DRAFT
Initial Study/Mitigated Negative Declaration

Bowerman Power Renewable Natural Gas Plant Project

October 2024

Prepared for:

COUNTY OF ORANGE
OC Waste&Recycling
Our Community. Our Commitment.

601 N. Ross Street, 5th Floor
Santa Ana, CA 92701

Prepared by:

TETRA TECH

17885 Von Karman Avenue,
Suite 500
Irvine, CA 92614

BOWERMAN POWER RENEWABLE NATURAL GAS PLANT PROJECT

PROPOSED MITIGATED NEGATIVE DECLARATION AND NOTICE OF INTENT TO ADOPT THE PROPOSED MITIGATED NEGATIVE DECLARATION

This serves as the Notice of Intent by O C Waste & Recycling (OCWR) to adopt a Mitigated Negative Declaration for the Bowerman Power Renewable Natural Gas Plant Project, prepared in accordance with the California Environmental Quality Act (CEQA) and its guidelines.

Name of Project: Bowerman Power Renewable Natural Gas Plant Project ("Project").

Project Location: The proposed renewable natural gas plant is located at the Frank R. Bowerman (FRB) Landfill at 11006 Bee Canyon Access Road in unincorporated Orange County, California, north and within the sphere of influence of the City of Irvine. The Project involves constructing a renewable natural gas processing plant and a new SoCalGas pipeline connecting the processing plant to an existing SoCalGas pipeline at the corner of Portola Parkway and Jeffrey Road. FRB Landfill is located within Township 5 South, Range 8 West, and parts of Sections 143, 144, 145, and 118 of the El Toro, California, U.S. Geological Survey (USGS) 7.5-minute Quadrangle Map (1997).

Lead Agency: OCWR
601 N. Ross Street, 5th Floor
Santa Ana, CA 92701

Lead Proponent: Bowerman Power LFG, LLC (Bowerman Power)
5313 Campbells Run Road
Suite 200
Pittsburgh, PA 15205

Project Description: A renewable natural gas (RNG) plant will be designed to produce RNG from landfill gas (LFG) that is produced by the FRB Landfill and deliver it to SoCalGas.

The Project site is not designated a hazardous waste property, nor is it a hazardous waste disposal site as defined under Section 65962.5 of the California Government Code.

- **NOTICE IS HEREBY GIVEN THAT** the OCWR proposes to adopt a Mitigated Negative Declaration for the above-cited Project. This Mitigated Negative Declaration is based on the finding that, by implementing the identified mitigation measures, the Project's potential impacts will be maintained at a less than significant level. The reasons to support such a finding are

documented by the Initial Study prepared by Tetra Tech, Inc. Copies of the Initial Study, the proposed Mitigated Negative Declaration, and supporting materials are available for review at: https://oclandfills.com/page/bowerman-power-rng-ceqa

- OCWR located at 601 N. Ross Street, 5th Floor, Santa Ana, California, 92701; and
- Irvine Heritage Park Library, 14261 Yale Avenue, Irvine, CA 92604.

For questions regarding the Mitigated Negative Declaration, please contact:

NAME: Francine Bangert **PHONE**: 714.834.4059

TITLE: Public Information Officer **EMAIL:** ocwr-ceqareview@ocwr.ocgov.com

ADDRESS: OCWR
601 N. Ross Street, 5th Floor
Santa Ana, CA 92701

Public Review Period: **30 days** **Begins:** 10/17/2024 **Ends:** 11/15/2024

Public Meeting: A Virtual Public Information Meeting will be conducted on October 22, 2024, at 6:00 p.m. Visit https://oclandfills.com/events for virtual meeting details.

Public Hearing: Adoption of the Mitigated Negative Declaration will be considered at a public hearing by the County of Orange Board of Supervisors which is proposed for January 28, 2025, at 9:30 a.m. at the County of Orange Hall of Administration Board of Supervisors - Board Hearing Room, First Floor, 400 W. Civic Center Drive, Santa Ana, California

In accordance with CEQA Guidelines, any comments concerning the findings of the proposed Initial Study/Mitigated Negative Declaration must be submitted in writing and **received by the OCWR no later than 5:00 p.m. on November 15, 2024**, in order to be considered prior to the final determination on the Project by OCWR. Please submit your written comments to Francine Bangert, Public Information Officer, OCWR, 601 N. Ross Street, 5th Floor, Santa Ana, CA 92701 or via email to ocwr-ceqareview@ocwr.ocgov.com.

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Acronyms and Abbreviations

3D	three dimensional
§	Section
ADT	average daily trip
AQIA	Air Quality Impact Assessment
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BMP	best management practice
Bowerman Power	Bowerman Power LFG, LLC
BP	Before Present
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CWA	Clean Water Act
dBA	A-weighted decibel
DOT FHWA	U.S. Department of Transportation Federal Highway Administration
FRB	Frank R. Bowerman
FTA	Federal Transit Administration
GHG	Greenhouse Gas
GIS	geographic information system
GPS	global positioning system
HCP	Habitat Conservation Plan
HDD	Horizontal Directional Drilling
HRA	Health Risk Assessment
Hz	Hertz
IS Initial Study	

ISO	International Organization for Standardization
IUSD	Irvine Unified School District
IRWD	Irvine Ranch Water District
JOST	Jeffery Open Space Trail
KOP	key observation point
L_{eq}	equivalent noise level
LFG	landfill gas
LST	Localized Significance Threshold
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
MT	Metric Ton
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Planning
NPDES	National Pollutant Discharge Elimination System
OC Parks	Orange County Parks
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCSD	Orange County Sheriff's Department
OCWR	OC Waste & Recycling
OSR	Open Space Reserve
Plant	renewable natural gas production plant
POR	Point of Receipt
PPV	peak particle velocity
PRC	Public Resources Code
Project	Bowerman Power Renewable Natural Gas Plant Project
RELOOC	Regional Landfill Options for Orange County
RNG	renewable natural gas
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SCCIC	South-Central Coastal Information Center
SCE	Southern California Edison
scfm	standard cubic feet per minute
SCS	Sustainable Communities Strategy
SRA	State Responsibility Area
SSC	Species of Special Concern
SWPPP	Stormwater Pollution Prevention Plan
Tetra Tech	Tetra Tech, Inc.
TOU	Time of Use
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
UWMP	Urban Water Management Plan
WQMP	Water Quality Monitoring Plan

1.0 INTRODUCTION

Bowerman Power LFG, LLC (Bowerman Power) is working with OC Waste & Recycling (OCWR) to develop a renewable natural gas (RNG) production plant (Plant) on land at the Frank R. Bowerman (FRB) Landfill leased to Bowerman Power by OCWR, to be known as the Bowerman Power Renewable Natural Gas Plant Project (Project). The RNG Plant will be designed to produce RNG from landfill gas (LFG) that is produced by the FRB Landfill and deliver it to SoCalGas.

Following an initial review of the proposed Project, OCWR has determined that it is subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study (IS) addresses the environmental effects of the Project, as proposed.

1.1 Statutory Authority and Requirements

This Mitigated Negative Declaration (MND) has been prepared for review and approval by OCWR with technical assistance from Tetra Tech, Inc. (Tetra Tech) to evaluate if implementation of the proposed Project would have a significant effect on the environment. Pursuant to Section 15070 of the *Guidelines for Implementation of the California Environmental Quality Act* (14 California Code of Regulations Sections (§§) 15070-15075), a public agency shall prepare or have prepared a proposed negative declaration or mitigated negative declaration for a project subject to CEQA when:

> *(a) The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or*
>
> *(b) The initial study identifies potentially significant effects, but:*
>
> > *(1) Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*
> >
> > *(2) There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

1.2 Required Content

CEQA Guidelines Section 15071 indicate that a Negative Declaration circulated for public review shall include:

> *(a) A brief description of the project, including a commonly used name for the project, if any;*
>
> *(b) The location of the project, preferably shown on a map, and the name of the project proponent;*
>
> *(c) A proposed finding that the project will not have a significant effect on the environment;*
>
> *(d) An attached copy of the Initial Study documenting reasons to support the finding; and*
>
> *(e) Mitigation measures, if any, included in the project to avoid potentially significant effects.*

2.0 PROJECT INFORMATION

Project title:	Bowerman Power Renewable Natural Gas Plant Project
Lead agency name and address:	**OC Waste & Recycling** 601 N. Ross Street, 5th Floor Santa Ana, CA 92701
Contact person and phone number:	**Francine Bangert, Public Information Officer** 714.834.4059
Project location:	The proposed renewable natural gas (RNG) plant is located at the Frank R. Bowerman (FBR) Landfill at 11006 Bee Canyon Access Road in unincorporated Orange County, California, north and within the sphere of influence of the City of Irvine. The Project involves constructing an RNG processing plant and a new SoCalGas pipeline connecting the processing plant to an existing SoCalGas pipeline at the corner of Portola Parkway and Jeffrey Road; see Figure 2-1, Project Vicinity, and Figure 2-2, Project Location, for additional details.
Project sponsor's name and address:	**Bowerman Power LFG, LLC (Bowerman Power)** 5313 Campbells Run Road Suite 200 Pittsburgh, PA 15205
Contact person and phone number:	**Sharon Frank, Vice President Environmental Health and Safety** 412.327.2360
General Plan Designation:	4LS (Public Facilities Landfill Site)
Zoning Designation:	A1 General Agriculture
Surrounding land uses:	The surrounding land uses consist of Open Space Reserve. State Routes 241 and 133 are located to the west, approximately 0.5 and 0.6 miles, respectively. Interstate 5 is located approximately 3.8 miles to the west, and Interstate 405 is located approximately 5.4 miles to the southwest.

2.1 Environmental Setting

The Project will be located at the FRB Landfill in unincorporated Orange County within the sphere of influence of the City of Irvine, except for the new SoCalGas pipeline, which will be located within the City of Irvine.

2.1.1 Regional

Orange County is located along the Pacific Ocean between Los Angeles County to the north and northwest, San Bernardino County to the northeast, Riverside County to the east, and San Diego County to the southeast, covering 798 square miles (County of Orange 2012). The FRB Landfill is in one of the unincorporated areas of Orange County. The unincorporated territory, consisting of approximately 321 square miles, is geographically diverse with unincorporated areas spread throughout Orange County.

The City of Irvine is situated in central Orange County and covers approximately 66 square miles of land (City of Irvine 2022; see Figure 2-1, Project Vicinity). The City boundaries stretch from State Route 73 in the southwest to the foothills of the Santa Ana Mountains in the northeast. The FRB Landfill is situated in these foothills northeast of the City.

Physiographically, the FRB Landfill is located in the Peninsular Ranges Geomorphic Province, which is characterized by a series of mountain ranges that are sub-parallel to the coast from Los Angeles to San Diego (CGS 2002). The Santa Ana Mountains are located in the northern end of the province, and the Project site is located on the southwestern flank of the Santa Ana Mountains, in the foothills that transition to an alluvial plain which encompasses most of the City of Irvine. The FRB Landfill is located within the Bee Canyon topographic feature providing space to accommodate a large volume of municipal solid waste. Bee Canyon is within the larger San Diego Creek watershed, which drains across the alluvial plain and into Newport Back Bay, and from there connects to the Pacific Ocean.

The FRB Landfill is surrounded by an area designated by the Orange County General Plan as Open Space Reserve (OSR) and is part of the Orange County Central and Coastal Subregion Natural Communities Conservation Plan/Habitat Conservation Plan Reserve.

2.1.2 Project Site

The Project site is situated near the northeastern edge of the City of Irvine (see Figure 2-2, Project Location) and within the FRB Landfill boundaries, except for the western end of the new SoCalGas pipeline connecting to the existing SoCalGas pipeline. The Project will consist of three “localities” where disturbances will occur: the new Project RNG Plant, the new SoCalGas pipeline, and the existing soil stockpile area (see Figure 2-3, Project RNG Plant Site and FRB Landfill Soil Stockpile Area Locations and Figure 2-4, Proposed SoCalGas Pipeline Route).

The RNG Plant site involves 3.52 acres of part of the undeveloped land leased to Bowerman Power by OCWR (see Figure 2-3). This land is adjacent to the existing Bowerman Power 19.6-megawatt landfill gas to energy facility (Bowerman Power Plant) and the FRB Landfill flare station. Approximately 70,000 cubic yards of fill material will be extracted from an existing soil stockpile area (see Figure 2-3) within the FRB Landfill boundaries and will be used to provide fill materials for the RNG Plant pad including a point of receipt (POR) facility to be developed and operated by SoCalGas.

The new SoCalGas pipeline will run from the POR within the RNG Plant boundary, down Bee Canyon Access Road to the existing SoCalGas pipeline on the corner of Portola Parkway and Jeffery Road. The new SoCalGas pipeline will be approximately 2.0 miles in length along Bee Canyon Access Road and approximately 0.4 mile in length along Portola Parkway, for a total of 2.4 miles.

2.2 Project Description

2.2.1. Background

The FRB Landfill is a state-of-the-art, Class III, municipal solid waste facility, owned by the County of Orange and operated and maintained by OCWR. FRB Landfill opened in 1990 and spans approximately 725 acres of hillside with 534 acres allocated for waste disposal. It is permitted for 11,500 tons per day maximum with an 8,500 tons per day annual average. The FRB Landfill is currently receiving approximately 8,000 tons of refuse per day. The FRB Landfill has enough projected capacity to serve residents and businesses until approximately 2053. The current permitted capacity is 266 million cubic yards, of which approximately 105.7 million cubic yards have been placed as of June 2022.

The Regional Landfill Options for Orange County (RELOOC) defines the permitted vertical and horizontal expansions for the Master Development Plan of the FRB Landfill (P&D Consultants 2006). The permitted vertical and horizontal expansions are implemented in phases to provide for sufficient landfill operation areas and not disturb all parts of the landfill at once. The Master Development Plan includes three Phase VIII subareas (VIII-A, B, and C). The FRB Master Development Plan also includes several on-site stockpile locations for soil excavated as part of landfill phase development and operations. All soil stockpiles are within the landfill property. The soil is used for daily and intermediate cover, road construction and other related uses. Excavations are currently underway for the development of Phase VIII-A1. Soils excavated from the development of Phase VIII-A1 are stockpiled in the soil stockpile area (see Figure 2-3).

The LFG currently created by the landfill is managed via a gas collection and control system that includes vertical and horizontal gas extraction wells, a collection pipe system, and a flare station complex comprising six flares. The Bowerman Power Plant, an existing 19.6-megawatt landfill gas to energy facility, was opened in 2016 and is an award-winning, public-private partnership producing enough electricity for the City of Anaheim to power 26,000 homes. Bowerman Power currently owns and operates the Bowerman Power Plant. It is located adjacent to the flare station and processes approximately 8,350 standard cubic feet per minute (scfm) of raw LFG. The LFG not processed by the Bowerman Power Plant is incinerated at the flare station.

2.2.1 General Description

Bowerman Power, as the Project Proponent, is proposing to develop an RNG Plant at the FRB Landfill on land at the FRB Landfill leased to Bowerman Power by OCWR. As described above, the LFG not processed by the Bowerman Power Plant is incinerated at the flare station. The RNG Plant will be designed to process the excess LFG that would otherwise require incineration at the existing adjacent flare station, and then deliver the processed RNG to SoCalGas, as detailed in Table 2-1, and shown in Figure 2-5, RNG Process Design Flow. The RNG Plant layout (see Figure 2-6, Project Site Plan) will comprise two areas: the process equipment area (see Figure 2-7, RNG Process Equipment Area

Layout) and the control and electrical buildings (see Figure 2-8, RNG Control / Electrical Buildings Layout).

The RNG Plant will be designed to process a maximum of 6,000 scfm of raw LFG at the inlet. The process will remove nitrogen, oxygen, carbon dioxide, sulfur hydroxide, volatile organic chemicals, hydrogen sulfide, as well as other minor impurities to meet the gas specifications of SoCalGas.

Table 2-1. Project RNG Plant Components

Component	Data
RNG Plant Owner	Bowerman Power
Project Name	Bowerman Power Renewable Natural Gas Plant
Project Site Location	Frank R. Bowerman Landfill 11006 Bee Canyon Access Road Irvine, CA 92602
Landowner	County of Orange
Project Type/Size	LFG to RNG conversion plant (Bowerman Power Plant) Maximum capacity of 6,000 scfm
Source Fuel	Landfill gas; 46-53% methane (dry basis)
Equipment Location	Primarily outdoor equipment with some enclosures (required for noise abatement or environmental control). Electrical and control equipment to be enclosed.

As noted previously, excavation is currently underway for the development of FRB Landfill Phase VIII-A1. The soils removed during the excavation are stockpiled within the FRB Landfill boundaries (see soil stockpile area on Figure 2-3). The RNG Plant pad is expected to require approximately 70,000 cubic yards of fill material. This fill material will be extracted from within the soil stockpile area and trucked to the RNG Plant site for development of the RNG Plant pad.

SoCalGas will develop a POR facility which will receive RNG from the plant, odorize, compress, and insert the RNG into its pipeline. A 250-gallon odorant tank will be installed in the POR facility. SoCalGas will construct a new 12-inch-diameter pipeline to convey the RNG from the POR (see Figure 2-9) on the Project site to the existing SoCalGas pipeline at the corner of Portola Parkway and Jeffrey Road (see Figures 2-4.1 through 2-4.12).

The new RNG Plant will process excess LFG and deliver the resulting RNG to the SoCalGas pipeline. This effort will promote the beneficial reuse of existing and future LFG collected by FRB Landfill, support long-term sustainability goals in the region, and help reduce Orange County's reliance on fossil fuels. Additionally, the Project will contribute to California Public Utility Commission's Renewable Gas Program to procure RNG made by methane from organic waste from landfills and other sources, reduce the volume of LFG being flared, and help reduce greenhouse gas (GHG) emissions from the FRB Landfill. The RNG plant will have the capacity to process 6,000 scfm of LFG is equivalent to avoiding the GHG emissions from 60,196 tons of landfilled waste each year.

2.2.2 Operations

The proposed RNG systems are intended to support continuous operation with appropriate equipment and components. To support minimal staffing, the Plant will be automated to allow station operations as detailed in Table 2-2 and below. Under normal conditions, maintenance

personnel will be on-site for site inspections and maintenance only as needed, and typically only during daylight hours.

Table 2-2. General Plant Operations

Parameter	Design Requirements
Operation Staff	Manned operations: A total of 10 Bowerman Power employees, 8-10 hours per day/5 days per week Unmanned/remote operations: 14-16 hours per day/5 days per week, and 24-hours/2 days per week
Service Life	20 years (approximately 2026 to 2046)
Shut Down	Depressurize to facility off-spec flare and landfill flares
Shut Down Sequence	Automated
Start Up Sequence	Semi-Automated
Planned Shut Down Time	Minimize annual down time
Turn Down	Losses in recovery efficiency are expected and acceptable to achieve turn down Two-stage public service announcement system maximum turndown is 75% (25% of nameplate capacity)

The RNG Plant will be supplied LFG from the existing flare station for upgrading into RNG. The RNG Plant will be designed to produce RNG that meets the Product Gas Composition requirements as set forth pursuant to SoCalGas' Rule Number 30[1].

The RNG Plant will have two buildings: an Electric Building, which is planned to be unoccupied, and a Control Building, which will be occupied by the operational staff, see Figures 2-7 and 2-8. The process equipment will be placed outside on the RNG Plant pad. The Control Building will house the Control Center (computer stations), lavatories, and the Electric Building will house the electrical room. The type of equipment expected for operation of the RNG Plant is shown in Figure 2-10, Equipment List.

The POR facility, see Figure 2-9, will be 8,000 square feet and include an electrical shelter, analyzer shelter, automated control valve(s), filter separator, meter, odorant skid, above-ground piping and pipe supports, bollards, fencing, roadways, and gates. The POR's equipment and their function are briefly described below:

- **Electrical Shelter:** The electrical shelter provides power to the POR's electrical equipment, gas instrumentation, and communication controls.
- **Analyzer Shelter (or Gas Analyzer System):** The analyzer shelter samples and analyzes incoming RNG, from the RNG Plant, to evaluate gas composition and quality. If inlet gas qualities deviate from the allowable limits, the analyzer shelter will trigger the overpressure protection valve to close and rejected gas will be routed back to the RNG Plant for re-processing or flaring. Once permissible gas composition and quality are confirmed by the analyzer shelter, the overpressure production valve will open, and gas will be allowed into the POR station.
- **Automated Control Valve(s):** The control valves regulate the gas pressure of the RNG that is injected into SoCalGas' existing natural gas infrastructure.
- **Filter Separator:** The filter separator separates incoming particulates, entrained liquids, and RNG entering the POR facility and allows for dry gas to flow into the flow meter.

[1] SoCalGas Renewable Natural Gas Quality Standards, https://www.socalgas.com/1443740736978/gas-quality-standards-one-sheet.pdf

- **Metering (or Flow Metering):** The flow meter calculates the corrected gas flow of the RNG entering the POR facility.
- **Odorant Skid (or Odorizing System):** The odorizing system injects odorant into the RNG stream prior to injection into SoCalGas' existing natural gas infrastructure. Odorant is injected as a safety provision to make a gas leak readily detectable by sense of smell. The odorant skid contains a 250-gallon odorant storage tank, two expansion tanks, two injection pumps, two verometers, and four odorant filters.
- **Above-Ground Piping and Pipe Supports:** The above-ground piping and pipe supports transport the RNG through the POR facility and allow for SoCalGas personnel to perform future maintenance on the facility.
- **Bollards, Fencing, Roadways, and Gates:** The bollards, fencing, roadways, and gates protect the POR facility from vehicle collision and unauthorized access.

Normal operational power will be provided by Southern California Edison (SCE) service. In case of SCE power outage, a natural gas generator will be onsite to power critical facility safety and control systems. The generator will be used for temporary back-up power only.

2.2.3 Safety and Operability

The Project will be designed for normal operation from the Control Building, but with the ability to have both local and remote startup, operation, shutdown, and emergency shutdown capabilities for equipment. Emergency eyewash and/or safety shower stations (meeting ANSI/ISEA Z358.1 standards) will be provided. The process equipment area will include a gas detection system.

2.2.4 Water Use

The Project will use an estimated 350,000 gallons of non-potable water during construction activities (soil compaction, dust suppression, etc.). Non-potable water for construction activities will either be supplied from existing on-site FRB Landfill water tanks or trucked in from an off-site provider. Initially during operations, the RNG Plant system will require 1,000 gallons of water to supply the chiller system. Typically, no additional water will be required for the system except in the case of non-routine maintenance. Personal Potable water usage (bathroom, sink, shower, etc.) is estimated to be 110,000 gallons per year. Per Bowerman Power's agreement with OCWR, water for RNG Plant maintenance and personal water use will be supplied by OCWR from the existing domestic water line that currently serves the Bowerman Power Plant.

2.2.5 Construction Details

Construction is anticipated to begin in the first quarter of 2025 and is expected to occur over a span of 2 years, with the majority of the emitting construction phases overlapping during a 1-year period.

All Project equipment and building materials staging will occur on-site within the construction site work zones.

Non-hazardous waste and excess debris will be disposed of at the FRB Landfill.

Construction of the RNG Plant will include approximately 313 working days of construction and the new SoCalGas Pipeline will include approximately 239 working days of construction during normal working days and hours (Monday through Friday, except federal holidays). The construction labor

force will vary from a minimum of 2 to a maximum of 35 workers per day for the duration of the construction activities. The type of heavy construction equipment expected for construction of the RNG Plant and the new SoCalGas pipeline is shown in Figure 2-10.

The approximately 3.52-acre Project site will require grading for the approximately 2.3-acre RNG Plant pad, see Figure 2-11. The pad will be composed of approximately 1.38 acres concrete and 0.22 acres of graded land. The pad is expected to require approximately 70,000 cubic yards of fill material, which will be extracted from an existing soil stockpile area within the FRB Landfill boundaries (see Figure 2-3). The soil stockpile area was previously graded as part of FRB Landfill Master Development Plan development and is currently used as the soil stockpile area for the soils excavated as part of the Phase VIII-A development.

An additional 0.8 acre will be cleared of vegetation, see the area shown in red and yellow on Figure 2-11, to comply with Orange County Fire Authority's (OCFA's) Fuel Modification and Maintenance Program. Another 0.05 acre will be cleared of vegetation and trenched for installation of a fire suppression water line. Post construction, the areas shown in red, blue, and yellow on Figure 2-11 will be revegetated with low fuel vegetation approved by OCFA and OCWR.

Construction of the new SoCalGas pipeline route will take place along Bee Canyon Access Road and Portola Parkway. The majority of the pipeline installation construction activities will use open-trench techniques within the paved sections of the roadways, with horizontal directional drilling techniques in some locations. The construction work area along the proposed pipelines will be approximately 50 feet wide. The disturbance for trenching activities will be approximately 30 inches wide with an average depth of 6 feet.

SoCalGas plans to perform a Horizontal Directional Drilling (HDD) operation along Bee Canyon Access Road to install approximately 1,300 feet of 12.7-inch steel pipeline beneath the Highway 241 Transportation Corridor. The entry and exit workspaces will be located on private property outside of Caltrans Right of Way (see Figure 2-4, Sheets 4 and 5, and Figure 2-12). The HDD entry workspace will be approximately 150 feet by 100 feet in size and located within the "dirt lot" adjacent to the west-bound lane of Bee Canyon Access Road, approximately 600 feet northeast from the center of the "Bee Canyon Access Rd. Bridge" or Bridge #55-785. The HDD exit workspace will be approximately 150 feet by 60 feet in size and will be located along Bee Canyon Access Road, approximately 800 feet southwest from the center of the "Bee Canyon Access Rd. Bridge." The maximum excavation depths for both the HDD entry and exit workspaces should not exceed 10 feet.

The HDD process can be divided into four main phases: pilot hole, reaming, swabbing, and pullback. The pilot hole will be approximately 10 inches in diameter and will drill a complete profile from entry to exit locations. During the reaming and swabbing phases, the pilot hole will be expanded to a minimum of 18 inches. The final hole size will be determined by the HDD contractor. Prior to the pullback phase, the steel pipeline will be hydrostatically tested and upon completion, will be pulled into the hole. A bentonite mixture will be placed downhole to solidify and fill the void space and cap the ends of the entry and exit holes. The approved material will be determined by the drilling contractor and any permitting conditions. An estimated 100 cubic feet of drill mud waste will be produced during the HDD operation. All HDD waste will be disposed of offsite at an appropriate

landfill site. The specific construction approach for the crossing of the Highway 241 Transportation Corridor is preliminary and subject to change depending on permitting conditions and requirements.

A traffic control plan will be prepared to accommodate this work area corridor along the new SoCalGas pipeline route.

2.2.6 Mitigation Measures

The following mitigation measures have been incorporated into the scope of work for the proposed Project and will be fully implemented by Bowerman Power to avoid or minimize adverse environmental impacts identified in this Initial Study/Mitigated Negative Declaration. These mitigation measures are identified in the Mitigation Monitoring and Reporting Plan (MMRP) prepared for this Project (see Appendix A) with the assigned responsibility for implementation and reporting.

Mitigation Measures:

BIO-1 To address potential Project impacts to intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), an in-lieu fee shall be paid via minor amendment to the NCCP/HCP, as approved by USFWS and CDFW. The in-lieu fee will contribute to a management and monitoring program for rare plants in the Nature Reserve of Orange County.

Silt fencing or flagging shall be installed under the guidance of a biological monitor along the limits of coastal sage scrub areas that are immediately outside of the grading/impact limits. The silt fencing/flagging shall be used to minimize impacts to sensitive natural resources including special-status plant species and native plant communities outside and immediately adjacent to the grading limits. Construction activities and personnel will be restricted within these adjacent coastal sage scrub areas and a biological monitor will be present during the silt fence/flagging installation and removal.

BIO-2 Impacts to coastal sage scrub habitat shall occur outside the breeding and nesting season of the coastal California gnatcatcher (February 15 through July 15) to the extent practicable.

A pre-construction survey shall be conducted within the Project site to determine the presence/absence of coastal California gnatcatcher and coastal cactus wren prior to clearing or grading activities. The survey shall include a 100-foot buffer around the grading limits. Any coastal California gnatcatcher or coastal cactus wren observations shall be recorded and marked on the construction/grading plans.

All coastal sage scrub habitat outside of the Project impact area shall be fenced or marked with flagging materials prior to the commencement of grading. No construction access, parking, or storage of equipment or materials will be allowed within these areas.

A qualified biologist shall conduct and document a pre-construction meeting to educate construction staff (including supervisors, equipment operators, and other site employees) on all mitigation measures required for the Project.

A qualified biologist shall monitor the clearing of coastal sage scrub and oak woodland. USFWS/CDFW shall be notified at least 7 calendar days (preferably 14 calendar days) prior to clearing habitat occupied by Target/Identified Species, if observed. The qualified biologist will ensure that clearing activities and earth-moving equipment do not harm coastal California gnatcatchers or coastal cactus wren. The biologist will also ensure that these activities do not harm other species that may occur, including western spadefoot, orange-throated whiptail, red-diamond rattlesnake, and coast patch-nosed snake.

The access road(s) shall be sprayed with water on occasion to reduce dust accumulation on the leaves of coastal sage scrub species, as overseen by the biological monitor.

BIO-3 Avoid ground-disturbing and vegetation removal activities during the nesting bird season (February 15 to September 15). If these activities must occur during the nesting season, a pre-construction nesting bird survey shall be conducted by a qualified biologist on and within 300 feet of the Project construction area. The survey shall be conducted no more than 10 days prior to initiation of ground-disturbance, vegetation clearing, or construction activities and repeated between delays of greater than 10 days during the nesting season.

If an active nest is found, an appropriate no-disturbance buffer for the species shall be visibly established in the field by a qualified biologist (e.g., flagging, staking, caution tape). No ground-disturbing or vegetation removal activities shall occur within the buffer until the nesting season has ended or the nest is vacated and juveniles have fledged, as determined by the qualified biologist. At the discretion of a qualified biologist, limited encroachment into the buffer may occur for non-listed bird species but no disturbance of active nests or nesting activities is allowed per the Migratory Bird Treaty Act.

CUL-1 **Environmental Training** – Prior to construction of the Project, a Secretary of Interior-qualified archaeologist shall be retained by Bowerman Power to serve as the Project Archaeologist. Cultural resource awareness training shall be provided by the Project Archaeologist that includes all applicable laws and penalties pertaining to disturbing cultural resources, a brief discussion of the prehistoric and historic regional context and archaeological sensitivity of the area, types of cultural resources found in the area, and instruction that Project workers shall halt construction if a cultural resource is inadvertently discovered during construction, and Project personnel contact information in the event of an inadvertent discovery.

CUL-2 **Archaeological Monitoring** – A qualified Archaeological monitor acceptable to the OCWR shall be retained by Bowerman Power prior to Project-related ground disturbance. The selection of the qualified professional(s) shall be subject to OCWR acceptance based on generally accepted professional qualifications and certifications, as applicable. A qualified Archaeological Monitor shall have at least a BS or BA degree in anthropology, archaeology, historic archaeology, or a related field and previous

monitoring experience. The monitors shall conduct on-site daily archaeological monitoring of construction ground disturbance. The Archaeological monitor will provide daily documentation of construction activity and any findings. The Archaeological monitor shall prepare a daily monitoring log and submit it daily to the Project Archaeologist via email, briefly describing the field conditions, construction progress and activities, non-compliance activities, and record any finds of archaeological material. A final report summarizing the monitoring activities shall be prepared by the Project Archaeologist.

