-stained leaves
	Drift lines		Local soil survey data
	Sediment deposits		FAC neutral test
	Drainage patterns in wetlands		Other

Comments:

SOILS

Mapped Soil Unit:
Taxonomy:
Matches Profile?
Drainage Class:

Depth	Matrix Color	Mottle Color	Mottle Abundance, Size, Contrast	Soil Texture
0-14	2.5 Y 5/1			loamy sand

	Histol		Reducing conditions (test)		Gleyed
	Histic epipedon	X	High organic content surface layer		Organic streaking
	Sulfidic odor		Redox concentrations (w/in 10")		Organic pan
X	Probable aquic moisture regime		Concretions (w/in 3", >2mm)		On hydric soils list

Comments:

WETLAND DETERMINATION

Hydrophytic Vegetation? Y
Hydric Soils? N
Wetland Hydrology? Y

Is this sample plot within a wetland? Y (J)

Comments:

DATA FORM - ROUTINE WETLAND DETERMINATION

Project ID: Schulz Septic to Sewer
Client:
Investigator:
Do normal circumstances exist on the site?
Is it an atypical situation?
Is the area a potential problem area?

Date: 4/18/24
State: California
County:
Township, Range, Section:
Plant Community:
Sample Plot: UP 1

VEGETATION

Tree stratum	% Cover	Dominant?	Indicator status

Shrub stratum	% Cover	Dominant?	Indicator status

Hebaceous stratum	% Cover	Dominant?	Indicator status
Hordeum	30	Y	UPL

Percent of dominant species that are OBL, FACW, or FAC (excluding FAC-): _____ of _____ = _____ %

Comments:

HYDROLOGY

Depth of surface water: n/a
Depth to free water in pit: >12
Depth to saturated soil: >12

Primary Indicators:		Secondary Indicators:	
	Inundated		Oxidized rhizosphere in upper 12 in.
	Saturated in upper 12 in.		
	Water marks		Water-stained leaves
	Drift lines		Local soil survey data
	Sediment deposits		FAC neutral test
	Drainage patterns in wetlands		Other

Comments:

SOILS

Mapped Soil Unit:
Taxonomy:
Matches Profile?
Drainage Class:

Depth	Matrix Color	Mottle Color	Mottle Abundance, Size, Contrast	Soil Texture
0-12	2.5Y 5/1			Sandy loam

Histol	Reducing conditions (test)	Gleyed
Histic epipedon	High organic content surface layer	Organic streaking
Sulfidic odor	Redox concentrations (w/in 10")	Organic pan
Probable aquic moisture regime	Concretions (w/in 3", >2mm)	On hydric soils list

Comments: no indicators

WETLAND DETERMINATION

Hydrophytic Vegetation? N
Hydric Soils? N
Wetland Hydrology? N

Is this sample plot within a wetland? No

Comments:

Attachment B

List of Plants Detected

List of All Plants Detected in the Project Site During Field Surveys

sand verbena (Abronia sp.)
Menzies fiddleneck (Amsinckia menziesii)
California sagebrush (Artemisia californica)
Tarragon (Artemisia dracunculus)
milk vetch (Astragalus sp.)
saltbush (Atriplex sp.)
wild oat (Avena barbata)
Q-tips (Bombycilaenta californica)
foxtail chess (Bromus madritensis)
cheatgrass (Bromus tectorum)
sedge (Carex sp.)
indian paintbrush (Castilleja exserta)
sand pygmyweed (Crassula connata)
clearwater cryptantha (Cryptantha intermedia)
prairie clover (Dalea sp.)
California encelia (Encelia californica)
brittlebush (Encelia farinosa)
California goldenbush (Ericameria ericoides)
California buckwheat (Eriogonum fasciculatum)
buckwheat (*Erigonum* sp. #2)
redstem stork's bill (Erodium cicutarium)
red gum (Eucalyptus camaldulensis)
Broom snakeweed (Gutierrezia sarothrae)
shortpod mustard (Hirschfeldia incana);
mouse barley (Hordeum murinum)
yellow bush penstemon (Keckiella antirrhinoides)
miniature lupine (Lupinus bicolor)
desert dandelion (Malacothrix sp.)
laurel sumac (Malosma laurina)
sweetclover (Melilotus sp.)
tree tobacco (Nicotiana glauca)
California suncup (Oenothera californica)
olive (Olea europaea)
stinknet (Oncosiphon piluliferum)
pricklypear (Opuntia sp.)
panicgrass (Panicum sp.)
phacelia (Phacelia minor)
date palm (Phoenix dactilifera)
ornamental pine (Pinus sp.)
sycamore (Platanus racemosa)
cottonwood (Populus fremontii)
castor bean (Ricinus communis)

lemonadeberry (Rhus integrifolia)
sugarbush (Rhus ovata)
sandbar willow (Salix exigua)
red willow (Salix laevigata)
russian thistle (Salsola tragus)
chia (Salvia columbariae)
Mexican elderberry (Sambucus mexicana)
pepper tree (Schinus molle)
Arabian grass (Schismus sp.)
marigold (Tagetes sp.)
saltcedar (Tamarix parviflora)
gorse (Ulex sp.)

Attachment C

Site Photographs



View looking northeast and upstream of Poppet Creek (outside of project site)



View looking west of the discharge point of the swale/stormwater facilities (Data point CCR) into an upland ruderal field



View looking west at Castile Canyon Road/Soboba Road intersection of pipe culvert/stormwater facilities (Data point CCR)



View looking west at Castile Canyon Road/Soboba Road intersection of swale/stormwater facilities (Data point CCR)



View looking west and downstream of unnamed channel and double box culvert (data point C1)



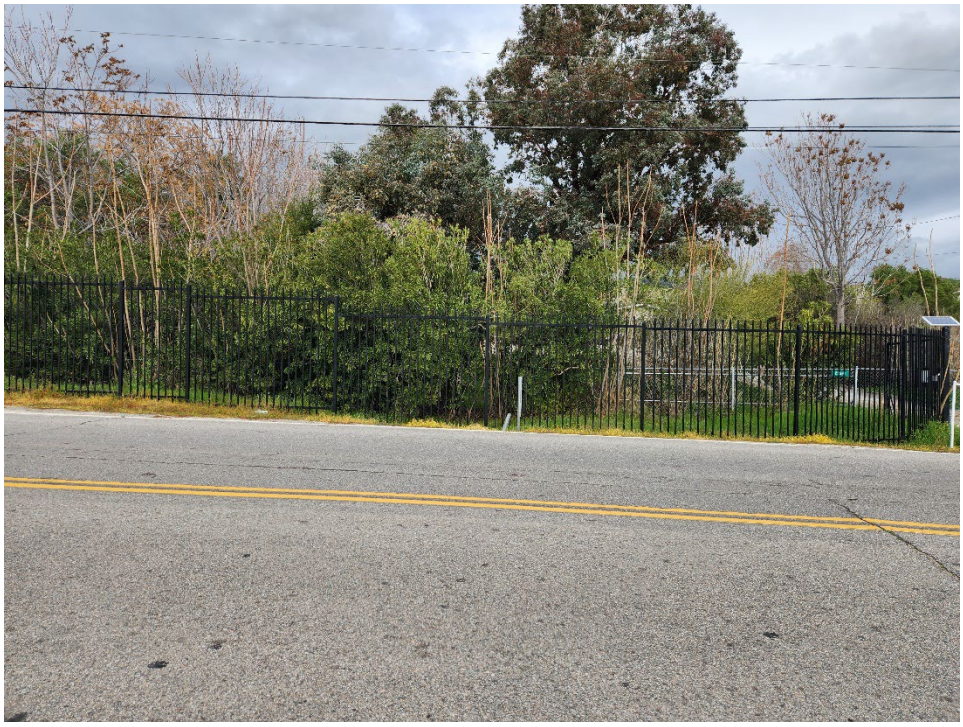
View looking north and upstream of unnamed channel (data point C1)



View looking south at roadside ditch and pipe culvert (data point C1B)



View looking upstream at former casino parking lot of discharge point of unnamed channel(Data point C2)



View looking northeast and upstream of unnamed channel (Data point C2)



View looking northeast and upstream of unnamed channel (Data point C3)



View looking of pipe culvert inlet of unnamed channel (Data point C3)



View of discharge point of elliptical pipe culvert of Juaro Canyon channel (Data point C4)



View looking northeast and upstream of Juaro Canyon (Data point C4)



View looking west of lift station and tie-in point for proposed gravity main at golf course.



View looking southwest along golf course path of proposed gravity main alignment.



View looking east of riparian vegetation at corner of golf course and adjacent to proposed gravity main alignment.



View looking northeast of proposed gravity main alignment that runs through river wash and upland scrub, with golf course in the background.



View looking north of the proposed gravity main alignment where it crosses the river wash a in the San Jacinto River channel (data point SJR).



View from data point RIP1 looking northeast along the proposed gravity main alignment where it crosses the river wash and riparian forest in the San Jacinto River channel.



View looking south from the levee towards the stormwater basin along Ramona Expressway (and proposed laydown area)



View looking north from the Ramona Expressway towards the stormwater basin (proposed laydown area), with levee in the background



Closeup view of upland soil test pit area (data point UP1)

Appendix F-4

Section 7 Consultation

United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Palm Springs Fish and Wildlife Office
777 East Tahquitz Canyon Way, Suite 208
Palm Springs, California 92262

In Reply Refer to:
2025-0072180-S7-I-WRIV

March 28, 2025
Sent Electronically

Donna M. Meyer, CEM/HPS
Environmental Protection Specialist
California Area Environmental-Historic Coordinator
Indian Health Service
650 Capitol Mall
Suite 7-100
Sacramento, California 95814

Subject: Informal Section 7 Consultation for the Soboba Septic to Sewer Conversion Project (IHS Project CA 22-J07)

Dear Donna Meyer:

We received your letter, dated January 29, 2025, via mail on February 6, 2025. The Soboba Band of Luiseño Indians (Soboba) have requested federal funding from your agency, the Indian Health Services, for the proposed Soboba Septic to Sewer Conversion Project (Project) in Riverside County, California. You have determined the Project may affect but is not likely to adversely affect the federally endangered San Bernardino kangaroo rat (*Dipodomys merriami parvus*; SBKR) or its designated critical habitat. In accordance with section 7 of the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq*.), you have requested our concurrence with these determinations.

The proposed Action is to fund the installation of sewer pipelines to connect Soboba Tribal residences and community buildings to the regional wastewater treatment facility operated by the Eastern Municipal Water District. The majority of the Project site occurs within the Soboba's Reservation (Tribal Lands); (Figure 1) with small portions located off-Reservation within the City of San Jacinto and County of Riverside. The Project includes installation of sewer pipelines (gravity mainlines and forcemains) of approximately 27,500 feet of new 10-inch Polyvinyl Chloride (PVC) sewer mainlines along with approximately 72,200 feet of sewer laterals. Sewer pipeline installation construction will involve approximately 105.4 acres consisting of open cut trenching with work area corridors of varying widths extending around each pipeline installation.

The Proposed Action also includes funding for a permanent pipeline below the San Jacinto River (river pipeline; Figure 2), to replace an existing aging temporary pipeline. The pipeline under the river will be a 15-inch gravity main 3,840 feet in length, of which approximately 2,200 feet would be on the Soboba Reservation within an existing golf course. The remaining 1,640 feet would be microtunneled below the San Jacinto River off Tribal Lands. This segment will be a

minimum of 10.5 feet below the river bottom and has been designed such that natural long-term river scouring will not affect the pipeline integrity. The river pipeline installation will be accomplished by jack and bore installation. Jack and bore is a trenchless pipeline installation method. A bore pit will be excavated at the entry and exit point of the pipeline (Figure 2). The east side bore pit will be within the golf course. The west bore pit will be excavated adjacent to an existing levee (Figure 3); each side will have a construction footprint of less than 0.01 acre (400 square feet). A hydraulic jack will be mounted within the entry bore pit. The jack will then push a 48-inch diameter steel casing pipe fitted with a drilling head horizontally into the ground. As the casing pipe is jacked forward it pushes aside soil as it creates a bore hole. Once the casing pipe reaches the exit bore pit, a 15-inch diameter water pipeline will be pulled back through the casing. A low-density cellular backfill material consisting of foam and a water-cement mixture will be pumped into the annular space between the pipe and casing. After installation, the bore pits will be backfilled, and the surface restored to its original compactions and gradation. Additionally, a short (0.2-acre) levee access ramp on the northeast side of the river to connect an existing golf cart path to the terminus of the existing levee will be installed (Figure 2).

Project footprint will include 19.6 miles (103,540 linear feet) of pipeline alignment (sewer and river), work area corridors along installation paths totaling approximately 105.4 acres, four staging areas totaling 34 acres, and a small 0.2-acre levee access ramp. This project was thoughtfully designed to avoid effects to listed species: the sewer pipeline layout was sited along existing roadways, driveways, and other disturbed areas where possible; the staging areas were placed in areas that are already paved or heavily disturbed; the jack and bore method of installation avoids impacts to SBKR and SBKR critical habitat; the east-side bore pit and access ramp were place in an existing golf course; and the west side bore pit and associated staging area are along a levee and a hard packed disturbed area, respectively (Figure 3).

Riversidean alluvial fan sage scrub (RAFSS) habitat suitable for SBKR is present within Poppet wsCreek and the San Jacinto River near the Project site, both areas are within designated critical habitat for the species (Figure 1). The Project Action Area does not contain RAFSS habitat and is primarily composed of disturbed or manmade areas unsuitable for SBKR. A field assessment was conducted within the Project Action Area and area surrounding the Project site on April 18th and 27th, 2024 (ENVIRA 2024). A small mammal burrow survey was performed along the sewer and River pipeline routes, and within the staging areas and bore pits sites. No sign of small mammal burrows was detected or suitable habitat. A trapping survey for SBKR was deemed unnecessary.

Conservation Measures

The following conservation measures (CM) have been included in the Project to avoid adverse effects to SBKR:

CM 1. Before any ground disturbance begins, the contractor will delineate and mark all limits of construction to be clearly visible to all personnel. All construction-related activities by contractors, subcontractors, or their agents and equipment (including staging, materials storage, and personnel parking areas) will be restricted to the designated limits of construction and staging areas.

CM 2. Periodic monitoring of the active work areas shall be performed no less than once a week by a biological monitor familiar with the ecosystems and flora and fauna of the region and able carry out CM 1 through 7.

a. The biological monitor shall have the authority to halt work in the instance of any encroachments into protected habitat or the discovery of any listed species in the Action Area.

b. The biological monitor shall develop and conduct an environmental awareness education program for all construction personnel (including temporary contractors and subcontractors) before any construction work commences. At a minimum, the information presented will include (i) a description of SBKR and its habitats; (ii) legal status of SBKR and the meaning of "take" under the Act and the ramifications of violations of the Act; (iii) delineation and flagging of the Action Area, and limitations on movement of personnel and equipment; and (iv) construction best management practices.

CM 3. No construction activity shall take place at night.

CM 4. At the end of each workday, trenches shall be filled or tightly covered. For trenches that must remain open, animal escape mechanisms shall be installed. This may consist of putting boards in trenches or creating 45-degree angle sides to trenches so that animals may crawl out if they fall in.

CM 5. Prior to backfilling, all trenches will be checked for small mammals. If detected, backfilling will be postponed until the mammal leaves on its own accord via a ramp as described in CM 3.

CM 6. Last connected pipe of the day or any open pipe should have entrance covered with plywood and/or capped to stop animals from entering.

CM 7. All disturbed areas will be restored to their original condition. Trenches will be backfilled and compacted, and the original ground contours restored. Paved areas will be repaved. Unpaved areas will be reseeded with a native seed mix and mulch applied (or other similar soil stabilization measures will be implemented).

The following CM has been included in the Project to avoid adverse effects to migratory birds:

CM 8. If construction activities occur during the nesting season (February 15 to August 31), pre-construction surveys for the presence of nesting migratory birds shall be conducted by a qualified biologist (biologist with avian survey experience) within

500 feet of proposed construction areas no more than 3 days before the start of construction.

a. If active nests are identified, the qualified biologist shall determine a suitable avoidance buffer based on the needs of the species observed: 500 feet for raptors and 300 feet for all other species.

b. A buffer zone may be established using construction fencing until after a qualified biologist has determined the young have fledged or the nest is no longer viable. Postponement of vegetation removal until after the nesting season is possible if the construction zone is within the buffer.

Based on our review of the information you have provided, and the conservation measures included in the Project, we concur with your determination that the Project activities are not likely to adversely affect the SBKR or it's designated critical habitat. We have reached this conclusion because the Project Action Area does not contain suitable SBKR habitat or any sign of SBKR, and Project activities will not affect any of the physical and biological features which support the function of designated critical habitat.

The interagency consultation requirements of section 7 of the Act have been satisfied. Although our concurrence ends informal consultation, obligations under section 7 of the Act shall be reconsidered if (1) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not previously considered, (2) this action is subsequently modified in a manner that was not considered in this assessment, or (3) a new species is listed or critical habitat designated that may be affected by the action.

If you have any questions regarding this document or section 7 consultations in general, please contact Amanda Swaller[1] of the Palm Springs Fish and Wildlife Office at 760-322-2070, extension 404.

Sincerely,

for Brian Croft
Assistant Field Supervisor

LITERATURE CITED

ENVIRA. 2024. Phase 1 Small Mammal Assessment Soboba Septic to Sewer Project. Prepared for Soboba Band of Luiseño Indians. July 23, 2024.

[1] amanda_swaller@fws.gov.