CUL-3 **Monitoring and Inadvertent Discovery Plan** – Prior to the start of construction, a Secretary of Interior-qualified Project Archaeologist (retained by Bowerman Power) shall prepare a Monitoring and Inadvertent Discovery Plan (Plan) for the Project. The Plan shall be submitted to OCWR for review and approval prior to the start of construction. The Plan shall include at a minimum:

- Overview of mitigation measures and responsibility for compliance;
- Project description of construction activities and maps;
- Description of relevant laws and regulations;
- Brief cultural context information and types and description of cultural resources that could be inadvertently discovered;
- Description of how monitoring shall occur;
- The roles and responsibility of the Archaeological Monitor (e.g., authority to halt construction for an inadvertent discovery, daily monitoring, daily reporting, etc.) and Project Archaeologist (e.g., oversee monitors, response to inadvertent discovery, final reporting, etc.);
- Description of protocols in the event of an inadvertent discovery (i.e., halt work) and notification procedures and contact list; and
- Description of final monitoring report.

Stop work protocols shall be implemented in the event of an inadvertent discovery of cultural resources. If a cultural resource is encountered within the new SoCalGas pipeline route, halt work protocols shall include notifying the SoCalGas Project Archaeologist Ryan Glenn or SoCalGas Archaeologist Tricia Dodds and OCWR Environmental Engineering Specialist, Weena Dalby. See contact information below. Cultural resources shall not be relocated without consultation with a SoCalGas Archaeologist.

GEO-1 **Worker Education Program.** The project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards (SVP 2010), to carry out all mitigation measures related to paleontological resources. The qualified paleontologist shall conduct the following:

a. Prior to the start of any ground disturbing activities, the qualified paleontologist shall conduct a Paleontological Resources Awareness Training program for all construction personnel working on the project site. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the OCWR. The training guide may be presented in video form.

b. Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements.

c. The training shall include an overview of potential paleontological resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of paleontological resources.

d. The project operator shall ensure all new employees who have not participated in earlier Paleontological Resources Sensitivity Trainings shall meet the provisions specified above.

e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with as necessary.

GEO-2 **Project Monitoring.** A qualified paleontologist or designated monitor shall be onsite initially to spot-check excavations below a depth of one foot below the ground surface in areas of undetermined paleontological potential. If it is determined that sediments consist of older alluvium, then full-time paleontological monitoring shall ensue within that area. If sediments are determined to consist of Holocene Quaternary alluvium, paleontological monitoring shall not be required unless an excavation depth of 15 feet below the ground surface is reached in the area. The use of post-driving or rotary drilling shall not require monitoring.

a. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with OCWR and shall be based on a review of geologic maps and grading plans.

b. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should be reduced, the paleontologist, in consultation with OCWR, may adjust the level of monitoring to circumstances, as warranted.

c. Paleontological monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The qualified paleontologist shall have authority to temporarily divert excavation operations away from exposed fossils to collect associated data and recover the fossil specimens if deemed necessary.

d. Following the completion of construction, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources onsite. If fossils are found, the report shall summarize the results of the inspection program, identify those fossils encountered, recovery and curation efforts, and the methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to OCWR and to an appropriate repository such as the Natural History Museum of Los Angeles County.

GEO-3 Inadvertent Discoveries of Paleontological Resources — If construction staff or others observe previously unidentified paleontological resources during ground disturbing activities, they will halt work within a 200-foot radius of the find(s), delineate the area of the find with flagging tape or rope (may also include dirt spoils from the find area), and immediately notify a qualified paleontologist. Construction will halt within the flagged or roped-off area. The paleontologist shall assess the resource as soon as possible and determine appropriate next steps in coordination with OCWR. Such finds shall be formally recorded and evaluated. The resource shall be protected from further disturbance or looting pending evaluation.

TCR-1 Should evidence of human remains be discovered during project construction, the Orange County Coroner (OCC) shall be immediately notified of the discovery. Evidence of human remains requires mandatory compliance with the provisions of State Health and Safety Code Section 7050.5, which restricts further disturbance in the vicinity of the discovery, defined herein as a 50-foot radius, until the OCC has made a determination within two business days of the origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be Native American, the OCC shall notify the Native American Heritage Commission (NAHC) within 24 hours that remains have been discovered. The NAHC shall determine the identity of the Most Likely Descendant (MLD). The MLD shall complete the inspection of the remains within 48 hours of notification by the NAHC. In addition, per CR-02, SoCalGas Project Archaeologist Ryan Glenn (425) 213-2349 (cell) and RGlenn1@scgcontractor.com or SoCalGas Archaeologist Tricia Dodds (213) 290-7449 (cell) and TDodds@socalgas.com will be notified of the discovery.

TCR-2 If unanticipated tribal cultural resources or deposits are discovered during earth-moving activities, the following measures shall be implemented:

- All work shall halt within a 200-foot radius of the discovery. a qualified professional archaeologist shall assess the significance of the find (if a tribal cultural monitor is not present). If the resources are Native American in origin, the OCWR shall coordinate with the Tribe regarding evaluation, treatment, curation and preservation of these resources. The archaeologist shall have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCWR. Work shall not continue within the no-work radius until the archaeologist conducts sufficient research, evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the California Register of Historical Resources.

TCR-3 Tribal Cultural Resource Monitor: Prior to the issuance of any grading permit in which soil would be disturbed, Montauk shall provide evidence in the form of an executed Agreement to OCWR that they have retained a qualified Native American tribal monitor to provide third-party monitoring during excavation and grading activities and to recover and catalogue tribal resources as necessary. The tribal monitor shall be from or approved by the Kizh Nation. The agreement shall include (i) professional qualifications for the tribal cultural resource monitor(s); (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/monitoring report to OCWR, as applicable; (iii) contact information; (iv) communication protocols between Contractor and Tribal Cultural Resource Monitor; (v) acknowledgment that if the Kizh Nation monitor is not available, Montauk or their contractor as designee may contract with another qualified tribal monitor acceptable to the OCWR. The selection of the qualified professional(s) shall be subject to OCWR acceptance based on generally accepted professional qualifications and certifications, as applicable. The cover sheet of the grading plans shall include a note to identify that third party tribal monitoring is required during excavation and grading activities in accordance the with the OCWR Agreement.

2.3 Project Objectives

The objectives of the Project include the following:

- Safely produce RNG from LFG that is natively created by the FRB Landfill and deliver it to SoCalGas;
- Allow for the beneficial reuse of existing and future LFG collected by FRB Landfill in a manner that furthers the long-term sustainability goals of the area;
- Provide the most feasible and cost-effective method of transporting LFG from FRB Landfill to SoCalGas;
- Assist Orange County in reducing its dependence on fossil fuels and become more sustainable and energy independent;
- Contribute to goals of the California Public Utilities Commission Renewable Gas Procurement Standard to procure RNG made by methane from organic waste from landfills and other sources;
- Reduce the amount of LFG being flared at the FRB Landfill;
- Reduce and quantify greenhouse gas (GHG) emissions from the FRB Landfill; and
- Minimize adverse environmental impacts.

2.4 Incorporation By Reference

Various technical studies, analyses, and reports were used in the preparation of this IS and are incorporated by reference in accordance with Section 15150 of the CEQA Guidelines. Information from

these documents, which have been incorporated by reference, has been briefly summarized in the appropriate section(s) of this IS. The documents and other sources used in preparation of this IS are identified in Section 5.0, References.

2.5 Other Public Agencies Whose Approval Is Required

Other public agencies whose approval is expected to be required in the form of permits, financing approval, or participation agreements are as follows:

- South Coast Air Quality Management District – Permit to Construct (RNG Plant - Bowerman Power, new SoCalGas pipeline – SoCalGas), Dust Control (RNG Plant - Bowerman Power, new SoCalGas pipeline – SoCalGas), Plan Permit to Operate (RNG Plant - Bowerman Power)
- Santa Ana Regional Water Quality Control Board – Stormwater Pollution Prevention Plan for construction activities and development discharge (RNG Plant - Bowerman Power, new SoCalGas pipeline – SoCalGas)
- County of Orange – Conditional Use Permit (RNG Plant - Bowerman Power), Construction Permits (RNG Plant - Bowerman Power), Encroachment/Development Permit (new SoCalGas pipeline - SoCalGas)
- USFWS – coordination regarding NCCP (RNG Plant - Bowerman Power)
- CDFW – coordination regarding NCCP (RNG Plant - Bowerman Power)
- City of Irvine – Conditional Use Permit, Right of Way Permits, Construction Permits (new SoCalGas pipeline - SoCalGas)
- Caltrans – Encroachment Permit (SoCalGas new pipeline HDD construction- SoCalGas)
- Irvine Ranch Water District - Encroachment/Development Permit (SoCalGas new pipeline construction- SoCalGas)

2.6 Tribal Cultural Resources Consultation

In conformance with Assembly Bill 52 Tribal Consultation Requirements, OCWR notified the Native American Tribes/Tribal representatives that are traditionally and culturally affiliated with the Project area. OCWR sent Project notification to the following Tribes on August 15, 2023:

- Kizh Nation
- Juaneño Band of Mission Indians
- San Gabriel Band of Mission Indians
- Soboba Band of Luiseño Indians

One Native American Tribe, the Kizh Nation, requested consultation on this Project. Following this request, representatives from the Tribe and staff from OCWR engaged in consultation via telephone conference on October 17, 2023. OC Waste & Recycling sent the cultural resources report for the Project on May 24, 2024. The Kizh Nation representative provided comments on the report on May 28, 2024. These comments were incorporated into the cultural report and the final report was shared with the Tribe on July 8, 2024, and consultation was completed and closed out.

Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process (see Public Resources Code [PRC] Section 21083.3.2). Information may also be available from the California Native American Heritage Commission's (NAHC) Sacred Lands File per PRC Section 5097.94 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that PRC Section 21082.3(c) contains provisions specific to confidentiality.

3.0 ENVIRONMENTAL CHECKLIST

3.1 Environmental Factors Potentially Affected

The environmental factors checked would be potentially affected by this Project, involving impacts that are a "Potentially Significant Impact" as indicated by the checklist on the following pages.

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

3.2 Determination: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT (EIR) 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.

Signature

10/9/2024
Date

Dagmar Barker
Print Name

3.3 Evaluation of Environmental Impacts

(1) A brief explanation is required for all answers except "no impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "no impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "no impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

(2) All answers must take account of the whole action involved, including off-site as well as on site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

(3) Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially significant impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "potentially significant impact" entries when the determination is made, an EIR is required.

(4) "Negative declaration: less than significant with mitigation incorporated" applies when the incorporation of mitigation measures has reduced an effect from a "potentially significant impact" to a "less than significant impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level.

(5) Earlier analyses may be used if, pursuant to tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration (Section 15063[c][3][D]). In this case, a brief discussion should identify the following:

   a. Earlier analysis used. Identify and state where earlier analyses are available for review.

   b. Impacts adequately addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c. Mitigation measures. For effects that are "less than significant with mitigation incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

(6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated.

(7) Supporting information sources. A source list should be attached and other sources used or individuals contacted should be cited in the discussion.

(8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

(9) The explanation of each issue should identify:

a. The significance criteria or threshold, if any, used to evaluate each question, and

b. The mitigation measure identified, if any, to reduce the impact to a less than significant level.

3.4 Environmental Impact Analysis

3.4.1 Aesthetics

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
a.	Have a substantial adverse effect on a scenic vista?				X
b.	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within along a state scenic highway?				X
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?			X	
d.	Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?			X	

Existing Conditions:

Orange County, with its varied topography and proximity to the ocean, has many scenic areas including beaches, coastal bluffs, ridgelines, and hillsides (County of Orange 2012).

The Project site is located in an existing landfill and is surrounded by land designated as open space. The City of Irvine, located to the west, is a largely built-out urban setting characterized by residential, municipal, commercial, and light industrial uses.

The nearest state-designated scenic highway is a 4.2-mile segment of State Route 91 from State Route 55 east to the city limits of Anaheim (Caltrans 2023) and is over 10 miles to the northwest of the Project site.

The County of Orange General Plan Transportation Element identifies the County's scenic highway routes and divides designated scenic highways into two categories: Viewscape Corridors and Landscape Corridors (County of Orange 2020a). A viewscape corridor is a route that traverses a corridor within which unique or unusual scenic resources and aesthetic values are found. A landscape corridor traverses developed or developing areas and has been designated for special treatment to provide a pleasant driving environment as well as community enhancement.

The Scenic Highway Plan identifies Landscape Corridors and Viewscape Corridors. The nearest Landscape Corridor is El Toro Road, approximately 5 miles southeast of the Project site. The nearest Viewscape Corridor is Santiago Canyon Road, approximately 2.6 miles east of the Project site.

The City of Irvine General Plan Land Use Element, Figure A-4, Scenic Highways, identifies major views towards the northeast from Sand Canyon Avenue, approximately 2.6 miles southwest of the Project site, and Jeffery Road, approximately 1.8 miles southwest of the Project site.

Discussion:

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

No Impact. The Project RNG Plant will be located at an existing active solid waste landfill and the new SoCalGas pipeline will be located within roadways from the POR within the RNG Plant boundary, down Bee Canyon Access Road to the existing SoCalGas pipeline on the corner of Portola Parkway and Jeffery Road. Neither are located not located within a scenic vista. The Project would not block views of any of the nearby open space and hills. Therefore, there would be no impacts to scenic vistas associated with implementation of the proposed Project.

Mitigation Measures: No mitigation is required.

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

No Impact. Due to intervening terrain, views of the Project RNG Plant would not be available from any of the State, County, or City designated scenic highways. The new SoCalGas pipeline will be located within roadways and not visible. Therefore, there would be no impacts to designated scenic highways associated with implementation of the proposed Project.

Mitigation Measures: No mitigation is required.

c. Would the project 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?

Less Than Significant Impact. The new SoCalGas pipeline will be located within roadways and not visible, and therefore would not impact scenic quality. The Project RNG Plant is located within the FRB Landfill boundaries with an Orange County General Plan designation of 4LS (Public Facilities; Landfill Site) and a zoning designation of A1 General Agriculture. Because the property is owned by the County of Orange, the Project is exempt from the provisions of the Orange County Zoning Code, pursuant to Orange County Codified Ordinance, Ordinance No. 99-02, Section 2, Section 7-9-20(i). The proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project.

The viewshed for a project is generally the area that is visible from an observer's viewpoint and includes the screening effects of intervening vegetation and/or physical structures. Although some portion of the Project RNG Plant may be visible, the degree of visibility would depend on distance and view angle. Generally, the Project RNG Plant would be most visible from viewpoints within 2 miles, while site visibility would diminish as distance increases and view angle decreases. Air quality, including dust and other visible particulates, can affect visibility in the area. Distance is only one of the factors that determine visibility of a site from a viewpoint. Terrain, vegetation, and structural features can obscure views that might otherwise be available at a certain distance.

A viewshed analysis is a graphic representation of locations that may have views of all or portions of a project based on topography within the area of project potential visibility. A viewshed analysis is a graphic representation of the seen and unseen areas adjacent to a project based on topography. A viewshed analysis was conducted for the Project using Esri ArcGIS geographic information system (GIS) software with the Spatial Analyst extension to process 10-meter digital elevation models, and the height of the tallest Project element, the thermal oxidizer (Figure 3.4-1, Project Zone of Visual Influence and Key Observation Points). The height of the thermal oxidizer would be up to a maximum of 55 feet. The viewshed assumed "bare earth" conditions and was run from the Project area looking out to determine areas with potential visibility. The assumed "bare earth" conditions mean identification of areas with potential views of the Project RNG Plant were based on surrounding topography only. The analysis is very conservative because it does not account for screening by intervening structures, vegetation, curvature of the earth, small terrain changes, atmospheric conditions and attenuation, or other features. The area of project potential visibility shown in the viewshed analysis was used to assist with the identification of potential key observation points (KOPs).

KOPs are one or a series of points on a travel route or at a use area or potential use area, where the view of a management activity would be most revealing. Based on the area of project potential visibility and the identification of publicly accessible routes and viewpoints, potential KOPs were identified and further assessed during the field evaluation. KOPs were identified based on locations from which the Project RNG Plant infrastructure would potentially be visible and noticeable to the casual observer. The "casual observer" is considered an observer who is not actively looking or searching for the Project RNG Plant, but who is engaged in activities at locations with potential views of the Project RNG Plant, such as hiking or driving along a scenic road. If the Project RNG Plant infrastructure is not noticeable to the casual observer, visual impacts can be considered minor to negligible.

Four KOPs were selected as representative vantage points in the landscape that offer motorists traveling on area roadways, local residents, pedestrians, and hikers, views of the proposed Project RNG Plant site (Figure 3.4-1, Project Zone of Visual Influence and Key Observation Points). These KOPs provide potential views of the Project RNG Plant site from publicly accessible areas.

Factors considered in the selection of KOPs included locations with sensitive viewers (e.g., local residences. pedestrians, and hikers and motorists on nearby roadways) and potential for the Project RNG Plant to be visible (e.g., distance and view angle). The KOPs were selected to capture representative vantages from local roadways, residences, and hiking trails.

The proposed Project would involve temporary changes to the visual character of the new SoCalGas pipeline and both temporary and permanent changes to the visual character of the RNG Plant site. Temporary changes are associated with construction activities, including construction equipment, staging, and Project construction. These visual impacts would be short term in nature and are not considered to be significant.

Digital photographs were taken from the selected KOP locations to support the discussion on existing visual setting and the analysis of potential visual impacts associated with the implementation of the

proposed Project. Photographs of existing conditions were taken on August 11, 2023, using a digital single-lens reflex Nikon D5600 DSLR camera.

Three-dimensional (3D) visual simulations from representative KOP photographs were rendered to approximate the visual conditions caused by Project implementation. Using the photographs acquired at each KOP, a 3D physical massing model was created that incorporated the Project RNG Plant model. The model was then georeferenced and placed on global positioning system (GPS)-controlled, site-specific photographs to create simulations that demonstrate visual changes from the Project RNG Plant. Note the model included a building for the equipment area. With subsequent refinements to Project RNG Plant design, the equipment area will no longer be enclosed. The unenclosed equipment area will be less visible than the original equipment building; therefore, the simulations present a more conservative result than is expected. Figures 3.4-2 through 3.4-5 present existing and simulated views of Project RNG Plant features.

Key Observation Point 1

KOP 1 is located near the intersection of Chinon and Cadence in Irvine, approximately 3 miles southwest of the Project RNG Plant site. This KOP depicts views oriented north toward the Project RNG Plant site. As shown in Figure 3.4-2, the existing landscape setting is characterized by an urban environment with relatively flat to hilly terrain. Existing structural features include roadway and sidewalk, street lighting, and signs, fencing, and residential buildings in the distance. Vegetation includes grasses, ruderal vegetation, and trees. Dominant colors for the landscape are tans, browns, and greens, while the structures are gray, white, green, and black. The vegetation consists of irregular, organic forms with irregular-shaped ruderal vegetation and trees. The linear and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for drivers and pedestrians traveling along Chinon. Considering the short duration of viewing, viewers would have a low viewer sensitivity to the visual changes in the area.

The Project RNG Plant would not be visible from this location because of the screening of the Project RNG Plant site by structures (see Figure 3.4-2). As the Project RNG Plant would not be visible from this location, there would be no visual impacts from KOP 1.

Key Observation Point 2

KOP 2 is located near the Intersection of Episode and Pusan Way in Irvine, approximately 2.7 miles southwest of the Project RNG Plant site. This KOP depicts views oriented north toward the Project RNG Plant site. As shown in Figure 3.4-3, the existing landscape setting is characterized by an urban environment with relatively flat to hilly terrain. Existing structural features include roadway, street lighting, fencing, and residential buildings. Vegetation includes grasses, ruderal vegetation, and trees. Dominant colors for the landscape are tans, browns, and greens, while the structures are gray, white, red, and black. The vegetation consists of irregular, organic forms with irregular-shaped ruderal vegetation and trees. The linear and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for drivers and pedestrians traveling along Episode and the occupants of the residences along Episode.

The Project RNG Plant would not be visible from this location because of the screening of the Project RNG Plant site by residential structures (see Figure 3.4-3). As the Project RNG Plant would not be visible from this location, there would be no visual impacts from KOP 2.

Key Observation Point 3

KOP 3 is located on the Portola Overlook Trail at the Portola Expedition Monument, near the Intersection of Portola Springs and Modjeska, approximately 1.7 miles south of the Project RNG Plant site. This KOP depicts views oriented north toward the Project RNG Plant site. As shown in Figure 3.4-4, the existing landscape setting is characterized by an urban environment with relatively flat to hilly terrain. Existing structural features include school buildings and playground, residential buildings, walls, lighting, roadways, toll road infrastructure, the Bowerman Power Plant exhaust stacks, and the FRB Landfill flares. Vegetation includes grasses and trees. Dominant colors for the landscape are tans, browns, and greens, while the structures are tan, gray, white, and red. The vegetation consists of irregular, organic forms with contiguous grasses and irregular-shaped trees. The linear and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for users of the Portola Overlook Trail and the occupants of the residences adjacent to the trail.

The Project RNG Plant would introduce white and gray colors, geometric shapes, and horizontal and vertical lines into the landscape setting. However, the Project RNG Plant would be barely visible from this location because of the screening of the Project RNG Plant site by terrain, vegetation, the Bowerman Power Plant, and the flare station and would not attract the attention of a casual observer (see Figure 3.4-4). The surrounding hilly terrain dominates the view, and what little can be seen of the Project is visually consistent with the adjacent the existing Bowerman Power Plant and the flare station.

For views from users of the Portola Overlook Trail and the occupants of the residences adjacent to the trail, the Project RNG Plant, while appearing as new and visible features, would be barely visible and would not attract attention of the casual viewer. Therefore, the impacts would be less than significant.

Key Observation Point 4

KOP 4 is located in the Portola Springs Nature Preserve, adjacent to Tomato Springs, approximately 1.3 miles south of the Project RNG Plant site. This KOP depicts views oriented north toward the Project RNG Plant site. As shown in Figure 3.4-5, the existing landscape setting is characterized by an urban environment with hilly terrain. Existing structural features include residential buildings, walls, lighting, toll road infrastructure, and the Bowerman Power Plant exhaust stacks. Vegetation includes grasses, shrubbery, and trees. Dominant colors for the landscape are tans, browns, and greens, while the structures are tan, gray, white, and red. The vegetation consists of irregular, organic forms with contiguous grasses and irregular-shaped shrubbery and trees. The linear and horizontal lines associated with the structures are visible and prominent from this viewpoint. This KOP provides a typical view for users of the trails in the Portola Springs Nature Preserve.

The Project RNG Plant would introduce white and gray colors, geometric shapes, and horizontal and vertical lines into the landscape setting. However, the Project RNG Plant would be barely visible from this location because of the screening of the Project RNG Plant site by terrain, vegetation, and the

Bowerman Power Plant and the flare station and would not attract the attention of a casual observer (see Figure 3.4-5). The adjacent residential development and the surrounding hilly terrain dominate the view, and what little can be seen of the Project is visually consistent with the adjacent the existing Bowerman Power Plant and the flare station.

For views from users of the trails in the Portola Springs Nature Preserve, while appearing as new and visible features, the Project RNG Plant would be barely visible and would not attract attention of the casual viewer. Therefore, the impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. There are two primary sources of light: light emanating from building interiors that pass-through windows, and light from exterior sources (e.g., street lighting, parking lot lighting, building illumination, security lighting, and landscape lighting). Light introduction can be a nuisance to adjacent uses and diminish the view of the clear night sky.

The Project would involve the addition of lighting at the RNG Plant similar to the existing Bowerman Power Plant and the flare station. The amount of light produced at the Project's RNG Plant site would be the minimum required for safety and security purposes. The lights on the site would be designed to direct the light toward the site to reduce nuisance lighting.

Glare can result from natural sunlight reflecting from a shiny surface that would interfere with the performance of an off-site activity, such as the operation of a motor vehicle. Reflective surfaces can be associated with window glass and polished surfaces. The Project would not include materials that are highly reflective or that would produce substantial glare. The RNG buildings will be painted with an earth-tone, non-reflective color scheme. The outside equipment will not include materials that are highly reflective or that would produce substantial glare. The steel structures will have surfaces that are mechanically brushed or otherwise treated to reduce glare.

Therefore, a less than significant impact from the standpoint of light and glare would occur.

Mitigation Measures: No mitigation is required.

3.4.2 Agriculture And Forest Resources

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

Existing Conditions:

On the Farmland Mapping and Monitoring Program Map for California (California Department of Conservation 2023), the FRB Landfill is designated as Urban and Built-Up Land, which is generally described as land occupied by structures that has a variety of uses including residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. The area surrounding the landfill is designated as Other Lands, which is generally described as land not included in any other mapping category.

Discussion:

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

No Impact. According to the Farmland Mapping and Monitoring Program Map for California, the Project RNG Plant site and new SoCalGas pipeline route are in an area designated as Urban and Built-Up Land. No Prime or Unique Farmland, or Farmland of Statewide Importance exists within the Project site or vicinity; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

b. Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?

No Impact. The zoning for the remaining part of the new SoCalGas pipeline route within the City of Irvine is not defined as the pipeline is in roadway. While the Project RNG Plant site and part of the new SoCalGas pipeline route have a zoning designation of A1 General Agriculture, its General Plan Designation is 4LS (Public Facilities Landfill Site) and there are no agricultural uses within the Project limits or adjacent areas. The Project would not convert farmland or conflict with any land zoned for agriculture. No Williamson Act contracts apply to the Project site (P&D Consultants 2006). Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

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

No Impact. There are no forest land or timberland resource designations or forest land or timberland resource uses within the Project RNG Plant site or new SoCalGas pipeline route. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

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

No Impact. There are no forest land or timberland resource designations or forest land or timberland resource uses within the Project RNG Plant site or new SoCalGas pipeline route. Therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

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

No Impact. There is no farmland or forest land located within or near the Project RNG Plant site and new SoCalGas pipeline route. The Project does not involve changes to the FRB Landfill boundary or zoning. Therefore, the Project would not involve any changes that could result in the loss or conversion of farmland or forest land to other uses. No impact would occur.

Mitigation Measures: No mitigation is required.

3.4.3 Air Quality

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:					
a.	Conflict with or obstruct implementation of the applicable air quality plan?			X	
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?			X	
c.	Expose sensitive receptors to substantial pollutant concentrations?			X	
d.	Result in other emissions (such as those leading to odors) affecting a substantial number of people?			X	

An air quality impact study was conducted for the Project and is provided in Appendix B. The following summarizes the results and conclusions.

Existing Conditions:

Table 3-1 presents the maximum observed ambient background data for each pollutant and averaging time at the nearest representative monitoring station for the most recent data available. The nearest monitoring sites with available data (Central Orange County and Downtown Los Angeles) are located in an area that likely has higher ambient pollutant concentrations than the proposed Project site. The tabulated values were used to represent background levels for the indicated pollutants and averaging times in the Air Quality Impact Assessment (AQIA) to evaluate compliance with the California Ambient Air Quality Standards (CAAQS) or National Ambient Air Quality Standards (NAAQS). The monitoring data indicates that air quality in the Project area complies with all NAAQS and CAAQS for NO2, CO, and SO2. However, the CAAQS and NAAQS are periodically exceeded in the Project area for PM2.5 and PM10.

Table 3-1. AQIA Background Concentrations

Pollutant	Averaging Time	Standard	Monitoring Station	Ambient Background Data (concentration units)				AAQS (concentration units)	Exceeds Standard?	Background Concentration Notes
				2020	2021	2022	Summary			
NO_2 (Concentration Units = ppb)	1-Hour	California	SCAQMD; Central Orange County	70.9	67.1	53	70.9	180	No	Highest of most recent 3 years.
	Annual	Federal	SCAQMD; Central Orange County	13.3	12.4	11.8	13.3	53	No	Highest of most recent 3 years.
		California	SCAQMD; Central Orange County	13.3	12.4	11.8	13.3	30	No	Highest of most recent 3 years.
CO (Concentration Units = ppm)	1-Hour	Federal	SCAQMD; Central Orange County	2.3	2.1	2.4	2.4	35	No	Highest of most recent 3 years.
		California	SCAQMD; Central Orange County	2.3	2.1	2.4	2.4	20	No	Highest of most recent 3 years.
	8-Hour	Federal	SCAQMD; Central Orange County	1.7	1.5	1.4	1.7	9	No	Highest of most recent 3 years.
		California	SCAQMD; Central Orange County	1.7	1.5	1.4	1.7	9	No	Highest of most recent 3 years.

Pollutant	Averaging Time	Standard	Monitoring Station	Ambient Background Data (concentration units)				AAQS (concentration units)	Exceeds Standard?	Background Concentration Notes
				2020	2021	2022	Summary			
SO_2 (Concentration Units = ppb)	1-Hour	Federal	EPA; Main St, Los Angeles	3	2	2	2.3	75	No	The design value (=3-year average of 99th percentile of 1-hour daily max).
		California	EPA; Main St, Los Angeles	3.8	2.2	6.5	6.5	250	No	Highest of most recent 3 years.
	24-Hour	California	EPA; Main St, Los Angeles	0.9	1.2	1.2	1.2	40	No	Highest of most recent 3 years.
PM_{10} (Concentration Units = $\mu g/m^3$)	24-Hour	Federal	SCAQMD; Central Orange County	120	115	90	120	150	No	Highest of most recent 3 years.
		California	SCAQMD; Central Orange County	120	115	90	120	50	Yes	Highest of most recent 3 years.
	Annual	California	SCAQMD; Central Orange County	23.9	22.9	22.3	23.9	20	Yes	Highest of most recent 3 years.
$PM_{2.5}$ (Concentration Units = $\mu g/m^3$)	24-Hour	Federal	SCAQMD; Central Orange County	27.10	36.70	22.10	28.63	35	No	The design value (=3-year average of 98th percentile of 24-hour daily max).
	Annual	Federal	SCAQMD; Central Orange County	11.27	11.4	9.87	11.4	9	Yes	Highest of most recent 3 years.
		California	SCAQMD; Central Orange County	11.27	11.4	9.87	11.4	12	No	Highest of most recent 3 years.

Notes: SCAQMD = South Coast Air Quality Management District

Discussion:

a. Would the project conflict with or obstruct implementation of the applicable air quality plans?

Less Than Significant Impact. The Project site (RNG Plant site and new SoCalGas pipeline route) is located in the South Coast Air Basin, comprising all of Orange County and the non-desert regions of Los Angeles, Riverside, and San Bernardino Counties. The South Coast Air Quality Management District (SCAQMD) is the agency primarily responsible for comprehensive air pollution control in the South Coast Air Basin and reducing emissions from area and point sources, mobile, and indirect sources. The SCAQMD prepared the 2022 Air Quality Management Plan (AQMP) to meet federal and State ambient air quality standards. The 2022 AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG). SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development, and the environment. With regard to future growth, SCAG has prepared the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS), which provides population, housing, and employment projections for cities under its jurisdiction. These growth projections are based in part on projections originating under County and City General Plans. These growth projections were utilized in the preparation of the air quality forecasts and consistency analysis included in the 2022 AQMP. The 2020-2045 RTP/SCS was approved in September 2020.