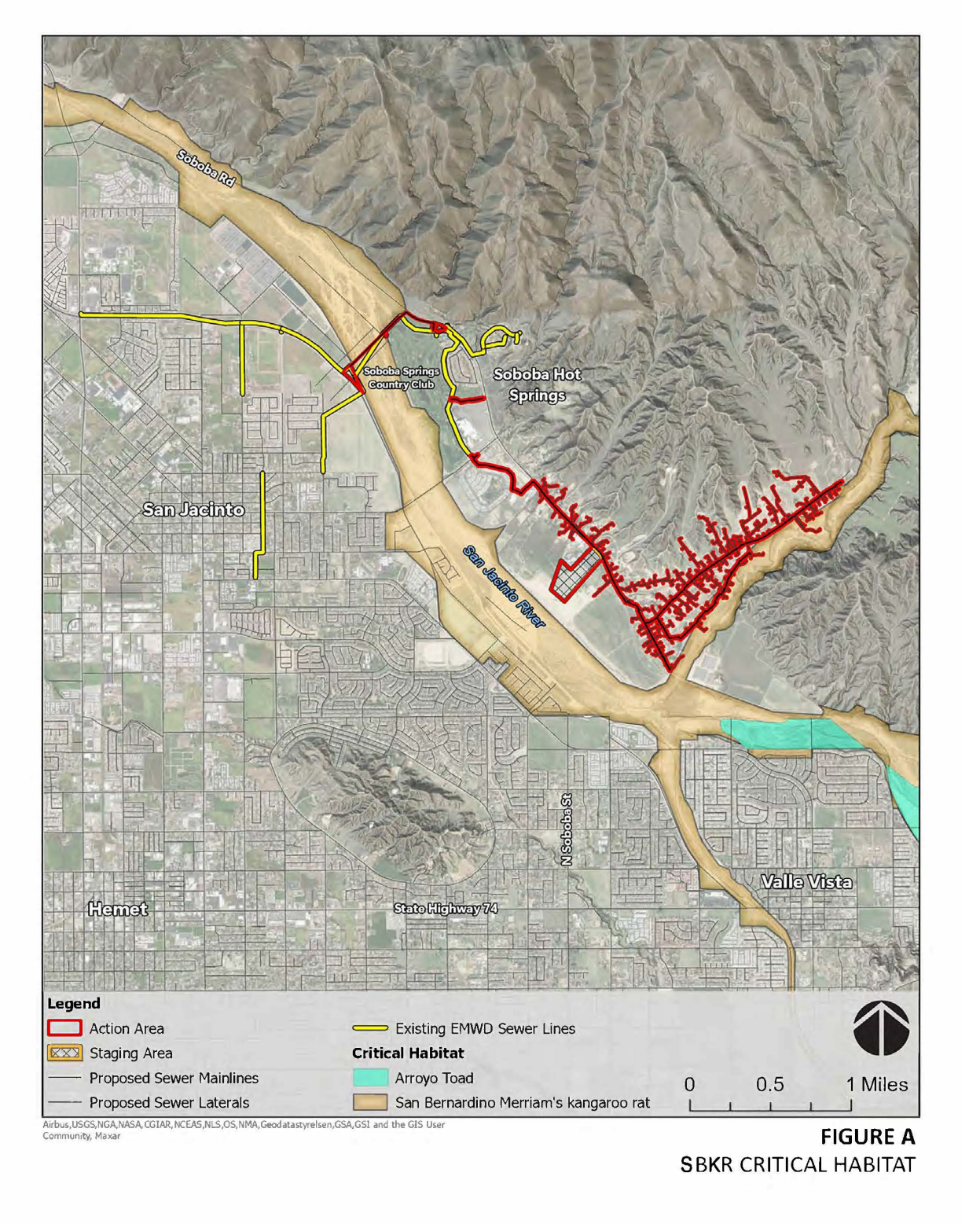


Figure 1. Project Sewer Pipeline Layout and SBKR Critical Habitat.



Figure 2. San Jacinto River Crossing Pipeline Section.

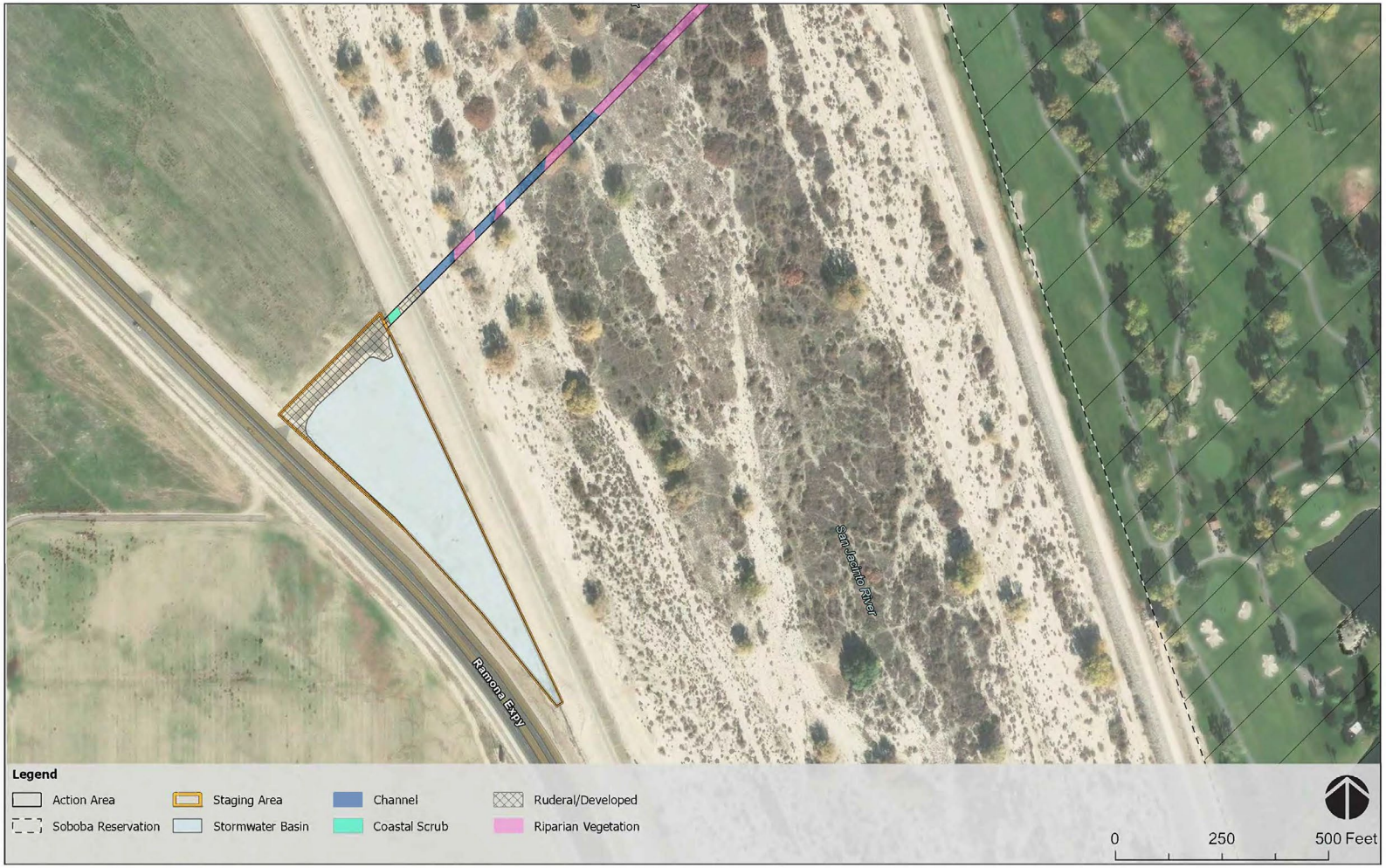


FIGURE: C
West Bore Pit and Habitats

Figure 3. West Bore Pit and Habitats.

Appendix G

Section 106 Consultation Communication

February 21, 2025

Donna M. Meyer
Environmental Coordinator-California Area
Indian Health Service
California Area Office
650 Capitol Mall, Suite 7-100
Sacramento, CA 95814-4708

Ref: *Septic to Sewer Project, CA24-J51*
San Jacinto, San Diego County, California
ACHP Project Number: 022193

Dear Ms. Meyer:

On February 14, 2025, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, "Protection of Historic Properties" (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

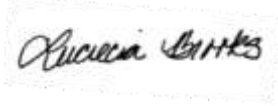
However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking's circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to Section 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the California SHPO and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions or require our further assistance, please contact Emily Choi at (202) 517-0207 or by e-mail at echoi@achp.gov and

reference the ACHP Project Number above.

Sincerely,



Lucrecia Brooks
Historic Preservation Technician
Office of Federal Agency Programs

DEPARTMENT OF HEALTH & HUMAN SERVICES Public Health Service

Indian Health Service
California Area Office
650 Capitol Mall, Suite 7-100
Sacramento, California 95814-4708

February 27, 2025

Ms. Julianne Polanco
State Historic Preservation Officer
Office of Historic Preservation
1725 23rd Street, Suite 100
Sacramento, CA 95816

RE: CA24-J51: Soboba Band of Luiseno Indians

Dear Ms. Polanco:

The Department of Health and Human Services – Indian Health Service is considering technical and Federal assistance (undertaking) to our applicant above to install a gravity sewer system connecting the homes on the Soboba Reservation by replacing existing septic systems. The project includes engineering and construction of a sewer collection and transport system that will replace 263 (cumulative) existing septic tanks and seepages. Following construction, sewage from reservation homes will flow through stub out connections to the new sewer system and be directed to the Eastern Municipal Water District (EMWD) regional sewer system. The new sewer system will span the Soboba Indian Reservation roadway, starting at Castille Canyon and Poppet Flats Road, flowing south to Soboba Road and Lake Park Drive, ultimately connecting to the EMWD regional sewer system. The Reservation is located adjacent to the City of San Jacinto, Riverside County. The Area of Potential Effect (APE) is located within un-sectioned portions of the San Jacinto Viejo, Mexican Land grant, and within portions of Section 29, 31, 32, and 33, Township 4 South, Range 1 East, and portions of Section 5, Township 5 South, Range 1 East, San Bernardino Base Meridian (SBBM).
make repairs to two water storage tanks.

The portion of the proposed undertaking that is outside of the exterior boundary of the Reservation and connecting to the EMWD regional sewer system meet's a "No Historic Properties Affected" determination in accordance with 36 CFR Part 800.4(d)(1). IHS has initiated Section 106 consultation with the Soboba Band of Luiseno Indians, Tribal Historic Preservation Officer (THPO) for that portion of the proposed undertaking located within the exterior boundary of the Reservation.

IHS requests your concurrence with our APE determination and our finding of effect. For your review, IHS has enclosed documentation in accordance with 36 CFR Part 800.11(d).

IHS will authorize funding for the proposed undertaking unless you notify IHS of your non-concurrence within 30 days of your receipt of this documentation. If you require additional information, please do not hesitate to contact me at (916) 930-3981 x 342 or donna.meyer@ihs.gov.

Sincerely,

Donna M Meyer

Donna M. Meyer, CEM, HPS
Environmental Protection Specialist
CAO Environmental-Historic Coordinator

Enclosures

Copy to: Mr. Joseph Ontiveros, Soboba Band of Luiseno Indians
Director of Cultural Resources – Tribal Historic Preservation Officer

DOCUMENTATION – NO HISTORIC PROPERTIES AFFECTED
CA24-J51
February 2025

1. A DESCRIPTION OF THE UNDERTAKING, SPECIFYING THE FEDERAL INVOLVEMENT, AND ITS AREA OF POTENTIAL EFFECTS, INCLUDING ANY PHOTOGRAPHS, MAPS, DRAWINGS, AS NECESSARY;

The IHS intends to provide technical and financial assistance (undertaking) under the Sanitation Facilities Construction (SFC) program to install a sewer system to connect existing homes with septic tanks to the sewer system. IHS has identified a horizontal Area of Potential Effect (APE) which includes the staging area as 0.4 acre for the non-reservation land located in the Eastern Municipal Water District (EMWD) right-of-way (ROW), with one segment crossing under the San Jacinto River. IHS has identified a vertical depth of 5 feet for excavation.

2. A DESCRIPTION OF THE STEPS TAKEN TO IDENTIFY HISTORIC PROPERTIES, INCLUDING, AS APPROPRIATE, EFFORTS TO SEEK INFORMATION PURSUANT TO § 800.4(b);

Because the majority of this proposed undertaking occurs on the Soboba Reservation and IHS is in consultation with the Soboba THPO, no NAHC Sacred Files review was requested. A CHRIS report was requested as part of the review for the development of the Historic Property Inventory (HPI). The HPI was prepared by EnviroPros in January 2025. Other databases such as the California Historic Resources database (CHR) and National Register of Historic Places were reviewed.

An archival background records search for the entire Study Area was conducted at the EIC located at UC Riverside in addition to review of the Soboba Cultural Resource Department records by Soboba staff. The records search entailed a review of EIC records for known or previously recorded prehistoric and historical archaeological sites, as well as a review of all known cultural resources survey reports, excavation reports, and regional overviews for the Study Area. Sites and surveys conducted by the Cultural Resource Department were also reviewed. Project changes in late 2024 required an additional records search for the small added segment on private land.

3. THE BASIS FOR DETERMINING THAT NO HISTORIC PROPERTIES ARE PRESENT OR AFFECTED.

The records search results from the EIC, SCIC and EnviroPros' in-house records revealed that 21 Cultural Resources Surveys were previously reported within a ½-mile radius Study Area. There were no recorded surveys previously conducted within the current APE. The records search results at the EIC and SCIC revealed only one cultural resource previously documented within the current S2S Project APE.

The current S2S Project APE consists primarily of paved roads and graveled road shoulders, with proposed sewer lines running to residences up driveways, or along the sides of homes. Nearly all the proposed lines would be dug into disturbed ground surfaces consisting of asphalt, gravel, or landscaping. Undisturbed ground is seldom present, primarily because the S2S Project is proposed to stem from a paved thoroughfare up residential driveways, or through landscaped or graveled lots.

The survey of the APE outside the Reservation was negative for cultural material of any kind. The corridor that crosses the San Jacinto Rivers consists of a sandy and rocky cobble

river bottom with some areas of thick vegetation that is in a constant state of dispersion due to annual flows of water and storm events. The location of previously recorded site RIV-3970, which may have existed on the western edge of the staging area west of the San Jacinto River crossing did not reveal cultural material of any kind with the exception of modern road refuse.

Thus for this small segment outside the boundary of the Reservation, IHS has made a finding of No Historic Properties Affected. No additional archaeological survey work will be completed unless an inadvertent discovery is made and then, at that time all construction would cease and the THPO and CAO Environmental-Historic Coordinator would immediately be contacted. An SOI-qualified archaeologist would perform an evaluation of the discovery and provide mitigation to avoid any adverse effect. The IHS would then continue consultation with the Office of Historic Preservation at that time.

DEPARTMENT OF HEALTH & HUMAN SERVICES Public Health Service

Indian Health Service
California Area Office
650 Capitol Mall, Suite 7-100
Sacramento, California 95814-4708

February 27, 2025

Mr. Joseph Ontiveros
Director of Cultural Resources/Tribal Historic Preservation Officer
Soboba Band of Luiseno Indians
P.O. Box 487
San Jacinto, CA 92581

RE: CA24-J51: Soboba Septic to Sewer Project

Dear Mr. Ontiveros:

The U.S. Department of Health and Human Services (DHHS), Indian Health Service (IHS) intends to provide technical and financial assistance (undertaking) to your Tribe to install a gravity sewer system connecting the homes on the Soboba Reservation by replacing existing septic systems. The project includes engineering and construction of a sewer collection and transport system that will replace 263 (cumulative) existing septic tanks and seepages. Following construction, sewage from reservation homes will flow through stub out connections to the new sewer system and be directed to the Eastern Municipal Water District (EMWD) regional sewer system. The new sewer system will span approximately 4 miles of the Soboba Indian Reservation roadway, starting at Castille Canyon and Poppet Flats Road, flowing south to Soboba Road and Lake Park Drive, ultimately connecting to the EMWD regional sewer system. The Reservation is located adjacent to the City of San Jacinto, Riverside County. The Area of Potential Effect (APE) is located within un-sectioned portions of the San Jacinto Viejo, Mexican Land grant, and within portions of Section 29, 31, 32, and 33, Township 4 South, Range 1 East, and portions of Section 5, Township 5 South, Range 1 East, San Bernardino Base Meridian (SBBM).

IHS's action of providing Federal financial assistance meets the definition of an Undertaking in accordance with 36 CFR Part 800.16(y) and therefore requires the completion of a Section 106 review. IHS has identified a horizontal Area of Potential Effect (APE) including buffers and staging areas as 19.6 linear miles and a total of 202.5 acres. The approximate vertical APE would be 5 feet. IHS has determined that the proposed undertaking and subsequent construction would result in "Historic Properties – Adverse Effect" in accordance with 36 CFR Part 800.5.

In accordance with the implementing regulations for Section 106 (36 CFR Part 800.2(i)(A)), of the National Historic Preservation Act (16 U.S.C. §470t) we are seeking your concurrence on our Area of Potential Effect (APE) and Finding of Effect (FOE).

IHS intends to resolve any adverse effects through the development of a Memorandum of Agreement with consulting parties in accordance with 36 CFR Part 800.6. IHS has notified the Advisory Council on Historic Preservation (ACHP) of the adverse effect and has invited their participation in the consultation. By letter dated February 21, 2025, the ACHP has declined their participation. If historic properties are inadvertently discovered during any ground disturbing activities all work would cease within a 100-foot radius.