The 2022 AQMP was adopted by the SCAQMD Governing Board on December 2, 2022, as a program to lead the South Coast Air Basin into compliance with several criteria pollutant standards and other federal requirements. It relies on emissions forecasts based on demographic and economic growth projections provided by SCAG's 2020-2045 RTP/SCS. SCAG is charged by California law to prepare and approve "the portions of each AQMP relating to demographic projections and integrated regional land use, housing, employment, and transportation programs, measures and strategies." Projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and not to interfere with its attainment. The SCAQMD recommends that, when determining whether a project is consistent with the current AQMP, a lead agency must assess whether the project would directly obstruct implementation of the plan and whether it is consistent with the demographic and economic assumptions (typically land use-related, such as resultant employment or residential units) upon which the plan is based.

A significant air quality impact may occur if a project is inconsistent with the AQMP or would in some way represent a substantial hindrance to employing the policies or obtaining the goals of that plan. As shown in Table 3-2, the incremental emissions from the proposed Project do not exceed the SCAQMD's established thresholds of potential significance for air quality impacts. The proposed Project would provide a beneficial use for the LFG generated at the landfill and would be consistent with the goals and objectives of the AQMP. Therefore, the Project would not increase the frequency or severity of an air quality standards violation or cause a new violation. Furthermore, the Project is consistent with the land use and zoning designation through development of the proposed Project.

Table 3-2. AQIA Modeling Results for Project Operations

Pollutant	Averaging Time	Federal or State Standard	Modeled Concentration[1] (Concentration Units)	Background Concentration (Concentration Units)	Modeled + Background Concentration (Concentration Units)	CEQA Threshold (Concentration Units)	Significance
NO_2 (Concentration Units = ppb)	1-Hour	California[2]	0.825[F]	70.9	71.7	180	LTS
	Annual	Federal	0.027[E]	13.3	13.3	53	LTS
		California	0.027[E]	13.3	13.3	30	LTS
CO (Concentration Units = ppm)	1-Hour	Federal	0.003[F]	2.4	2.4	35	LTS
		California	0.003[F]	2.4	2.4	20	LTS
	8-Hour	Federal	0.001[F]	1.7	1.7	9	LTS
		California	0.001[F]	1.7	1.7	9	LTS
SO_2 (Concentration Units = ppb)	1-Hour	Federal	2.135 [F]	2.3	4.4	75	LTS
		California	2.341[F]	6.5	8.8	250	LTS
	24-Hour	California	0.612[E]	1.2	1.8	40	LTS
PM_{10} (Concentration Units = µg/m^3)	24-Hour	SCAQMD CEQA Significant Change Threshold	0.068[E]	–	–	2.5	LTS, modeled concentration is less than significant change threshold.
	Annual		0.010[E]	–	–	1	
$PM_{2.5}$ (Concentration Units = µg/m^3)	24-Hour		0.068[E]	–	–	2.5	

Notes:

1. Superscript E indicates elevated terrain AERMOD run; superscript F indicates flat terrain AERMOD run.
2. The modeled concentration presented is the model predicted maximum hourly value using full NO2 conversion.

Because the Project would be consistent with the City's General Plan, it is also consistent with the regional growth projections adopted in the 2022 AQMP. Air quality emissions generated by the proposed Project are considered to be evaluated in the AQMP, and Project development in accordance with the City's General Plan would not conflict with or obstruct implementation of the regional 2022 AQMP. Thus, the proposed Project is not expected to conflict with or obstruct the implementation of the AQMP and SCAQMD rules. Therefore, impacts would be less than significant, and no mitigation is required.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. To evaluate impacts, quantitative significance criteria established by the local air quality agency, such as the SCAQMD, may be relied upon to make significance determinations based on mass emissions of criteria pollutants.

A significant impact would occur if the proposed Project would violate any air quality standard or contribute substantially to an existing or projected air quality violation. Project construction emissions were estimated using CalEEMod, the statewide land use emissions computer model designed to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from land use projects. According to the CalEEMod model results, as outlined in this report, overall construction (maximum daily emissions) for the proposed Project would not exceed the SCAQMD thresholds for the criteria pollutants ROG, NOx, CO, oxides of sulfur (SOx), and respirable and fine particulate matter (PM10 and PM2.5, respectively). As shown in Table 3-3, the Project is estimated to generate less than the SCAQMD threshold of 75 pounds per day ROG, 100 pounds per day NOx, 550 pounds per day CO, 150 pounds per day SOx, 150 pounds per day PM10, and 55 pounds per day PM2.5 during the construction phase.

Table 3-3. Construction Emissions Summary and Significance Evaluation

Criteria Pollutants	Construction Emissions (pounds/day)	Threshold (pounds/day)	Significance
ROG (VOC)	11.1	75	LTS
NOx	56.8	100	LTS
CO	50.0	550	LTS
SOx	0.16	150	LTS
Total PM10	24.9	150	LTS
Total PM2.5	6.5	55	LTS

Sources: SCAQMD 2023, CalEEMod version 2022.1.1.26. Yorke Engineering, LLC, 2024, see Appendix B,

Notes: Pounds/day are winter or summer maxima for planned land use. Total PM10/PM2.5 comprises fugitive dust plus engine exhaust.

The primary sources of operations phase emissions are the three stationary sources (i.e., thermal oxidizer, flare, and Internal Combustion Engine), on-road vehicles traveling to and from the site buildings, and operational activities such as landscape equipment, consumer products, and energy use. As shown in Table 3-4, the Project is estimated to generate less than the SCAQMD threshold of 55 pounds per day ROG, 55 pounds per day NOx, 550 pounds per day CO, 150 pounds per day SOx, 150

pounds per day PM10, and 55 pounds per day PM2.5 during the operational phase. As shown in Table 3-4, line G, the proposed Project will reduce emissions of criteria pollutants as compared to existing conditions.

Table 3-4. Operational Emissions Summary and Significance Evaluation

Emission Source		Criteria Pollutant Emissions on Peak Operating Day /8 (pounds/day)					
		VOC	NOx	CO	SOx/9	PM10/10	PM2.510
[A]	Baseline Existing LFG Flare Emissions /1 (6,000 scfm LFG)	25.92	108.00	259.20	124.01	52.70	52.70
[B]	Proposed TOU/2	4.34	25.29	57.81	124.26	5.16	5.16
[C]	Proposed Flare/3	0.01	0.14	0.14	0.00	0.01	0.01
[D]	Proposed Engine/4	0.11	0.70	1.17	0.00	0.07	0.07
[E]	Proposed Miscellaneous Operational Sources/5	0.75	0.32	1.59	0.00	0.12	0.05
[F] = [B + C + D + E]	**Proposed Project/6**	**5.22**	**26.46**	**60.72**	**124.27**	**5.37**	**5.29**
[G] = [F] - [A]	**Proposed Project - Baseline Existing LFG Flare Emissions**	**-20.70**	**-81.54**	**-198.48**	**0.25**	**-47.34**	**-47.34**
[H]	SCAQMD Mass Daily Thresholds for Operation/7	55	55	550	150	150	150
[G] > [H]	Significance	LTS	LTS	LTS	LTS	LTS	LTS

/1 Baseline is calculated as the emissions from flaring 6,000 scfm LFG (~180 mmBtu/hr) for 24 hours at the Flare I-6 emission factors.

/2 Proposed Time of Use (TOU): 2,315 scfm Tail Gas 1 (~6.4 mmBtu/hr) + 885 scfm Tail Gas 2 (~6.1 mmBtu/hr) + 280 scfm Supplemental Fuel (~17.6 mmBtu/hr), 24 hours. Note: RNG Plant inlet compression removes approximately 400 scfm moisture from the incoming LFG. The RNG Plant is projected to generate on the order of 2,400 scfm RNG. Tail Gas 1 + Tail Gas 2 + RNG = 2,315 scfm + 885 scfm + 2,400 scfm = 5,600 scfm. RNG Plant Inlet – Moisture Removal = 6,000 scfm – 400 scfm = 5,600 scfm.

/3 Proposed Flare: ~1.6 scfm Supplemental Fuel for natural gas pilot light (0.1 mmBtu/hr), 24 hours.

/4 Proposed Engine: Engine is natural gas fired and used for maintenance and testing.

/5 Proposed Miscellaneous Operational Sources: Includes Mobile, Area, and Energy sources from CalEEMod.

/6 Proposed Project: Proposed TOU + Proposed Flare + Proposed Engine + Proposed Miscellaneous Operational Sources.

/7 Source: SCAQMD (2023).

/8 Peak operating day with emergency engine usage is shown here. A typical day would not involve emergency generator usage, which is limited to maintenance and testing hours only.

/9 SOx EF is based on daily/hourly Best Available Control Technology (BACT) basis (85 ppm or 14.354 lb/mmscf). Proposed TOU SOx emissions include 100 percent of the Landfill Tail Gas SOx emissions + SOx from supplemental fuel. Proposed Flare SOx emissions include SOx from supplemental fuel.

/10 Total PM10 / PM2.5 comprises fugitive dust plus engine exhaust.

The proposed Project site is approximately 4.2 acres in SRA Zone 19 – Saddleback Valley. As a conservative estimate, the 2-acre screening lookup tables were used to evaluate NOx, CO, PM10, and PM2.5 impacts on nearby receptors. The nearest receptor is approximately 1,300 meters (4,200 feet) away from the proposed RNG Plant. Therefore, the impact evaluation was performed using the closest

distance within SCAQMD Localized Significance Threshold (LST) tables of 500 meters for construction. As shown in in Table 3-5, on-site emissions from construction would meet the LST passing criteria at the nearest receptors (500 meters).

Table 3-5. Construction Localized Significance Threshold Evaluation

Criteria Pollutants	Construction Emissions (pounds/day)	Threshold (pounds/day)	Percent of Threshold	Result
NOx	56.8	233	24.4%	Pass
CO	50.0	8,454	0.6%	Pass
PM10	24.9	129	19.3%	Pass
PM2.5	6.5	74	8.7%	Pass

Sources: SCAQMD 2008a, CalEEMod version 2022.1.1.26.

Notes: SRA: Zone 19 – Saddleback Valley. 2-acre area, 500 meters to receptor.

Additionally, the AQIA conducted shows that operational activities would not cause an exceedance of the NO2, SO2, or CO NAAQS or CAAQS. Furthermore, the model-predicted PM10 and PM2.5 concentrations from the operational sources would not exceed the 24-hour and annual significant change thresholds (see Table 3-6). Thus, the proposed Project would not cause a violation of the NAAQS or CAAQS or contribute substantially to an existing air quality violation, and therefore, the proposed Project would have a less than significant impact on air quality.

SCAQMD Guidance

The SCAQMD's 2003 guidance on addressing cumulative impacts for air quality is as follows: "As Lead Agency, the SCAQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR [Environmental Impact Report]. […] Projects that exceed the project- specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant" (SCAQMD 2003).

CEQA Guidelines

As referenced above, the SCAQMD cumulative air quality significance thresholds are the same as the project-specific air quality significance thresholds. Because the criteria pollutant mass emissions impacts shown in Tables 3-3 through 3-6 would not be expected to exceed any of the SCAQMD air quality significance thresholds, cumulative air quality impacts from comparable development projects would also be expected to be less than significant. Therefore, potential adverse impacts from implementing the proposed Project would not be "cumulatively considerable" as defined by CEQA Guidelines Section 15064(h)(1) for air quality impacts. Per CEQA Guidelines Section 15064(h)(4), the mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed Project's incremental effects would be cumulatively considerable.

As shown in Tables 3-3 through 3-6, the proposed Project would result in a less than significant impact related to regional emissions, and no mitigation is required.

Table 3-6. AQIA Modeling Results for Project Operations

Pollutant	Averaging Time	Federal or State Standard	Modeled Concentration/1 (Concentration Units)	Background Concentration (Concentration Units)	Modeled + Background Concentration (Concentration Units)	CEQA Threshold (Concentration Units)	Significance
NO2 (Concentration Units = ppb)	1-Hour	California/2	0.825[F]	70.9	71.7	180	LTS
	Annual	Federal	0.027[E]	13.3	13.3	53	LTS
		California	0.027[E]	13.3	13.3	30	LTS
CO (Concentration Units = ppm)	1-Hour	Federal	0.003[F]	2.4	2.4	35	LTS
		California	0.003[F]	2.4	2.4	20	LTS
	8-Hour	Federal	0.001[F]	1.7	1.7	9	LTS
		California	0.001[F]	1.7	1.7	9	LTS
SO2 (Concentration Units = ppb)	1-Hour	Federal	2.135 [F]	2.3	4.4	75	LTS
		California	2.341[F]	6.5	8.8	250	LTS
	24-Hour	California	0.612[E]	1.2	1.8	40	LTS
PM10 (Concentration Units = µg/m^3)	24-Hour	SCAQMD CEQA Significant Change Threshold	0.068[E]	–	–	2.5	LTS, modeled concentration is less than significant change threshold.
	Annual		0.010[E]	–	–	1	
PM2.5 (Concentration Units = µg/m^3)	24-Hour		0.068[E]	–	–	2.5	

/1 Superscript E indicates elevated terrain air quality dispersion modeling run; superscript F indicates flat terrain air quality dispersion modeling run.

/2 The modeled concentration presented is the model predicted maximum hourly value using full NO2 conversion.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. A significant impact would occur if the proposed Project were to expose sensitive receptors to pollutant concentrations. The SCAQMD identifies the following as sensitive receptors: long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities. There are residential land uses approximately 0.87 mile west of the Project site. The Project would be subject to grading and construction standards to mitigate air pollution and dust impacts.

A Health Risk Assessment (HRA) was conducted for Project, see Section 4.0 of Appendix B. The construction HRA results predict that all health risk factors would be less than the CEQA significance thresholds at all actual receptors. The operational HRA results predict that all health risk factors would be less than the CEQA significance thresholds at all actual receptors. As demonstrated by the HRA, the Project is not expected to substantially contribute to pollutant concentrations or expose surrounding residences and other sensitive receptors during construction or operation. The Project is required to meet SCAQMD Rule 403 requirements for controlling fugitive dust, as well as the City's requirements for grading and construction related to air pollution. Therefore, construction and operation of the Project would result in a less than significant impact for both localized and regional air pollution emissions, and no mitigation is required.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. Potential sources that may emit odors during construction activities include equipment exhaust and architectural coatings. Odors from these sources would be localized and generally confined to the immediate area surrounding the Project site. The proposed Project would utilize typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. Construction of the proposed Project would not cause an odor nuisance. The proposed RNG Plant would not create odors because the LFG is being processed and compressed for shipment in the SoCalGas pipeline, and not released into the air. The byproducts of the treatment would be combusted at high temperatures just as it is currently being combusted in the existing flare station. The maintenance work on site also would not generate any significant odor. Therefore, the proposed Project would result in a less than significant impact related to objectionable odors, and no mitigation is required.

Mitigation Measures: No mitigation is required.

3.4.4 Biological Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		X		
b.	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c.	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
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?			X	
e.	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?				X
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?				X

A biological resources report and wetlands delineation report were conducted for the Project and are provided in Appendix C. The following summarizes the results and conclusions.

Existing Conditions:

Readily available information, including relevant literature, databases, agency web sites, various previously completed reports and management plans, GIS data, topographic maps, aerial imagery from public sources, and in-house records were reviewed to:

1. Assess habitats, special-status plant and wildlife species, jurisdictional waters, Critical Habitat, and wildlife corridors that may occur in and near the Project site; and
2. Identify local or regional plans, policies, and regulations that may apply to the Project.

The following data sources were accessed during the literature review.

- **California Department of Fish and Wildlife**
  - California Natural Diversity Database (CNDDB; CDFW 2023a).
  - Biogeographic Information and Observation System (CDFW 2023b).

- **U.S. Fish and Wildlife Service**
  - Critical Habitat Portal (USFWS 2023a).
  - National Wetlands Inventory and Wetlands Mapper (USFWS 2023b).
- **California Native Plant Society**
  - Rare Plant Inventory (CNPS 2023).
- **Other**
  - County of Orange Municipal Codes.
  - Natural Community Conservation Plan/Habitat Conservation Plan for the Central/Coastal Subregion of Orange County (County of Orange 1996).

A biological field survey and jurisdictional wetlands delineation were conducted at the Project site on June 19 and 20, 2023, which included the proposed Project RNG Plant, Fuel Modification Area, and the proposed SoCalGas pipeline. Although imported soil for the RNG Plant pad will come from the existing stockpile area on the FRB Landfill, this area was not surveyed in 2023. This area is already disturbed, and impacts have been analyzed by a separate project. No new biological impacts are anticipated from obtaining soil from the existing stockpile.

The proposed Project RNG Plant and Fuel Modification Area is covered primarily by sagebrush scrub, with bands of coast live oak (*Quercus agrifolia*) habitat present. Sagebrush scrub covers about 73 percent of the Project RNG Plant and Fuel Modification Area. The dominant shrub within this habitat is California sagebrush (*Artemisia californica*). There is minimal to no tree canopy within this habitat. Coast live oak trees dominate along the slopes with an understory comprising non-native grasses. Within the sagebrush scrub and along the margins of the coast live oak habitat are populations of a California rare plant, intermediate mariposa lily (*Calochortus weedii* var. *intermedius*). In addition, within the bounds of the RNG Plant is an approximately 35-foot-wide, unvegetated concrete channel. Multiple smaller concrete-lined channels of approximately one-foot width run downslope from the existing Landfill Gas to Energy plant or Bee Canyon Road into the wider concrete channel. Soils covered in natural vegetation were generally loose and gravelly within the Project RNG Plant and vicinity, and small mammal burrows were sparse due to dense vegetation coverage.

The proposed pipeline impact area will be limited to the existing developed roads. Directly outside of the proposed pipeline area are some naturally occurring (i.e., sagebrush scrub) or naturalized habitats (i.e., eucalyptus [*Eucalyptus* sp.] grove), as well as artificial (i.e., ornamental trees) and disturbed habitats. Ornamental trees included typical roadside species such as acacias (*Acacia* spp.) and conifers (*Pinus* spp.).

One raptor species, red-tailed hawk (*Buteo jamaicensis*), was observed during the surveys, as well as other common bird species that may nest in the Project RNG Plant, Fuel Modification Area, or in the vicinity of the proposed pipeline such as Anna's hummingbird (*Calypte anna*), common raven (*Corvus corax*), northern mockingbird (*Mimus polyglottos*), and song sparrow (*Melospiza melodia*). However, no nests were observed during the survey. One reptile, western fence lizard (*Sceloporus occidentalis*), and various common invertebrates were also observed such as honeybees (*Apis* sp.) and tarantula hawks (*Pepsis* sp.).

Discussion:

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

Less Than Significant With Mitigation Incorporated. A query of the CDFW CNDDB and CNPS Rare Plant Inventory was conducted to determine known occurrences of candidate, sensitive, or special-status species or habitats within the Project site or vicinity (CDFW 2023a; CNPS 2023). The species presented in Table 3-7 are those with potential of occurring within or adjacent to the site. Species that do not have habitat in the Project site, such as freshwater marsh and open water habitats, have not been included in the table.

Table 3-7. Special-Status Species with Potential to Occur

Common Name	Scientific Name	Federal Status / State Status	Other Status
Plants			
Calochortus weedii var. *intermedius**	Intermediate mariposa-lily*	None / None	CRPR 1B.2, NCCP/HCP
Dudleya multicaulis	Many-stemmed dudleya	None / None	CRPR 1B.2
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None / None	CRPR 4.3
Monardella hypoleuca ssp. *intermedia*	Intermediate monardella	None / None	CRPR 1B.3
Amphibians			
Spea hammondii	Western spadefoot	None / SSC	NCCP/HCP
Reptiles			
Aspidoscelis hyperythra	Orange-throated whiptail	None / WL	NCCP/HCP
Crotalus ruber	Red-diamond rattlesnake	None / SSC	NCCP/HCP
Phrynosoma blainvillii	Coast horned lizard	None / SSC	None
Salvadora hexalepis virgultea	Coast patch-nosed snake	None / SSC	None
Birds			
Campylorhynchus brunneicapillus sandiegensis	Coastal cactus wren	None / SSC	NCCP/HCP
Icteria virens	Yellow-breasted chat	None / SSC	None
Polioptila californica californica	Coastal California gnatcatcher	FT / SSC	NCCP/HCP
Vireo bellii pusillus	Least Bell's vireo	FE / SE	NCCP/HCP

Notes:
* Intermediate mariposa-lily was observed during the biological survey within the Project RNG Plant in 2023.

FE = Federally Listed Endangered
FT = Federally Threatened
SE = State Listed Endangered
SSC = CDFW Species of Special Concern
WL = CDFW Watch List
NCCP/HCP = Central Coastal Subregion Natural Community Conservation Plan and Habitat Conservation Plan
California Native Plant Society, California Rare Plant Rank (CRPR)
1B = Plants Rare, Threatened, or Endangered in California and elsewhere
4 = Watch List: Plants of limited distribution
0.2 = Moderately threatened in California (20-80% occurrences threatened)
0.3 = Not very threatened in California (less than 20% of occurrences threatened)

Sources: CDFW 2023a, CNPS 2023.

The biological field survey conducted in June 2023 assessed habitats and potential occurrence of candidate, sensitive, or special-status species. One special-status species, intermediate mariposa lily, was found during the survey. Intermediate mariposa lily is a CNPS California Rare Plant Rank 1B.2 species and Conditionally Covered Species under the Central Coastal Subregion NCCP/HCP. A population of this species with a total of 17 individuals occurred within the center of the proposed RNG Plant. In addition, a population with two individuals was found outside the RNG Plant and Fuel Modification Area near the existing Landfill Gas to Energy plant and flare station. The individuals within the RNG Plant would likely be impacted during Project construction. No other rare plants were found during the survey.

The western spadefoot (*Spea hammondii*) is a CDFW Species of Special Concern (SSC) and an Identified Species under the NCCP/HCP that has been previously documented about 0.3 mile south of the RNG Plant (CDFW 2023a). The closest documented breeding habitat is about 1.5 miles northwest of the RNG Plant (CDFW 2023a). Although there are no pools within the RNG Plant and Fuel Modification Area that would allow for breeding, upland habitat is present that may support transient individuals moving from breeding habitat to estivating habitat. This species is unlikely to occur in all habitats within the proposed pipeline area.

Orange-throated whiptail (*Aspidoscelis hyperythra*) is a CDFW Watch List species and is a Target Species under the NCCP/HCP. This species has been previously recorded less than about 0.1 miles of the RNG Plant (CDFW 2023a). Preferred habitat characteristics for this species, including loose soils and coastal sage scrub and oak habitats, are present within the RNG Plant and Fuel Modification Area. This species may also occur adjacent to the proposed pipeline in sagebrush scrub areas.

Red-diamond rattlesnake (*Crotalus ruber*) is a CDFW SSC and an Identified Species under the NCCP/HCP. This species has been previously recorded about 2 miles northeast of the RNG Plant (CDFW 2023a). Preferred habitats for this species are present within the RNG Plant and Fuel Modification Area including sagebrush scrub and oak habitats, and adjacent to the proposed pipeline in sagebrush scrub areas.

Coast horned lizard (*Phrynosoma blainvillii*) is a CDFW SSC that has been recorded about 2 miles northeast of the RNG Plant (CDFW 2023a). Given the dense vegetation present throughout the RNG Plant and Fuel Modification Area, the lack of ants and other insect prey species, and that no visible burrows or burrowing species were observed, coast horned lizard is unlikely to occur.

The coast patch-nosed snake (*Salvadora hexalepis virgultea*) is a CDFW SSC that has been recorded about 2 miles northwest of the RNG Plant (CDFW 2023a). Preferred habitat characteristics for this species, including semi-arid brushy areas, are present within the RNG Plant, Fuel Modification Area, and adjacent to the proposed pipeline.

Special-status bird species that have been previously recorded within 2 miles of the RNG Plant include the following (CDFW 2023a): coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*), yellow-breasted chat (*Icteria virens*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*). Minimal nesting habitat for coastal cactus wren occurs in the Project site but the species could forage on-site. Yellow-breasted chat and least Bell's vireo are unlikely to occur on-site since preferred habitat in proximity to water is not present. The coastal California gnatcatcher could nest and forage in the Project site and vicinity.

The special-status species listed in Table 3-7 could be impacted by Project construction activities including ground disturbance or vegetation clearing if present on-site. Intermediate mariposa lily was found on-site and is covered in the NCCP/HCP. Per requirements in the NCCP/HCP, if less than 20 individuals of intermediate mariposa lily are observed in the impact area, no mitigation would be required. If more than 20 individuals are observed, mitigation would be required. Mitigation Measure **BIO-1** would assume presence of 20 intermediate mariposa lily individuals and require an in-lieu fee to be paid via minor amendment to the NCCP/HCP and installation of silt fencing or flagging. Wildlife species that have potential to occur at the Project site and vicinity that qualify as Target Species or Identified Species under the NCCP/HCP include western spadefoot, orange-throated whiptail, red-diamond rattlesnake, coastal cactus wren, coastal California gnatcatcher, and least Bell's vireo. Mitigation Measure **BIO-2** would require implementation of the Construction Minimization Measures required by the NCCP/HCP to minimize impacts to these species. Adhering to the requirements of the NCCP policies and procedures ensures no further mitigation is necessary. In addition, Mitigation Measure **BIO-3** would be implemented to protect raptors and nesting birds. Therefore, with implementation of mitigation measures **BIO-1, BIO-2,** and **BIO-3**, Project impacts to candidate, sensitive, or special-status species would be reduced to less than significant.

Mitigation Measures:

BIO-1 To address potential Project impacts to intermediate mariposa lily, an in-lieu fee shall be paid via minor amendment to the NCCP/HCP, as approved by USFWS and CDFW. The in-lieu fee will contribute to a management and monitoring program for rare plants in the Nature Reserve of Orange County.

Silt fencing or flagging shall be installed under the guidance of a biological monitor along the limits of coastal sage scrub areas that are immediately outside of the grading/impact limits. The silt fencing/flagging shall be used to minimize impacts to sensitive natural resources including special-status plant species and native plant communities outside and immediately adjacent to the grading limits. Construction activities and personnel will be restricted within these adjacent coastal sage scrub areas and a biological monitor will be present during the silt fence/flagging installation and removal.

BIO-2 Impacts to coastal sage scrub habitat shall occur outside the breeding and nesting season of the coastal California gnatcatcher (February 15 through July 15) to the extent practicable.

A pre-construction survey shall be conducted within the Project site and Fuel Modification Area to determine the presence/absence of coastal California gnatcatcher and coastal cactus wren prior to clearing or grading activities. The survey shall include a 100-foot buffer around the grading limits. Any coastal California gnatcatcher or coastal cactus wren observations shall be recorded and marked on the construction/grading plans.

All coastal sage scrub habitat outside of the Project impact area shall be fenced or marked with flagging materials prior to the commencement of grading. No

construction access, parking, or storage of equipment or materials will be allowed within these areas.

A qualified biologist shall conduct and document a pre-construction meeting to educate construction staff (including supervisors, equipment operators, and other site employees) on all mitigation measures required for the Project.

A qualified biologist shall monitor the clearing of coastal sage scrub and oak woodland. USFWS/CDFW shall be notified at least 7 calendar days (preferably 14 calendar days) prior to clearing habitat occupied by Target/Identified Species, if observed. The qualified biologist shall ensure that clearing activities and earth-moving equipment do not harm coastal California gnatcatchers or coastal cactus wren. The biologist shall also ensure that these activities do not harm other species that may occur, including western spadefoot, orange-throated whiptail, red-diamond rattlesnake, and coast patch-nosed snake.

The access road(s) shall be sprayed with water on occasion to reduce dust accumulation on the leaves of coastal sage scrub species, as overseen by the biological monitor.

BIO-3 Avoid ground-disturbing and vegetation removal activities during the nesting bird season (February 15 to September 15). If these activities must occur during the nesting season, a pre-construction nesting bird survey shall be conducted by a qualified biologist on and within 300 feet of the Project construction area. The survey shall be conducted no more than 10 days prior to initiation of ground-disturbance, vegetation clearing, or construction activities and repeated between delays of greater than 10 days during the nesting season.

If an active nest is found, an appropriate no-disturbance buffer for the species shall be visibly established in the field by a qualified biologist (e.g., flagging, staking, caution tape). No ground-disturbing or vegetation removal activities shall occur within the buffer until the nesting season has ended or the nest is vacated and juveniles have fledged, as determined by the qualified biologist. At the discretion of a qualified biologist, limited encroachment into the buffer may occur for non-listed bird species but no disturbance of active nests or nesting activities is allowed per the Migratory Bird Treaty Act.

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

Less than Significant. The CNDDB did not identify any CDFW sensitive natural communities in the Project site or vicinity (CDFW 2023a). The Project will impact 2.9 acres of sagebrush scrub in the proposed Project RNG Plant and Fuel Modification Area, which is a type of coastal sage scrub habitat covered by the NCCP/HCP. The NCCP/HCP has allocated a total of 206 acres of authorized coastal sage scrub "take" to occur within the FRB Landfill boundary after amendments to the NCCP/HCP. There is 38.74 acres of remaining take for future FRB Landfill Development phases, including Phases IX and X.

The area of impact for this proposed Project is located entirely within Phase X of the FRB Landfill Development, which is projected to impact 25.41 acres of coastal sage scrub habitat. Therefore, the 2.9 acres of proposed impacts to coastal sage scrub from this Project can be accommodated from the OCWR available take credit. Although oak tree riparian habitat surrounding ephemeral drainages will also be impacted by the RNG Plant and Fuel Modification Area, participation in the NCCP/HCP provides a benefit to all habitat types in the sage scrub habitat mosaic, which includes riparian and oak woodlands. In addition, mature oak trees that would be impacted would be replaced off-site or a fee would be paid to the County as required in accordance with the County Tree Preservation Ordinance. Therefore, the proposed Project would have a less than significant impact on riparian habitat and other sensitive natural communities.

Mitigation Measures: No mitigation is required.

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

Less than Significant. Three drainage features under Regional Water Quality Control Board (RWQCB) and CDFW jurisdiction and one feature under only CDFW jurisdiction were identified in the proposed Project RNG Plant and/or Fuel Modification Area during the jurisdictional wetlands delineation. No features under U.S. Army Corps of Engineers (USACE) jurisdiction were identified. These four features are subject to the full impacts by the Project within the RNG Plant and Fuel Modification Area. FRB Landfill Development Phase X fully overlaps with the proposed Project. As such, the following USACE, RWQCB, and CDFW permits have been previously obtained that cover the Project:

- USACE Section 404 Permit (SPL-2006-00212).
- RWQCB Section 401 Permit (Reference No. SPL-2006-00212).
- CDFW Section 1602 Permit (1600-2005-0735-R5).

Impacts to these features are tentatively permitted with notification of any changes in the jurisdictional areas. Since the Project is covered within the total permitted impact area for FRB Landfill Development Phase X, no new permitting is anticipated to be required. Coordination with the agencies will occur to determine if adjustments in the permit acreages are necessary. Therefore, the proposed Project would have a less than significant impact on state or federally protected wetlands.

Mitigation Measures: No mitigation is required.