IHS will authorize funding for the proposed undertaking unless you notify IHS of your non-concurrence within 30 days of your receipt of this documentation. If you should require further clarification or need additional information, please contact me at (916) 930-3981 ext.342 or donna.meyer@ihs.gov. If you concur with our determination please sign below, date and return to my attention.

Sincerely,

Donna M. Meyer

Donna M. Meyer, CEM, HPS
Environmental Protection Specialist
CAO Environmental-Historic Coordinator

Enclosures

I concur with the IHS Area of Potential Effect and "Historic Properties – Adverse Effect" determination on this proposed Undertaking.

_____ _____

Mr. Joseph Ontiveros, Cultural Director-THPO Date

Copy to: California Office of Historic Preservation

State of California • Natural Resources Agency
Gavin Newsom, *Governor*

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION
Armando Quintero, *Director*

Julianne Polanco, State Historic Preservation Officer
1725 23rd Street, Suite 100, Sacramento, CA 95816-7100
Telephone: (916) 445-7000 FAX: (916) 445-7053
calshpo.ohp@parks.ca.gov www.ohp.parks.ca.gov

March 27, 2025

VIA EMAIL In reply refer to: IHS_2025_0227_001

Donna M. Meyer
Environmental Protection Specialist, CAO Environmental-Historic Coordinator
Indian Health Service
California Area Office
650 Capitol Mall, Suite 7-100
Sacramento, California 95814-470

Subject: Section 106 Consultation for the Soboba Band of Luiseño Indians' Septic to Sewer (S2S) Project, Riverside County, California; CA24-J51

Dear Ms. Meyer:

The State Historic Preservation Officer (SHPO) is in receipt of a consultation letter dated February 27, 2025, from the Department of Health and Human Services – Indian Health Service (IHS) for the above referenced undertaking. The IHS is initiating consultation with the SHPO to comply with Section 106 of the National Historic Preservation Act of 1966 (as amended) and its implementing regulation at 36 CFR 800. The IHS is seeking SHPO concurrence with the determination of the Area of Potential Effects (APE) and finding of *no historic properties affected*.

The IHS is considering providing technical and Federal assistance to the Soboba Band of Luiseño Indians (Soboba) for the installation of a gravity sewer system connecting the homes on the Soboba Reservation and replacing existing septic systems. The project includes engineering and construction of a sewer collection and transport system that will replace 263 existing septic tanks and seepages. Following construction, sewage from reservation homes will flow through stub out connections to the new sewer system and be directed to the Eastern Municipal Water District (EMWD) regional sewer system. As portions of this undertaking are located on Tribal lands, the IHS has initiated Section 106 consultation with the Soboba Band of Luiseno Indians Tribal Historic Preservation Officer (THPO) for the portion of the undertaking located on Tribal lands.

Along with their letter, the IHS provided a digital copy of *Historic Properties Inventory Report (HPIR), National Register of Historic Places Identification, Evaluation, and Finding of Effect for the Soboba Band of Luiseño Indians' Septic to Sewer Project, San Jacinto, Riverside County, California* prepared by EnviroPro Consulting, LLC., dated January 28, 2025.

The APE for the undertaking includes direct and indirect impacts from excavation of the trenches needed to accommodate the sewer pipe and consists of three staging areas, and a 10-meter-wide buffer on each side of the proposed main lines and laterals for approximately 19.6 linear miles. The horizontal APE measures approximately 202.5 acres and the depth of the pipeline will vary as necessary but is expected to exceed 10 feet in depth in some areas. Approximately 1,717 feet of lateral lines are located within an EMWD right-of-way (ROW), located outside of Tribal lands. The IHS is consulting with the SHPO for this portion of the project, located within the EMWD ROW.

Efforts to identify historic properties included records searches at the Eastern Information Center (EIC) and the South Coastal Information Center (SCIC) of the California Historical Resources Information System (CHRIS), meetings with the Soboba Cultural Resource Department and review of their files, and an intensive pedestrian survey of the APE.

The records search identified one cultural resource within the portions of the APE outside of Tribal lands: P-33-0039770/CA-RIV-003970, a sparse and disturbed historic-era refuse scatter. The pedestrian survey of the portions of APE outside of Tribal lands did not identify any evidence of cultural materials. A corridor of the APE that crosses the San Jacinto River consists of a sandy and rocky cobble river bottom with some areas of thick vegetation that is in a constant state of dispersion due to annual flows of water and storm events. The location of previously recorded site P-33-0039770, which may have existed on the western edge of the staging area west of the San Jacinto River crossing, was investigated during the pedestrian survey, but no materials were observed in this location with the exception of modern road refuse. The results of the pedestrian survey further indicated that nearly all the proposed lines would be dug into disturbed ground surfaces consisting of asphalt, gravel, or landscaping.

As a result of their identification efforts, no historic properties were identified in the portions of the APE located outside of the Soboba Reservation. Therefore, the IHS has reached a finding of *no historic properties affected* pursuant to 36 CFR § 800.4(d)(1).

The IHS has requested SHPO review and comment on the determination of the APE and on its finding of effect. Following review of the submittal, I offer the following comments:

- Pursuant to 36 CFR § 800.4(a)(1), I do not object to the APE as defined.

- Based on the information provided in the HPIR, the IHS appears to have reached a finding of *no historic properties affected* for the portions of APE outside of Tribal lands and a finding of *no adverse effect* for the portions within Tribal lands. I recommend that the IHS present a single finding of effect for the undertaking as a whole.

- Given that the only historic properties identified are located on Tribal lands, I defer to the Soboba Band of Luiseno Indians THPO regarding the finding of effect for this undertaking.

Be advised that under certain circumstances, such as an unexpected discovery or a change in project description, the IHS may have additional future responsibilities for this undertaking under 36 CFR 800. If you require further information, please contact Robert Fitzgerald, Associate State Archaeologist, at Robert.Fitzgerald@parks.ca.gov.

Sincerely,



Julianne Polanco
State Historic Preservation Officer

March 25, 2025

Attn: Donna M. Meyer, CEM/HPS
Environmental – Historic Coordinator
Indian Health Service
Capital Area Office
650 Capitol Mall, Suite 7-100
Sacramento, California 95814-4708

RE: CA 24-J51; Soboba Septic to Sewer Project, Soboba Indian Reservation, Riverside County, CA

Thank you for your request to initiate consultation received on February 27, 2025, for the above referenced undertaking, pursuant to 36 CFR Part 800.16(y), implementing Section 106 of The National Historic Preservation Act. Indian Health Service (IHS), California Area Office, is seeking my comments to the effects of the proposed undertaking. The undertaking involves the installation of a gravity sewer system connecting the homes on the Soboba Reservation by replacing existing septic systems. The project includes engineering and construction of a sewer collection and transport system that will replace 263 (cumulative) existing septic tanks and seepages. Following construction, sewage from reservation homes will flow through stub out connections to the new sewer system and be directed to the Eastern Municipal Water District (EMWD) regional sewer system. The new sewer system will span approximately 4 miles of the Soboba Indian Reservation roadway, starting at Castille Canyon and Poppet Flats Road, flowing south to Soboba Road and Lake Park Drive, ultimately connecting to the EMWD regional sewer system.

The proposed undertaking is located on the Soboba Band of Luiseno Indians Reservation adjacent to the City of San Jacinto, Riverside County. It is understood that implementation of the project is contingent, in part, upon the IHS meeting its obligations under Section 106 of the National Historic Preservation Act (NHPA), as amended.

IHS has identified a horizontal Area of Potential Effect (APE) as within un-sectioned portions of the San Jacinto Viejo, Mexican Land grant, and within portions of Section 29, 31, 32, and 33, Township 4 South, Range 1 East, and portions of Section 5, Township 5 South, Range 1 East, San Bernardino Base Meridian (SBBM).

It is understood that IHS's action of providing Federal financial assistance meets the definition of an Undertaking in accordance with 36 CFR Part 800.16(y) and therefore requires the completion of a Section 106 review.

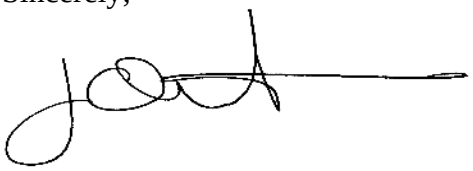
IHS has identified a horizontal Area of Potential Effect (APE) including buffers and staging areas as 19.6 linear miles and a total of 202.5 acres. The approximate vertical APE would be 5 feet.

IHS has determined that the proposed undertaking and subsequent construction would result in "Historic Properties – Adverse Effect" in accordance with 36 CFR Part 800.5, and in accordance

with the implementing regulations for Section 106 (36 CFR Part 800.2(i)(A)), of the National Historic Preservation Act (16 U.S.C. §470t) is now seeking my concurrence on our Area of Potential Effect (APE) and Finding of Effect (FOE).

I have reviewed the request of IHS, and I concur with their Finding of Effect and the APE delineation. It is further understood that IHS intends to resolve any adverse effects through the development of a Memorandum of Agreement with consulting parties in accordance with 36 CFR Part 800.6. IHS has acknowledged that if historic properties are inadvertently discovered during the course of any ground disturbing activities, all work would immediately cease within a 100-foot radius. It should be understood, that under certain circumstances, such as unanticipated discoveries or a modification to the project description, IHS may have additional responsibilities for the undertaking. Thank you for your consideration of impacts to historic properties. Please feel free to contact me with any additional questions or concerns.

Sincerely,



Joseph Ontiveros
Tribal Historic Preservation Officer
Soboba Band of Luiseño Indians
P.O. Box 487
San Jacinto, CA 92581
Phone (951) 654-5544 ext. 4137
Cell (951) 663-5279
jontiveros@soboba-nsn.gov

Appendix H

Paleontology Technical Memo

Paleontological Resources Report
Soboba Septic to Sewer Conversion Project

Riverside County, California



Prepared For: Acorn Environmental
5170 Golden Foothill Parkway
El Dorado Hills, CA 95762

Report Date: July 2024

BARGAS
Environmental Consulting

Sacramento ◆ Orange ◆ Pasadena ◆ San Bernardino ◆ Temecula ◆ San Diego
www.BargasConsulting.com

Project Team

Report Author(s): Joseph El Adli, Ph.D.; Courtney Richards, M.S.

Field Surveyor(s): N/A

Principal Investigator: Joseph El Adli, Ph.D.

Recommended Citation: El Adli, J.,J. and C. Richards. 2024. Paleontological Resources Assessment for the Soboba Septic to Sewer Conversion Project, Riverside County, California. Prepared for Acorn Environmental. July 2024.

Paleontological Resources Summary Information

Geologic Units in Project Area: Holocene alluvial sand and gravel of major steam channels (Qg, low paleontological potential), Holocene alluvial sand and clay of valley areas (Qa, low paleontological potential at surface, high at depth), Pleistocene older alluvial gravel and sand of low terrace remnants (Qoa, high paleontological potential), and the Pliocene to Pleistocene Bautista beds (QTs, high paleontological potential).

Paleontological Resources Identified in Project Area: 0

Previously Recorded Resources in Project Area: 0

Newly Recorded Resources in Project Area: N/A

MANAGEMENT SUMMARY

Bargas Environmental Consulting, LLC (Bargas) completed a paleontological resources assessment at the request of Acorn Environmental for the Soboba Septic to Sewer Conversion Project (Project) in Riverside County, California. The purpose of the assessment was to determine if the Project has the potential to impact paleontological resources within the Project Site. All work was completed in compliance with the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

The proposed Project intends to replace individual septic systems on the Soboba Indian Reservation by connecting to the regional wastewater treatment facilities of Eastern Municipal Water District (EMWD). The Project will also replace the existing, temporary pipeline and associated facilities that convey wastewater from the Tribe's Soboba Casino Resort, through the Soboba Springs Golf Course and below the San Jacinto River.

Bargas completed a paleontological study that included desktop-level reviews of geologic maps, scientific literature, and online paleontological databases, as well as a records search at the Western Science Center (WSC). The WSC records search was negative for paleontological localities within the Project Site and 2.5-mile buffer, but review of the literature and online paleontological databases suggest that significant paleontological resources have been found within the Soboba Indian Reservation. Geologic mapping indicates the Project Site is underlain by several sedimentary geologic units ranging from Holocene to Pliocene in age.

Based on the results of the study, there are no known paleontological resources within the Project Site boundaries, and the Holocene-age alluvial sand and gravel of major steam channels (Qg) and Holocene-age sections of the alluvial sand and clay of valley areas (Qa) have a low potential for significant paleontological resources at the surface within the Project Site. However, Pleistocene-age portions of alluvial sand and clay of valley areas (Qa) are assigned a high paleontological potential given the vertebrate fossil-bearing localities known from similar deposits in Riverside and Imperial Counties. The depth at which this transition from low to high potential occurs is not known, but could occur at depths as shallow as 10 feet below ground surface. Furthermore, both the Pleistocene-age older alluvial gravel and sand of low terrace remnants (Qoa) and the Pliocene- to Pleistocene-age Bautista beds (QTs) are well known to produce significant paleontological resources within the region and thus are assigned a high paleontological potential at the surface and at depth.

Given these data, paleontological monitoring is recommended for all Project-related activities involving ground disturbance (e.g., excavation) within the older alluvial gravel and sand of low terrace remnants (Qoa) and the Bautista beds (QTs), as well as where excavations extend 10 feet or more below the current ground surface in areas mapped as alluvial sand and clay of valley areas (Qa). In the event of an unanticipated paleontological resource discovery, work within 50 feet of the resource shall stop until a qualified paleontologist can evaluate the significance of the find. Construction activities may continue in other areas. If the discovery is identified as potentially significant, additional work, such as recovery, laboratory preparation, fossil identification, curation, and reporting, may be necessary. Recovered paleontological resources should be deposited in an appropriate fossil repository to be determined by the lead agency in consultation with the qualified paleontologist.

Proposed mitigation measures for the Project Site include development and implementation of a site-specific Paleontological Resource Mitigation and Treatment Plan (PRMTP) by a qualified professional paleontologist (as defined by SVP 2010) and a pre-construction paleontological survey of areas of the Project Site mapped as underlain by the older alluvial gravel and sand of low terrace remnants (Qoa) and the Bautista beds (QTs).

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Attachments

Appendix A. Western Science Center Records Search Results

1 Introduction

Bargas Environmental Consulting, LLC (Bargas) completed a paleontological resources assessment at the request of Acorn Environmental for the Soboba Septic to Sewer Conversion Project (Project) in Riverside County, California (Figure 1). The purpose of the assessment was to determine if the Project has the potential to impact paleontological resources within the Project Site. All work was completed in compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

1.1 Project Location and Description

The Soboba Band of Luiseño Indians (Tribe) is a federally recognized tribe based on the Soboba Indian Reservation in western Riverside County, California. The Tribe is proposing the Project to replace the use of individual septic systems on the Reservation by connecting to the regional wastewater treatment facilities of Eastern Municipal Water District (EMWD). The Project will also replace the existing, temporary pipeline and associated facilities that convey wastewater from the Tribe's Soboba Casino Resort, through the Soboba Springs Golf Course and below the San Jacinto River (Figure 2). The Project Site sits primarily within the Soboba Indian Reservation, but western portions extend into the City of San Jacinto. Existing non-Tribal communities within EMWD's service area that are connected to this aging, temporary pipeline include the Soboba Springs Lake Park mobile home community and other adjacent residential developments.

Specifically, the proposed Project includes:

- New laterals to collect wastewater from existing uses currently served by individual septic systems, new mainlines (combination of forcemains and gravity) along roadways on the Soboba Reservation, and a new lift station. The wastewater pipelines will be constructed primarily by open trenches with a maximum depth of approximately 30 feet below ground surface and a maximum width of approximately 6 feet. Pipeline crossings of culverted drainages will be accomplished by jack and bore. The existing septic tanks on the Reservation will be abandoned in place to minimize ground disturbance.
- A new 15" gravity line that will be trenched through the golf course and then microtunneled below the San Jacinto River. On the south side of the San Jacinto River, the new gravity line will connect to existing EMWD 15" lines at an existing manhole to be conveyed to EMWD treatment facilities. The entire length of proposed 15" line will be gravity fed. Below the San Jacinto River, the 15" line will be encased in a larger 48" steel casing pipe for protection. A low-density cellular backfill material consisting of foam and a water-cement mixture will be pumped into the annular space between the pipe and casing. Microtunneling will require an entry pit on the south side of the river approximately 25 feet long, 10 feet wide, and between 30-35 feet deep. A receiving pit on the north side of the river will measure 15 feet long, 10 feet wide, and 20-25 feet deep.
- The existing lift station located within the Tribe's Soboba Springs golf course will no longer be required and will be demolished. The existing 8" force main through the golf course and below the San Jacinto River will be slurry-filled to prevent collapse and will be abandoned in place to minimize environmental disturbance.

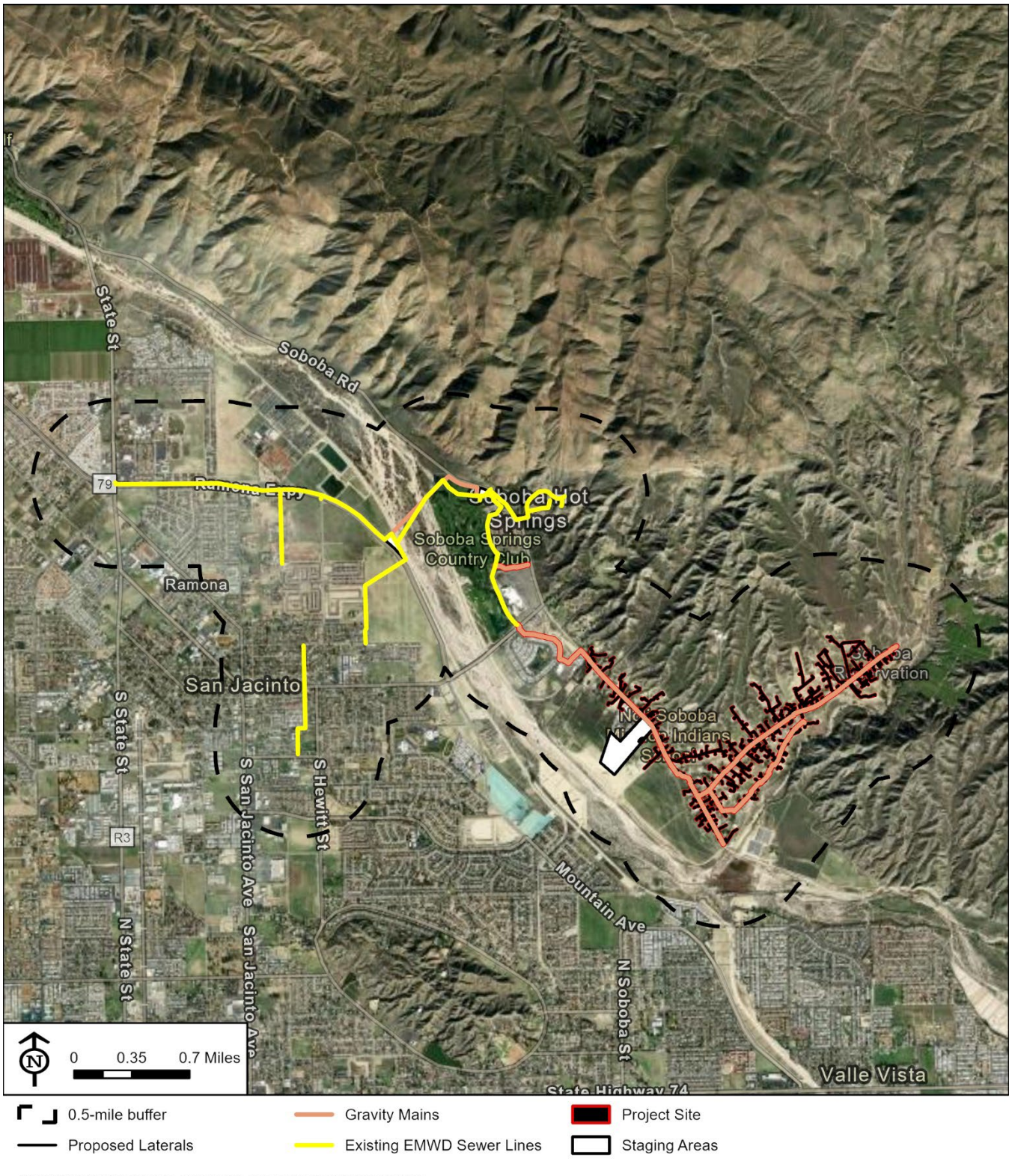
2 Methods

Bargas completed a paleontological study that included desktop-level reviews of geologic maps, paleontological literature, and online paleontological databases and a records search at the Western Science Center (WSC) to identify any known paleontological resources within the Project boundaries or from the same geologic unit within a 2.5-mile buffer. Paleontological potential rankings were assigned using the Society of Vertebrate Paleontology (SVP) (2010) procedures for paleontological resource assessment (see Section 2.1).



USGS Quads: Kane Spring and Westmorland West (n.d.) - ESRI ArcGIS Online Basemap, World Topographic Map, World Street Map - Bargas Environmental Consulting July 2024

Figure 1. Vicinity map showing the Project Site



Source: ESRI ArcGIS Online Basemap - World Imagery - Bargas Environmental Consulting July 2024

Figure 2. Location map showing the Project Site

2.1 Paleontological Potential and Impact Methods

In general, paleontological resources are preserved in sedimentary rocks; however, they can occasionally be preserved in low-grade metamorphic rocks and can, on rare occasions, be preserved in volcanic rocks. Beyond acting as a vessel for the preservation of fossil remains, sedimentary strata record telltale information reflecting the environment in which they were deposited (e.g., sedimentary structures, maturity, and lithology). For example, fossil remains found within the fine-grained sediments of a floodplain deposit represent organisms that died and were later buried on an ancient floodplain. Because of the interwoven relationship between fossil remains and their geologic contexts, paleontological sensitivity is generally assigned to geologic units rather than to specific regions, areas, or localities.

For this project, the paleontological potential of the geologic units within the Project Site, both at the surface and at depth, were assigned using the SVP (2010) procedures for paleontological resource assessment. SVP rankings are assigned to geologic units based on the relative abundance of significant paleontological resources within a given geologic unit and their sensitivity to impacts.

Table 1. SVP Classification for Paleontological Resource Sensitivity

Paleontological Potential	Criteria	Recommendations
High	Geologic formations that are known to yield vertebrate or significant invertebrate, plant, or trace fossils. Highly sensitive formations also may be those that are likely to produce new vertebrate materials, traces, or trackways.	A field survey as well as on-site construction monitoring is required. Any significant specimens discovered will require preparation, identification, and curation, as well as eventual accession into an appropriate museum collection. A final report documenting the significance of any finds is required.
Undetermined	Geologic formations for which available literature on paleontological resources is scarce, making it difficult to determine whether or not it is potentially fossiliferous. Under these circumstances, further study is needed to determine the unit's paleontological resource potential (i.e., field survey).	A field survey is required to further assess the unit's paleontological potential.
Low	Geologic formations that have yielded few fossils in the past, based upon review of available literature and museum collections records. Low potential also may include formations that yield fossils only under unusual circumstances. This also includes formations that, based on their relative youthful age or high-energy depositional history, are unlikely to produce important fossil remains.	Mitigation is not typically required.
No	Geologic formations that are formed under or exposed to immense heat and pressure, such as high-grade metamorphic rocks and plutonic igneous rocks. Artificial fill materials also are assigned as having no potential because of the loss of stratigraphic context of any contained organic remains.	No mitigation required.

Note: Modified from SVP (2010).

2.2 Paleontological Resources Definition and Significance Criteria

Fossils are generally defined here as the remains or trace remains (both physical and chemical) of prehistoric organisms (i.e., animals, plants, and microorganisms). These resources can be preserved as body fossils, such as bones, teeth, shells, and plant matter, or as trace fossils, such as burrows and footprints. Geologic deposits make up the context in which these fossil remains were originally buried and provide information about the environment in which an organism lived. In the broadest

sense, a fossil can be defined as any remains documenting past life. Typically, to be considered within the scope of paleontology, fossils must be at least 11,700 years in age (i.e., dating from before the beginning of the modern Holocene Epoch). However, some Holocene-age remains are also considered of paleontological interest if they contribute to our understanding of the record of past life. Alteration or replacement (e.g., permineralization, petrification, or "fossilization") of the original organic material is not required for determination of whether an object is a fossil or not.

Fossils are important scientific and educational resources because they serve as direct and indirect evidence of prehistoric life and are used to understand the history of life on Earth, the nature of past environments and climates, the membership and structure of ancient ecosystems, and the pattern and process of organic evolution and extinction. Fossils are limited, nonrenewable resources, because they typically represent organisms that are now extinct or life in a context that no longer exists. Therefore, if destroyed, a particular fossil can never be replaced, and the information associated with it is forever lost. However, not all fossils are regarded as significant resources or offered protection under existing laws and regulations. CEQA, NEPA, and many other regulations do not define what constitutes unique or significant paleontological resources, instead leaving it to agencies to determine or adopt appropriate criteria. Many agencies have adopted the SVP standards, which define significant paleontological resources as:

> "... fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years)." (SVP 2010)

3 Regulatory Framework

3.1 Federal Regulations

Management of paleontological resources on federal lands is governed under multiple laws, regulations, and standards. These include NEPA (as amended [42 USC 4321 et seq.]), the Federal Land Policy and Management Act of 1976 (FLPMA), and the Paleontological Resources Preservation Act (PRPA) (16 USC 470aaa et seq.).

3.1.1 National Environmental Policy Act of 1969

NEPA, as amended (42 United States Code [USC] 4321 et seq.), is a broad national policy that addresses environmental protection and requires the federal government to give consideration to the environment prior to undertaking major federal actions or private actions that involve federal approvals, permits, or funding. If the presence of a significant environmental resource is identified during the scoping process, federal agencies must take the resource into consideration when evaluating project effects.

NEPA further directs federal agencies to use all practicable means to "Preserve important historic, cultural, and natural aspects of our national heritage..." (42 USC 4331, Section 101(b) (4)), which is typically considered to include paleontological resources. Regulations for implementing the procedural provisions of NEPA are found in 40 Code of Federal Regulations (CFR) 1500 1508.

3.1.2 Antiquities Act of 1906

The Antiquities Act of 1906 was the first U.S. law to provide general legal protection for cultural and natural resources of historic or scientific interest. The Act authorizes the establishment of national monuments by U.S. Presidents and the issuance of permits for the examination of ruins, excavation of archaeological sites, and gathering of objects of antiquity. The Act also establishes a penalty for the unauthorized excavation or destruction of archeological ruins, monuments, and objects of antiquity on federal land and states, in part:

> "That any person who shall appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court."

Although there is no specific mention of natural or paleontological resources in the Act itself, or in the Act's uniform rules and regulations (43 CFR 3), the term "objects of antiquity" has in some instances been interpreted to include fossils by the National Park Service, the BLM, the Forest Service, and other federal agencies.

3.1.3 Federal Land Policy and Management Act of 1976

FLPMA (43 USC 1701–1784) requires that:

> "public lands be managed in a manner that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resource, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition."

It further establishes the need for inventories of public lands such that the federal agencies shall:

> "prepare and maintain on a continuing basis an inventory of all public lands and their resource and other values (including, but not limited to, outdoor recreation and scenic values), giving priority to areas of critical environmental concern. This inventory shall be kept current so as to reflect changes in conditions and to identify new and emerging resource and other values. The preparation and maintenance of such inventory or the identification of such areas shall not, of itself, change or prevent change of the management or use of public lands."

3.1.4 Paleontological Resources Preservation Act

In 2009, PRPA was signed into law by President Barack Obama under the Omnibus Public Lands Management Act (Public Law 111-11 [2009]). This act directed the Department of the Interior and Department of Agriculture to implement comprehensive paleontological resource management plans in order to protect paleontological resources on federal lands. The secretaries of both departments were instructed to use "scientific principles and expertise" in order to "develop appropriate plans for inventory, monitoring, and the scientific and educational use of paleontological resources, in accordance with applicable agency laws, regulations, and policies. These plans shall emphasize interagency coordination and collaborative efforts where possible with non-Federal partners, the scientific community, and the general public" (16 USC 470aaa-1).

3.2 State Regulations

3.2.1 California Environmental Quality Act

The purpose of CEQA is to 1) inform governmental decision makers and the public about the potential, significant environmental effects of proposed projects; 2) identify ways to avoid or reduce environmental damage; 3) prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when feasible; and 4) disclose to the public the reason why a governmental agency approved the project if significant environmental effects are involved (CEQA Guidelines, Article 1, Section 15002(a)). The CEQA Environmental Checklist Form includes one question regarding proposed project effects on paleontological resources:

> "Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?" (CEQA Guidelines, Appendix G, Section VII, Part F)

The answer to this question must take account of the whole action involved, including on-site, off-site, direct, indirect, construction, operational, project-level, and cumulative impacts. If a project would result in significant adverse effects on paleontological resources, then alternative plans or mitigation measures must be considered. The level of consideration may vary with the importance of the paleontological resource.

3.2.2 California Public Resources Code

The California Public Resources Code (PRC) Section 5097.5 provides protection for paleontological resources located on public lands in California, which are defined as lands owned by, or under the jurisdiction of, the state, or any city, county district, authority, or public corporation, or any agency thereof. Under PRC Section 5097.5, it is a misdemeanor for a person to knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any vertebrate paleontological site, including fossilized footprints, or any other paleontological feature situated on public lands without the express permission of the public agency having jurisdiction of the lands.

3.3 Local Regulations

Several local regulations may be applicable where the Project Site extends into lands governed by the County of Riverside and the City of San Jacinto.

The Multipurpose Open Space Element of the Riverside County General Plan (2015) includes the following policies to ensure that paleontological resources are appropriately considered:

- OS 19.6: Whenever existing information indicates that a site proposed for development has high paleontological sensitivity as shown on Figure OS-8 [of the Riverside County General Plan], a paleontological resource impact mitigation program (PRIMP) shall be filed with the Riverside County Geologist prior to site grading. The PRIMP shall specify the steps to be taken to mitigate impacts to paleontological resources.
- OS 19.7: Whenever existing information indicates that a site proposed for development has low paleontological sensitivity as shown on Figure OS-8 [of the Riverside County General Plan], no direct mitigation is required unless a fossil is encountered during site development. Should a fossil be encountered, the Riverside County Geologist shall be notified and a paleontologist shall be retained by the project proponent. The paleontologist shall document the extent and potential significance of the paleontological resources on the site and establish appropriate mitigation measures for further site development.
- OS 19.8: Whenever existing information indicates that a site proposed for development has undetermined paleontological sensitivity as shown on Figure OS-8 [of the Riverside County General Plan], a report shall be filed with the Riverside County Geologist documenting the extent and potential significance of the paleontological resources on site and identifying mitigation measures for the fossil and for impacts to significant paleontological resources prior to approval of that department.
- OS 19.9: Whenever paleontological resources are found, the Riverside County Geologist shall direct them to a facility within Riverside County for their curation, including the Western Science Center in the City of Hemet.

The Resource Management Element of the City of San Jacinto General Plan (2006) includes a goal to promote cultural awareness through the preservation of the City's historical, archaeological, and paleontological resources (Goal 4). Implementation Program RM-16 requires that the City continue to assess development proposals for potential impacts to sensitive historic, archaeological, and paleontological resources pursuant to CEQA. Regarding paleontological resources, RM-16 states that:

> "The City shall require an assessment of the potential for development proposals to significantly impact paleontological resources pursuant to the California Environmental Quality Act Guidelines. If the project involves earthworks, the City may require a study conducted by a professional paleontologist to determine if paleontological assets are present, and if the project will significantly impact the resources. If significant impacts are identified, the City may require the project to be modified to avoid impacting the paleontological materials, require monitoring of rock units with high potential to contain significant nonrenewable paleontological resources, or require mitigation measures to mitigate the impacts, such as recovering the paleontological resources for preservation."

4 Geological and Paleontological Setting

4.1 Regional Overview

The Project Site sits within the Peninsular Ranges geomorphic provinces near the boundary between the Peninsular Ranges and Colorado Desert geomorphic provinces (Figure 3). The former is a broad region in southwestern California composed of series of northwest-southeast trending mountain ranges that are separated by parallel longitudinal valleys (Jahns 1954). The latter is a low-lying desert basin in the southeastern portion of California wedged between the Mojave Desert, Transverse Ranges, and Peninsular Ranges geomorphic provinces.

Like much of southern California, both the Peninsular Ranges and Colorado Desert geomorphic provinces are tectonically active. Extension occurs in a relatively east–west direction, along with a component of north–south shearing (Fuller et al. 2015a; 2015b). These tectonic activities operate similar to and parallel with the San Andreas Fault in connection with the opening of the Gulf of California that began in the Miocene.

The Peninsular Ranges geomorphic province includes the San Jacinto Mountains, which make up the northernmost portion of the Peninsular Ranges. These tall mountains are dominated by Mesozoic-age granitics, often intruding into older metamorphic rocks. Their geology is notably similar to those of the Sierra Nevada mountain range, which formed during the same period of time and within similar tectonics environments (Fuller et al. 2015a). However, following activation of the San Andreas Fault System and opening of the Gulf of California, the Peninsular Ranges were detached from the North American Plate and now lie within the oceanic Pacific Plate.

The Project Site lies within the San Jacinto Valley, at the base of the San Jacinto Mountains. Like the nearby Coachella Valley, the San Jacinto Valley has been heavily shaped by tectonic forces involving the interaction of the Pacific Plate and the North American Plate along the San Andreas Fault system (Harden 2004). The valley is a fault-bound depression, with the San Jacinto Fault running along the eastern margin of the valley. The mountain ranges rising above the San Jacinto Valley are uplifted blocks of continental crust. The valley floor is covered with detrital sediments of alluvial, aeolian, fluvial, and lacustrine origin. Geologic mapping by Dibblee (2003) indicates that the Project Site is underlain by combination of Holocene to Pleistocene detrital sediments and Pliocene to Pleistocene bedrock.

4.2 Geologic Map and Paleontological Literature Review

The Project Site is mapped as underlain by a multiple alluvial and fluvial deposits of ranging in age from the Holocene to the late Pliocene (Figures 4 and 5; Table 2; Dibblee 2003). These deposits are broadly separated topographically, at the surface, with older geologic units occurring in areas of higher elevation and vice versa. Furthermore, the younger, Holocene-age deposits likely transition to Pleistocene-age deposits of similar depositional history at depth, though the precise depth at which this transition occurs is not clear.