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

Less than Significant. Per the BIOS Habitat Connectivity Viewer, the Project RNG Plant and vicinity is located within a Natural Landscape Block but not within an Essential Connectivity Area (CDFW 2023b). Although the FRB Landfill is adjacent to large areas of open space (i.e., Limestone Canyon Nature Preserve, Irvine Ranch Natural Landmarks), the RNG Plant area is located near existing developed areas where human presence and noise may deter wildlife. Therefore, while the RNG Plant and vicinity may provide cover and forage for wildlife and migrating birds, it is unlikely to provide a significant wildlife movement corridor. The RNG Plant and Fuel Modification Area also consists of a relatively

small footprint that would not substantially reduce habitat connectivity in the overall area; the ability of wildlife to move through adjacent areas would be unaffected. In addition, implementation of pre-construction nesting bird surveys and biological monitoring during vegetation clearing would ensure that wildlife nursery sites are not impacted. The proposed pipeline would occur entirely within the existing roadway and would not interfere with the existing movement of wildlife or impact any nursery sites. Therefore, impacts from the Project to the movement of any native resident or migratory wildlife species, established native resident or migratory wildlife corridors, or the use of native wildlife nursery sites would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact. The proposed project would not result in any conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Mitigation Measure: No mitigation is required.

f. Would the project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project falls under the Central Coastal Subregion NCCP/HCP because the FRB Landfill is within the Central Subregion area of the NCCP Reserve. Projects within the NCCP/HCP area must comply with the NCCP/HCP requirements, including Construction Minimization Measures, pre-construction surveys, and associated mitigation plans if covered species are detected. All requirements of the NCCP/HCP would be followed by the Project including implementation of pre-construction surveys, mitigation plans if needed, and Construction Minimization Measures. Therefore, the proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Mitigation Measures: No mitigation is required.

3.4.5 Cultural Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?				X
b.	Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c.	Disturb any human remains, including those interred outside of formal cemeteries?				X

A cultural resources evaluation and records search was conducted and is provided as Appendix D. The following summarizes the results and conclusions.

Existing Conditions:

The prehistory of the southern California region has been summarized within four major horizons or cultural periods: Horizon I – Early Period (12,000 to 7,500 years before present [BP]), Horizon II – Millingstone Horizon (7,500 to 3,000 BP), Horizon III – Intermediate Cultures (3,000 to 1,000 BP), and Horizon IV – Late Prehistoric (1,000 BP to European historic contact).

The Project is within the ethnographic territory traditionally inhabited by the Kizh (Kisiannos) people. The Kizh occupied most of Los Angeles and Orange counties, parts of Riverside and San Bernardino counties, including the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers, the Los Angeles basin to the Santa Monica and Santa Ana mountains, along the coast from Aliso Creek in the south to Topanga Creek in the north, and the Channel Islands such as San Clemente, San Nicolas, and Santa Catalina.

European settlement began in 1771, when Spanish missionaries began to settle along the California coast and adjacent inland areas. Following the Mexican American War and secularization of the nearby missions in 1834, the region was transferred to private landowners (ranchos) who established a primary economy of cattle ranching. After the fall of the rancho system, European settlers purchased substantial land holdings in the area. In 1889, the Orange County seat was established ~~located~~ in Santa Ana and this further stimulated the development of businesses, stores, financial institutions and hotels serving the regional metropolitan population. Orchards and crops were plentiful and buying and selling of goods and land became the number one enterprise. By the 1930s, the Irvine Company implemented several irrigation projects to provide a stable source of water to the agricultural areas. Urban development (e.g., residential subdivisions and commercial) began to take root in the 1920s through current times. Today, Orange County is densely developed with urban uses and limited vacant land. The FRB Landfill was constructed in the 1980s and opened in 1990.

The Project lies within the Peninsular Ranges Geomorphic Province. Specifically, the Project is situated along the western canyons and foothills of Loma Ridge within the northwestern flank of the

Santa Ana Mountains (a northwest trending range). Elevations at Loma Ridge range from approximately 1,000 to 2,000 feet. Several ephemeral drainages are near the Project within Bee, Hicks, and Round Canyons. Geological deposits within the Project site and Project pipeline route consist of mostly marine sedimentary rocks with an age range from Miocene epoch (5 million to 23 million years old) back to the Eocene epoch (35 million to 55 million years old).

Soils within the Project site and eastern-most reach of the proposed SoCalGas pipeline route consist of Calleguuas clay loam from 0 to 7 inches in depth, very channery clay loam from 11 to 15 inches, and bedrock from 15 to 59 inches. Soils within the Project pipeline route (from east to west) consist primarily of Anaheim clay from 0 to 26 inches, weathered bedrock from 26 to 59 inches, a small segment of Cieneba sandy loam 0 to 17 inches, and weathered bedrock from 17 to 59 inches; and Sorrento loam 0 to 12 inches, silt clay loam 12 to 67 inches, and sandy loam 62 to 72 inches at the very western terminus of the route.

Sagebrush scrub covers about 73 percent of the Project RNG Plant site. The dominant shrub within the habitat is California sagebrush (*Artemisia californica*). Along the slope of the Project site, coast live oak dominates the tree canopy. The tree understory is composed of non-native grasses, like ripgut grass (*Bromus diandrus*) and foxtail chess (*Bromus madritensis*), and sparse coverage of low-growing sagebrush scrub species, like California buckwheat *(Eriogonum fasciculatum*). The proposed SoCalGas pipeline route encompasses Bee Canyon Access Road, Portola Parkway, and any structures in and along the road, such as fencing and gates. Habitat along the SoCalGas pipeline route includes disturbed areas along the roadside of Bee Canyon Access vegetated with primarily non-native ruderal species and sagebrush scrub.

The Santa Ana Mountain region supports a variety of wildlife such as mule deer (*Odocoileus hemionus*), desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), mountain lion (*Felix concolor*), bobcat (*Lynx rufus*), coyotes (*Canis latrans*), and other small animals and rodents. Several avian species inhabited the region such as the greater roadrunner (*Geococcyx californianus*), red tailed hawk (*Buteo jamaicensis*), turkey vulture, (*Cathartes aura*), canyon wren (*Catherpes mexicanus*), and several others.

REGULATORY COMPLIANCE

Various state and local laws, ordinances, and regulations pertain to the protection of cultural resources. These are summarized briefly below.

- **California Environmental Quality Act.** CEQA (Section 21084.1) requires a lead agency to determine whether a project could have a significant effect on historical resources or tribal cultural resources (under Public Resources Code [PRC] Section 21074 [a][1][A]-[B]). Under the CEQA (Section 15064.5), a historic resource (e.g. buildings, structures, or archaeological resources) is a resource listed in, or determined to be eligible for listing in the California Register of Historical Resources (CRHR) or a local register or landmark, identified as significant in a historical resource survey (meeting the requirements of Section 5024.1(g) of the PRC), or any object, building, structure, site, area, place, record, or manuscript

that a lead agency determines to be historically significant (Section 15064.5[a][3]). Under the California Code of Regulations, Title 14, Chapter 11.5, properties listed on or formally determined to be eligible for listing in the National Register of Historic Places are automatically eligible for listing in the CRHR. A resource is generally considered to be historically significant under CEQA if it meets the criteria for listing in the CRHR (see PRC Section 5024.1, Title 14 California Code of Regulations, Section 5024.1).

- **California Health and Safety Code, Section 7050.5.** Section 7050.5 (a) states that it is a misdemeanor (except as provided in Section 5097.99, see below) to knowingly mutilate or disinter, wantonly disturb, or willfully remove any human remains in or from any location other than a dedicated cemetery without the authority of law. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the PRC or to any person authorized to implement Section 5097.98 of the PRC. Section 7050.5 (b) requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If determined to be Native American, the coroner must contact the California NAHC.
- **California Native American Historical, Cultural, and Sacred Sites Act.** The California Native American Historical, Cultural, and Sacred Sites Act requires that upon discovery of human remains, construction or excavation activity cease and that the county coroner be notified. If the remains are Native American, the coroner must notify the NAHC. The NAHC will then identify and notify a most likely descendant (MLD). The Sacred Sites Act stipulates the procedures the MLD may follow for treating or disposing of the remains and associated grave goods.
- **California Public Resource Code, Section 5097.** PRC Section 5097 specifies the procedures to be followed in the event of an unexpected discovery of human remains on non-federal land. The disposition of Native American remains falls within the jurisdiction of the NAHC.
- **Assembly Bill 52.** Under CEQA, AB 52 requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project.
- **California State Senate Bill 18.** California State Senate Bill 18 requires cities and counties to notify and consult with California-recognized Native American Tribes about proposed local land use planning decisions for the purpose of protecting Traditional Tribal Cultural Places. The Governor's Office of Planning and Research was mandated to amend its General Plan Guidelines to include the stipulations of Senate Bill 18 and to add advice for consulting with California Native American Tribes.

Record Search Results

A record search of the cultural resources site and project file collection at the South-Central Coastal Information Center (SCCIC), California State University, Fullerton, of the California Historical Resources Information System, was conducted on August 23, 2023. The records search focused specifically on the proposed Project site and Project pipeline route and a quarter mile (0.25 mile) buffer extending from the Project site boundary. The SCCIC record search results identified 21 previously conducted cultural resource studies that overlap and are within the Project site and Project pipeline route. These studies were conducted between 1978 and 2010 and consist of overviews, archaeological testing, excavation, and field surveys. Eleven previously conducted cultural resource studies were identified within 0.25 mile of the Project site and Project pipeline route.

Five previously recorded cultural resources were identified within 0.25 mile of the Project site and Project pipeline route.

Orange County General Plan Sensitivity Map

The County of Orange General Plan states that sub-surface resources such as archaeological and paleontological sites are abundant in Orange County. Based on the County of Orange General Plan Prehistoric Archaeology sensitivity map, the proposed Project site and Project pipeline route is located in areas mapped for prehistoric archaeological sensitivity.

Historic U.S. Geological Survey Map and General Land Office Plat Map and Historic Aerial Review

A review of historic maps and aerial imagery provides information regarding potential unrecorded historic features or sites within the Project Area. Based on the historic maps and aerial imagery review, the Project site and Project pipeline route appear relatively undeveloped until the 1980s. Based on aerial imagery, the areas near the southern portion of the Project pipeline route appear under agricultural use (row corps and orchards) from the 1940s to 1970s. By the 1980s, the FRB Landfill was under construction and Bee Canyon Access Road was improved (widened and paved) and the adjacent areas (including hillsides) were graded, cut, and terraced for erosion control with concrete culverts.

NAHC Sacred Lands Files Search

As part of the data collection, a NAHC Sacred Lands File Search was requested on July 20, 2023. The NAHC replied on August 21, 2023, and the results were negative. OCWR has initiated tribal consultation under Assembly Bill 52. Pursuant to notice provided on August 14, 2023, in accordance with PRC section 21080.3.1, the Kizh Nation (Tribe) requested consultation with Orange County regarding the Project, by letter dated August 25, 2023 (sent via email). Following this request, representatives from the Tribe and staff from OCWR engaged in consultation via telephone conference on October 17, 2023. OCWR then sent cultural resources report for the Project on May 24, 2024. The Kizh Nation representative provided comments on the report on May 28, 2024. These comments were incorporated into the cultural report and the final report was shared with the Tribe on July 8, 2024, and consultation was completed.

Discussion:

a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to in Section 15064.5?

No Impact. The archival research conducted for the initial study determined that the Project site (RNG Plant site and new SoCalGas pipeline route does not contain any known historic resources as defined by the CEQA Guidelines. No impact would result.

Mitigation Measures: No mitigation is required.

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

Less than Significant With Mitigation Incorporation. A Phase I archaeological inventory was conducted for the Project. No archaeological resource material was observed. The SCCIC record search identified three previously recorded archaeological sites. Based on the background research and field survey, all three sites were impacted and appear destroyed because of this disturbance, no longer retain their integrity, and are recommended not eligible to the CRHR.

The development of the FRB Landfill and associated infrastructure has disturbed the natural surface and subsurface deposits of the proposed Project pipeline route and a small portion of the Project RNG Plant site. Although these soils are disturbed, they may still contain cultural material important to the tribe. In addition, intact cultural material may exist within undisturbed deposits. Potential impacts will be reduced to less than significant with the incorporation of mitigation measures CUL-1, CUL-2, and CUL-3.

Mitigation Measures:

CUL-1 Environmental Training – Prior to construction of the Project, a Secretary of Interior-qualified archaeologist shall be retained by Bowerman Power to serve as the Project Archaeologist. Cultural resource awareness training shall be provided by the Project Archaeologist that includes all applicable laws and penalties pertaining to disturbing cultural resources, a brief discussion of the prehistoric and historic regional context and archaeological sensitivity of the area, types of cultural resources found in the area, ~~and~~ instruction that Project workers will halt construction if a cultural resource is inadvertently discovered during construction, and Project personnel contact information in the event of an inadvertent discovery.

CUL-2 Archaeological Monitoring – A qualified Archaeological monitor acceptable to the OCWR shall be retained by Bowerman Power prior to Project related ground disturbance. The selection of the qualified professional(s) shall be subject to OCWR acceptance based on generally accepted professional qualifications and certifications, as applicable. A qualified Archaeological Monitor shall have at least a BS or BA degree in anthropology, archaeology, historic archaeology, or a related field and previous monitoring experience. The monitors shall conduct on-site daily archaeological monitoring of construction ground disturbance. The Archaeological monitor shall provide daily documentation of construction activity and any findings. The Archaeological monitor shall prepare a daily monitoring log and submit it daily to the Project Archaeologist via email, briefly describing the field conditions, construction progress and activities, non-compliance activities, and record any finds

of archaeological material. A final report summarizing the monitoring activities shall be prepared by the Project Archaeologist.

CUL-3 Monitoring and Inadvertent Discovery Plan – Prior to the start of construction, a Secretary of Interior-qualified Project Archaeologist (retained by Bowerman Power) shall prepare a Monitoring and Inadvertent Discovery Plan (Plan) for the Project. The Plan shall be submitted to OCWR for review and approval prior to the start of construction. The Plan shall include at a minimum:

- Overview of mitigation measures and responsibility for compliance;
- Project description of construction activities and maps;
- Description of relevant laws and regulations;
- Brief cultural context information and types and description of cultural resources that could be inadvertently discovered;
- Description of how monitoring shall occur;
- The roles and responsibility of the Archaeological Monitor (e.g., authority to halt construction for an inadvertent discovery, daily monitoring, daily reporting, etc.) and Project Archaeologist (e.g., oversee monitors, response to inadvertent discovery, final reporting, etc.);
- Description of protocols in the event of an inadvertent discovery (i.e., halt work) and notification procedures and contact list; and
- Description of final monitoring report.
- Stop work protocols in the event of an inadvertent discovery of cultural resources. If a cultural resource is encountered within the new SoCalGas pipeline route, halt work protocols shall include notifying the SoCalGas Project Archaeologist Ryan Glenn or SoCalGas Archaeologist Tricia Dodds and OCWR Environmental Engineering Specialist, Weena Dalby. See contact information below. Cultural resources shall not be relocated without consultation with a SoCalGas Archaeologist.

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

No Impact. Existing regulations require that if human remains and/or cultural items defined by Health and Safety Code, Section 7050.5, are inadvertently discovered, all work in the vicinity of the find shall cease and the Orange County Coroner shall be contacted immediately. If the remains are found to be Native American as defined by Health and Safety Code, Section 7050.5, the coroner shall contact the NAHC by telephone within 24 hours. The NAHC shall immediately notify the person it believes to be the Most Likely Descendent (MLD) as stipulated by California PRC, Section 5097.98. The MLD(s), with the permission of the landowner and/or authorized representative, shall inspect the site of the discovered remains and recommend treatment regarding the remains and any associated grave goods. The MLD shall complete their inspection and make their recommendations within 48 hours of notification by the NAHC. Any discovery of human remains shall be treated in accordance with Section

5097.98 of the PRC and Section 7050.5 of the Health and Safety Code. with compliance with existing regulations, no Project impacts are expected.

Mitigation Measures: No mitigation is required.

3.4.6 Energy

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b.	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	

Existing Conditions:

The LFG currently created by the FRB Landfill is managed via a gas collection and control system that includes vertical and horizontal gas extraction wells, a collection pipe system, and a flare station complex comprising six flares. The existing Bowerman Power Plant produces enough electricity to power 26,000 homes. The LFG not processed by the Bowerman Power Plant is incinerated at the flaring station.

Discussion:

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?

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

Less Than Significant Impact. According to the CEQA Guidelines, "[u]ses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified." Therefore, the purpose of this analysis is to identify any significant irreversible environmental effects of Project implementation that cannot be avoided.

Construction of the proposed Project RNG Plant and new SoCalGas pipeline would lead to the consumption of limited, slowly renewable, and non-renewable resources, committing such resources to uses that future generations would be unable to reverse. Project construction would require the commitment of resources that include: (1) building materials; (2) fuel; and (3) the transportation of goods and people to and from the proposed Project.

The construction for the proposed Project is expected to occur over a span of 2 years, with the majority of the emitting construction phases overlapping during a 1-year period. During Project construction, energy will be consumed in the form of petroleum-based fuels associated with the use

of construction vehicles and equipment on the Project site, construction worker travel to and from the Project site, and truck trips delivering building materials to the Project site. The commitment of resources required for the construction of the proposed Project would limit the availability of such resources for future generations or for other uses during the life of the Project. However, use of such resources will be short term and minimal during construction and will not result in energy consumption requiring a significant increase in energy production for the energy provider. The impact from the construction-related energy use would be less than significant.

During the operation of the Project, energy would be consumed as part of the RNG Plant operations. Processing operations for the Project would involve energy consumption for the various equipment at the RNG Plant, along with outdoor parking lot and security lighting. The consumption of such resources would represent a long-term commitment of those resources. However, the proposed Project will comply with all applicable regulations and codes that require achievement of various levels of energy efficiency in building design, construction, and operation.

As a result, while there would be an incremental increase in energy use with the proposed Project, such increases would be considered to be less than significant. The proposed Project would enable fuller utilization of the LFG gas generated at FRB Landfill that would otherwise be burned in the flares. The Project will contribute to California Public Utility Commission's Renewable Gas Program to procure RNG made by methane from organic waste from landfills and other sources, reduce the volume of LFG being flared, and help reduce greenhouse gas (GHG) emissions from the FRB Landfill. The RNG plant will have the capacity to process 6,000 standard cubic feet per minute of LFG which is equivalent to avoiding the GHG emissions from 60,196 tons of landfilled waste each year. Accordingly, there would be a less than substantial effect on operational energy and impacts related to operational energy use would be less than significant.

Mitigation Measures: No mitigation is required.

3.4.7 Geology and Soils

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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.			X	
	ii.) Strong seismic ground shaking?			X	
	iii.) Seismic-related ground failure, including liquefaction?				X
	iv.) Landslides?			X	
b.	Result in substantial soil erosion or the loss of topsoil?			X	
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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?			X	
d.	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?			X	
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?			X	
f.	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?		X		

Existing Conditions:

The Project RNG Plant site and new SoCalGas pipeline are in the foothills of the Santa Ana Mountains. The FRB landfill is located in a large topographic valley: Bee Canyon. The valley has formed in a complex geology of mostly marine sedimentary rocks with an age range from Miocene epoch (5 million to 23 million years in age) back to the Eocene epoch (35 million to 55 million years old). The FRB landfill encompasses rocks from the following formations (Morton 2004):

- **Puente Formation (early Pliocene and Miocene).** Marine sandstone, siltstone, and shale underlying most of the Puente Hills and extending into adjacent areas.
- **Topanga Formation (middle Miocene).** Marine sandstone, siltstone, and shale. At type locality, Topanga Canyon, unit contains middle Miocene fauna (fossils).
- **Vaqueros Formation (early Miocene, Oligocene, and late Eocene).** Predominantly sandstone, with thin-bedded shales and siltstones. Contains early Miocene shallow-water marine mega-fossil assemblages.

- **Sespe Formation (early Miocene, Oligocene, and late Eocene).** The Sespe formation can be varied in color from gray to red, is generally massive- to thick-bedded, nonmarine sandstones. In Sespe Creek, Ventura County, this formation conformably underlies marine sandstones of the Vaqueros formation. Continental vertebrate fossil collections originating from the Sespe formation range in age from Eocene to early Miocene.

The non-marine exception in these formations is the Sespe, which is also the underlying geology at the Project RNG site. The new SoCalGas pipeline originates in the Sespe formation but also crosses Vaqueros formation rocks as well as Quaternary sediments (both alluvial and landslide deposits). All but the Puente formation rocks are noted to contain fossils, with the Sespe known for continental vertebrate fossils.

The Project RNG Plant site and new SoCalGas pipeline alignment are not located within an Alquist-Priolo Earthquake Fault Zone (CGS 2023). The principal seismic hazard that could affect the site is ground shaking resulting from an earthquake occurring along any one of several major active faults in the region. The known regional faults that could produce the most significant ground shaking at the Project RNG Plant site and new SoCalGas pipeline include the San Andreas, San Jacinto, Whittier-Elsinore, and Newport-Inglewood Faults. The closest documented active fault to the FRB Landfill is the Elsinore-Glen Ivey Fault/Chino-Central Avenue strand, located approximately 10 miles east of the FRB landfill.

The FRB Landfill North End Landslide Emergency Remediation Project, located at the northern boundary of the FRB Landfill, was initiated in 2002 in response to major movement in a previously stable landslide complex that caused the area to fracture, buckle, and slide (OCWR 2014). In order to stall the landslide, the initial emergency action plan called for the removal of approximately 800,000 cubic yards of soil from the top of the slide area and the drilling of approximately 12,000 feet of horizontal drains to lower groundwater levels at the bottom of the slide. Since that time, additional surficial sliding has occurred on-site to the north, which required the removal of an additional 300,000 cubic yards of soil for a projected total of approximately 1.1 million cubic yards of soil removed. Also, an east flank of the North End Landslide has been identified and will also be remediated.

The Project site and new SoCal Gas pipeline are not located within a liquefaction zone (CGS 2023).

Discussion:

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 Impact. The Project RNG Plant site and new SoCalGas pipeline are not located within an Alquist-Priolo Earthquake Fault Zone and no active faults are known to cross the Project site or the pipeline route. The probability of damage because of surface ground rupture is low due to the lack of known active faults crossing the Project area. Project facilities and the pipeline have been

designed in accordance with applicable seismic safety standards. The operation of the proposed Project, therefore, is not anticipated to expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death from the rupture of a known earthquake fault. The impact is anticipated to be less than significant.

Mitigation Measures: No mitigation is required.

ii.) Strong seismic ground shaking?

Less Than Significant Impact. The Project area is located within the seismically active Southern California region and is likely to experience strong ground shaking from seismic events generated on regionally active faults. The risk of structural damage from earthquake ground shaking is controlled by building and grading regulations. The California Building Code (CBC) mandates that the design for structures requiring building permits must take into account foundation conditions, proximity of active faults, and their associated ground shaking characteristics. Design-level geotechnical reports must include CBC seismic design parameters. Those parameters are used by the structural engineer in the design of above-ground structures and underground lines. With conservative design and high quality construction, ground shaking damage can be kept to a practical minimum. The Project has been designed in accordance with applicable seismic safety standards. The operation of the proposed Project (including the new pipeline), therefore, is not anticipated to expose people or structures to potential substantial adverse effects from strong seismic ground-shaking. The impact is anticipated to be less than significant.

Mitigation Measures: No mitigation is required.

iii.) Seismic-related ground failure, including liquefaction?

No Impact. The Project site and pipeline route are not located within a liquefaction hazard zone. Construction of the Project will comply with applicable measures of the CBC regarding seismic safety measures. Operation of the proposed Project would not expose people or structures to substantial impacts involving seismic-related ground failure from liquefaction; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

iv.) Landslides

Less Than Significant Impact. The proposed Project site and new pipeline route are not located near the known North End or East Flank landslide areas of the FRB Landfill, and therefore would not be affected in any way by these landslides. In addition, the Project site development will involve placing a significant amount of engineered fill into a topographic low spot, with very little cutting of in situ Sespe formation rocks. The new pipeline installation will use trenching and tunneling techniques primarily within road right-of-ways, so it will not create new landslide risks. These construction and installation techniques will seriously limit any existing landslide potential for this location. Thus, no significant impacts from landslides would occur.

Mitigation Measures: No mitigation is required.

b. Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. Construction of the Project would include ground-disturbing activities, such as a limited amount of excavation and grading (predominantly of fill materials) in order to build

the Project. The Project involves the development of the approximately 3.52-acres RNG Plant site and the approximately 2.0 mile long SoCalGas pipeline. Because Project construction will involve over one acre, the Project would be subject to and will comply with the requirements of the Construction General Permit under the National Pollutant Discharge Elimination System (NPDES) program administered by the State Water Resources Control Board. The Project site will be paved or landscaped so that little to no exposed soil would remain. The Project would have a less than significant impact related to erosion and loss of topsoil in the construction and operational phases.

Mitigation Measures: No mitigation is required.

c. Is the project 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 onsite or offsite landslides, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. Liquefaction, lateral spreading, and subsidence are not anticipated at the FRB Landfill nor the new pipeline route due to the geologic conditions found in the area (OCWR 2014). This is also true of the new pipeline route since it is in the same geologic conditions. These phenomena are typically observed in areas with deep, soft soils and a high groundwater table, which is not the case for the FRB Landfill. The Project would not be located near the known North End or East Flank landslides at the northern boundary of the FRB Landfill, nor would the Project site be affected in any way by these landslides. No significant impacts would occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The FRB Landfill is underlain by rocks of the Puente, Vaqueros, and Sespe formations, which consist of various types of sandstones, siltstones, and shales (Morton 2004). The new pipeline route is also underlain by these same formations as well as young quaternary alluvium derived from the rocks of these formations and deposited as alluvial fans (so higher energy and coarse sediments). The Project site is specifically underlain by the Sespe formation comprising mainly sandstone. These rocks are thought to have low expansive potential. The rocks of the other formations are also expected to have low expansive potential, as would soils derived from alluvial fan deposits with high sand content and low clay content. Therefore, no significant impacts would occur.

Mitigation Measures: No mitigation is required.

e. Would the project 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?

Less Than Significant Impact. Sanitary waste will be removed from the Project site via a sanitary disposal system that will route to a septic tank, similar to the adjacent Bowerman Power Plant. As with the currently existing septic system, the Project site soils are expected to adequately support the Project's septic system. No septic system will be associated with the new pipeline. No significant impacts would occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant With Mitigation. Impacts to paleontological resources were previously evaluated for the FRB landfill including the Project site (P&D Consultants 2006). The potential for encountering fossils at the Project site with excavation and grading of previously undisturbed surfaces is considered to be high. Although no specific paleontological resource survey has been conducted at the Project site, the underlying Sespe formation rocks are known to contain continental vertebrate fossils in the 20 to 40 million year age range. Most of the site preparation will involve placing engineered fill materials to create a flat surface on which the proposed facilities can be located. A very limited amount of excavation (primarily associated with pipeline installation) will accompany the fill placement. Therefore, mitigation measures are proposed to limit the potential for impacting paleontological resources.

Mitigation Measures.

GEO-1 **Worker Education Program**. The Project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards (SVP 2010), to carry out all mitigation measures related to paleontological resources. The qualified paleontologist shall conduct the following:

a. Prior to the start of any ground disturbing activities, the qualified paleontologist shall conduct a Paleontological Resources Awareness Training program for all construction personnel working on the project site. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the OCWR. The training guide may be presented in video form.

b. Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements.

c. The training shall include an overview of potential paleontological resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of paleontological resources.

d. The project operator shall ensure all new employees who have not participated in earlier Paleontological Resources Sensitivity Trainings shall meet the provisions specified above.

e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with as necessary.

GEO-2 **Project Monitoring**. A qualified paleontologist or designated monitor shall be onsite initially to spot-check excavations below a depth of one foot below the ground surface

in areas of undetermined paleontological potential. If it is determined that sediments consist of older alluvium, then full-time paleontological monitoring shall ensue within that area. If sediments are determined to consist of Holocene Quaternary alluvium, paleontological monitoring shall not be required unless an excavation depth of 15 feet below the ground surface is reached in the area. The use of post-driving or rotary drilling shall not require monitoring.

a. The duration and timing of monitoring shall be determined by the qualified paleontologist in consultation with OCWR and shall be based on a review of geologic maps and grading plans.

b. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should be reduced, the paleontologist, in consultation with OCWR, may adjust the level of monitoring to circumstances, as warranted.

c. Paleontological monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The qualified paleontologist shall have authority to temporarily divert excavation operations away from exposed fossils to collect associated data and recover the fossil specimens if deemed necessary.

d. Following the completion of construction, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources onsite. If fossils are found, the report shall summarize the results of the inspection program, identify those fossils encountered, recovery and curation efforts, and the methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to OCWR and to an appropriate repository such as the Natural History Museum of Los Angeles County.

GEO-3 **Inadvertent Discoveries of Paleontological Resources.** If construction staff or others observe previously unidentified paleontological resources during ground disturbing activities, they shall halt work within a 200-foot radius of the find(s), delineate the area of the find with flagging tape or rope (may also include dirt spoils from the find area), and immediately notify a qualified paleontologist. Construction shall halt within the flagged or roped-off area. The paleontologist shall assess the resource as soon as possible and determine appropriate next steps in coordination with OCWR. Such finds shall be formally recorded and evaluated. The resource will be protected from further disturbance or looting pending evaluation.

3.4.8 Greenhouse Gas Emissions

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b.	Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?			X	

A greenhouse gas emissions impact study was conducted for the Project and is provided in Appendix B. The following summarizes the results and conclusions.

Existing Conditions:

GHGs – primarily CO2, methane (CH4), and nitrous oxide (N2O), collectively reported as carbon dioxide equivalents (CO2e) – are directly emitted from stationary source combustion of natural gas in equipment such as water heaters, boilers, process heaters, and furnaces. GHGs are also emitted from mobile sources, such as on-road vehicles and off-road construction equipment, burning fuels such as gasoline, diesel, biodiesel, propane, or natural gas (compressed or liquefied). Indirect GHG emissions result from electric power generated elsewhere (i.e., power plants) used to operate process equipment, lighting, and utilities at a facility. Also, included in GHG quantification is electric power used to pump the water supply (e.g., aqueducts, wells, pipelines) and disposal and decomposition of municipal waste in landfills (CARB 2022a).

Discussion:

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

Less Than Significant Impact. Using CalEEMod, direct on-site and off-site GHG emissions were estimated for construction and operation of the Project, and indirect off-site GHG emissions were estimated to account for electric power used by the proposed Project, water conveyance, and solid waste disposal. In addition, stationary source emission calculations were performed for the RNG thermal oxidizer and the RNG flare, as well as emergency generator usage. All CO2 derived from LFG is considered biogenic (i.e., are part of the natural biological/physical carbon cycle) and does not result in a net increase in atmospheric CO2. Therefore, for the tail gas streams, only the combustion byproducts of CH4 and N2O (i.e., anthropogenic GHGs) are included in this analysis.

The SCAQMD has officially adopted an industrial facility mass emissions threshold of 10,000 metric tons (MT) CO2e per year.

Table 3-8 shows the incremental GHG emissions and evaluates them against SCAQMD significance thresholds. Operational measures incorporate typical code-required energy and water conservation features. Off-site traffic impacts are included in these emissions estimates, along with construction emissions amortized over 30 years.

Table 3-8. Greenhouse Gas Emissions Summary and Significance Evaluation

GHGs	Baseline (MT/yr)[/1]	Construction (MT/yr)	Operation (MT/yr) [/2]	Total[2] (MT/yr)	Expected Net Change in Emissions (MT/yr)	Threshold (MT/yr)	Significance
Anthropogenic CO2	0	1,174.70	199.10	238.26	238.26	–	–
CH4	6	0.06	0.74	0.75	-4.80	–	–
N2O	1	0.06	0.06	0.06	-1.03	–	–
R	0	0.4	0.98	0.99	0.99	–	–
Anthropogenic Total (as CO2e)	464	1,194	236.89	276.70	-188	10,000	LTS

Sources: SCAQMD 2008b, Yorke 2024 (Appendix B), CalEEMod version 2022.1.1.26.