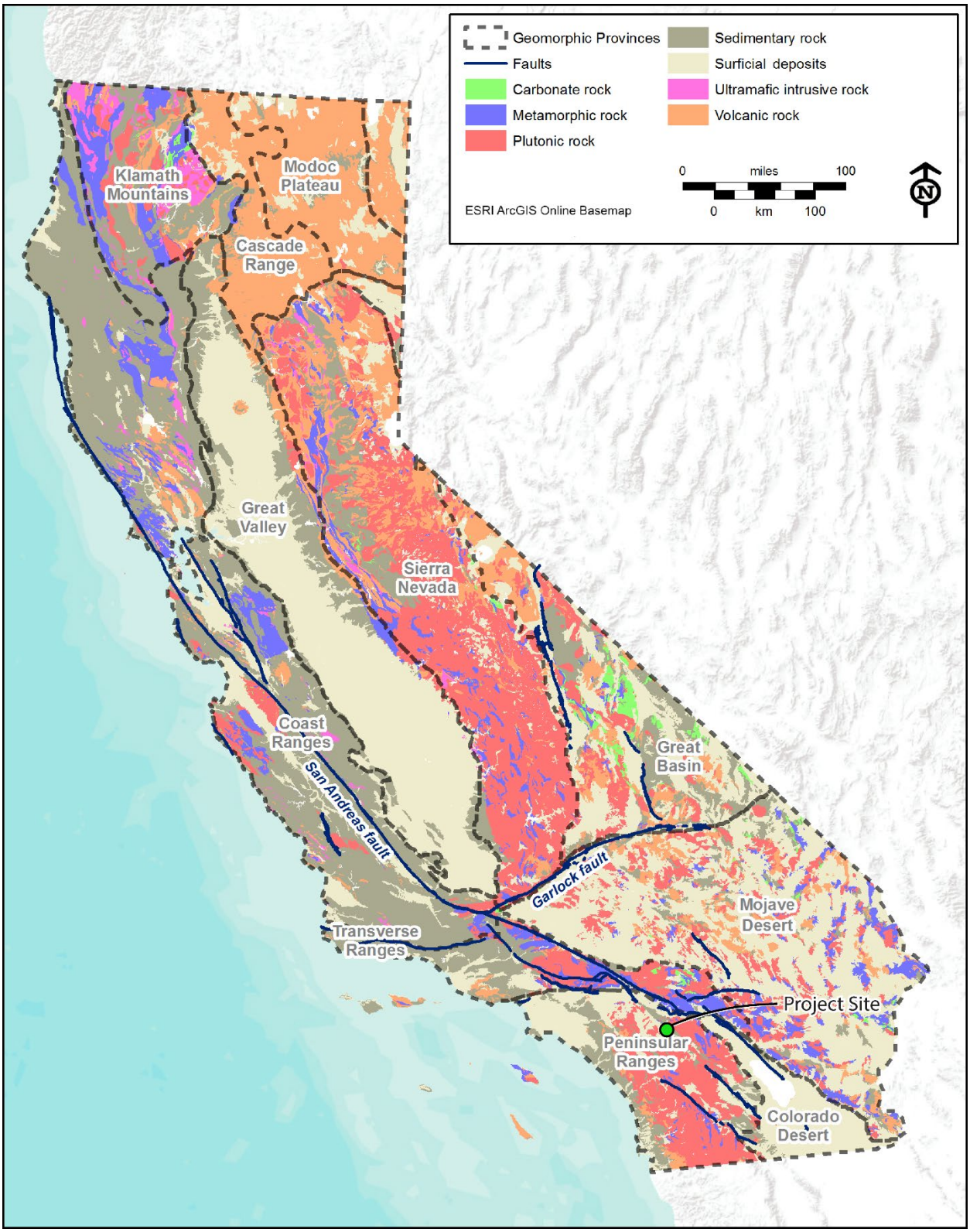


Figure 3. Geomorphic map showing the Project Site

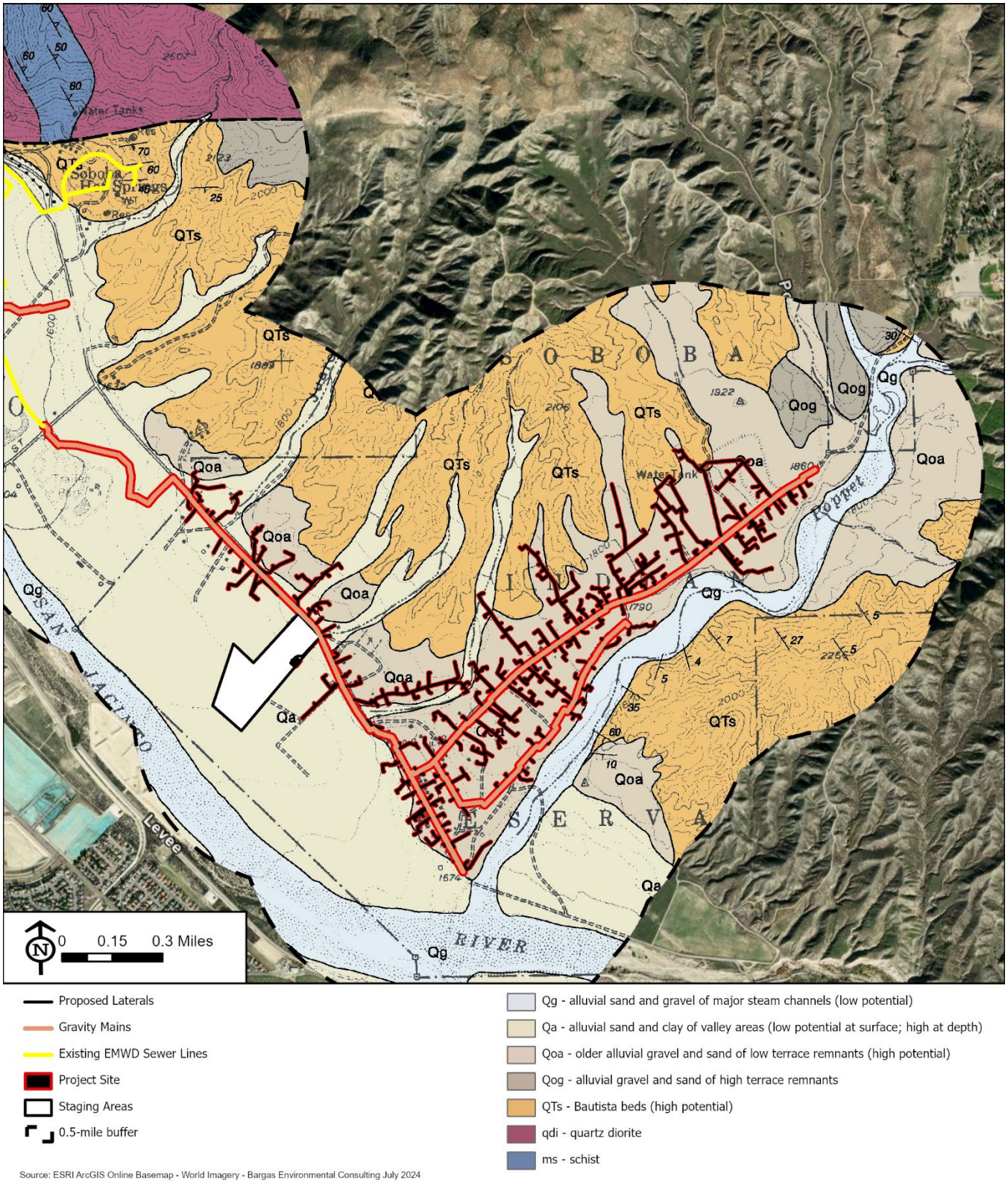


Figure 4. Geologic map showing the eastern portion of the Project Site (after Dibblee 2003).

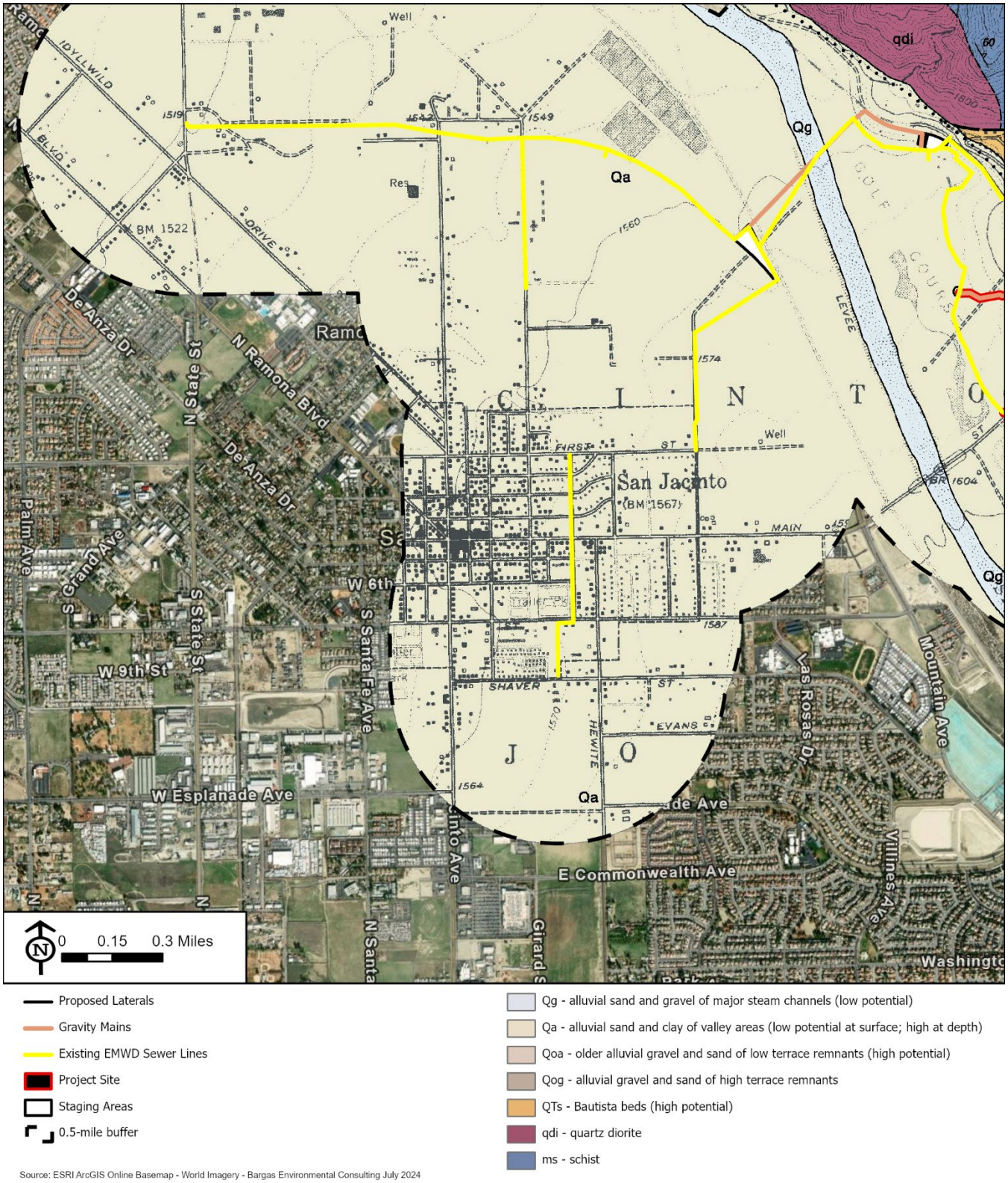


Figure 5. Geologic map showing the western portion of the Project Site (after Dibblee 2003).

Table 2. Geologic Units and Paleontological Potential

	Map Symbol(s)	Geologic Unit Name & Age[1]	Age	Paleontological Potential[2]
Surficial Deposits	Qg	alluvial sand and gravel of major steam channels	Holocene	Low
	Qa	alluvial sand and clay of valley areas	Holocene	Low at surface; High at depth
	Qoa	older alluvial gravel and sand of low terrace remnants	Pleistocene	High
Cenozoic Bedrock	QTs	Bautista beds	Pliocene - Pleistocene	High

[1]*Dibblee (2003)*
[2]*sensu* SVP (2010).

4.2.1 Alluvial sand and gravel of major steam channels (Qg)

Alluvial fans are cone- or fan-shaped deposits of sediment that form at the boundaries between areas of high and low topography. The detrital sediments of the alluvial fan are transported and deposited by gravity, wind, and (most often) water. Such features are common in mountainous regions of the world and, in tectonically active regions, alluvial fans can reach over 50 kilometers (31 miles) in width and 60 kilometers (37 miles) in length.

Dibblee (2003) maps a narrow, linear exposure of gravel deposits within the active channel of the San Jacinto River, which they term "alluvial sand and gravel of major steam channels" (Qg). These deposits are typically considered to be late Holocene in age with the sediments nearest the surface likely being deposited relatively recently. The geographic extent of stream channel deposits is likely broader than mapped by Dibblee (2003) based on more recent satellite images of the San Jacinto River channel (Figure 5). Therefore, for the purposes of this Project, the alluvial sand and gravel of major steam channels (Qg) should be considered to encompass the entire surficial extent of the current active channel of the San Jacinto River.

These deposits are not described in detail by those authors, but similar deposits nearby in Bautista Canyon have been described as:

> "Unconsolidated bouldery to sandy alluvium of active and recent washes… Ephemeral river channels having fresh flood scour and channel-and-bar morphology. Subject to localized reworking and introduction of new sediment mainly during the winter months. In places, especially upper reaches of drainages, contains clasts up to one meter across. Grain shapes range from angular to rounded; large clasts tend to be more rounded than smaller clasts." (Morton and Matti 2005)

Holocene-age deposits typically do not contain fossils at or near the surface due to their relatively young age. Holocene-age remains may occasionally be of scientific interest, but such discoveries are relatively rare and are addressed on a case-by-case basis. Reworked or transported fossils may also be present in these young deposits. However, such fossils lack geologic context and are generally not considered to be significant. Therefore, the "alluvial sand and gravel of major steam channels" (Qg) are assigned a low paleontological potential using the SVP classification for paleontological resource sensitivity (2010). Such deposits may transition to high potential, Pleistocene-age alluvial deposits at depth. However, the depth of this transition is currently unknown and the active nature of the San Jacinto River suggests that the Holocene portion of these deposits could be relatively thick.

4.2.2 Alluvial sand and clay of valley areas (Qa)

The flatter, lowland portions of the Project Site that exist basinward from the local hillslopes are mapped by Dibblee (2003) as "alluvial sand and clay of valley areas" (Qa). These deposits are generally found to the west of (and often including) Soboba Road, as well as at the base of local canyons (e.g., Juaro Canyon) (Figures 4 and 5). Like the "alluvial sand and gravel of major steam

channels" (Qg), the "alluvial sand and clay of valley areas" (Qa) are considered to be Holocene in age near the surface. Dibblee (2003) discusses this unit only as "covered by gray soil [and] includes stream channel gravel and sand in mountain area[s]." Morton and Matti (2005) provide additional description of similar sediments in the area, which they identify as young alluvial fan deposits of Holocene and late Pleistocene age and describe as:

> "Unconsolidated deposits of alluvial fans and headward drainages of fans. Consists predominantly of gravel, sand, and silt. Trunk drainages and proximal parts of fans contain higher percentage of coarse-grained sediment than distal parts."

As discussed for the "alluvial sand and gravel of major steam channels" (Qg), Holocene-age deposits typically do not contain fossils at or near the surface due to their relatively young age. Holocene-age remains may occasionally be of scientific interest, but such discoveries are relatively rare and are addressed on a case-by-case basis. Reworked or transported fossils may also be present in these young deposits. However, such fossils lack geologic context and are generally not considered to be significant. Therefore, the "alluvial sand and clay of valley areas" (Qa) are assigned a low paleontological potential using the SVP classification for paleontological resource sensitivity (2010). Such deposits likely transition to high potential, Pleistocene-age alluvial deposits at depth. The depth that this transition occurs is unknown, but such native Pleistocene deposits could occur at depths as shallow as 10 feet or less below current grade. Therefore the "alluvial sand and clay of valley areas" (Qa) should be considered to have a high paleontological potential at depths of 10 feet or greater below the surface and low potential at depths shallower than 10 feet.

4.2.3 Older alluvial gravel and sand of low terrace remnants (Qoa)

Dibblee (2003) maps "older alluvial gravel and sand of low terrace remnants" (Qoa) near the base of hillslopes and along upstream portions of canyons, especially along Poppet Creek (Figure 4). These deposits are older than the other surficial deposits found in the more flat-lying portions of the Project Site and are identified by Dibblee (2003) as late Pleistocene in age. That author noted the unit as "dissected older alluvial deposits, slightly indurated, [and] undeformed" (Dibblee 2003). Morton and Matti (2005) separate similar units within the vicinity of the Project Site into either "old alluvial fan deposits" or "old axial channel deposits", both of which are assigned a late to middle Pleistocene age. Morton and Matti (2005) describe these units as:

> *Old alluvial fan deposits*
>
> "Reddish brown, gravel and sand alluvial-fan deposits; indurated, commonly slightly dissected. In places includes thin alluvial-fan deposits of Holocene age."
>
> *Old axial channel deposits*
>
> "Fluvial sediments, Consists of moderately indurated, commonly slightly dissected gravel, sand, silt, and clay-bearing alluvium. Locally capped by thin, discontinuous alluvial deposits of Holocene age."

Fossils from Pleistocene-age alluvial deposits in southern California have been reported at the surface and at depth, including mammoth (*Mammuthus*), ground sloth (*Megalonyx* and *Nothrotheriops*), bison (*Bison*), deer (*Odocoileus*), horse (*Equus*), camel (*Camelops* and *Hemiauchenia*), saber-tooth cat (*Smilodon*), jaguar (*Panthera onca*), and bear (*Arctodus* and *Ursus*), as well as small mammal, reptile, and amphibian remains (Jefferson 2010). Given the Pleistocene age of both the "older alluvial gravel and sand of low terrace remnants" (Qoa) and the known scientifically important paleontological resources from such deposits in the region, this unit is considered to have a high paleontological sensitivity at the surface and at depth.

4.2.4 Bautista beds (QTs)

The hillslopes within and rising above the Project Site are mapped by Dibblee (2003) as the Bautista beds (QTs; also see Fraser 1931). Other authors have suggested raising these beds to the level of formation and have termed the unit the Baustista Formation (Axelrod 1966; Bell 1973). Dibblee (2003) identified this unit as Pliocene to Pleistocene in age and approximately

equivalent to the San Timoteo Formation exposed to the north of the San Jacinto Mountains. These deposits were first described by Frick (1921) for a sequence of fossiliferous fluvial and alluvial deposits located near the mouths of and Bautista Canyon and the San Jacinto River, just to the south of the Project Site. Dibblee (2003) described these sediments as "sandstone, light gray to tan, arkosic; includes some cobble–pebble conglomerate and thin lenses of gray claystone." Morton and Matti (2005) described equivalent beds within Bautista Canyon as:

> "Arkosic, coarse-grained to conglomeratic sandstone. Unconsolidated to moderately indurated, pale gray to brownish gray, biotite-bearing. Contains scattered, discontinuous cobble and boulder beds. Fine-grained sandstone to silty and clayey beds locally are common. Composed almost entirely of detritus from tonalite."

Paleontological resources are well known from the Bautista beds and were first reported by Frick (1921). That author reported a Pleistocene vertebrate fauna containing rabbit (*Lepus*), tapir (*Tapirus merriami*), deer (cf. *Odocoileus*), pronghorn (*Carpromeryx*, *Neotragoceros*, and *Antilocapra*), horse (*Equus*), and ground sloth (*Megalonyx*). A desktop records search of the University of California Museum of Paleontology (UCMP) online database returned 11 fossil localities from the Bautista beds containing 307 vertebrate and floral fossil specimens. One of these localities (P620) was reported on by Axelrod (1966) as the Soboba Flora for an abundance of plant fossils collected within the Soboba Indian Reservation. However, it is not clear precisely where within the reservation these specimens were collected. Bell (1973) further described four fossil specimens of the rare threespine stickleback fish, *Gasterosteus aculeatus*, from the Bautista beds which were originally collected within the Soboba Indian Reservation and thought to be from the same horizon as the plant fossils reported by Axelrod (1966). Both Axelrod (1966) and Bell (1976) suggest an early Pleistocene age (ca. 2.2 million years old) for the unit based on the recovered fossil assemblage. Given the known abundance of significant paleontological resources from the Bautista beds, including within the Soboba Indian Reservation, this unit is assigned a high paleontological sensitivity at the surface and at depth.

5 Records Search Results

A records search of the Project Site and an approximately 2.5-mile buffer was completed by WSC Collections Manager Brittney Stoneburg, MSc on July 24th, 2024. Ms. Stoneburg's report is provided in full in Appendix A. The search found no previously recorded vertebrate fossil localities directly underlying the Project Site or within a 2.5-mile buffer. However, they note that the Pleistocene and Pliocene deposits underlying the Project Site are well known to produce significant paleontological resources across southern California. The report further notes that the Pliocene and Pleistocene deposits are considered to have a high paleontological sensitivity, but does not comment on the Holocene-age units.

6 Paleontological Impact Analysis

Impacts under CEQA are classified as direct, indirect, or cumulative. Direct impacts are the primary effects of a project. For paleontological resources, direct impacts are typically the result of ground-disturbing construction or maintenance activities that damage or destroy paleontological resources at the surface or in the subsurface. Indirect impacts are the secondary effects of a project, including project-induced changes such as increased public access to paleontologically sensitive areas and increased susceptibility of fossil-bearing geologic units to erosion due to activities like vegetation removal, which may result in adverse impacts to paleontological resources from illegal collection and damage from weathering, respectively. Cumulative impacts are the incremental effects of a project in combination with the effects of past, current, and probable future projects.

There are no known paleontological resources held within the collection of the WSC within the Project Site or a 2.5-mile buffer. However, Pleistocene-age deposits of the "older alluvial gravel and sand of low terrace remnants" (Qoa) and Bautista beds (QTs) are known to produce paleontological resources regionally (including within the Soboba Indian Reservation and in nearby Baustista Canyon) and have thus been assigned a high paleontological sensitivity at the surface and at depth. Furthermore, late Pleistocene sections of the "alluvial sand and clay of valley areas" (Qa) are likely present at depth and would

have a high paleontological potential. Such Pleistocene-age sediments could be uncovered at depths as shallow as 10 feet below current grade. Therefore, the "alluvial sand and clay of valley areas" (Qa) are assigned a low paleontological potential at depths of less than 10 feet below the surface and a high potential at depths greater than 10 feet. The "alluvial sand and gravel of major steam channels" (Qg) are likely Holocene in age to greater depths than the "alluvial sand and clay of valley areas" (Qa) due to the active channel of the San Jacinto River in which they are deposited. Therefore, the "alluvial sand and gravel of major steam channels" (Qg) are considered to have a low paleontological sensitivity. Should proposed Project-related excavations occur in areas mapped as older alluvial gravel and sand of low terrace remnants" (Qoa) or Bautista beds (QTs), or if excavations extend to depths of 10 feet or greater in areas mapped as "alluvial sand and clay of valley areas" (Qa), there would be the potential for permanent loss of scientifically important and regionally significant paleontological resources, including identifiable vertebrate fossils, uncommon invertebrate fossils, plant fossils, and trace fossils, which would represent a significant, adverse impact.

With implementation of the paleontological resource monitoring and treatment recommendations described in Section 7, direct impacts on paleontological resources would be reduced to less than significant levels, and the Project's potential to contribute to cumulative impacts would be negligible. Implementation of the Project would not increase public access or erosion; therefore, no indirect impacts to significant paleontological resources are anticipated.

7 Summary and Recommendations

Bargas completed a paleontological study that included desktop reviews of geologic maps and scientific literature, and a records search at the WSC to identify any known paleontological resources within the Project Site or within a 2.5-mile buffer. No paleontological resources were discovered within the Project Site or within a 2.5-mile buffer. However, the WCS noted that the Pleistocene and Pliocene deposits underlying the Project Site are well known to produce significant paleontological resources across southern California (Section 5). Furthermore, paleontological resources were noted from similar geologic units to those mapped within the Project Site during an online search of the UCMP database and during a review of published scientific literature. Paleontological potential rankings were assigned using the SVP classification for paleontological resource sensitivity (Table 2).

Previously published geologic maps indicate that the Project Site is underlain by Holocene alluvial sand and gravel of major steam channels (Qg, low paleontological potential), Holocene alluvial sand and clay of valley areas (Qa, low paleontological potential at surface, high at depth), Pleistocene older alluvial gravel and sand of low terrace remnants (Qoa, high paleontological potential), and the Bautista beds (QTs, high paleontological potential). The Holocene-age portions of the alluvial sand and clay of valley areas (Qa) (at or near the surface) have a low paleontological potential, which accounts for much of the western portion of the Project Site (Figures 4 and 5). However, late Pleistocene-age sections of this unit are likely present at depth beneath the Project Site. Such Pleistocene-age sediments are well known for producing significant paleontological remains within the region and are thus assigned a high paleontological potential. Such Pleistocene-age deposits could be encountered at depths as shallow as 10 feet below the surface. Therefore, the portions of the Project Site mapped as Holocene alluvial sand and clay of valley areas (Qa) are considered to have a low paleontological sensitivity from the surface to a depth of 10 feet and a high paleontological sensitivity at depths of 10 feet and greater. Furthermore, portions of the Project Site along the hillslopes in the eastern portion of the Project Site and within Poppet Canyon are underlain by Pleistocene older alluvial gravel and sand of low terrace remnants (Qoa) and the Bautista beds (QTs), which both have a high paleontological potential at the surface and at depth (Figure 4).

The collected data indicate that there is a potential to encounter paleontologically significant remains across much of the Project Site should proposed excavations extend to impact native Pleistocene- and Pliocene-age deposits. Therefore, Bargas recommends that a comprehensive Paleontological Resources Monitoring and Treatment Plan (PRMTP) be prepared and implemented prior to any Project-related ground disturbance as a mitigation measure in the event unanticipated discoveries are made during construction. Furthermore, where excavations will impact portions of the Project Site mapped as Pleistocene

older alluvial gravel and sand of low terrace remnants (Qoa) or the Bautista beds (QTs), a paleontological survey should be conducted prior to construction in order to 1) identify and recover any exposed paleontological resources and 2) confirm the existence of these units within the Project Site. The following recommendations regarding paleontological resources, developed in accordance with SVP (2010) guidelines, satisfy the requirements for mitigating damage to paleontological remains under CEQA and NEPA.

7.1 Recommended Mitigation Measures

7.1.1 Mitigation Measure 1

The services of a qualified professional paleontologist shall be retained prior to the start of earthmoving activities associated with the Project in order to develop and carry out a site-specific Paleontological Resource Mitigation and Treatment Plan (PRMTP). Per SVP (2010), a qualified professional paleontologist:

> "shall have the equivalent of the following qualifications: 1. A graduate degree in paleontology or geology, and/or a publication record in peer reviewed journals; and demonstrated competence in field techniques, preparation, identification, curation, and reporting in the state or geologic province in which the project occurs. An advanced degree is less important than demonstrated competence and regional experience. 2. At least two full years professional experience as assistant to a Project Paleontologist with administration and project management experience; supported by a list of projects and referral contacts. 3. Proficiency in recognizing fossils in the field and determining their significance. 4. Expertise in local geology, stratigraphy, and biostratigraphy. 5. Experience collecting vertebrate fossils in the field."

The PRMTP will specify the levels and types of mitigation efforts based on the types and depths of earthmoving activities and the geologic and paleontological sensitivity of the Project Site. If artificial fill, significantly disturbed deposits, or younger deposits too recent to contain paleontological resources are encountered during construction, the qualified paleontologist may reduce or curtail monitoring in the affected areas, after consultation with the proponent and the lead agency. The plan should also include a description of the professional qualifications required of key staff, communication protocols to be followed during construction, fossil recovery protocols, sampling protocols for microfossils (if required), laboratory procedures, reporting requirements, and curation provisions for any collected fossil specimens. This treatment plan will guide all paleontological resources mitigation efforts during Project construction.

7.1.2 Mitigation Measure 2

Prior to the start of construction, a qualified professional paleontologist meeting the minimum standards for a qualified professional paleontologist under SVP (2010) shall perform a paleontological survey of the Project Site where it is mapped as underlain by high paleontological potential geologic units, specifically the Pleistocene older alluvial gravel and sand of low terrace remnants (Qoa) and the Bautista beds (QTs). The survey will verify the geologic mapping of high paleontological potential geologic units and document any fossils observed at the surface of the Project Site. The paleontologist will document all paleontological resources discovered during the survey using photography, field notes, and GPS mapping. At a minimum, the paleontologist will assign a unique field number to each discovery and will record the date of discovery; GPS coordinates; elevation; geologic unit name and age; detailed stratigraphic, lithologic, and taphonomic data; fossil descriptions(s) and initial taxon and element identifications; paleoenvironmental interpretations; and photographs. Paleontological discoveries will be evaluated by the qualified professional paleontologist, in consultation with the lead agency, to determine if the discovered paleontological resources are significant using SVP (2010) guidelines. Should significant paleontological resources be discovered, they must be collected prior to the start of construction. Collected fossils will be consolidated using appropriate modern consolidants (e.g., Paraloid B-72), prepared to the highest level of identification feasible, and deposited in an approved paleontological repository (e.g., Western Science Center). The results of the paleontological survey shall be

documented in a technical report and used to inform the development of the PRMTP (if not developed together as a single document).

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9 Project Personnel

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Ph.D., Earth and Environmental Sciences, University of Michigan (2018)
M.S., Earth and Environmental Sciences, University of Michigan (2017)
B.S., Geological Sciences (Paleontology emphasis), San Diego State University (2010)

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Courtney Richards, Principal Paleontologist
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Appendix A. Western Science Center Records Search Results

WESTERN SCIENCE CENTER

July 24th, 2024

Bargas Environmental Consulting
Joseph J. El Adli
680 East Colorado Blvd, 2nd Floor & Ste. 180
Pasadena, CA 91101

Dear Dr. Adli,

This letter presents the results of a record search conducted for the Soboba Septic to Sewer Conversion Project located near the City of San Jacinto, Riverside County. The project area is located along and on either side of Soboba Road on Township 4 South, Range 1 East, on an unsectioned portion of the *San Jacinto, CA* USGS 7.5 minute quadrangle.

The geologic units underlying this project are mapped as a mix of alluvial sand and gravel from the Holocene and Pleistocene epochs, along with the Plio-Pleistocene aged Bautista Formation (Dibblee and Minch 2003). Pleistocene and Pliocene alluvial units are considered to be highly paleontologically sensitive. The Western Science Center does not have localities within the project area or within a 2.5 mile radius, which was chosen to accommodate the size of the project area; however it does have localities in similarly mapped units across Southern California.

Any fossils recovered from the Soboba Septic to Sewer Conversion Project would be scientifically significant. Excavation activity associated with the development of the project area would impact the paleontologically sensitive Pliocene and Pleistocene alluvial units, and it is the recommendation of the Western Science Center that a paleontological resource mitigation program be put in place to monitor, salvage, and curate any recovered fossils associated with the study area.

If you have any questions, or would like further information, please feel free to contact me at bstoneburg@westerncentermuseum.org.

Sincerely,

Brittney Elizabeth Stoneburg, MSc
Collections Manager

Appendix I

Preliminary Frac-Out Contingency Plan

PRELIMINARY FRAC-OUT CONTINGENCY PLAN FOR MICROTUNNELING FOR THE SOBOBA BAND OF LUISEÑO INDIANS SEPTIC TO SEWER CONVERSION PROJECT, SAN JACINTO, CALIFORNIA

NOVEMBER 2024

PREPARED FOR:

Soboba Band of Luiseño Indians
City of San Jacinto

PREPARED BY:
Acorn Environmental

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INTRODUCTION

BACKGROUND

Trenchless construction is used to place pipes or conduit under features such as roads, waterways, rail lines, and sensitive areas, to minimize potential conflicts with these resources. This plan addresses microtunneling as it is the expected trenchless construction method. Microtunneling uses a microtunneling boring machine (MTBM) to cut a tunnel. Pipes installed behind the MTBM are used to push the machine forward. The cutting head removes spoils and mixes it with a bentonite-based fluid to form a slurry which is then pumped back to the surface for treatment and disposal of excavated material. Drilling fluids are also used to lubricate the MTBM and pipe and maintain the structural stability of the surrounding ground. Microtunneling operations have the potential to release drilling fluid into the environment by a condition called a "frac-out." A frac-out occurs when pressurized drilling mud escapes the tunnel and enters the surrounding soils and travels toward the surface. While drilling mud seepage is most likely to occur near the bore entry and bore exit pits where the MTBM is shallow, frac-outs can occur anywhere along the bore path. Because drilling muds consist largely of a bentonite clay-water mixture, they are not classified as toxic or hazardous substances. However, if drilling mud is released into waterbodies, it can adversely impact aquatic ecosystems. Sedimentation can kill fish and invertebrates, cause algal blooms, and degrade water quality.

OBJECTIVES

This Frac-Out Contingency Plan (Plan) establishes operational procedures and responsibilities for the prevention, containment, and clean-up of frac-outs associated with the proposed microtunneling project. This Plan will be given to the Site Supervisor and the permitting agencies and must be onsite during all drilling operations. All personnel involved in the work must adhere to this plan.

The objectives of this Plan are to:

- Minimize the potential for a frac-out to occur;
- Protect areas that are environmentally or economically sensitive (riverbed, streams, wetlands, other biological resources);
- Immediately detect a frac-out;
- Ensure an organized, timely, and "minimum-impact" response to a frac-out;
- Ensure that all appropriate notifications are made immediately and that documentation is completed; and
- Revise field procedures to minimize the repetition of the frac-out.

DESCRIPTION OF THE WORK

Project Overview

The Soboba Septic-to-Sewer Project aims to replace the aging septic systems and temporary sewer facilities with a modern and reliable sewer collection system. The project will significantly enhance the wastewater management capabilities within the Soboba Band of Luiseño Indians' Reservation and adjacent areas. The Proposed Action involves the construction of approximately 34,000 feet of new 10-inch PVC sewer mainlines and 77,000 feet of sewer laterals within the Reservation. Additionally, a 15-inch gravity mainline will be constructed both on- and off-Reservation, crossing the San Jacinto River using microtunneling.

Key Project Components

- **On-Reservation Infrastructure:**
  - **10- to 16-inch PVC Sewer Mainlines:** Approximately 27,500 feet of new mainlines will be installed to serve Tribal residential and administrative buildings.
  - **Sewer Laterals:** Around 72,200 feet of PVC laterals will connect individual properties to the mainline network.
  - **Lift Stations:** 11 lift stations will be constructed to facilitate the movement of wastewater through the sewer system.
  - **Replacement of Temporary Facilities:** Existing temporary pipeline facilities within the Tribe's golf course managed by the Eastern Municipal Water District (EMWD) will be replaced with a permanent 15-inch gravity mainline.

- **Off-Reservation Infrastructure:**
  - **15-inch Gravity Mainline:** A new mainline will be microtunneled below the San Jacinto River to connect with the existing EMWD sewer system on the western side of the river.
  - **Steel Casing:** The 15-inch pipeline will be encased in a 48-inch steel casing pipe for protection, with low-density cellular backfill material used to fill the annular space.
  - **Connection to EMWD Facilities:** The new gravity mainline will connect to existing 15-inch lines at an EMWD manhole for conveyance to treatment facilities.