[/1]All CO2 derived from LFG is considered biogenic and does not result in a net increase in atmospheric CO2. All CH4 and N2O emissions are anthropogenic and result in net increases in atmospheric GHG. Thus, the combustion byproducts of CH4 and N2O are included in this analysis.

[/2]Total CO2e emissions comprises annual operational emissions plus construction emissions amortized over 30 years.

The proposed Project would provide a beneficial use and as shown in Table 3-8, incremental GHG emissions would be below the proposed GHG significance threshold for land use projects. Additionally, the Project will contribute to California Public Utility Commission's Renewable Gas Program to procure RNG made by methane from organic waste from landfills and other sources, reduce the volume of LFG being flared, and help reduce greenhouse gas (GHG) emissions from the FRB Landfill. The RNG plant will have the capacity to process 6,000 standard cubic feet per minute of LFG which is equivalent to avoiding the GHG emissions from 60,196 tons of landfilled waste each year. Thus, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The California legislature passed Senate Bill (SB) 375 to connect regional transportation planning to land use decisions made at a local level. SB 375 requires the metropolitan planning organizations to prepare an SCS in their RTPs to achieve the per capita GHG reduction targets. For the SCAG region, the SCS is contained in the 2024-2050 RTP/SCS. The 2024-2050 RTP/SCS focuses the majority of new housing and job growth in high-quality transit areas and other opportunity areas on existing main streets, downtowns, and commercial corridors, resulting in an improved jobs-housing balance and more opportunity for transit-oriented development (SCAG 2024). In addition, SB 743, adopted September 27, 2013, encourages land use and transportation planning decisions and investments that reduce vehicle miles traveled that contribute to GHG emissions, as required by AB 32. The proposed Project would not interfere with SCAG's ability to implement the regional strategies outlined in the 2024-2050 RTP/SCS. As such, impacts would be less than significant, and no mitigation is required

Mitigation Measures: No mitigation is required.

3.4.9 Hazards And Hazardous Materials

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	
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?			X	
c.	Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?				X
d.	Be located on a site that 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?				X
e.	Be located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?				X
f.	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g.	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.			X	

Existing Conditions:

The FRB Landfill is not considered to be a hazardous materials site and accepts only Class III municipal solid wastes. The Project site (RNG Plant site and new SoCalGas pipeline route) is not included on the list of hazardous materials sites compiled pursuant to California Government Code Section 65962.5 (DTSC 2023; SWRCB 2023).

The Project site is not located within 2 miles of a public airport or public use airport. The nearest airport is John Wayne Airport located approximately 9.8 miles to the southwest.

The Project site is located in a State Responsibility Area (SRA) Very High Fire Hazard Severity Zone (OSFM 2023). The OCFA would provide fire services to the proposed Project site. The OCFA provides emergency response to fires and hazardous materials incidents. The nearest fire station is Orange County Fire Station 55 located at 4955 Portola Parkway in the City of Irvine, approximately 2.2 miles northwest of the proposed Project site.

Discussion:

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

Less Than Significant Impact. The proposed Project would include the short-term transport, storage, and use of chemical agents, solvents, paints, and other hazardous materials commonly associated with construction activities. Some examples of hazardous materials include fuels, and lubricating fluids such as paints and adhesives, solvents. All transport, storage, and use of hazardous materials or wastes would comply with Resource Conservation and Recovery Act; Comprehensive Environmental Response, Compensation, and Liability Act; and California hazardous waste control law; as well as requirements of the Occupational Safety and Health Administration and OCFA.

The construction of the proposed RNG Plant will require building permits from the County. This permit process ensures that proposed structures meet applicable federal, state, and county codes and regulations. Further, the process will include a review by the OCFA for conformance with fire safety standards. The facility access will be designed to provide sufficient access for fire trucks and other emergency service vehicles. Once completed, the proposed RNG Plant will have a fire protection system in place that will comply with all applicable National Fire Protection Association and County requirements. The Project will be required to obtain approval from OCFA before a building permit can be issued.

The RNG Plant will include the following emergency systems:

- The RNG Plant control system will be designed to operate and maintain the RNG process under normal conditions. If conditions occur outside of the normal operating range, the RNG Plant will shut down and any potentially hazardous process conditions will be combusted in the upset flare.
- The electronic auto-dialing system, currently in place at the adjacent Bowerman Power Plant, will be expanded to include the proposed Project. The system will notify the operator of an abnormal condition during non-business hours and will provide visual and audible warnings to assist operator response.
- In the event of planned maintenance, process upset, or other event, the RNG Plant will be either manually or automatically shut down and LFG will be redirected to landfill flares as necessary.
- The pipeline pressure and flow will be monitored and any change outside of normal operating parameters will shut off the pipeline and shut down the RNG Plant.
- The RNG Plant will have a seismic sensor. In the event of a large earthquake, the RNG Plant equipment will be shut down and pipeline valves will be closed.
- The RNG Plant will have a gas detection system.
- The potential hazards previously identified in the existing Bowerman Power Plant are similar to those anticipated in the proposed RNG Plant. The existing Bowerman Power Plant includes a hazardous management business plan prepared in accordance with county regulations. The plan shall be updated to

address new aspects of the RNG Plant equipment and operation. The current plan addresses business activities, safe handling practices, hazardous material inventory, emergency response, and employee training plans.

- Access and circulation for large vehicles will be provided to the RNG Plant.
- Water supply for firefighting will be supplied by existing on-site FRB Landfill water tanks.

The new SoCalGas pipeline shall be designed to meet the most stringent design, pipeline class, and safety standards (Class 4 requirements) in accordance with Title 49 Code of Federal Regulations (CFR). Emergency shut-off valves, pressure monitoring devices and other control equipment shall be incorporated into the design of the pipeline. The system shall include devices required by 49 CFR 192 and as deemed appropriate by the County. These devices shall be installed on the pipeline at locations and distance intervals specified in federal regulations.

With the implementation of the above-mentioned plans and regulations, potential hazards to the public or the environment through the routine transport, use, or disposal of hazardous materials would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. As discussed in Section 3.4.9.a, above, the design, construction, and operation of the proposed RNG Plant and new SoCalGas pipeline would be subject to federal, state, and local regulation. The proposed RNG Plant would be approximately 4,200 feet (0.8 mile) from the nearest residences. Thus, the risk of accidental release of hazardous materials at the proposed RNG Plant would be less than significant.

A portion of the new SoCalGas pipeline would be approximately 200 feet (0.04 miles) from the nearest residences adjacent to Portola Parkway.

Regulations for gas transmission pipelines establish pipe strength requirements based on population density near the pipeline. Locations along gas pipelines are divided into classes from 1 (rural) to 4 (densely populated) and are based upon the number of buildings or dwellings for human occupancy. Allowable pipe stresses, as a percentage of specified minimum yield strength, decrease as class location increases from Class 1 to Class 4 locations. The proposed pipeline is designed to meet the most stringent class requirement (Class 4) even though the pipeline location allows higher pipe stresses. By designing the pipeline to meet Class 4 standards with a resulting lower allowed pipe stress, the pipeline provides the greatest level of safety for the nearby community.

Given these factors, the potential impacts of the Project due to accidental release of hazardous materials, explosion, or wildfire from foreseeable upset and/or accident conditions (such as pipeline rupture) would be less than significant.

Mitigation Measures: No mitigation is required.

c. Would the project emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

No Impact. There are no schools within 0.25 mile. The closest school to the RNG Plant, Crean Luther High School, is located approximately 1.4 miles to the southwest. The closest school to the new SoCalGas pipeline, Stonegate Elementary School, is located approximately 0.27 mile to the southwest. No impact would occur.

Mitigation Measures: No mitigation is required.

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

No Impact. The proposed Project would be located within the FRB Landfill boundary. The new SoCalGas pipeline will run from the POR within the RNG Plant boundary, down Bee Canyon Access Road to the existing SoCalGas pipeline on the corner of Portola Parkway and Jeffery Road. Neither the FRB Landfill of the new SoCalGas pipeline route are on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

Mitigation Measures: No mitigation is required.

e. For a project located within an airport land use plan area or, where such a plan has not been adopted, be within 2 miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The Project RNG Plant site and the new SoCalGas pipeline are also not located within 2 miles of a public airport or public use airport. The Project would not result in a safety hazard for people residing or working in the Project Area and no impact would occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. An Emergency Action Plan compatible with the existing Bowerman Power Plant and FRB Landfill Emergency Action Plan will be established for the Project.

The major evacuation routes include major streets that dissect the City of Irvine north/south and east/west, including Portola Parkway (City of Irvine 2020). Traffic control will be needed to temporarily reduce available lanes during construction of the new SoCalGas pipeline and street resurfacing, but full road closures are not anticipated during construction. A traffic control plan will be prepared to accommodate this work area corridor along the new SoCalGas pipeline route. These impacts would be short-term and temporary. With implementation of the traffic control plan, no significant impact would occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The Project RNG Plant site and the new SoCalGas pipeline route and the neighboring open space and park lands are in a high fire hazard severity zone. As discussed in Section 3.4.9.a, above, the design, construction, and operation of the proposed RNG Plant and new SoCalGas pipeline would be subject to federal, state, and local regulation which would greatly minimize the potential for wildfires originating from the RNG Plant or SoCalGas pipeline.

In addition, due to its location in a high fire hazard severity zone, Project implementation would conform to CBC Chapter 7A (CBC 2022; Materials and Construction Methods for Exterior Wildfire Exposure) and California Fire Code Chapter 47 (CFC 2022: Requirements for Wildland-Urban Interface Fire Areas), which would reduce the risk of loss, injury, or death from wildland fires. By implementing these consistency measures and design criteria, and adhering to the applicable requirements of CBC Chapter 7A and California Fire Code Chapter 47, the potential for the Project to expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires would be less than significant.

Mitigation Measures: No mitigation is required.

3.4.10 Hydrology And Water Quality

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b.	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
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 that would:				
	(i) result in substantial erosion or siltation on site or off site?			X	
	(ii) substantially increase the rate or amount of surface runoff in a manner that would result in flooding on site or off site?			X	
	(iii) create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?			X	
	(iv) impede or redirect flood flows?			X	
d.	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?				X
e.	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	

A hydrology and water quality study was conducted for the Project and is provided in Appendix E. The following summarizes the results and conclusions.

Existing Conditions:

The Project site and new SoCal Gas pipeline route are located within the San Diego Creek Watershed, an area of about 112 square miles. This watershed drains portions of the foothills of the Santa Ana Mountains (Loma Ridge) and a large alluvial plain southwest of the mountains that covers significant portions of the cities of Santa Ana, Tustin, and Irvine. San Diego Creek discharges into Upper Newport Bay which connects to the Pacific Ocean through Newport Harbor. Parts of the stream network within this watershed are classified as impaired water bodies, including the Upper Newport Bay, San Diego Creek Reach 1, San Diego Creek Reach 2, Borrego Creek, and Serrano Creek. Only the Upper Newport Bay, San Diego Creek Reach 1, and San Diego Creek Reach 2 water bodies are downstream from the Project site. The RNG Plant phase of the Project site is located within the upper part of the Bee Canyon Wash watershed. The local drainage area encompassing the Project site covers about 4.42 acres. This includes the distinct areas within this drainage listed below:

- RNG Plant Pad Area (2.3 acres): Runoff will be contained and routed to a facility bioretention basin for water quality control.
- Upslope Disturbed Area (1.34 acres): Runoff will be collected in a perimeter ditch surrounding the pad and routed around the facility.
- Upslope Undisturbed Area (0.33 acres): Runoff will be collected in a perimeter ditch surrounding the pad and routed around the facility.
- Downslope Disturbed Area (0.45 acres): Runoff from this area is downgradient from the RNG Plant Pad and currently drains to the existing conveyance.

The area evaluated for long-term changes due to the facility after construction was only the RNG Plant Pad. The SoCalGas pipeline phase of the Project is located partly in the Bee Canyon watershed and partly within the Hick's Canyon watershed (Geosyntec 2023).

Runoff from the RNG Project site, its larger watershed, and additional flow from the greater landfill area is conveyed downstream about 1,500 feet by a trapezoidal concrete channel to a sedimentation basin within the landfill boundaries (also concrete-lined) that is owned and maintained by OCWR. Discharge from this sedimentation basin empties into a concrete channel and travels downstream approximately 1,100 feet before transitioning to an unlined channel for another 1,700 feet. It then discharges into the Bee Canyon Retarding Basin owned and operated by the Orange County Flood Control District (OCFCD), located on Bee Canyon Wash just north of State Highway 241.

Water quality in this part of Orange County is regulated by a combination of federal, state, and local governance. The federal Clean Water Act (CWA) gives the United States Environmental Protection Agency authority to issue permits for stormwater discharge for construction sites and industrial sites (for operations). Authority to issue these permits has been granted to the state (specifically to the RWQCBs) through a "general permit" issued to the state. The RWQCB, in this case the Santa Ana Region, extends their approval to qualifying permittees who adhere to specific requirements, including the preparation and implementation of a site-specific Stormwater Pollution Prevention Plan (SWPPP) and a project-specific Water Quality Monitoring Plan (WQMP). The latter is required only for a "priority development project", for which the Project qualifies, because it creates 10,000 square feet or more of new impervious surface area.

Control of changes to runoff volume from construction, and eventually due to the changed conditions of the developed site, are also regulated by the RWQCB through permitting of the Municipal Separate Storm Sewer System (MS4) for Orange County and the City of Irvine.

Discussion:

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

Less Than Significant Impact. Because of the regulations noted above, the Project will be required to prepare and implement a SWPPP and a WQMP which will be provided by Bowerman Power for the RNG Plant and by SoCalGas for the pipeline connecting to existing gas line infrastructure. These documents will provide site-specific protections, though best management practices (BMPs), whose implementation will ensure that water quality stressors are controlled or eliminated. In addition, most

of the plant equipment and operations will be indoors, and this will cause limited opportunity to introduce water pollutant constituents to either the rainfall-runoff process or the infiltration process. As a result, the proposed Project would produce a less than significant impact on surface or groundwater quality.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. Both the RNG Project site and the new pipeline route are located in small, first-order drainages (Bee Canyon and Hicks Canyon) in the foothills of the Santa Ana Mountains. Neither of these small watersheds contain recognized or significant (i.e. regional) groundwater resources. There will be no change in the amount of impervious surface area along the route of the SoCalGas connecting pipeline. Groundwater is not used in the larger Bee Canyon area or the FRB Landfill, nor is it advisable within a landfill. The loss of approximately 1.38 acres of pervious surface area at this location would have a very minor effect on groundwater recharge in this area of essentially unused groundwater. Therefore, the Project is not expected to have a significant impact on groundwater recharge or impede sustainable groundwater management within the basin.

Mitigation Measures: No mitigation is required.

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

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

Less Than Significant Impact. During construction of the RNG Plant, approximately 2.3 acres of land will be disturbed for construction of the pad on which the plant will be located. The disturbance will include clearing and grubbing of native vegetation and placement of approximately 70,000 cubic yards of engineered fill to create the flat, stable surface on which the plant will be built. The construction of the SoCalGas connector pipeline will require excavation of a trench that will be 18 to 24 inches wide, an average of 6 feet deep, and approximately 2.4 miles in length. The right-of-way for pipeline construction activities is 50 feet, most of which is currently paved. Such active ground disturbance creates the potential for erosion and off-site transport of soil materials when it rains. As noted in Section 3.4.10.a, both the RNG plant and the gas pipeline construction will require a distinct, project-specific SWPPP be prepared and implemented to limit this potential. BMPs will be employed to help control on-site erosion and off-site transport of sediment. As a result, the potential for erosion and siltation from either phase of the project will be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. A significant amount of land will be cleared for construction of the RNG plant (approximately 2.3 acres) and almost all of it will become impermeable surface area. A significant volume of fill (70,000 cubic yards) will be placed on the disturbed areas, and the majority of

the site will become a relatively flat surface with a very gentle slope to the west-southwest. An evaluation of the hydrology and hydraulics under current conditions and also during proposed conditions was performed to assess needs for surface water control during construction and afterward during facility operations (Geosyntec 2023). Results of this evaluation determined that some surface water runoff control will be needed to address increases in runoff and the preferred method of control was to employ an on-site bioretention basin. Following recommendations of the evaluation, the Project plans to create a bioretention facility on the RNG plant site with an 1,815 square foot area and a capacity of 9,800 cubic feet. The proposed connector pipeline will be placed within areas currently considered impervious (within paved roadways). Because it is a linear feature, any runoff that occurs during construction will be distributed across a large drainage area and will not cause any noticeable effects on peak flows or flooding. As a result of the deployment of a bioretention facility and moderation of slopes at the RNG plant site, and the limited to no effect on runoff from the pipeline, this Project is expected to have a less than significant impact on surface water runoff and flooding.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The FRB Landfill currently has multiple sedimentation basins, one of which is directly downstream from the proposed RNG plant location. It is sized for a significant percentage of the landfill operation that currently requires daily earthwork (excavation and placement of fill material). The drainage area within which the RNG plant will be located represents a very small percentage of the larger FRB Landfill drainage. However, the planned use of on-site controls under an SWPPP and the installation of a bioretention basin will limit off-site stormwater drainage and possible pollutants. The limited surface area and linearly distributed disturbances from the SoCalGas connector pipeline will have almost no effect on stormwater drainage outside of the FRB Landfill drainage. In addition, off-site runoff of water and pollutants from pipeline construction will also be limited through the implementation of a separate, project-specific SWPPP. Therefore, the project will have a less than significant impact on surface water runoff, stormwater drainage systems, and contribution of pollutants to surface waters.

Mitigation Measures: No mitigation is required.

(iv). Impede or redirect flood flows?

Less Than Significant Impact. The RNG plant site will include a sizable reconfiguration of the topography within the very small portion of the watershed in which it is located. This will include a serious reduction in slope for much of the site and the installation of a new stormwater drainage system which will discharge into a bioretention basin. The basin will moderate flood flows and leave downstream peak discharges at or below current conditions. There is no defined floodplain at the RNG plant site, so Project implementation will not impede or redirect flood flows on a floodplain, nor create a flooding hazard where none currently exists. There may be minor, temporary changes in surface runoff direction along the SoCalGas connector pipeline during construction, but it will not affect any stormwater conveyance channels. Most of the pipeline route is within the limits of existing roadways, where open-trenching installation procedures will be used. At some locations, particularly

at roadway intersections, directional drilling techniques will be employed, thus avoiding any potential disruption to open channels. Once completed, this pipeline will be entirely underground, and will not impact surface water or flood flows. Thus, Project construction and facility use are expected to have a less than significant impact on impeding or redirecting flood flows.

Mitigation Measures: No mitigation is required.

d. Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. Neither the RNG plant site nor the connector pipeline is near the ocean or any sizeable freshwater body (in either a lateral or vertical direction). In addition, neither is located within a tsunami or seiche risk zone. Therefore, there is no potential that the Project area could be affected by a tsunami or a seiche. As a result, the Project is expected to have no impact on the potential for releasing pollutants due to the occurrence of a tsunami or seiche.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. Both phases of the Project (the RNG plant and the connector pipeline) will follow the requirements of a location-specific SWPPP. This will limit the potential for contributing pollutants to a watershed which already contains impaired water bodies. In doing so, the Project will follow the requirements in place through the Santa Ana RWQCB for controlling water quality (SWRCB 2018 and 2022). Neither the RNG plant site (within the Bee Canyon Wash watershed) nor the SoCalGas pipeline connector (within the Hicks Canyon Wash watershed) are located within a significant (i.e. regional) aquifer, so they are not governed by any groundwater management plans. Therefore, the Project will have a less than significant impact on existing water quality control plans or groundwater management plans.

Mitigation Measures: No mitigation is required.

3.4.11 Land Use and Planning

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Physically divide an established community?			X	
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?				X

Existing Conditions:

The Project is located within the FRB Landfill boundaries, except for the western end of the new SoCalGas pipeline connecting to the existing SoCalGas pipeline which is located in the City of Irvine. The Orange County General Plan designation for the FRB Landfill site is 4LS (Public Facilities; Landfill Site) and the zoning designation is A1 General Agriculture. The City of Irvine General Plan designation for the pipeline within City of Irvine is Recreation and Low Density Residential and zoning is not defined for the roadway in which the pipeline will be located.

Discussion:

a. Would the project physically divide an established community?

Less Than Significant Impact. The Project does not involve changes to the FRB Landfill boundary. For construction of the SoCalGas pipeline, traffic control will be needed to temporarily reduce available lanes during the construction within Bee Canyon Access Road, Portola Parkway, and the intersection of Portola Parkway and Jeffery Road. However, full road closures are not anticipated. In addition, a traffic control plan will be prepared to accommodate this work area width along the pipeline route. These impacts will be short term and temporary and will have a less than significant impact to utilization of roadways. Therefore, the proposed Project will not physically divide an established community and no impact will occur.

Mitigation Measures: No mitigation is required.

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

No Impact. The Project does not involve changes to the FRB Landfill land use designation or zoning. Because the property is owned by the County of Orange, the Project is exempt from the provisions of the Orange County Zoning Code, pursuant to Orange County Codified Ordinance, Ordinance No. 99-02, Section 2, Section 7-9-20(i). The Project does not involve changes to the City of Irvine land use designation or zoning. In addition, the proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project; therefore, no impacts would occur.

Mitigation Measures: No mitigation is required.

3.4.12 Mineral Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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?				X
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?				X

Existing Conditions:

Mineral Resource Zones are commercially viable mineral or aggregate deposits, such as sand, gravel, and other construction aggregate. The mineral resources in Orange County consist of deposits of regionally significant sources of aggregate identified by the California Department of Conservation, Divisions of Mines and Geology (County of Orange 2012). Such significant sand and gravel resources in the Orange County region are located in portions of the Santa Ana River, Santiago Creek, San Juan Creek, Arroyo Trabuco, and other areas, not within or near the FRB Landfill. Orange County's petroleum resources are in the form of oil and natural gas deposits. The primary petroleum resource areas of the County are in Huntington Beach**,** Newport Beach, Seal Beach, and the Brea/La Habra foothill regions. The Project site (RNG Plant site and new SoCalGas pipeline route) is not located in any of these areas.

Discussion:

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. No mineral recovery activities currently occur in the Project vicinity, and the Project site is not underlain by any known mineral resources of value to the region and residents of the State. Thus, no impacts would occur.

Mitigation Measures: No mitigation is required.

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. As noted above in the existing conditions discussion, the Project site is not located within a Mineral Resource Zone or an area of oil and gas resources. Thus, no impacts would occur.

Mitigation Measures: No mitigation is required.

3.4.13 Noise

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:					
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 a local general plan or noise ordinance, or applicable standards of other agencies?			X	
b.	Generation of excessive groundborne vibration or groundborne noise levels?			X	
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?				X

A noise impact study was conducted for the Project and is provided in Appendix F. The following summarizes the results and conclusions.

Existing Environment:

The proposed Project is bordered by the Bowerman Power Plant and the FRB Flare Station to the south, the OCWR FRB Landfill operations buildings to the west and north, and the FRB Landfill to the east. The nearest sensitive receptor area is the Portola Springs residential community of single-family homes located approximately 4,200 feet (0.8 mile) south of the facility and 230 feet south of the SoCalGas pipeline, in the City of Irvine.

Sharp terrain characterizes the general area around the proposed Project site. Salient hills stand between the Project site and the residential development, rising more than 100 feet above the Project site and more than 400 feet above the residential area. This elevated terrain provides a substantial natural noise barrier between the Project site and the residences. Furthermore, the northern part of the residential development is bounded by two major highways, State Routes 133 and 241, which are closer and less shielded major noise sources compared to the Project site.

Sensitive Receptors

Sensitive receptors that may be affected by the proposed RNG Plant are residences located approximately 0.8 mile south of the site, on the opposite side of SR 241. Sensitive receptors that may be affected by the construction of the proposed pipeline are residences approximately 230 feet south of the pipeline route. Other sensitive land uses that are located at greater distances than these receptors will experience lower noise levels than those presented in this report due to the additional attenuation from distance, topography, and the shielding of intervening structures. Attenuation distance is measured in a straight line from the project boundary for each phase to the nearest sensitive receptor location.

An existing noise survey was performed that indicated that the ambient noise levels at the nearest sensitive receptors (i.e., residences south of the Project site) range between 42 and 48 A-weighted decibels (dBA) during daytime hours and between 38 and 41 dBA at nighttime (see Appendix F).

Discussion:

Construction Noise Analysis Methodology

The screening-level noise analysis for Project construction was completed based on methodology developed by the U.S. Department of Transportation Federal Highway Administration (DOT FHWA) at the John A. Volpe National Transportation Systems Center, and other technical references consistent with California Emissions Estimator Model® (CalEEMod) outputs (equipment utilization). The DOT FHWA methodology uses actual noise measurement data collected during the Boston "Big Dig" project (1991-2006) as reference levels for a wide variety of construction equipment in common use, such as on the proposed Project.

The DOT FHWA noise model provides relatively conservative predictions because it does not account for site-specific geometry, dimensions of nearby structures, and local environmental conditions that can affect sound transmission, reflection, and attenuation. As a result, actual measured sound levels at receptors may vary somewhat from predictions, typically lower. Additionally, the impacts of noise upon receptors (persons) are subjective because of differences in individual sensitivities and perceptions.

Noise impacts are evaluated against community noise standards contained in the City or County General Plan, Municipal Code, or other state or federal agency as applicable to the vicinity of the project site.

Screening-level project-generated noise is evaluated in relation to established thresholds of significance. Additionally, the same methods are used to determine noise impacts on the nearest sensitive receptor. There is no numerical standard in the Municipal Code for construction activities; however, the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment provides an 8-hour construction noise level threshold of 80 dBA equivalent noise level (L_{eq}) during the daytime at residential (noise-sensitive) uses and 85 dBA during the daytime at commercial uses. Therefore, noise impacts for the proposed Project are evaluated against the FTA noise standards.

During construction activities, the Project would generate noise and vibration due to operation of off-road equipment, portable equipment, and vehicles at or near the Project site. No strong sources of vibrations (e.g., hard rock-breaking, large pile-driving) are planned to be used during the construction of the RNG Plant. A mounted impact hammer (hoe ram), which is a percussive source, may be occasionally used during the pipeline construction, when encountering rocks during trenching. FTA has published standard vibration velocities for construction equipment operations. Generally, a peak particle velocity (PPV) vibration threshold of approximately 0.3 inch/second is sufficient to avoid physical damage to engineered structures (FTA 2018). The types of construction vibration impacts include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Table 3-9 presents average source levels in terms of velocity for different types of construction equipment.

Table 3-9. FTA Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)	
Pile Driver (Impact)	Upper Range	1.518
	Typical	0.644
Pile Driver (Sonic)	Upper Range	0.734
	Typical	0.170
Clam Shovel Drop (slurry wall)		0.202
Hydromill (slurry wall)	In Soil	0.008
	In Rock	0.017
Vibratory Roller		0.210
Hoe Ram		0.089
Large Bulldozer		0.089
Caisson Drilling		0.089
Loaded Trucks		0.076
Jackhammer		0.035
Small Bulldozer		0.003

Source: FTA (2018)

Traffic Noise

No significant increase in traffic is expected due to this relatively small project. Since the receptors are near the two highways, the incremental effect of Project operation would not be quantifiable against existing traffic noise (background) in the Project vicinity (i.e., less than significant impact). Also, since no airport is closer than 2 miles from the Project site, evaluation of aircraft noise upon the Project is not required.

Traffic disruptions caused by pipeline construction would include the effects of temporary reduced speed limits for safety in work zones, such as lane reductions. Since vehicle speeds would be reduced, traffic noise would also be reduced due to: 1) less wind noise due to reduced velocity; 2) less tire noise due to lower wheel revolutions; and 3) less engine mechanical noise due to lower running speeds. Therefore, traffic disruptions would be expected to result in decreased traffic noise.

Temporary construction noise would be limited to the City of Irvine's allowable daytime construction hours (i.e., between 7:00 a.m. and 7:00 p.m. Mondays through Fridays, and 9:00 a.m. and 6:00 p.m. on Saturdays) and would permanently cease upon completion of construction. Most construction noise would occur during the site preparation, grading, building construction, trenching, and paving phases when heavy equipment would be operating.

During each of the six construction phases there would be a different mix of equipment operating, and cumulative noise levels would vary based on the amount of equipment in operation and the location of each activity at the Project site. In general, use of off-road equipment and portable equipment would generate noise due to engine mechanicals, engine exhaust, driveline mechanicals, shaft-driven devices and accessories, hydraulics operation, ground friction and displacement, and gravity drops (dumping, unloading).

Based on the information presented in Table 3-10, nearest off-site structures over 4,200 feet away from the RNG Plant would not be exposed to a PPV of greater than 0.3 inch/second during construction, which is the threshold at which physical damage to engineered buildings may occur. Since no intense percussive actions (e.g., hard rock-breaking, large pile-driving) are planned to occur during the construction of the RNG Plant, no strong groundborne vibrations are expected to be generated that could affect nearby structures or be noticeable to their occupants (the FRB Landfill administration office building is over 328 feet away from the construction site). A mounted impact hammer (hoe ram), which is a percussive source, may be occasionally used during the pipeline construction, when encountering rocks during trenching. The PPV at nearest receptors approximately 230 feet from the new SoCalGas pipeline, would be about 0.003 inch/second, which is well below the FTA threshold of 0.3 inch/second.

Construction activities typically generate maximum noise levels in the range of 85 to 90 dBA at a distance of 50 feet. Types of equipment (FHWA 2006) to be used during the Project and noise-emitting characteristics (i.e., usage factors, reference dBA, and percussive source) are shown in Table 3-10 consistent with CalEEMod outputs.

The Project is expected to require up to approximately one year of planned work activities (i.e., from mobilization to substantial completion) comprising six construction phases:

1. Site preparation;
2. Grading;
3. Building construction;
4. Paving;
5. Architectural coating; and
6. Trenching and pipeline construction.

Deviations from this schedule would not affect the noise analysis because noise does not persist or accumulate in the environment.

Table 3-10. FHWA Noise Reference Levels and Usage Factors

CalEEMod Construction Detail			FHWA Equipment Type	Ref.	Usage Factor	Ref. Level	Percussive Source
Phase Name	Equipment Description	Qty.			Percent	dBA	Yes/No
Site Preparation (1)	Graders	1	Grader	1	40%	85	No
	Rubber Tired Dozers	1	Dozer (crawler tractor)	1	40%	85	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	1	40%	80	No
Grading (2)	Rubber Tired Dozers	2	Dozer (crawler tractor)	1	40%	85	No
	Tractors/Loaders/Backhoes	2	Backhoe (with loader)	1	40%	80	No
	Sweepers/Scrubbers	1	Vacuum Street Sweeper	1	10%	80	No
	Cement and Mortar Mixers	1	Drum Mixer	1	50%	80	No
	Dumpers/Tenders	10	Dump Truck	1	40%	84	No
	Off-Highway Trucks	1	Water Truck	1	40%	84	No
Building Construction (3)	Cranes	2	Crane	1	16%	85	No
	Forklifts	1	Forklift	1	40%	80	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	1	40%	80	No
	Aerial Lifts	1	Man Lift	1	20%	85	No

CalEEMod Construction Detail			FHWA Equipment Type	Ref.	Usage Factor	Ref. Level	Percussive Source
Phase Name	Equipment Description	Qty.			Percent	dBA	Yes/No
	Off-Highway Trucks	1	Water Truck	1	40%	84	No
Paving (4)	Cement and Mortar Mixers	1	Drum Mixer	1	50%	80	No
	Pavers	1	Paver (asphalt)	1	50%	85	No
	Paving Equipment	1	Paver (asphalt)	1	50%	85	No
	Rollers	1	Roller	1	20%	85	No
	Tractors/Loaders/Backhoes	1	Backhoe (with loader)	1	40%	80	No
Architectural Coating (5)	Air Compressors	1	Compressor (air)	1	40%	80	No
Trenching and Pipeline Construction (6)	Bore/Drill rigs	1	Drill Rig Horizontal (boring)	1	100%	85	No
	Excavators	1	Excavator (hydraulic)	1	40%	85	No
	Rubber Tired Dozers	1	Tractor (rubber tire)	1	40%	84	No
	Tractors/Loaders/Backhoes	1	Dozer (crawler tractor)	1	40%	85	No
	Cranes	1	Crane	1	16%	85	No
	Graders	1	Grader	1	40%	85	No
	Other General Industrial Equipment	1	Mounted Impact Hammer (hoe ram)	1	20%	90	Yes
	Air Compressors	1	Compressor (air)	1	40%	80	No
	Other Construction Equipment	1	Crane	1	16%	85	No

Sources: CalEEMod version 2022.1.1.19, FHWA 2006

Table 3-11 shows a comparison of FHWA screening-level estimated daytime exterior noise impacts for peak RNG Plant construction activities at the nearest receptors with respect to the FTA thresholds. If the thresholds are not exceeded, then a project should be considered acceptable, i.e., less than significant.

Table 3-11. Estimated Peak Activity Construction Noise Impacts at the Nearest Sensitive Receptor

Construction Phases	Normal Acceptance Criteria			
	Modeled Noise Level (L_{eq} dBA)/1	CalEEMod Duration (days)	Significance Threshold (CNEL dBA)/2	Exceeds Threshold? (Yes/No)
Background	48.1	-	-	No
Site Preparation	48.3	11	80	No
Grading	48.9	49	80	No
Building Construction	48.3	185	80	No
Paving	48.5	11	80	No
Architectural Coating	48.1	16	80	No
Pipeline Construction	77.2	240	80	No

Sources: CalEEMod version 2022.1.1.19, FHWA 2006, FTA 2018, Broch 1971, Plog 1988.
Notes:
CNEL = Community Noise Equivalent Level
/1 Includes existing ambient noise level (cumulative impacts)
/2 FTA Noise Limits for Construction

As shown in Table 3-11, the aggregated average construction noise would be well below the 80 dBA FTA noise level threshold at nearby receptors. Although the estimated noise levels are below the

threshold, the Project is proposing to install a noise monitoring instrument during the SoCalGas pipeline construction activities, as a BMP, to continuously monitor the construction noise levels to ensure that they remain below the 80 dBA threshold. Noise barriers and mufflers may also be installed as additional BMPs.

Operational Noise Analysis Methodology

The potential noise impacts on the community are associated with the proposed equipment operating on the Project site (see Figure 2-10).

The Project impact evaluation was performed using SoundPlan Essential 5.1, an environmental noise propagation computer program that was developed to assist with noise propagation calculations for major noise sources and projects. The program calculates the sound pressure level at a location utilizing the sound emission properties of the source(s) and environmental propagation factors (sound spreading due to distance, ground effects, barriers, topography, as well as atmospheric attenuation). The program also includes a number of standardized methodologies that can be utilized to quantify the acoustic effect of these environmental factors. The specific standard employed by this program is that described in the International Organization for Standardization (ISO) Standard 9613, "Acoustics – Attenuation of sound during propagation outdoors." The modeled ambient temperature was 10 degrees Celsius (50 degrees Fahrenheit), and the assumed relative humidity was 70 percent. The ground absorption value utilized in the model was set to "0" for hard for the Project site and existing facility to the south and "0.5" for partially hard and soft ground for the vegetative area (i.e., hills) to the south. The backup generator will be housed inside a sound-attenuated and weatherproof enclosure. Therefore, an insertion loss of 15 dB was applied to the backup generator since it will be located inside a steel weatherproof enclosure with silencing properties.

The main noise source will be noise from motor-driven equipment, such as gas compressors. The expected "worst-case" scenario, with all equipment operating simultaneously, was assumed during both daytime and nighttime hours. Noise sources were entered in the modeling system as octave band sound power levels based on the sound pressure of the equipment provided by vendors. Sound pressures were then converted to sound powers in SoundPlan. Table 3-12 lists the sound power levels of the proposed equipment.

To assess the potential for operational noise impacts, three sensitive receptor (receiver) locations were used as shown on Figure 3.4-6. These were the same locations at which the ambient noise measurements were taken. The locations of these receptors are denoted by yellow dots in Figure 3.4-6. Note: Receiver 1 is not a sensitive receptor. Receiver 1 was used to predict the noise levels at the proposed site.

Figure 3.4-6 shows the future noise level map at the sensitive receptor areas and the property boundaries, including the 55 dBA daytime and 50 dBA nighttime noise limit lines. Figures 3.4-7 and 3.4-8 present noise level contours for all hours (daytime, evening, and nighttime) and CNEL, respectively, at the sensitive receptor areas and the property boundaries. Predicted operational noise levels, exclusive of ambient background, are anticipated to range between 25.5-40.4 dBA during the daytime, evening, and nighttime hours at the nearest sensitive receivers without any noise mitigation. Table 3-13 shows the results of the noise level predictions. As discussed above, both the County of Orange and the City of Irvine prohibit noise levels greater than 50 dBA at nighttime and 55 dBA during

Table 3-12. Sound Power Levels in Octave Band Format for Proposed Equipment (dBA)

Source name	Sum, Sound Power (dBA)	Octave Band Centre Frequency (Hz), Sound Power Levels (dBA)												
		63Hz	80Hz	100Hz	125Hz	160Hz	200Hz	250Hz	315Hz	400Hz	500Hz	630Hz	800Hz	1,000Hz
Back Up Generator	107.2	75.2	78.9	82.3	85.3	88.0	90.5	92.8	94.8	96.6	98.2	99.5	100.6	101.4
CO2 Removal Vacuum Compressor	92.2	60.2	63.9	67.3	70.3	73.0	75.5	77.8	79.8	81.6	83.2	84.5	85.6	86.4
CO2 Removal Vacuum Oil Cooler	102.2	70.2	73.9	77.3	80.3	83.0	85.5	87.8	89.8	91.6	93.2	94.5	95.6	96.4
Feed Compressor	107.7	75.7	79.4	82.8	85.8	88.5	91.0	93.3	95.3	97.1	98.7	100.0	101.1	101.9
Feed Compressors Aftercooler	102.2	70.2	73.9	77.3	80.3	83.0	85.5	87.8	89.8	91.6	93.2	94.5	95.6	96.4
Feed Compressors Oil Cooler	102.2	70.2	73.9	77.3	80.3	83.0	85.5	87.8	89.8	91.6	93.2	94.5	95.6	96.4
Flare Combustion Blower	107.2	75.2	78.9	82.3	85.3	88.0	90.5	92.8	94.8	96.6	98.2	99.5	100.6	101.4
Glycol Circulation Pump	92.2	60.2	63.9	67.3	70.3	73.0	75.5	77.8	79.8	81.6	83.2	84.5	85.6	86.4
Instrument Air Compressor	102.2	70.2	73.9	77.3	80.3	83.0	85.5	87.8	89.8	91.6	93.2	94.5	95.6	96.4
N2 Removal Recycle Compressor	107.7	75.7	79.4	82.8	85.8	88.5	91.0	93.3	95.3	97.1	98.7	100.0	101.1	101.9
N2 Removal Vacuum Compressor	107.7	75.7	79.4	82.8	85.8	88.5	91.0	93.3	95.3	97.1	98.7	100.0	101.1	101.9
N2 Removal Recycle Compressors Aftercooler	102.2	70.2	73.9	77.3	80.3	83.0	85.5	87.8	89.8	91.6	93.2	94.5	95.6	96.4
N2 Removal Recycle Compressors Oil Cooler	97.2	65.2	68.9	72.3	75.3	78.0	80.5	82.8	84.8	86.6	88.2	89.5	90.6	91.4

Source: Yorke 2024 Appendix F, SoundPlan Essential 5.1

dBA = A-weighted decibels, Hz = Hertz

Since no spectral data was available, only the sound power levels, the spectra for only the lower frequency ranges (four octaves) were estimated. The higher frequencies would not carry as far as the lower frequencies, therefore they are not expected to impact the nearest sensitive receptors. An insertion loss of 15 dB was applied to the backup generator since it will be placed inside a weatherproof enclosure.

daytime hours at residential receptors. As shown in Table 3-13, total operational noise levels at the nearest sensitive receptors will not exceed the 50 dBA and 55 dBA limits at nighttime and daytime hours, respectively. As illustrated in Figure 3-6, operational noise that could exceed these limits would be confined to the RNG Plant site and immediate vicinity of the landfill. Furthermore, the Federal Interagency Committee on Noise guidance (1992) provides an established criteria to assess the impacts of substantial temporary or permanent increases in ambient noise levels. Based on the Federal Interagency Committee on Noise criteria, if ambient noise levels are less than 60 dBA L_{eq}, a change in a noise level of 5 dBA or greater is considered significant. The operation of the proposed equipment may raise the ambient noise level for the most impacted sensitive receptor by up to 4.2 dBA. Thus, the operation of the proposed RNG Plant is not expected to cause any significant impact during daytime, evening, or nighttime hours. Interior noise levels will be maintained at current levels at nearby receptors.

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

Less Than Significant Impact. As shown in the above analysis, temporary construction noise would be limited to the City of Irvine's allowable daytime construction hours and would permanently cease upon completion of construction. The aggregated average RNG Plant and SoCalGas pipeline construction noise is not expected to exceed 80 dBA at nearby receptors, which is below the noise limit set by the FTA. Therefore, temporary impacts on ambient noise levels in excess of applicable standards during construction would be less than significant. The noise from the proposed RNG Plant operation is not expected to raise the ambient noise levels for the nearest sensitive receptors as they are approximately 0.8 mile from the Project site and are shielded by the hills that are located between the residential area and the proposed facility. The interior noise levels will be maintained at current noise levels at nearby receptors. Additionally, total operational noise levels at the nearest sensitive receptors will not exceed the 50 dBA and 55 dBA limits at nighttime and daytime hours, respectively. Therefore, operational noise impacts will be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. Construction plans for the proposed RNG Plant or the new SoCalGas pipeline do not include intense percussive actions (e.g., hard rock-breaking, large pile-driving). A mounted impact hammer (hoe ram), which is a percussive source, may be occasionally used during the pipeline construction, when encountering rocks during trenching. The PPV at nearest receptors would be approximately 0.003 inch/second, which is well below the FTA threshold of 0.3 inch/second. Therefore, no strong groundborne vibrations are expected to be generated that could affect nearby structures or be noticeable to their occupants, and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

Table 3-13. Receiver Predicted Noise Level Impacts (dBA)

Receiver No.	Receiver Name	Floor	Ambient Noise Levels (dBA)/1				Predicted Noise Levels (dBA)		Combined Noise Levels (dBA)			Difference between Ambient and Combined (dBA)		
			Daytime	Evening	Nighttime	CNEL	Daytime Evening Nighttime	CNEL	Daytime	Evening	Nighttime	Daytime	Evening	Nighttime
1	Project Site	GF	63.1	63.1	62.8	69.5	80.8	80.8/2	80.9	80.9	80.9	17.8	17.8	18.1
2	SL#2	GF	42.0	42.0	38.2	45.9	37.1	43.8	43.2	43.2	40.7	1.2	1.2	2.5
2	SL#2	1.Fl	42.0	42.0	38.2	45.9	40.4	47.1	44.3	44.3	42.4	2.3	2.3	4.2
3	SL#3	GF	47.3	47.3	38.9	48.9	29.3	36.0	47.4	47.4	39.3	0.1	0.1	0.5
3	SL#3	1.Fl	47.3	47.3	38.9	48.9	34.8	41.4	47.6	47.6	40.3	0.2	0.2	1.4
4	SL#4	GF	48.1	48.1	41.2	50.3	25.5	32.2	48.1	48.1	41.3	0.0	0.0	0.1
4	SL#4	1.Fl	48.1	48.1	41.2	50.3	26.5	33.2	48.1	48.1	41.3	0.0	0.0	0.1

dBA = A-weighted decibels

/1 Ambient noise levels are based on the noise measurements taken by Yorke on June 20, 2023, at daytime and nighttime hours. In order to be conservative, evening noise levels are assumed to be the same as daytime noise levels.

/2 For exposure determination purposes, CNEL at the project site is assumed to be the same as the daytime predicted noise levels since no operators are anticipated to be onsite outside of normal business hours (i.e., Penalties of 5 dB and 10 dB for evening and nighttime hours, respectively, are not applicable).

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 2 miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

No Impact. There is no public or private use airport within 2 miles of the Project RNG Plant or the new SoCalGas pipeline; therefore, no impact would be expected.

Mitigation Measures: No mitigation is required.

3.4.14 Population and Housing

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?				X
b.	Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere?				X

Existing Conditions:

The proposed Project is in unincorporated Orange County within the sphere of influence of the City of Irvine, except for a small portion of the new SoCalGas pipeline, which will be located within the City of Irvine.

Discussion:

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

No Impact. The proposed Project RNG Plant will be developed within the FRB Landfill boundaries and adjacent to the Bowerman Power Plant. The new SoCalGas pipeline will run from the POR within the RNG Plant boundary to the existing SoCalGas pipeline on the corner of Portola Parkway and Jeffery Road. The proposed Project would not involve the construction of any homes, businesses, or other uses that would encourage or result in direct population growth or new infrastructure that would induce indirect population growth. Further, operation of the RNG Plant would be conducted by 10 employees, and therefore, would not significantly increase the population in the Orange County area. Therefore, no impacts would occur.

Mitigation Measures: No mitigation is required.

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

No Impact. Construction of the Project would not require the removal or obstruction of existing housing and thus would not require the displacement of people or the construction of replacement housing elsewhere. Therefore, no impacts would occur.

Mitigation Measures: No mitigation is required.

3.4.15 Public Services

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a.	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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 following public services:				
	i.) Fire protection?			X	
	ii.) Police protection?			X	
	iii.) Schools?				X
	iv.) Parks?				X
	v.) Other public facilities?				X

Existing Conditions:

Fire

The Project site (RNG Plant and new SoCalGas pipeline) is located in an SRA Very High Fire Hazard Severity Zone (OSFM 2023). The OCFA would provide fire services to the proposed Project site. The OCFA is a regional fire agency that provides services for 23 cities in Orange County, including all of the unincorporated areas of the County (OCFA 2023). Within its service area, the OCFA protects approximately 2 million residents. In order to support this service area, the OCFA has a total of 78 fire stations located throughout the County (OCFA 2023). The nearest fire station is Orange County Fire Station 55 located at 4955 Portola Parkway in the City of Irvine, approximately 2.2 miles northwest of the proposed Project site.

Police

The Orange County Sheriff's Department (OCSD) would project police services to the proposed Project site. The OCSD has approximately 4,000 sworn officers and staff that are divided into six organizational commands comprising a total of 23 divisions (OCSD 2023). Services provided by OCSD include land, air, and sea-based patrol, custody operations, investigative services, emergency management, and more (OCSD 2023). The nearest OCSD is the Lake Forest Division located at 20202 Windrow Drive in the city of Lake Forest, approximately 4.5 miles southeast of the proposed Project site.

Schools

The Irvine Unified School District (IUSD) provides education services to the area in which the proposed Project is located. The IUSD comprises one early childhood learning center, 24 elementary schools, 5 K-8 schools, 6 middle schools, 5 high schools, one alternative high school, and 2 virtual academies,

servicing more than 36,000 students (IUSD 2023). Since its inception in 1972, IUSD has become recognized nationally for academic, arts, and athletic programs (IUSD 2023). The nearest school in the IUSD is Loma Ridge Elementary School located at 500 Tomato Springs in the City of Irvine, approximately 1.4 miles southwest of the Project site.

Parks

Orange County Parks (OC Parks) provides recreational services to Orange County. The nearest OC Regional Park is the Irvine Ranch Open Space in the unincorporated area of Silverado, located approximately 1.10 miles north of the proposed Project site.

The nearest City of Irvine Parks and Facilities recreational resource is the Jeffery Open Space Trail (JOST), which ends/begins at the southwest corner of Jeffery Road and Portola Parkway. The new SoCalGas connecting pipeline from the proposed Project will join to the SoCalGas pipeline system at the southeast corner of this roadway intersection.

For more information on OC Parks and the City of Irvine Parks and Facilities, please see Section 3.4.16.

Discussion:

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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

Less Than Significant Impact. The RNG Plant will include the emergency systems described in Section 3.4.9.

On-site instrumentation will monitor the status of the equipment and the RNG output. Off-site computers will simultaneously monitor the facility functions in real time. Facility operators will be at the site during normal business hours. An alarm and shutdown monitoring system will notify operators by telephone in the event a malfunction occurs. Access and circulation for large vehicles will be provided to the RNG Plant. Water supply for firefighting would be supplied by existing on-site FRB Landfill water tanks. Therefore, no significant impacts to fire protection services or facilities are expected.

Mitigation Measures: No mitigation is required.

ii.) Police Protection

Less Than Significant Impact. The access gate to the FRB Landfill is locked after operating hours and FRB Landfill security patrols the landfill preventing unauthorized access. The RNG Plant site would be fenced and equipped with security lighting and an alarm system. The addition of the RNG Plant is not expected to create additional demand for police protection services over existing conditions. Therefore, no significant impacts to police protection services or facilities are expected.

Mitigation Measures: No mitigation is required.

iii.) Schools

No Impact. Implementation of the proposed Project would not result in the need for the construction of additional school facilities, as the Project would not result in an increase in population nor would it result in a removal of a school, a reduction of school capacity, or displacement of students from existing schools. Therefore, no impacts to school services or facilities are expected.

Mitigation Measures: No mitigation is required.

iv.) Parks

No Impact. Implementation of the proposed Project would not result in the need for the construction of additional park facilities, as the Project would not result in an increase in population, nor would it result in a removal of a park. The development of the new SoCalGas pipeline system at the southeast corner Jeffery Road and Portola Parkway will not involve or impact the JOST. Therefore, no impacts to parks are expected.

Mitigation Measures: No mitigation is required.

v.) Other Public Facilities

No Impact. The proposed Project would not alter any of the government facilities in the area or produce a need for additional or new government services; therefore, no impacts to other public facilities are expected.

Mitigation Measures: No mitigation is required.

3.4.16 Recreation

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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?				X
b.	Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?				X

Existing Conditions:

OC Parks provides recreation services to Orange County. A total of 24 parks and trails comprising 60,000 acres of open space and shoreline make up OC Parks. OC Parks includes regional, wilderness, and historical facilities, along with coastal areas (OC Parks 2023a). Each year, OC Parks sees over a million visitors to its 24 parks and trails (OC Parks 2023a). As mentioned in Section 3.4.15, Irvine Ranch Open Space is the nearest park to the proposed Project site. The Irvine Ranch Open Space includes 3.3 miles of multi-use trails for hiking, biking, and equestrian riding and comprises 25,000 acres of open space (OC Parks 2023b). Features also include docent-led guided tours for small walking groups. The Irvine Ranch Open Space has been determined as a State and National Natural Landmark (OC Parks 2023b).

The City of Irvine Parks and Facilities provides recreational services to the pipeline component of the proposed Project. The City of Irvine contains 22 community parks and 40 neighborhood parks, as well as additional "special facilities" (City of Irvine 2023a). The JOST and Picnic Area is the closest recreation facility in the City of Irvine to the proposed Project. The JOST is a multi-use urban trail that spans 3.5 miles throughout the City of Irvine (City of Irvine 2023b).

Discussion:

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

No Impact. The Project would bring in workers from the surrounding communities. During the peak of construction, 35 temporary employees would be on site. The maximum number of employees during the operation would be 10. Since it is anticipated that temporary construction workers and permanent operational staff would be commuting from the surrounding communities, the current neighborhood and regional parks would not see a significant increase in use that would cause the deterioration of the recreational facilities. Should any employees relocate to Irvine, it would not be a significant increase in use of these facilities.

Mitigation Measures: No mitigation is required.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

No Impact. The proposed Project is an RNG Plant and new SoCalGas pipeline. Project components would not interfere with any recreational facilities, nor would they create a need for the expansion of any existing recreational facilities. Therefore, the Project would not have impacts on recreational facilities that may have an adverse physical effect on the environment.

Mitigation Measures: No mitigation is required.

3.4.17 Transportation

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

Existing Conditions:

Regional access to the Project site (RNG Plant and new SoCalGas pipeline) is provided by State Routes 55, 133, and 241; Interstates 5 and 405; Sand Canyon Avenue; Portola Parkway; and Bee Canyon Access Road. Only a subset of these routes would be needed for any given trip to access the Project site from various parts of the Orange County, or other adjacent counties.

Discussion:

e. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?

Less Than Significant Impact. The proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes, and pedestrian facilities.

The proposed Project will result in a short-term increase in traffic associated with construction of the Project that is expected to occur over a span of 2 years, with the majority of the emitting construction phases overlapping during a 1-year period. This traffic would include an estimated maximum of 123 trips per day during construction for worker access to the Project RNG Plant site. In addition, material delivery trips would also occur. As Project construction traffic would be short term and temporary, impacts are expected to be less than significant.

Construction of the new SoCalGas pipeline will take place in the along Bee Canyon Access Road and Portola Parkway. During construction, traffic control will be needed to temporarily reduce available lanes during the construction within Bee Canyon Access Road and Portola Parkway. A traffic control plan will be prepared to accommodate this work area corridor along the new SoCalGas pipeline route. These impacts would be short-term and temporary and would have a less than significant impact on circulation surrounding FRB Landfill.

During operations, the Project would result in very few vehicle trips for off-site access. There are no products from the facility that would be transported via vehicle. Off-site traffic would primarily be

commuting by the plant operators or periodic delivery vehicles during normal business hours. Therefore, operation of the Project would not result in an increase in vehicle trips beyond what is already addressed in current policies and/or forecasts and impacts would be less than significant.

There is no transit service along Bee Canyon Access Road or Portola Parkway. The Project would not impede transit service and no impacts would occur.

There are no bicycle lanes along Bee Canyon Access Road. There are on-street and off-street bicycle lanes along Portola Parkway (City of Irvine 2023c). During construction of the new SoCalGas pipeline, a portion of the on-street bicycle lane on the northwest bound side of Portola Parkway will require temporary closure. A traffic control plan will be prepared to accommodate this work area corridor along the new SoCalGas pipeline route. These impacts are expected to be less than significant as they would be short-term and temporary and would not impact long-term use of the bicycle lane.

There is no pedestrian sidewalk on the northwest bound side of Portola Parkway and no pedestrian facilities along Bee Canyon Access Road. Therefore, no significant impacts to pedestrian facilities are expected.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. Per the Orange County Local CEQA Procedures Manual (County of Orange 2020b), projects that demonstrate trip generation of less than 500 average daily trips (ADT) may be presumed to cause less than significant transportation impacts, unless the project conflicts with an adopted plan, substantially increases hazards, or results in inadequate emergency access.

As discussed in Section 3.4.17.a, the Project would generate less than 500 ADT and would not conflict with an adopted plan. As discussed in Section 3.4.17.c, the Project would not increase hazards. As discussed in Section 3.4.17.d, the Project would not result in inadequate emergency access. Therefore, the Project would have a less than significant transportation impact and would be consistent with CEQA Guidelines Section 15064.3(b).

Mitigation Measures: No mitigation is required.

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

No Impact. The proposed Project would not include construction of any new off-site roadways. Therefore, the proposed Project would not increase hazards due to design features and it would have no impact.

Mitigation Measures: No mitigation is required.

c. Would the project result in inadequate emergency access?

Less Than Significant Impact. Traffic control will be needed to temporarily reduce available lanes during construction of the new SoCalGas pipeline and street resurfacing, but full road closures are not anticipated during construction. Construction equipment staging for the Project would be within the

Project site. These impacts would be short-term and temporary and would not limit access to emergency services; therefore, no significant impact would occur.

Mitigation Measures: No mitigation is required.

3.4.18 Tribal Cultural Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:					
a.	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		X		
b.	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 © of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.		X		

PRC section 21074 defines tribal resources as follows:

(a) "Tribal cultural resources" are either of the following:

(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:

(A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.

(B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

Existing Conditions:

As part of the data collection, a NAHC Sacred Lands File Search was requested on July 20, 2023. The NAHC replied on August 21, 2023, and the results were negative. OCWR initiated tribal consultation under Assembly Bill 52.

Discussion:

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 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)?

Less Than Significant With Mitigation Incorporated. Pursuant to notice provided on August 14, 2023, in accordance with PRC section 21080.3.1, the Kizh Nation (Tribe) requested consultation with Orange County regarding the Project, by letter dated August 25, 2023 (sent via email). Following this request, representatives from the Tribe and staff from OCWR engaged in consultation via telephone conference on October 17, 2023. OCWR sent the cultural resources report for the Project on May 24, 2024. The Kizh Nation representative provided comments on the report on May 28, 2024. These comments were incorporated into the cultural report and the final report was shared with the Tribe on July 8, 2024, and consultation was completed. To protect tribal cultural resources and potential unanticipated discoveries associated with tribal cultural resources, CUL-1, CUL-2, and CUL-3 were incorporated into this Project. Therefore, Project impact would be less than significant with mitigation incorporated, and no further analysis is required.

b. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in ©division (c) of Public Resources 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 Incorporated. As identified in the response to 3.4.18 (a) above, consultation with the Kizh Nation is completed. Mitigation measures TCR-1, TCR-2, and TCR-3 to protect potential unanticipated discoveries associated with tribal cultural resources were incorporated into this Project. Therefore, project impact would be less than significant, and no further analysis is required.

Mitigation Measures.

TCR-1 Should evidence of human remains be discovered during project construction, the Orange County Coroner (OCC) shall be immediately notified of the discovery. Evidence of human remains requires mandatory compliance with the provisions of State Health and Safety Code Section 7050.5, which restricts further disturbance in the vicinity of the discovery, defined herein as a 50-foot radius, until the OCC has made a determination within two business days of the origin and disposition pursuant to

Public Resources Code Section 5097.98. If the remains are determined to be Native American, the OCC shall notify the Native American Heritage Commission (NAHC) within 24 hours that remains have been discovered. The NAHC shall determine the identity of the Most Likely Descendant (MLD). The MLD shall complete the inspection of the remains within 48 hours of notification by the NAHC. In addition, per CR-02, SoCalGas Project Archaeologist Ryan Glenn (425) 213-2349 (cell) and RGlenn1@scgcontractor.com or SoCalGas Archaeologist Tricia Dodds (213) 290-7449 (cell) and TDodds@socalgas.com shall be notified of the discovery.

TCR-2 If unanticipated tribal cultural resources or deposits are discovered during earth-moving activities, the following measures will be implemented:

- All work shall halt within a 200-foot radius of the discovery. a qualified professional archaeologist will assess the significance of the find (if a tribal cultural monitor is not present). If the resources are Native American in origin, the OCWR shall coordinate with the Tribe regarding evaluation, treatment, curation and preservation of these resources. The archaeologist will have the authority to modify the no-work radius as appropriate, using professional judgment in consultation with OCWR. Work will not continue within the no-work radius until the archaeologist conducts sufficient research, evidence and data collection to establish that the resource is either: (1) not cultural in origin; or (2) not potentially eligible for listing on the California Register of Historical Resources.

TCR-3 Tribal Cultural Resource Monitor: Prior to the issuance of any grading permit in which soil would be disturbed, Montauk shall provide evidence in the form of an executed Agreement to OCWR that they have retained a qualified Native American tribal monitor to provide third-party monitoring during excavation and grading activities and to recover and catalogue tribal resources as necessary. The tribal monitor shall be from or approved by the Kizh Nation. The agreement shall include (i) professional qualifications for the tribal cultural resource monitor(s); (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/monitoring report to OCWR, as applicable; (iii) contact information; (iv) communication protocols between Contractor and Tribal Cultural Resource Monitor; (v) acknowledgment that if the Kizh Nation monitor is not available, Montauk or their contractor as designee may contract with another qualified tribal monitor acceptable to the OCWR. The selection of the qualified professional(s) shall be subject to OCWR acceptance based on generally accepted professional qualifications and certifications, as applicable. The cover sheet of the grading plans shall include a note to identify that third party tribal monitoring is required during excavation and grading activities in accordance the with the OCWR Agreement.

3.4.19 Utilities and Service Systems

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
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?			X	
b.	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c.	Result in a determination by the wastewater treatment provider that 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?				X
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?			X	
e.	Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?				X

Existing Conditions:

Reclaimed water is supplied to the FRB Landfill by an Irvine Ranch Water District (IRWD) reclaimed water line that feeds into a 100,000-gallon reclaimed water tank, located adjacent to the FRB landfill administration building (about 400 feet north of the Project RNG site). Potable water is supplied by an IRWD potable water line that currently supplies water to the Bowerman Power Plant and the FRB Landfill site operations building and crew quarters. Sewage from the FRB landfill administration and crew quarters buildings currently goes to an on-site septic system and leach field. The Bowerman Power Plant is served by a separate on-site septic system and leach field.

Stormwater runoff generated within the FRB Landfill boundary is contained in concrete sedimentation basins owned, operated, and maintained by OCWR. Stormwater contained in the concrete detention basins discharge to the Bee Canyon Retarding Basin owned by the OCFCD via Bee Canyon Wash.

Electrical power service is provided by SCE and natural gas will be provided by SoCalGas. SCE, SoCalGas, and local telecommunications companies operate and maintain transmission and distribution infrastructure in the Project area.

Discussion:

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or

telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant Impact. New distribution lines will be needed for both potable and non-potable water systems, as well as a new collection line for the wastewater system (an on-site septic process) for the RNG Plant. Neither addition will cause significant changes in the volumes of water consumed or treatment capacity needs of the FRB landfill operations. No changes will be needed to the existing sediment basins within the FRB landfill, though a site-specific bioretention basin will be provided on the proposed Project site. Other utilities and service systems would require only minor connection modifications, which will all meet design and construction code requirements for the RNG Plant. The environmental effects associated with these necessary on-site utilities and service systems improvements will be in compliance with established regulatory requirements. Therefore, any environmental effects from the proposed utility improvements would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The Project (RNG Plant and new SoCalGas pipeline) will use an estimated 350,000 gallons of non-potable water during construction activities (for soil compaction, dust suppression, etc.). Non-potable water for construction activities will either be supplied from existing on-site FRB Landfill water tanks or trucked in from an off-site provider. During operations, the RNG Plant system initially will require 1,000 gallons of water to supply the chiller system. Typically, no additional water will be required for the system except during non-routine maintenance. Personal water use during operations (bathroom, sink, shower, etc.) is estimated to be 110,000 gallons per year. Per Bowerman Power's agreement with OCWR, water for RNG Plant maintenance and personal water use will be supplied by OCWR from the existing domestic water line that currently serves the Bowerman Power Plant.