Construction Methods

The construction of the Proposed Project will utilize a combination of open-cut trenching, jack and bore, and microtunneling to install the sewer pipelines. Microtunneling will be specifically used for installing the 15-inch gravity mainline below the San Jacinto River**.** This technique will avoid direct impacts on the riverbed and banks, ensuring minimal environmental disruption.

Equipment

Key equipment for the microtunneling process includes:

- Microtunneling boring machine (MTBM);
- Jacking frame with hydraulic jacks;
- Slurry pumps, flow meter, and separation tanks;
- Spoil containment/transport containers;
- Control container (operator's area and power distribution);
- Water cooling tank, and high pressure jetting pump; and
- Containment structures for managing any inadvertent releases.

Staging Areas

Three staging areas will be established for equipment and materials:

- **Eastern Staging Area:** Located in an unused parking lot within the Reservation.
- **Golf Course Staging Area:** Situated on the northeastern side of the San Jacinto River within the golf course property near Soboba Road.
- **Western Staging Area:** Located on EMWD property on the southwestern side of the San Jacinto River.

Construction Timeline

[THIS SECTION TO BE COMPLETED WHEN CONSTRUCTION SCHEDULE HAS BEEN DETERMINED]

The construction is scheduled to commence in [Month, Year] and is expected to last for approximately [XX] months. Regular maintenance and inspection of the installed facilities will be conducted to ensure long-term operational efficiency.

Decommissioning Existing Facilities

Existing septic tanks and seepage pits will be filled and abandoned in place to minimize ground disturbance. The temporary lift station within the Soboba Springs golf course will be demolished, and the 8-inch force main below the San Jacinto River will be slurry-filled and abandoned.

RESPONSIBILITIES

RESPONSIBILITIES OF SITE SUPERVISOR

The Site Supervisor or Foreman has responsibility for implementing this Plan. The Site Supervisor will ensure that all personnel are trained prior to the commencement of microtunneling. The Site Supervisor must be notified immediately when a frac-out is detected. The Site Supervisor will be responsible for coordinating personnel, response, cleanup, regulatory agency notification and coordination to ensure proper cleanup, disposal of recovered material and timely reporting of the incident.

The Site Supervisor will be familiar with all aspects of the drilling activity and contents of this Plan. The Site Supervisor shall have the authority to stop work and commit personnel and equipment necessary to implement this Plan. A copy of this Plan shall remain on site during all microtunneling activities and shall be accessible to all construction personnel.

Summary of Site Supervisor Responsibilities

The Site Supervisor holds primary responsibility for implementing the Frac-out Contingency Plan. Key duties include:

- **Training:** Ensuring all personnel are trained on the Plan's procedures before microtunneling begins.
- **Monitoring:** Overseeing continuous monitoring of microtunneling activities, including visual inspections and pressure checks.
- **Coordination:** Coordinating the response to any frac-out, including cleanup, regulatory notifications, and disposal of recovered material.
- **Authority:** Having the authority to stop work and deploy necessary resources to implement the Plan effectively.
- **Documentation:** Maintaining detailed records of all frac-out incidents, including the response actions taken.

ROLES AND RESPONSIBILITIES

Site Supervisor:

- Ensure compliance with the Plan.
- Conduct daily briefings to review procedures.
- Oversee monitoring and emergency response actions.
- Liaise with regulatory agencies.

Microtunneling Crew:

- Perform microtunneling activities under the supervision of the Site Supervisor.
- Monitor drilling mud pressures and return flows.
- Report any signs of frac-out immediately to the Site Supervisor.

Environmental Monitor:

- Conduct visual inspections along the drill path and adjacent areas.
- Monitor water quality if a frac-out occurs near waterbodies.
- Document environmental conditions before, during, and after drilling.

Qualified Microtunneling Monitor:

- Maintain direct contact with the microtunneling crew via cell phones or radios.
- Use field glasses to visually inspect the bore path, especially under waterbodies.
- Ensure immediate reporting of any sediment release

PERSONNEL TRAINING

PURPOSE

The purpose of this training program is to ensure that all personnel involved in the Soboba Septic-to-Sewer Project are thoroughly familiar with the Frac-out Contingency Plan, their specific roles and responsibilities, and the procedures necessary to prevent, detect, and respond to frac-outs effectively.

Training Objectives

- **Knowledge:** Ensure all personnel understand the contents and requirements of the Frac-out Contingency Plan.
- **Skills:** Equip personnel with the skills to monitor drilling activities, detect frac-outs, and implement response actions.
- **Preparedness:** Ensure personnel are prepared to respond quickly and effectively to any inadvertent release of drilling mud.

Training Components

1. **Overview of the Frac-out Contingency Plan**
    - Introduction to the Plan's objectives and importance.
    - Explanation of the potential environmental impacts of frac-outs.
    - Review of key sections of the Plan, including monitoring procedures, response actions, and documentation requirements.

2. **Roles and Responsibilities**
    - Detailed description of the roles and responsibilities of the Site Supervisor, Microtunneling Crew, Environmental Monitor, and Qualified Microtunneling Monitor.
    - Clarification of the chain of command and communication protocols during microtunneling activities.

3. **Inspection and Monitoring Procedures**
    - Training on how to conduct visual inspections along the drill path and adjacent areas.
    - Instruction on monitoring drilling slurry pressures and return flows.
    - Techniques for visually monitoring waterbodies and using field glasses for enhanced visibility.
    - Procedures for maintaining continuous communication with the microtunneling crew.

4. **Response to Frac-outs**
    - Step-by-step guidance on immediate actions to take when a frac-out is detected.
    - Differentiation between minor and major frac-outs and appropriate response actions for each.
    - Instruction on the use of containment structures, vacuum trucks, and other response equipment.
    - Procedures for clean-up and disposal of drilling mud and contaminated materials.

5. **Notification and Documentation**
    - Training on the procedures for notifying regulatory agencies in the event of a frac-out.
    - Instruction on how to document the details of a frac-out, including the amount, location, time, and response actions taken.
    - Importance of maintaining accurate records and providing photographic evidence.

6. **Use of Equipment and Materials**
    - Hands-on training with spill kits, frac-out kits, and containment structures.
    - Proper use and maintenance of equipment, including vacuum trucks and drilling rigs.
    - Safe handling and disposal of drilling slurry and contaminated materials.

Personnel Training

Before drilling begins, the Site Supervisor will ensure that all personnel involved are trained on:

- The provisions of this Plan.
- Personnel roles and responsibilities.
- Inspection and monitoring procedures.
- Clean-up procedures.
- Notification and communication protocols.

- Work modification procedures.

Training Schedule

- **Initial Training:** Conducted before the commencement of microtunneling activities. All personnel involved in the project to attend.
- **Refresher Training:** Held periodically throughout the project to reinforce key concepts and address any changes in procedures or personnel roles.
- **Tailgate Meetings:** Daily briefings conducted by the Site Supervisor to review procedures, discuss potential issues, and ensure readiness for the day's activities.

Training Records

Training records may be kept by the project supervisor and can include things like:

- **Attendance Logs:** Records of all personnel who attend training sessions.
- **Training Materials:** Copies of all training materials used, including presentations, handouts, and equipment manuals.
- **Certification:** Documentation of personnel certifications upon completion of training, acknowledging their understanding of the Plan and their ability to perform their assigned roles.

PROCEDURES FOR COMMENCEMENT OF MICROTUNNELING

The following procedures shall be followed each day, prior to the start of work. The Site Supervisor shall ensure that a job briefing (tailgate) meeting is held at the start of each day of microtunneling to review the appropriate procedures to be followed to protect the environment and to respond to a frac-out.

The Site Supervisor shall ensure that:

- All equipment and vehicles are checked and maintained daily to prevent leaks of water, drilling fluid, and hazardous materials;
- Spill kits and spill containment materials are available on-site at all times;
- Equipment required to contain and clean up a frac-out release will be available at the boring location;
- A vacuum truck shall be staged at a location from which it can be within 10 minutes of a frac-out; and
- If equipment is required to be operated near a waterbody, absorbent pads and plastic sheeting shall be placed beneath motorized equipment to protect the channel form engine fluids; and
- No vacuum trucks or other motorized equipment shall be operated within the San Jacinto River channel (between the river levees).

Entrance and exit pits should be encircled by sediment control devices (e.g. gravel bag berm, fiber roll) to contain drilling mud. Spill kits, containment materials, and a vacuum truck shall be on-site and readily available. Where necessary, sediment barriers (e.g. silt fence) should be erected between sensitive areas (e.g. waterbodies) and work areas.

Once the MTBM is in place, and boring begins, the slurry feed and return flow rates and pressures shall be closely monitored so they do not exceed those needed to maintain tunnel stability. The MTBM operator shall stop work whenever the flow rates or pressures drop. At this time the Site Supervisor shall be informed

of a potential frac-out. The Site Supervisor and the MTBM operator shall determine the reason for the flow and/or pressure drop and the potential for frac-out.

MONITORING

To determine if an inadvertent release has occurred, microtunneling activities will constantly be monitored on this project, either by the Site Supervisor, an inspector, a sediment monitor (typically a biologist or other qualified scientist), or any combination of these. Monitoring duties will include:

- Visual inspection by foot along the bore path (no motorized vehicles shall be used within the San Jacinto River channel);
- Continuous examination of slurry pressures and returns flows by the MTBM operator; and
- Periodic status updates regarding conditions during the course of boring activities.

When boring under the San Jacinto River, the bore path should be visually monitored. Field glasses can assist visual observations. The monitor must have direct contact with the MTBM crew via use of cell phones or radios, and be able to report the visual detection of a slurry or sediment release immediately.

MONITORING PROCEDURES

To ensure prompt detection and response to any inadvertent release, the following monitoring procedures will be implemented:

Continuous Monitoring

- **Site Supervisor or Designated Inspector:**
  - Continuously monitor microtunneling activities.
  - Conduct visual inspections along the entire drill path.
  - Examine slurry pressures and return flows continuously.

- **Drilling Crew:**
  - Perform continuous examination of slurry pressures and return flows.
  - Report any pressure drops or unusual changes immediately to the Site Supervisor.

- **Environmental Monitor:**
  - Conduct periodic visual inspections along the bore path and adjacent areas.
  - Ensure immediate communication with the microtunneling crew using cell phones or radios.
  - Provide regular status updates to ensure all team members are aware of current drilling conditions.

Waterbody Monitoring

Special attention will be given when drilling under the San Jacinto River:

- **Channel Monitoring:**

- Visually monitor the river channel along the bore path for any signs of slurry or sediment release.
- Utilize field glasses to enhance visibility and ensure thorough inspections.

- **Communication:**
  - Maintain direct contact with the microtunneling crew to report any visual detection of a sediment release immediately.
  - Ensure regular updates and coordination among all monitoring personnel.

Monitoring Duties

Monitoring duties will include:

- **Visual Inspections:**
  - Regularly inspect the bore path for any signs of inadvertent release or unusual conditions.
  - Pay special attention to areas near the bore entry and exit pits where the risk of frac-out is higher.

- **Pressure Monitoring:**
  - Continuously monitor slurry pressures to detect any significant drops or anomalies.
  - Ensure the drill operator can halt operations immediately if a potential frac-out is detected.

- **Status Updates:**
  - Provide periodic updates on boring conditions during the course of activities.
  - Ensure all team members are aware of any changes or issues that arise during boring.

DOCUMENTATION AND REPORTING

In the event of a frac-out, the following steps will be taken:

- **Immediate Notification:**
  - Notify relevant regulatory agencies within 24 hours of detecting a frac-out that impacts waterbodies or sensitive areas.

- **Detailed Documentation:**
  - Record detailed information about the incident, including the type and quantity of the release, location, time, and the effectiveness of the response.

- **Agency Coordination:**
  - Work with regulatory agencies to ensure proper cleanup and compliance with environmental regulations.

BEST MANAGEMENT PRACTICES (BMPS)

SPILL KITS

To address potential spills and leaks, the following spill kit items will be available on-site:

Absorbent Materials:

- Absorbent socks,
- disposal bags,
- safety glasses,
- rubber gloves,
- sorbent pads, and
- spill pillows.

Clean-up Tools:

- Shovel,
- broom, and
- 55-gallon storage barrels for collecting and disposing of spilled materials.

FRAC-OUT KITS

For effective containment and cleanup of frac-outs, the following items will be included in the frac-out kits:

Containment Materials:

- Sandbags, fiber rolls, and straw bales for creating barriers and containing released drilling mud.
- Lumber for constructing temporary containment structures.

Equipment:

- Vacuum truck with sufficient hose length to reach all areas along the bore path.
- Intermediate pump for managing and removing released materials.
- A 3,000-gallon tank for storing released slurry and contaminated materials.

CONTAINMENT MEASURES

To prevent and control the spread of slurry, the following containment measures will be implemented:

Sediment Barriers:

- Install silt fences and other sediment barriers between sensitive areas and work zones to prevent the migration of slurry.

Plastic Sheeting and Absorbent Pads:

- Use plastic sheeting and absorbent pads under motorized equipment near waterbodies to protect the environment from potential leaks and spills.

Entrance and Exit Pits:

- Encircle entrance and exit pits with gravel bag berms or fiber rolls to contain drilling mud and prevent it from spreading.

ADDITIONAL BMPS

To ensure comprehensive protection and effective response, the following additional BMPs will be implemented:

Site Preparation:

- Begin site preparation no more than 10 days prior to initiating horizontal bores to reduce the time soils are exposed adjacent to creeks and drainages.
- Store trench and bore pit spoil at least 50 feet from the top of the bank or wetland/riparian boundary, behind sediment barriers, and covered with plastic or other stabilization methods.

Equipment Containment:

- Place portable pumps and stationary equipment within 100 feet of a water resource in secondary containment with adequate capacity to contain a spill.
- Maintain spill kits on-site at all times.

Post-Construction:

- Haul off all cuttings and other spoils to an approved facility upon completion of trenchless excavation activities.
- Continue monitoring pre-construction sediment and erosion control measures until the site is stabilized.

Erosion Control:

- Immediately seed and/or stabilize disturbed soils following backfill of bore pits.
- Leave temporary sediment barriers in place until restoration is deemed successful

FIELD RESPONSE TO A FRAC-OUT

The response of the field crew to a frac-out shall be immediate and in accordance with procedures in this Plan. The response procedures will vary depending upon whether the frac-out is a minor event or major event. When a frac-out is detected, boring should be halted immediately. The Site Supervisor will be notified to ensure that adequate response actions are taken and notifications made. The Site Supervisor shall evaluate the situation and recommend the type and level of response warranted, including the level of notification required.

RESPONSE PROCEDURES FOR MINOR FRAC-OUTS

If the frac-out is minor, easily contained, has not reached the surface, and is not threatening sensitive resources, corrective measures should be taken to clean up the released slurry and stop the future release of slurry. Containment structures should be placed in the affected area to prevent migration of the released slurry. If the amount of the release is large enough to allow collection, the slurry released into containment structures will be collected. It will then be recycled back to the slurry tanks, taken to an approved disposal, or filtered through bladder bags (with bags either buried on site or removed for disposal). If the amount of the release is not large enough to allow collection, the affected area will be diluted with fresh water and pumped into a vacuum truck or equivalent. Steps will be taken to prevent silt-laden water from flowing into a water body. Modifications to the boring technique or composition of slurry (e.g. thickening of mud by increasing bentonite content) may be employed. A leak-stopping compound can be used to block the frac-out.

RESPONSE PROCEDURES FOR MAJOR FRAC-OUTS

The frac-out is a major event if a significant amount of slurry is released or if slurry has reached a waterbody or other sensitive area. Any release of slurry to surface of the San Jacinto River channel shall be handled as a major frac-out. Containment structures should be placed in the affected area to prevent migration of the released mud. A dike, berm, or boom and curtain may be constructed around the frac-out to entrap released drilling fluid, if necessary. Vacuum mud from the containment structures if possible. It should then then be recycled back to the slurry tank, taken to an approved disposal site, or filtered through bladder bags (with bags either buried on site or removed for disposal).

Any slurry released to the surface of the San Jacinto River shall be contained and removed by hand. No motorized vehicles will be permitted to operate within the river channel. Any materials contaminated with slurry should be removed by hand and properly disposed of, as required by law. Notify regulatory agencies if needed.

RESPONSE PROCEDURES FOR FRAC-OUTS IN WATERBODIES

The Site Supervisor or Project Manager should evaluate if containment structures are warranted and can effectively contain the release. When making this determination, The Contractor will also consider if the placement of containment structures will cause additional adverse environmental impact. If the frac-out becomes excessively large, a spill response team may need to be called to contain and remove slurry in the waterbody. Monitor the frac-out to determine if the slurry congeals. If the slurry congeals, take no other action that would potentially disturb more sediments and make the water more turbid. If drilling mud does not congeal, erect isolation/containment structures (e.g. boom and curtain), as necessary. If public health

and safety are threatened, drilling fluid circulation pumps will be turned off. This measure will be taken as a last resort because of the potential for drill hole collapse resulting from loss of down-hole pressure.

Vacuum mud from the containment structures if possible. It should then be recycled back to the slurry tanks, taken to an approved disposal site, or filtered through bladder bags (with bags either buried on site or removed for disposal). Any materials contaminated with slurry should be removed by hand and properly disposed of, as required by law. No recovered drilling fluids will be discharged into streams, storm drains, or any other water source. All frac-out excavation and clean-up sites will be returned to pre-project contours using clean fill and compaction and reseeded as necessary. All containment devices will be removed unless otherwise specified by the Site Supervisor/Inspector.