The IRWD 2020 Urban Water Management Plan (UWMP) includes an assessment of its water service reliability to ensure that adequate water supplies are available to meet existing and future demands (Irvine Ranch Water District 2021). The UWMP found that the total water supplies available to IRWD will meet the projected water demands of existing and planned uses through 2040 under a single dry-year condition and over five years of consecutive drought, as well as in normal year conditions. Therefore, it is expected that there will be sufficient water supplies to serve the Project and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

c. Would the project result in a determination by the wastewater treatment provider that 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. During construction for the RNG Plant and new SoCalGas pipeline, a portable toilet service will be provided for construction workers. During operation, the RNG Plant will have restroom and washing facilities. Sanitary waste will be treated by a septic system within the FRB Landfill. Therefore, the Project will not increase demand on a wastewater treatment provider and no impact will occur.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. The Project RNG Plant and new SoCalGas pipeline construction would produce little solid waste during operations. Although the Project would require the disposal of clearing and grubbing waste (vegetation), as well as construction and demolition debris during the construction process (soil, asphalt, demolished materials, etc.), the generation of these materials would be short term in nature and would not have the capability to substantially affect the capacity of regional landfills. Therefore, impacts would be less than significant.

Mitigation Measures: No mitigation is required.

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

No Impact. The proposed Project would comply with all federal, state, and local statutes and regulations related to solid waste, including the California Integrated Waste Management Act and OCWR requirements for solid waste generated during the construction process; therefore, no impact would occur.

Mitigation Measures: No mitigation is required.

3.4.20 Wildfire

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:					
a.	Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b.	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?			X	
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?			X	
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?			X	

Existing Conditions:

The Project site (RNG Plant and new SoCalGas pipeline) is located in an SRA Very High Fire Hazard Severity Zone (OSFM 2023). The OCFA would provide fire services to the proposed Project site. The OCFA is a regional fire agency that services 23 cities in Orange County, including all of the unincorporated areas of the County (OCFA 2023). Within its service area, the OCFA protects approximately 2 million residents. In order to fulfil this service area, the OCFA has a total of 78 fire stations located throughout the County (OCFA 2023). The nearest fire station is Orange County Fire Station 55 located at 4955 Portola Parkway in the City of Irvine, approximately 2.2 miles northwest of the proposed Project site.

Discussion:

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

a. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. As discussed in Section 3.4.9., due to its location in a high fire hazard severity zone, Project implementation would conform to CBC Chapter 7A (CBC 2022; Materials and Construction Methods for Exterior Wildfire Exposure) and California Fire Code Chapter 47 (CFC 2022: Requirements for Wildland-Urban Interface Fire Areas), which would reduce the risk of loss, injury or death from wildland fires. The RNG Plant will include emergency systems including fire suppression systems. A traffic control plan will be prepared to accommodate the work area corridor along the new SoCalGas pipeline route. Implementation of consistency measures, appropriate design criteria, and

adherence to applicable requirements of CBC Chapter 7A and California Fire Code Chapter 47, would ensure that Project impacts on emergency response and evacuation would be less than significant.

Mitigation Measures: No mitigation is required.

b. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The RNG Plant site and new SoCalGas corridor do intersect with hilly terrain that varies in elevation from approximately 780 feet at the northern end of the RNG Plant site to approximately 340 feet at the end of the new SoCalGas pipeline at the corner of Portola Parkway and Jeffrey Road. The RNG Plant site will be located on a flat area, constructed with fill, that will be devoid of vegetation or other fuel sources. An additional 0.8 acre will be cleared of vegetation, see the area shown in red and yellow on Figure 2-11, to comply with OCFA's Fuel Modification and Maintenance Program. Another 0.05 acre will be cleared of vegetation and trenched for installation of a fire suppression water line. Post construction, the areas shown in red, blue, and yellow on Figure 2-11 will be revegetated with low fuel vegetation approved by OCFA and OCWR.

Access to the RNG Plant would be via Bee Canyon Access Road, a paved road. Accordingly, access to and from the RNG Plant would not be substantially encumbered due to a wildfire and persons on the Project site would be able to readily evacuate if necessary. With respect to the new underground SoCalGas RNG transmission pipeline, SoCalGas employees would conduct inspection and maintenance from time to time but would not regularly be in the pipeline corridor. In addition to meeting National Fire Protection Association safety standards and County Regulations as discussed in Section 3.4.15.a, construction plans for the RNG Plant would be reviewed and approved by the OCFA. With the preceding consideration, wildfire risk to persons at the RNG Plant would be less than significant.

Mitigation Measures: No mitigation is required.

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

Less Than Significant Impact. As discussed above in Section 3.4.20.a, construction plans for the Project would be reviewed and approved by the OCFA. Compliance with all National Fire Protection Association safety standards and County regulations would ensure that temporary or ongoing impacts to the environment due to wildfires would be less than significant.

Mitigation Measures: No mitigation is required.

d. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. Construction of the Project RNG Plant site pad will employ engineered fill that will reduce the general slopes of the Project area, and replace native slopes with more stable engineered slopes. Also, as discussed in Section 3.4.7.a.iv, neither the proposed Project site, nor the

new pipeline route, will be located on materials prone to landslide. Both project parts have been assessed as having potential for less than significant impacts due to landslides. In addition, Project design of the RNG plant will include an on-site bioretention basin and will implement a site-specific SWPPP during construction and operation (see Section 3.4.10.c.ii). The new pipeline route is located primarily in road rights-of-way that have been previously stabilized, and will only require trenching during placement. As a result, the proposed Project is expected to have less than significant impacts due to flood flows. Therefore, no significant impacts due to landslide, drainage, or flooding are expected, even under post-fire scenarios.

Mitigation Measures: No mitigation is required.

3.4.21 Mandatory Findings of Significance

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

Discussion:

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

Less than Significant Impact with Mitigation Incorporated. As discussed in Section 3.4.4, Biological Resources, with adherence to Mitigation Measures **BIO-1, BIO-2, and BIO-3,** the proposed Project would not have the potential to substantially degrade the quality of the existing environment, reduce habitat of fish or wildlife species, threaten plant or animal communities, and/or reduce the number or restrict the range of rare plants or animals.

In addition, as discussed in Section 3.4.5, Cultural Resources and 3.4.7, Geology and Soils, development of the FRB Landfill and associated infrastructure has disturbed the natural surface and subsurface deposits of the Project site and pipeline route. Intact cultural material may exist within undisturbed deposits. Adherence to Mitigation Measures **CUL-1, CUL-2, CUL-3**, **GEO-1, TCR-1, TCR-2, and TCR-3** would be required in the event unexpected resources are uncovered during the grading and excavation process. With implementation of recommended mitigation, the proposed Project is not expected to eliminate important examples of the major periods of California history or prehistory, and impacts would be less than significant.

Mitigation Measures: Mitigation Measures **BIO-1, BIO-2, BIO-3, CUL-1, CUL-2, CUL-3, GEO-1, TCR-1, TCR-2, and TCR-3.**

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

Less than Significant Impact. The Project would enable fuller utilization of the LFG gas generated at FRB Landfill that would otherwise be burned in the flares. The Project would not result in substantial population growth within the area, either directly or indirectly. Although the Project may incrementally affect other resources at a less than significant level, the Project's contribution to these effects is not considered "cumulatively considerable," in consideration of the relatively nominal impacts of the Project and the mitigation measures provided to lessen impacts. In addition, the proposed project will help reduce greenhouse gas emissions in the long-term by converting landfill gas that is currently flared into electricity, thereby utilizing a renewable energy resource. Therefore, cumulative impacts would be considered less than significant.

Mitigation Measures: No additional mitigation is required beyond what is already included previously.

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

Less than Significant Impact. Previous sections of this Initial Study/Mitigated Negative Declaration reviewed the proposed Project's potential impacts related to aesthetics, air quality, geology and soils, greenhouse gases, hydrology/water quality, noise, hazards and hazardous materials, traffic, and other issues. As concluded in these previous discussions, the proposed Project would result in less than significant environmental impacts; therefore, the proposed Project would not result in environmental impacts that would cause substantial adverse effects on human beings and impacts would be less than significant.

Mitigation Measures: No mitigation is required.

4.0 LIST OF PREPARERS

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FIGURES

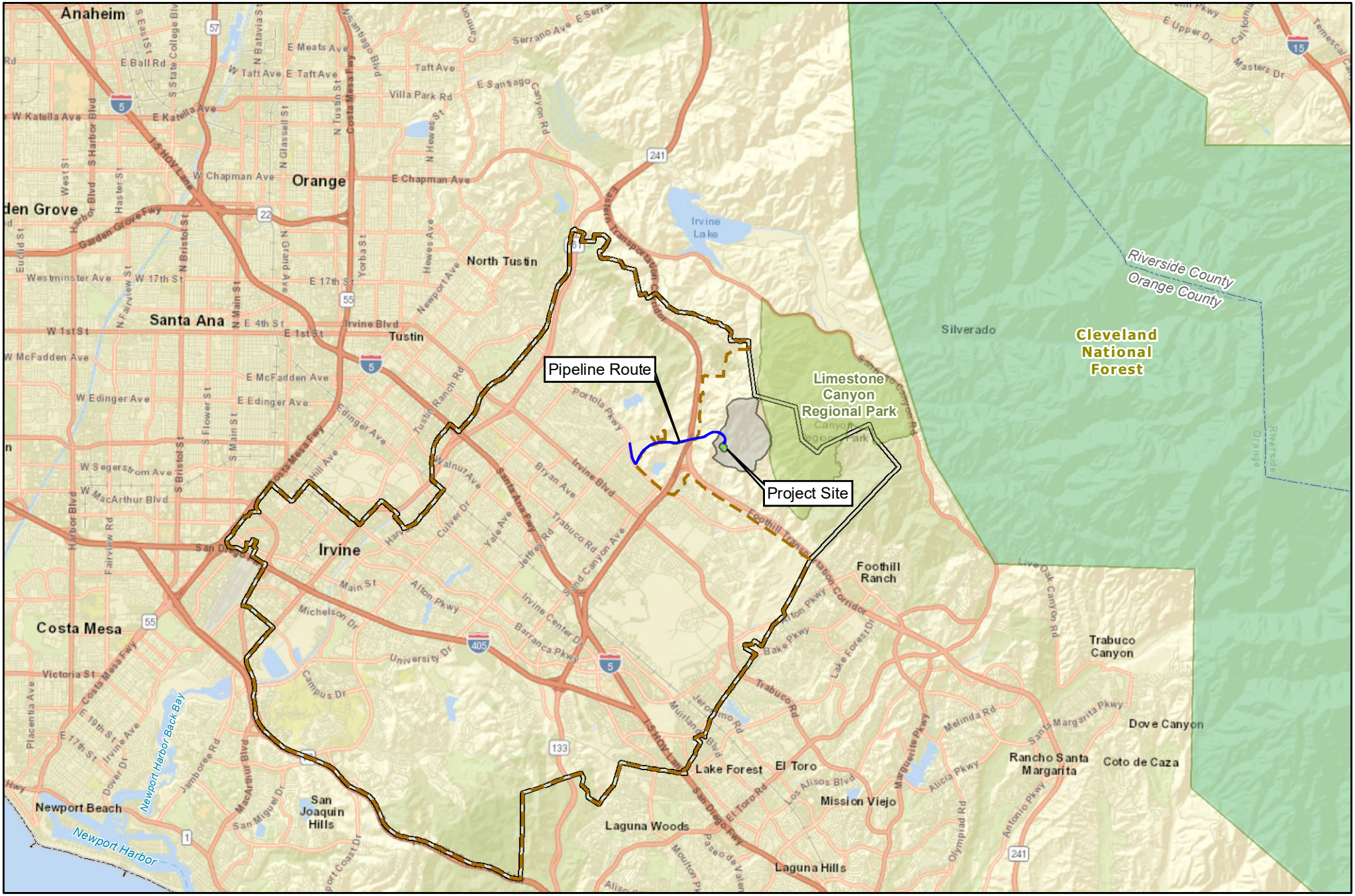


Figure 2-1
Project Vicinity

Bowerman Power RNG Plant Project
Orange County, CA

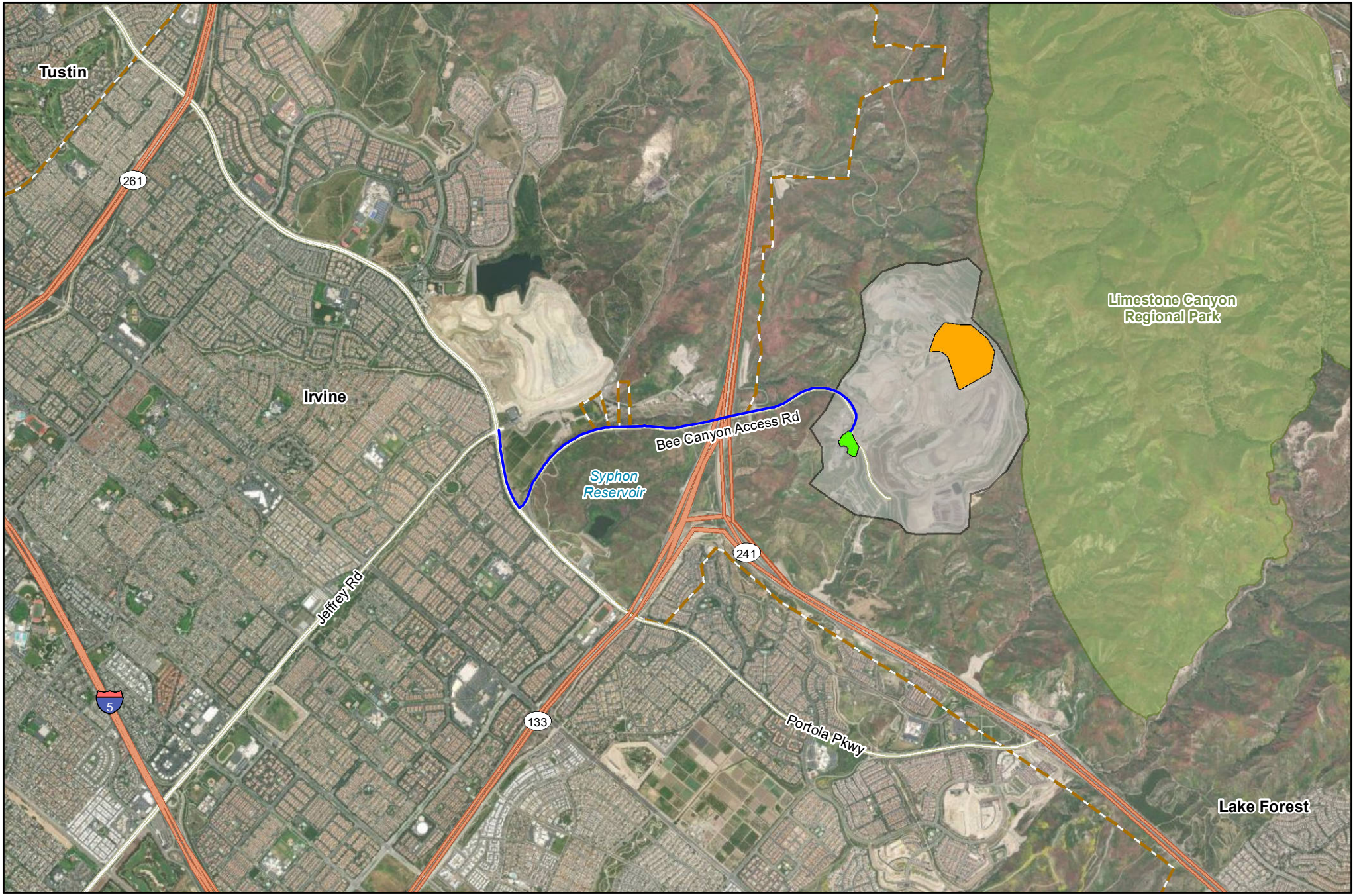


Figure 2-2
Project Location

Bowerman Power RNG Plant Project
Orange County, CA

Project Lease Boundary
Project Site
Pipeline Route

Bowerman Landfill
Bowerman Landfill Soil Stockpile Area

Disturbed Area for Grading Replanted for Fire Fuel Modification
Fuel Modification Area
Temporary Disturbed Area for Trenching
Fire Water Line

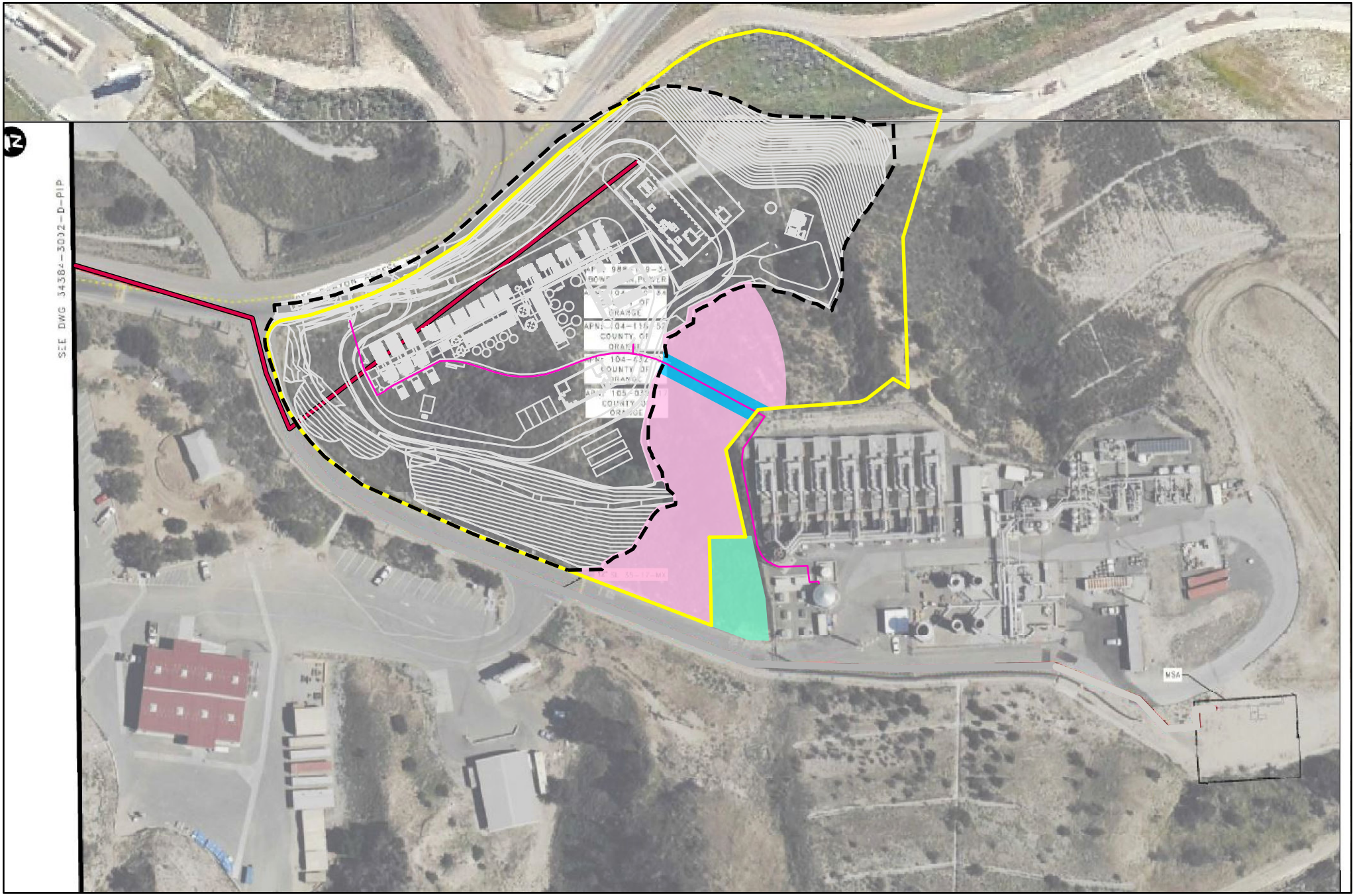
N

0 250 500 1,000 Feet

NOT FOR CONSTRUCTION

Figure 2-3
Project RNG Plant Site and Borrow Area Locations

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

Project Lease Boundary

Project Site

NOT FOR CONSTRUCTION

Fire Water Line (underground)

Disturbed Area for Grading Replanted for Fire Fuel Modification

Fuel Modification Area

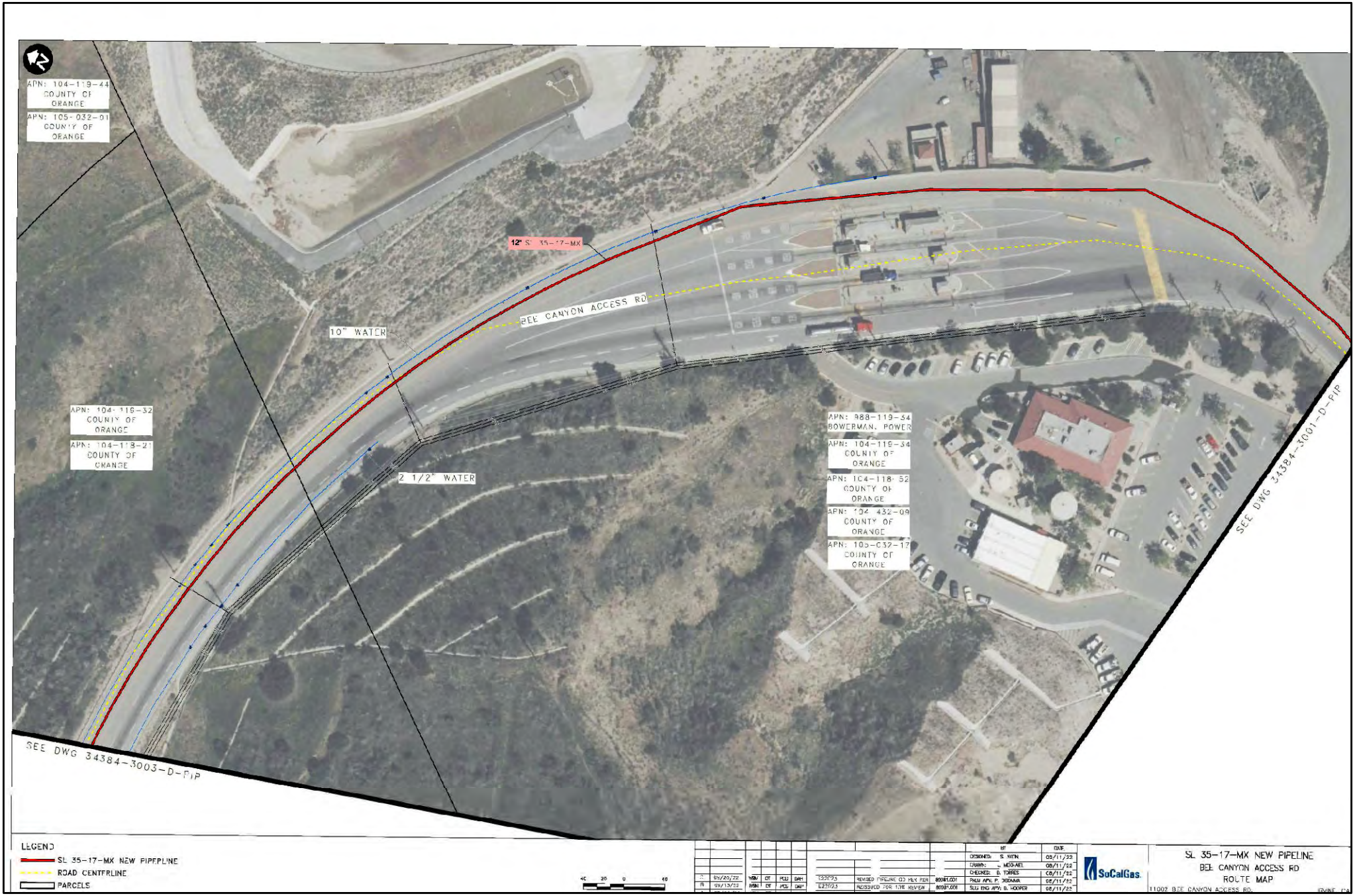
Temporary Disturbed Area for Trenching

N

0 25 50 100 Feet

Figure 2-4.1
Pipeline Route
Sheet 1 of 12

Bowerman Power RNG Plant Project
Orange County, CA



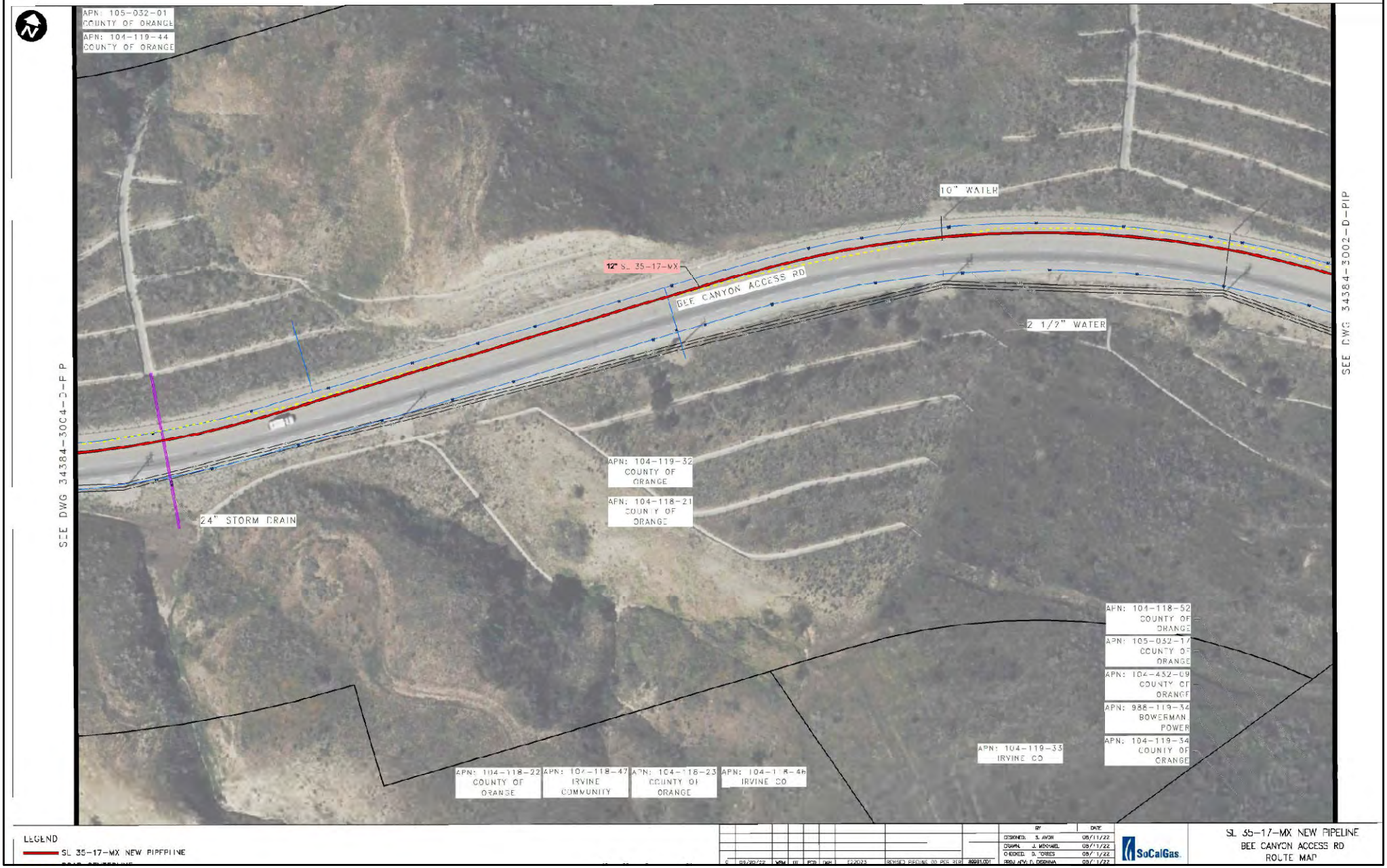
Pipeline Route (underground)

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.2
Pipeline Route
Sheet 2 of 12

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

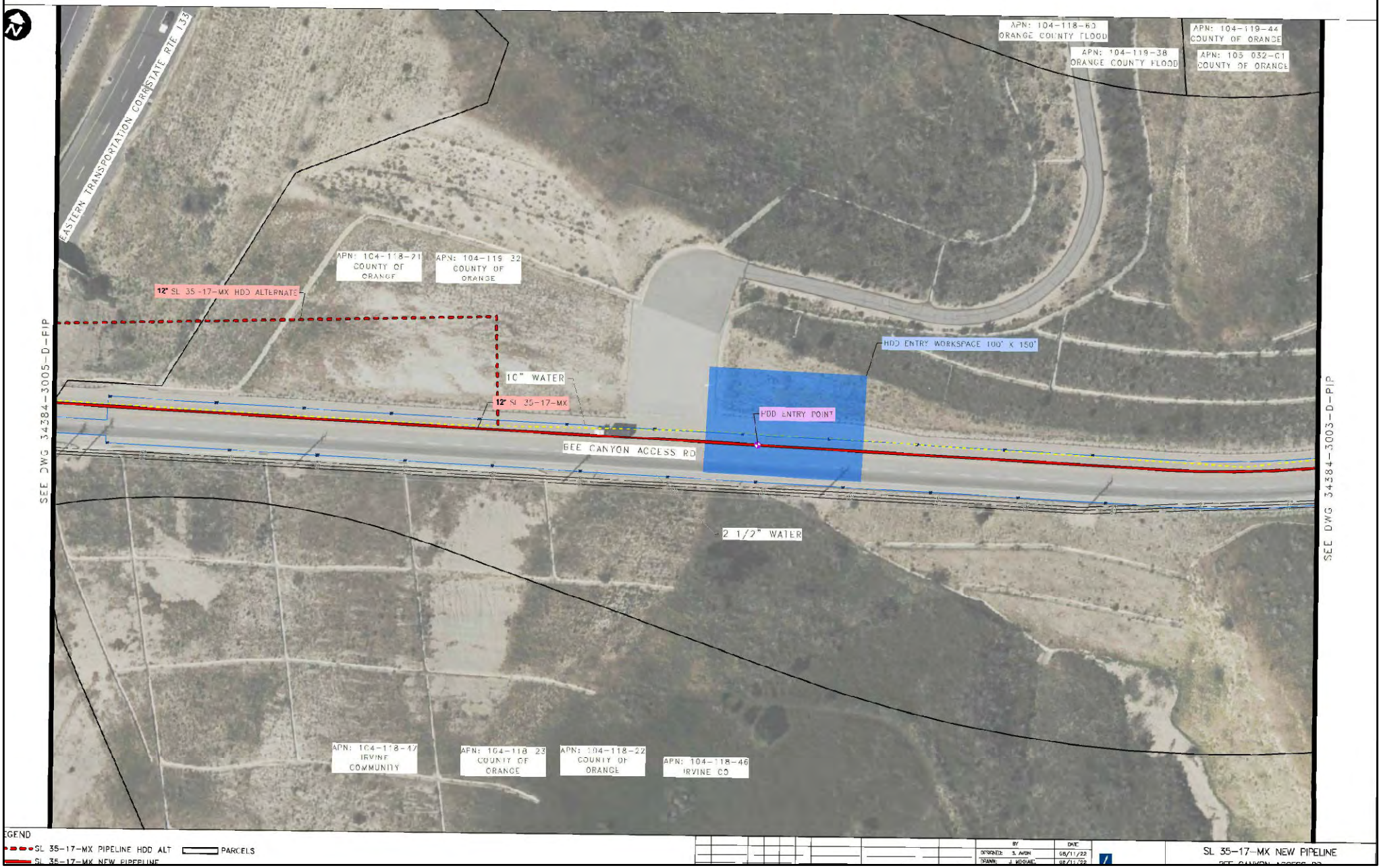
N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.3
Pipeline Route
Sheet 3 of 12