Abandonment of the bore will only be required when all efforts to control the frac-out within the existing bore have failed. The crew may opt to re-bore the hole along a different alignment after receiving any appropriate regulatory approvals. In this case, procedures should be implemented to abandon the previous borehole. To seal the abandoned bore hole, thickened drilling mud may be pumped into the bore as the MTBM is extracted. Near the surface (within approximately 5 feet of the surface), the crew can fill the bore endpoints with soil and compact the location to the original contour.

RE-COMMENCEMENT OF MICROTUNNELING

For small releases not requiring external notification, boring may continue, if complete containment is achieved through the use of a leak-stopping compound or redirection of the bore and the clean-up crew remains at the frac-out location throughout the microtunneling period. For releases requiring external notification and/or other agencies, construction activities will not restart without prior approval from the inspector or agency personnel. All materials and any rubbish-construction debris shall be removed from the construction zone at the end of each workday; Sump pits at bore entry and exits will be filled, compacted, and returned to natural grade. All protective measures (fiber rolls, straw bale, silt fence, etc.) will be removed unless otherwise specified by the Site Supervisor or Inspector.

FIELD RESPONSE CLOSE-OUT PROCEDURES

When the release has been contained and cleaned up, response closeout activities will be conducted at the direction of the Site Supervisor.

DOCUMENTATION

The Site Supervisor shall record the frac-out in a daily log. The log will include the following: Details on the release event, including the amount of slurry released, the location and time of the release, the size of the area impacted, the date of release, and the efficacy of the cleanup action. Additional information would include; how the release happened, the type of activity occurring around the frac-out, a description of any sensitive areas, and their relation to the frac-out, description of cleanup and securing the area. A photographic record should also be provided in addition to the written log.

NOTIFICATION PROCEDURES

The Site Supervisor or Project Manager would evaluate the situation once a frac-out has occurred and shall determine the appropriate level of response to the incident and conduct the required notification of appropriate agencies. If drilling fluids enter a receiving waterbody or other sensitive area, the Site Supervisor or Project Manager will notify the appropriate resource agencies. All agency notifications will

occur within 24 hours and proper documentation will be accomplished in a timely and complete manner. The following information should be provided:

- Name and telephone number of person reporting;
- Location of the release;
- Date and time of release;
- Type and quantity, estimated size of release;
- How the release occurred;
- Description of any sensitive areas, and their location in relation to the frac-out;
- Description of the methods used to clean up the site; and
- Listing of any relevant permits obtained for the project.

WATER QUALITY SAMPLING

Should a major sediment discharge occur, water quality sampling may be required by regulatory agencies. Qualified personnel should perform turbidity measurements and sample water upstream and downstream of the frac-out / sediment discharge area. Grab samples will be collected and preserved in accordance with USEPA protocols and the following methods.

Only personnel trained in proper water quality sampling will collect samples. Samples will be collected by placing a separate lab-provided sample container directly into a stream of water at the sampling location. The upgradient and uncontaminated background samples shall be collected first prior to collecting the downgradient to minimize cross-contamination. The sampling personnel will collect the water upgradient of where they are standing. Once the separate lab-provided sample container is filled, the water sample will be poured directly into sample bottles provided by the laboratory for the analyte(s) being monitored.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel will:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location.
- Not contaminate the inside of the sample bottle by not allowing it to come into contact with any material other than the water sample.
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection.
- Not leave the cooler lid open for an extended period of time once samples are placed inside.

For sediment pollution, and depending upon applicable regulations, water samples should be analyzed for some combination of the following parameters using the analytical methods identified:

- Suspended sediment concentration, ASTM D3977-97
- Settleable solids, EPA 160.5, Standard Method 2540(f)
- Total suspended solids, EPA 160.2, Standard Method 2540(d)
- Turbidity, EPA 180.1, Standard Method 2130(b)

Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain-of-Custody form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to a California state-certified laboratory.

Measurement of Turbidity Using a Nephelometer (Turbidimeter): EPA 180.1 Standard Method 2130(b)

If the reading is not taken immediately, the sample should be stored at 4 C. For samples collected for field analysis, collection, analysis and equipment calibration will be in accordance with the field instrument manufacturer's specifications. A handheld nephelometer, or turbidimeter, should be used for measuring turbidity with a minimum detection limit of 1 Nephelometric Turbidity Units (NTUs). The instrument(s) will be maintained in accordance with manufacturer's instructions. The instrument(s) will be calibrated before each sampling and analysis event. The results will be recorded in the monitoring reports in NTUs.

Suspended sediment concentration (SSC) Measurement: ASTM Method D3977-97.

The sample should be collected in a clean jar. Immediately following collection, sample bottles for laboratory analytical testing will be capped, labeled, documented on a Chain of Custody form provided by the analytical laboratory, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at as near to 4 degrees Celsius as practicable, and delivered within 24 hours to a California state-certified laboratory. Suspended sediment concentration should be measured according to the protocols in: ASTM, 1999, Standard Test Method for Determining Sediment Concentration in Water Samples: American Society of Testing and Materials, D 3977-97, Vol. 11.02, pp. 389-394.

Appendix J

8-Step Floodplain Decision-Making Process

8-Step Decision-Making Process for Compliance with

Executive Order 11988: Floodplain Management and Executive Order 11990: Protection of Wetlands

Proposed Action and Action Area

The Action Area consists of approximately 139 acres within Riverside County, California. The Soboba Band of Luiseño Indians (Tribe) is requesting federal grant funding to construct the Septic-to-Sewer Conversion Project (Proposed Action). The goal of the Proposed Action is to connect Tribal residences and other development that currently relies on aging septic tanks and seepage pits to the regional wastewater treatment facility operated by the Eastern Municipal Water District (EMWD). The majority of the Action Area occurs within the Soboba Reservation, with small portions located off-Reservation within the City of San Jacinto and an unincorporated portion of the Riverside County. A joint Initial Study/Environmental Assessment (IS/EA) is being prepared to provide coverage under the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA).

Step 1: Determine and Identify Floodplains and Wetlands in the Proposed Action Area

The initial step in the decision-making process involves determining whether the Proposed Action is located within a floodplain or a wetland area, as mandated by EO 11988 (as amended by EO 13690) and EO 11990, respectively. Portions of the Action Area are within the San Jacinto River floodplain, as delineated on the FEMA Flood Insurance Rate Map (FIRM) numbers 06065C1480G and 06065C1485G.

Consistent with the Federal Flood Risk Management Standard, the 0.2% Flood Approach has been taken to determine the extent of the floodplain. For this analysis, the floodplain includes the 100-year (1% annual chance) floodplain (Zone A), as well as adjacent Zone X identified as having a reduced flood risk due to the San Jacinto River levees as identified by the FIRM (refer to Figure 3-9 of the IS/EA). Zone X identifies areas of 500-year (0.2% annual chance) flood; areas of 100-year floodplains with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from a 100-year flood. No base flood elevations have been determined in the Action Area by FEMA.

The Proposed Action is the construction of approximately 19.6 miles of new sewer pipeline both on- and off-Reservation that will connect Tribal residences and other Tribal facilities to existing EMWD sewer lines. The proposed facilities will include the microtunneling of a sewer pipeline beneath the San Jacinto River, construction of mainlines and laterals, and 11 underground wet-well lift stations. All facilities will be installed below ground level and will not be vulnerable to flooding. A portion of the pipelines and lift stations will be developed within the floodplain. Temporary staging areas will also be located within the floodplain. Additionally, the riparian scrub and woodland habitats within the San Jacinto River corridor are classified as wetlands, although direct impacts to these areas are not anticipated due to the project's trenchless construction methods in this area. The wetlands within the San Jacinto River corridor have been identified based on the National Wetlands Inventory (NWI) and a site-specific aquatic resources delineation (refer to Figure 3-3 of the IS/EA). No permanent above-ground structures are proposed within the floodplains and wetlands.

Step 2: Preliminary Public Notice

Coordination between the Project Sponsor, IHS, and the public has been ongoing since 2023. The Tribe and its consultants have acted as the link between IHS and various agencies (including EMWD and the State Water Resources Control Board) and the public, including Tribal members. In accordance with the IHS Statement of Work (SOW) and federal regulations, the Preliminary Public Notice will be issued early in the project development process to ensure transparency and to provide an opportunity for public and agency input. Noticing requirements for this decision-making process will occur concurrent with the circulation of the draft IS/EA notices, exceeding the minimum timelines of the decision-making process.

Key Actions:

Notice Preparation: A Notice of Availability (NOA) and a Notice of Intent (NOI) will be prepared for the IS/EA that summarize the Proposed Action, including its location, purpose, and the potential impacts on floodplains and wetlands. The notices will also include information on how the public can participate in the public review process. A project area map, depicting the floodplain boundaries and any identified wetlands, will be attached to the notices. The notices will be published in a local newspaper with wide circulation, posted on relevant agency websites, and mailed to interested parties and stakeholders, including local, state, and federal agencies.

Public Comment Period: A minimum 30-day public comment period will be provided, consistent with typical IS and EA noticing requirements. This extended period will allow ample time for stakeholders to review the notice and submit comments. The comments received during this period will be reviewed and addressed in the final IS/EA document.

Step 3: Identify and Evaluate Practicable Alternatives

The third step involves a thorough evaluation of practicable alternatives to avoid or minimize adverse impacts on floodplains and wetlands. This includes both engineering and locational alternatives.

A. **Construction Method Alternative:**
   Alternative methods for crossing the San Jacinto River, such as standard trenching, were evaluated. However, trenching was deemed impractical due to the significant wetland and sensitive habitat impacts it would cause. The microtunneling method was selected as the preferred alternative, as it minimizes surface disturbance and reduces the risk of impacting sensitive habitats.
B. **Pipeline Crossing Alignment Alternatives:**
   Several alternative locations for the San Jacinto River crossing were considered. The Proposed Action alignment is the most direct crossing and therefore the shortest run. Therefore, due to the wider channel widths and associated higher costs and environmental risks, these alternatives were determined to be less feasible.
C. **Staging Area Location Alternatives:**
   The three staging areas, although located within the floodplain, were chosen after evaluating alternative locations. The staging areas include a large unused paved parking lot on the Reservation, and two areas near the proposed pipeline crossing of the San Jacinto River. The two staging areas near the river are located outside of the levees at either end of the proposed pipeline crossing in developed areas. The locations were chosen to avoid impacts to native habitat. Moving the staging areas outside of the floodplain would involve disturbing native habitats, which could lead to additional environmental impacts, including potential impacts on listed species such as the

Stephens' kangaroo rat (*Dipodomys stephensi*). There are existing agricultural fields that could be used as staging areas, but these fields are also within the floodplain along the San Jacinto River.

D. No Action Alternative:

Under the No Action Alternative, the existing septic systems on the Soboba Reservation would remain in place. This scenario presents significant environmental risks, particularly to groundwater resources. The aging septic systems are increasingly prone to failure, which could result in contamination of the groundwater and surface water, posing serious health risks to the local community and potentially leading to long-term environmental degradation. While the Proposed Action would demolish an existing pump station and associated emergency generator located within the floodplain, the No Action Alternative would leave these facilities in the floodplain. Therefore, while the No Action Alternative avoids new development within the floodplain and wetlands, it is not a viable solution due to the substantial risks it poses to public health and the environment.

Step 4: Assess Effects and Identify Adverse Impacts and Beneficial Functions and Values

This step requires a detailed assessment of the direct and indirect effects of the Proposed Action on the floodplain and wetland areas.

Technical Considerations:

Direct Impacts: The primary direct impacts are associated with the construction activities within the floodplain, particularly at the staging areas and the microtunneling operation below the San Jacinto River. Potential impacts include soil compaction, alteration of surface water flow patterns, and temporary disturbances to riparian vegetation. There is also the risk of a frac-out during microtunneling operations. There are no operational impacts anticipated. All direct impacts are assessed in detail in the IS/EA.

Indirect Impacts: Indirect impacts are not anticipated, as described in the IS/EA.

Beneficial Functions: The Proposed Action is expected to preserve the natural floodplain functions because no permanent above-ground facilities are proposed. Wetland impacts are avoided by microtunneling below the wetland habitat. Furthermore, the Proposed Action will allow decommissioning of outdated septic systems thereby preventing septic system failures, which could otherwise lead to contamination of surface and groundwater resources. Likewise, the Proposed Action would result in the removal of an existing pump station and associated generator currently located in the floodplain, thereby removing a potential source of fuel and or oil contamination. Potential long-term benefits such as improved water quality due to the replacement of failing septic systems with a centralized sewer system. These benefits may contribute to the overall preservation of floodplain functions.

Step 5: Minimize and Mitigate Adverse Impacts

This step involves identifying and implementing measures to minimize and mitigate any adverse impacts identified in Step 4.

Technical Considerations:

Floodplain Hazard Management: The IS/EA contains an assessment of how project design and construction practices, including the use of best management practices (BMPs) such as sediment control measures, erosion prevention, and the careful timing of construction activities to avoid periods of high flood risk, could affect floodplain hazards.

Mitigation Measures: Project design components specific to floodplain and wetland areas within the Action Area include the avoidance of sensitive habitats and post-construction restoration of any disturbed habitats to avoid impacts. Other mitigation measures are required by the IS/EA for other portions of the Proposed Action outside of the floodplain and wetlands. These mitigation measures are described in detail in the IS/EA, and include items such as preconstruction nesting bird surveys, monitoring for paleontological resources, avoidance of drainage channels, and implementation of a Frac-Out Contingency Plan.

Step 6: Reevaluate Alternatives

Reevaluation of the selected alternatives is essential to ensure that the Proposed Action remains the most practicable solution in light of the identified impacts and mitigation measures.

Reevaluation Criteria: The alternatives have been reevaluated based on their ability to meet project objectives while minimizing environmental impacts. This reevaluation has considered any new information obtained during the impact assessment process, and will consider any feedback received from public and stakeholder consultations.

A. Construction Method Alternative:

Standard trenching is considered a more cost-effective construction method than microtunneling. This construction method would require excavation of a trench at least 10 feet deep across approximately 1,600 feet of stream channel. This would lead to significant but temporary disruption to riparian and wetland habitats. In addition, this would require cutting through the levees on both sides of the stream channel, which could have potential structural implications to the levees that protect residences on each side of the river. Although standard trenching would not have the risk of frac-out associated with microtunneling, there would be heavy equipment within the floodplain and wetlands that could leak oil or other contaminants and therefore this alternative does not eliminate the potential for contamination during construction.

B. Pipeline Crossing Alignment Alternatives:

Several alternative pipeline alignments for the San Jacinto River crossing were considered. However, due to the wider channel widths and associated higher costs and environmental risks, these alternatives were determined to be less feasible. Shorter microtunneling lengths have inherently shorter risks of frac-out. The selected crossing location offers the most efficient balance of cost, environmental protection, and engineering feasibility.

C. Staging Area Location Alternative:

The three staging areas, although located within the floodplain, were chosen after evaluating alternative locations. The staging areas include a large unused paved parking lot on the Reservation, and two areas near the proposed pipeline crossing of the San Jacinto River. The two staging areas near the river are located outside of the levees at either end of the proposed pipeline crossing in developed areas. The locations were chosen to avoid impacts to native habitat. Moving the staging areas outside of the floodplain would involve disturbing native habitats, which could lead to additional environmental impacts, including potential impacts on listed species such as the Stephens' kangaroo rat (*Dipodomys stephensi*). There are agricultural fields in the vicinity that are already disturbed that could be used as staging areas but they are also within the floodplain and therefore would not achieve the goal of moving the staging area outside of the floodplain.

D. No Action Alternative:

Under the No Action Alternative, the existing septic systems on the Soboba Reservation would remain in place. This scenario presents significant environmental risks, particularly to groundwater resources. The aging septic systems are increasingly prone to failure, which could result in contamination of the groundwater and surface water, posing serious health risks to the local community and potentially leading to long-term environmental degradation. While the Proposed Action would demolish an existing pump station and associated emergency generator located within the floodplain, the No Action Alternative would leave these facilities in the floodplain. Therefore, while the No Action Alternative avoids new development within the floodplain and wetlands, it is not a viable solution due to the substantial risks it poses to public health and the environment.

Outcome: The reevaluation process is expected to reaffirm the selection of microtunneling as the preferred method for crossing the San Jacinto River, as it continues to offer the most effective means of minimizing impacts to floodplain and wetland areas. The reevaluation process is not expected to result in the discovery of any new, previously disturbed and/or paved areas that could be used as a staging area that are also outside of the floodplain.

Step 7: Final Public Notice

A Final Public Notice will be issued to inform the public and stakeholders of the final decision regarding the Proposed Action, including a summary of the decision-making process and the rationale for selecting the preferred alternative.

Step 8: Implement the Proposed Action and Ensure Post-Implementation Compliance

The final step will involve the implementation of the Proposed Action, with a strong focus on ensuring compliance with all applicable floodplain management and wetland protection requirements.

Technical Considerations:

Implementation Oversight: The implementation phase will be closely monitored to ensure that all mitigation measures and BMPs are effectively carried out. This will include regular inspections, documentation of construction activities, and post-construction monitoring to assess the effectiveness of the mitigation measures.

Compliance Assurance: Compliance with EO 11988 (as amended by EO 13690) and EO 11990 will be documented through the preparation of post-implementation reports, which will be submitted to the relevant federal and state agencies. These reports will include details on the project's adherence to floodplain management guidelines and any corrective actions taken to address unforeseen impacts.