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

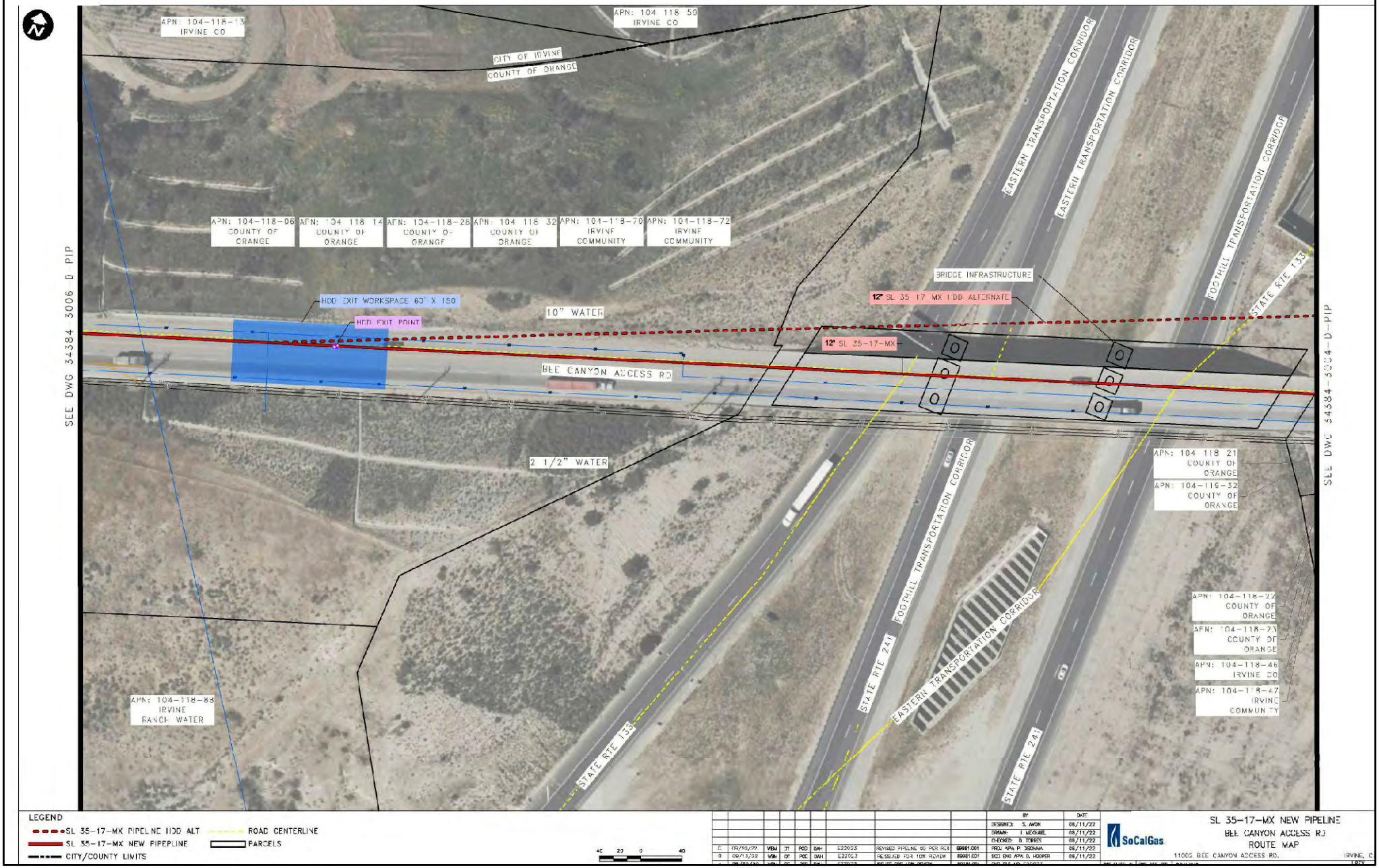
N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.4
Pipeline Route
Sheet 4 of 12

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

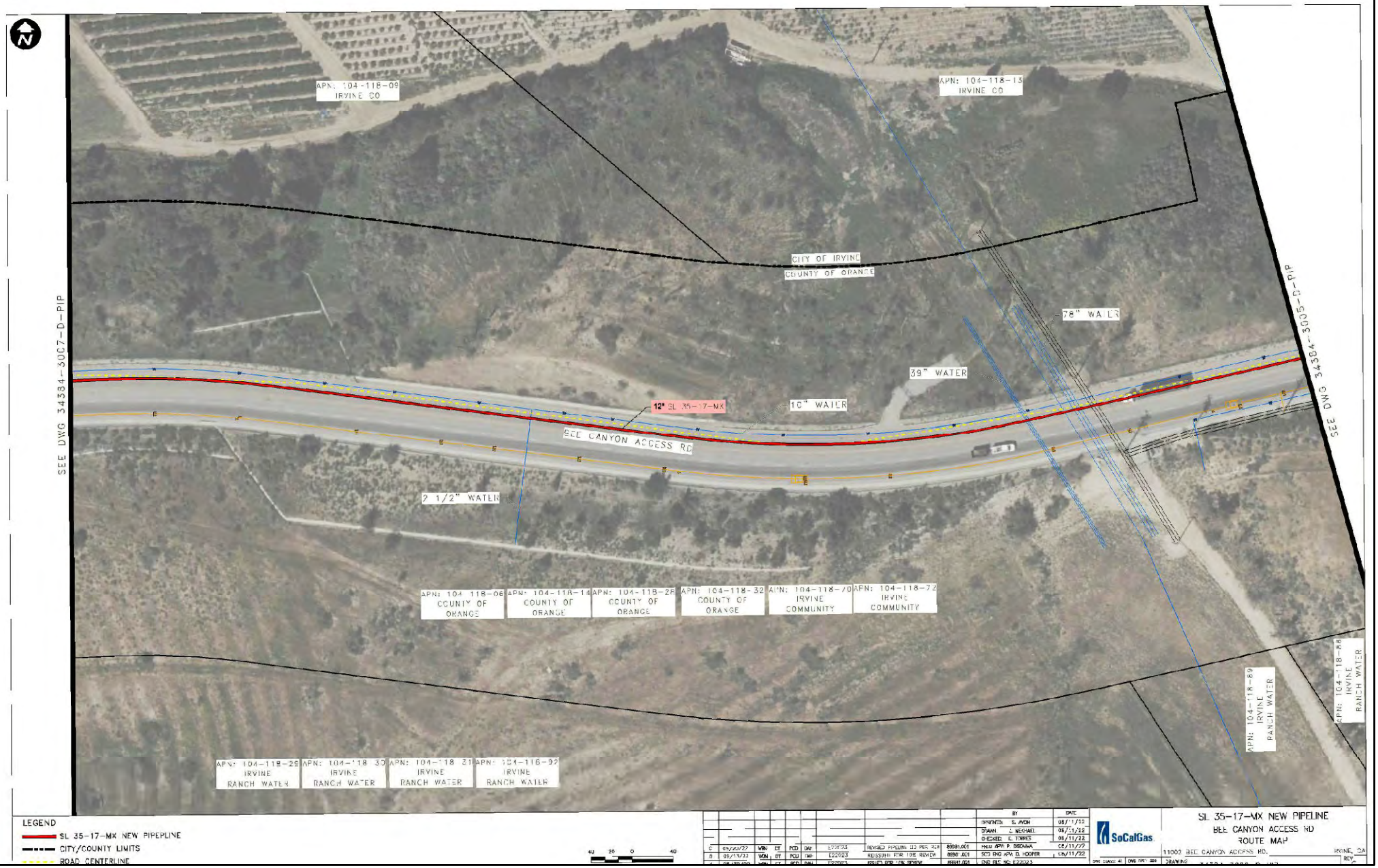
N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.5
Pipeline Route
Sheet 5 of 12

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

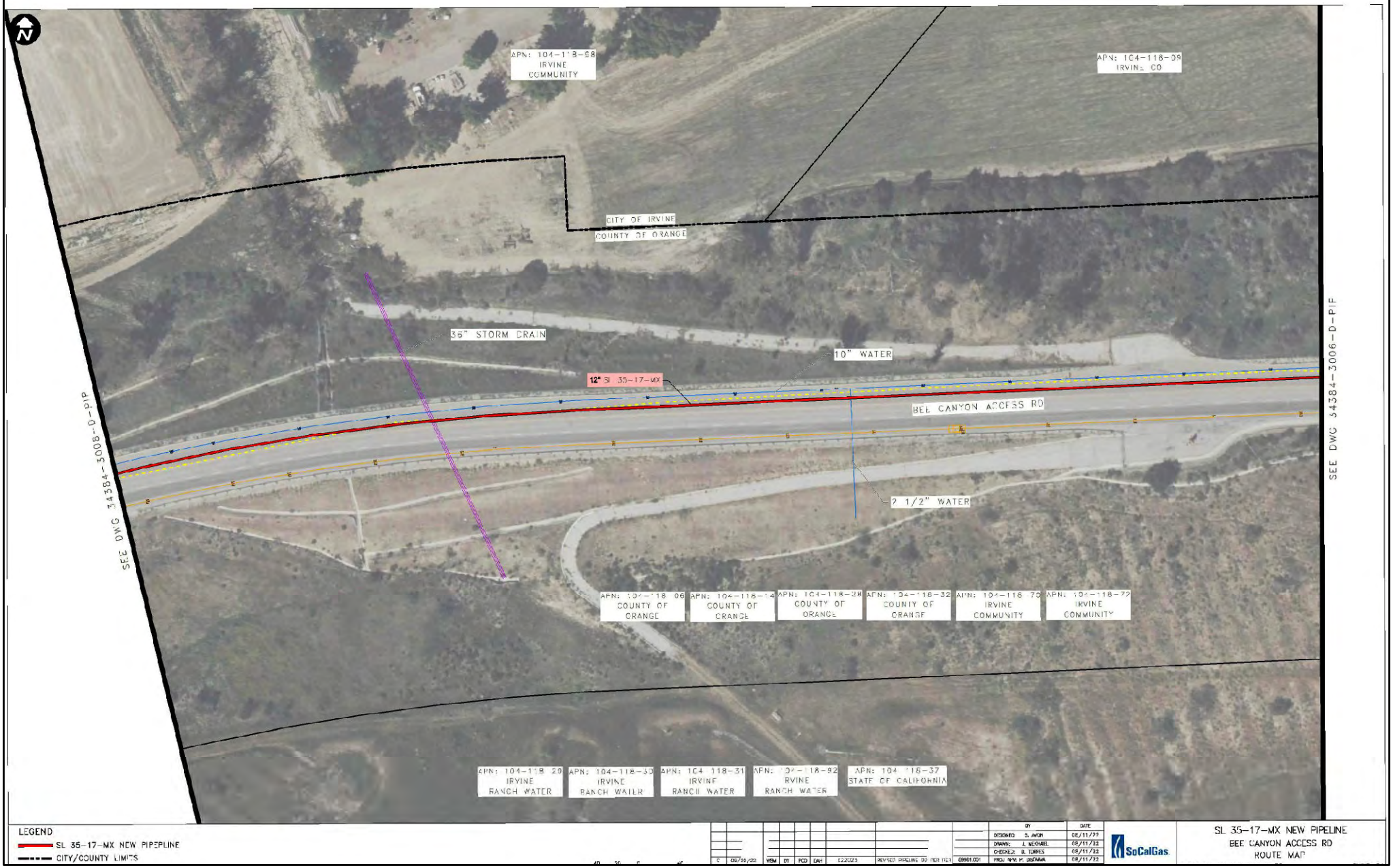
N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.6
Pipeline Route
Sheet 6 of 12

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

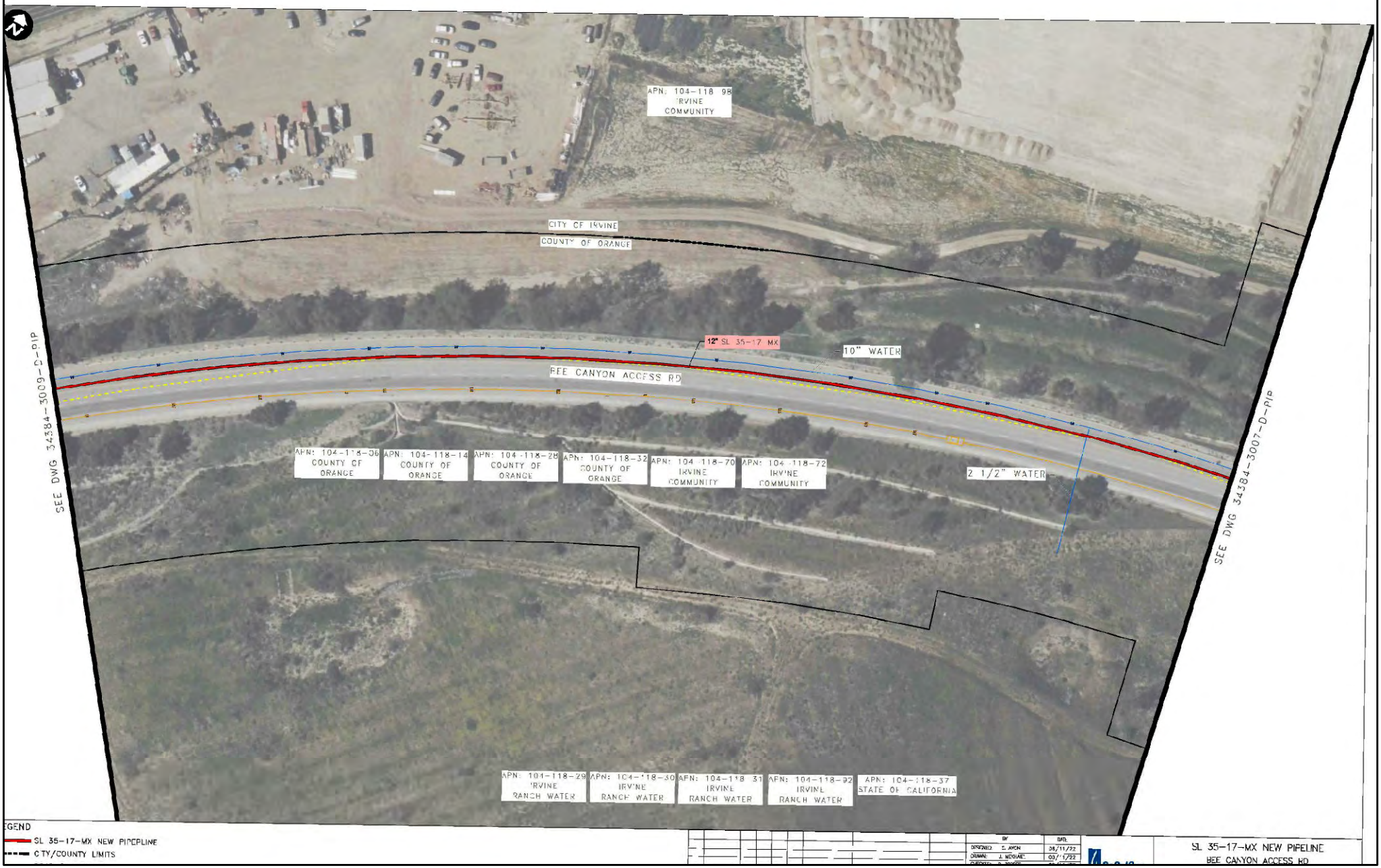
N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.7
Pipeline Route
Sheet 7 of 12

Bowerman Power RNG Plant Project
Orange County, CA



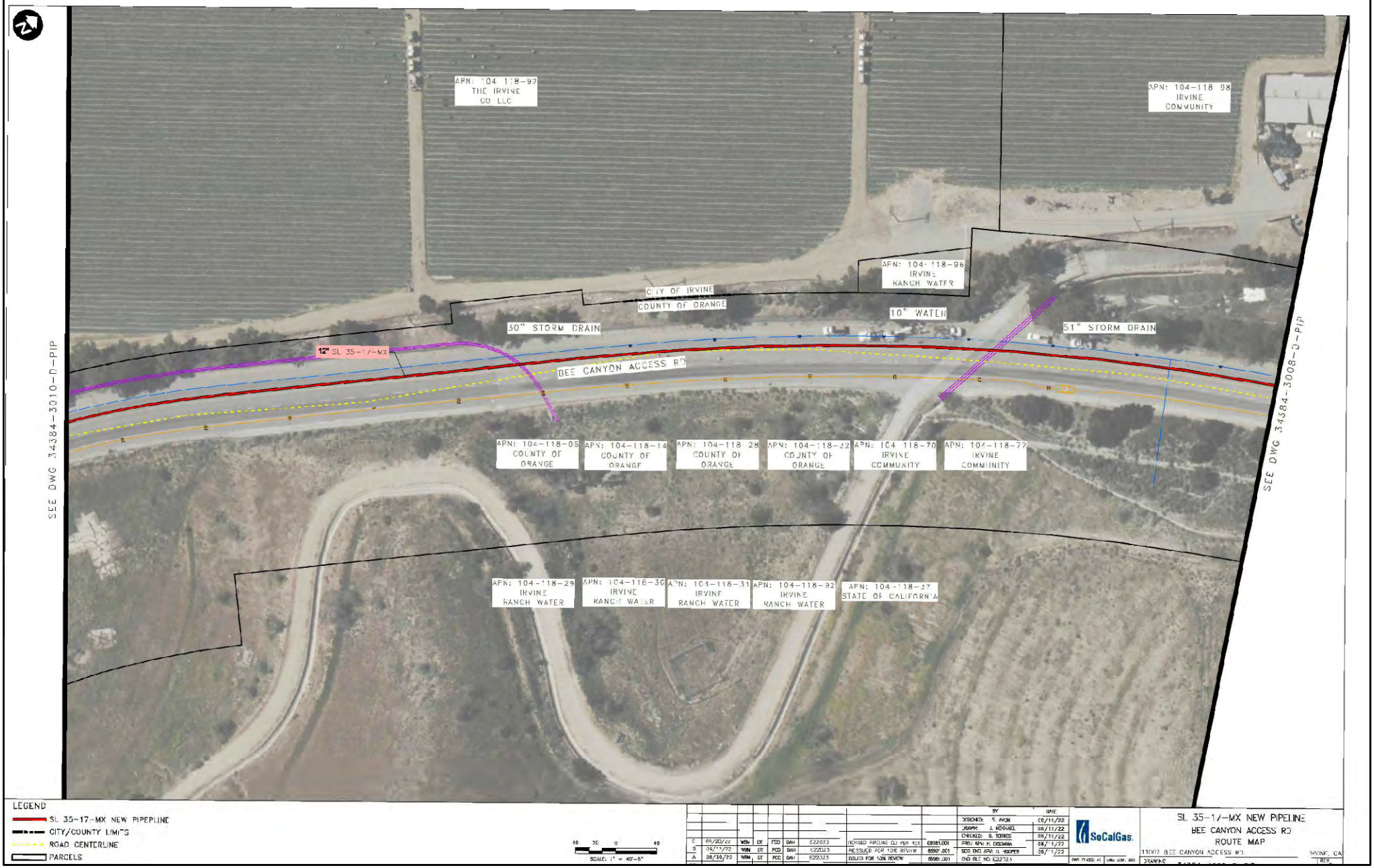
Pipeline Route (underground)

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.8
Pipeline Route
Sheet 8 of 12

Bowerman Power RNG Plant Project
Orange County, CA



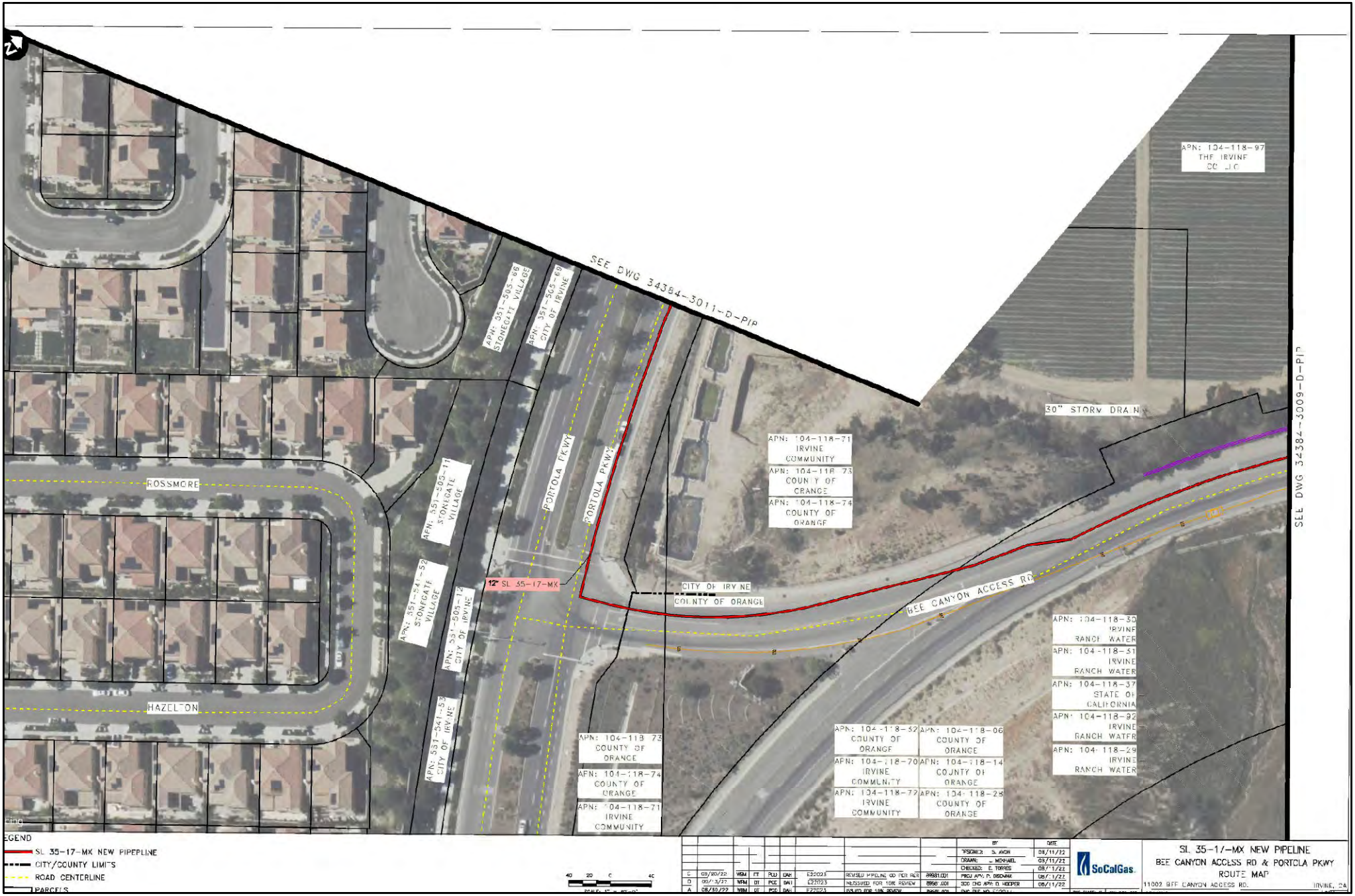
Pipeline Route (underground)

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.9
Pipeline Route
Sheet 9 of 12

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.10
Pipeline Route
Sheet 10 of 12

Bowerman Power RNG Plant Project
Orange County, CA

Pipeline Route (underground)

N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.11
Pipeline Route
Sheet 11 of 12

Bowerman Power RNG Plant Project
Orange County, CA

Pipeline Route (underground)

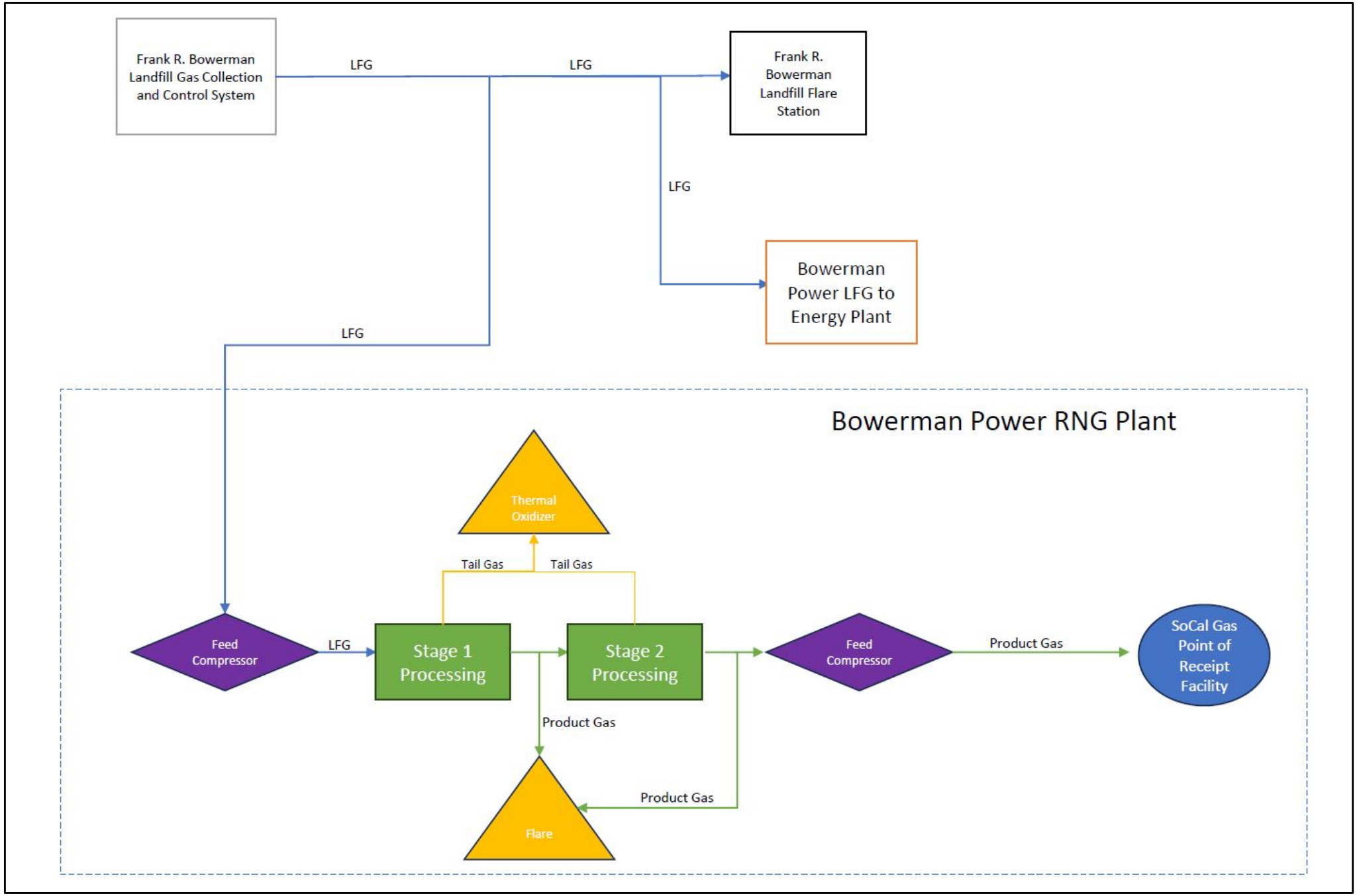
N

0 25 50 100 Feet

NOT FOR CONSTRUCTION

Figure 2-4.12
Pipeline Route
Sheet 12 of 12

Bowerman Power RNG Plant Project
Orange County, CA



NOT FOR CONSTRUCTION

Figure 2-5
RNG Process Design Flow

Bowerman Power RNG Plant Project
Orange County, CA

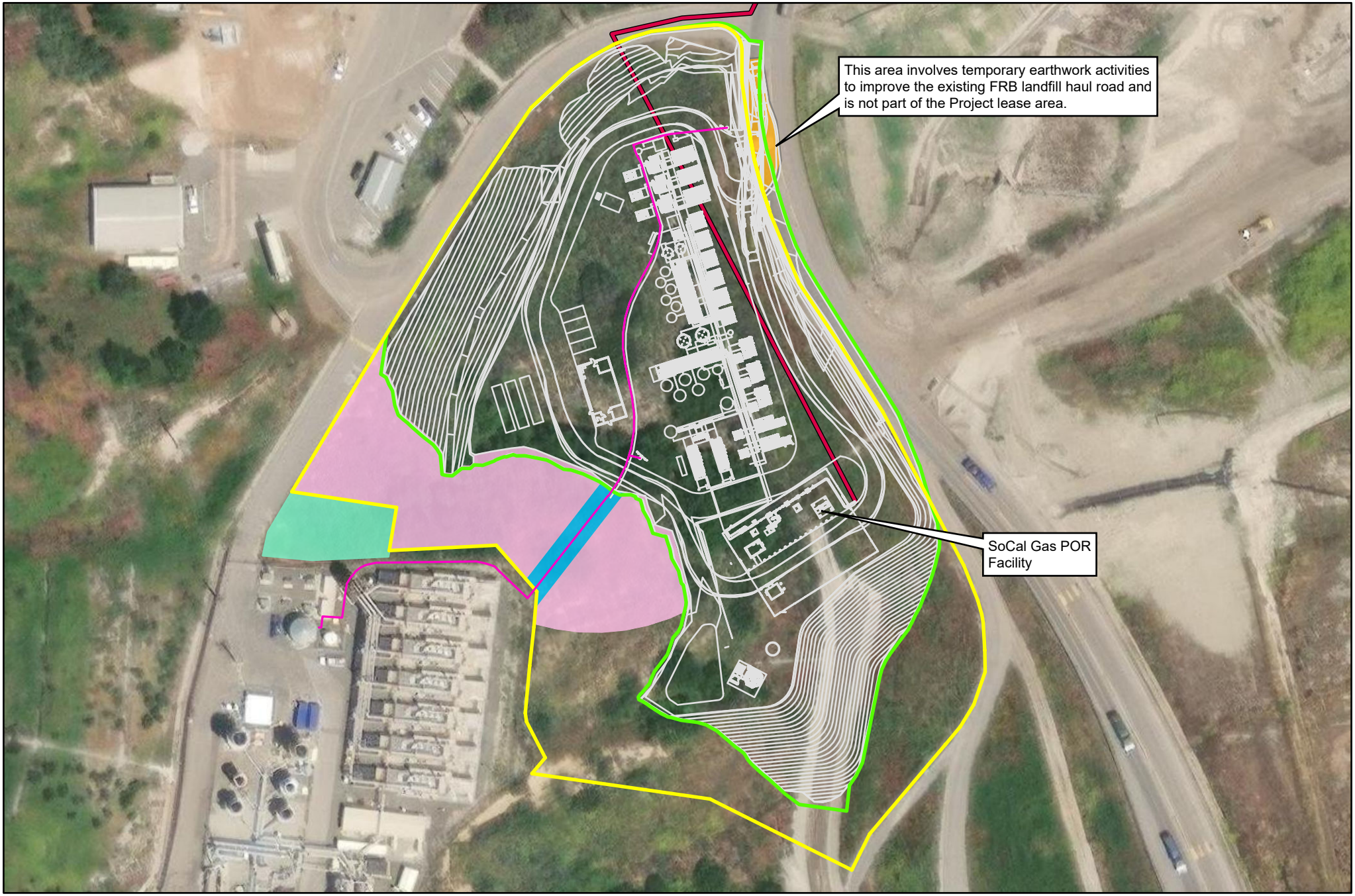
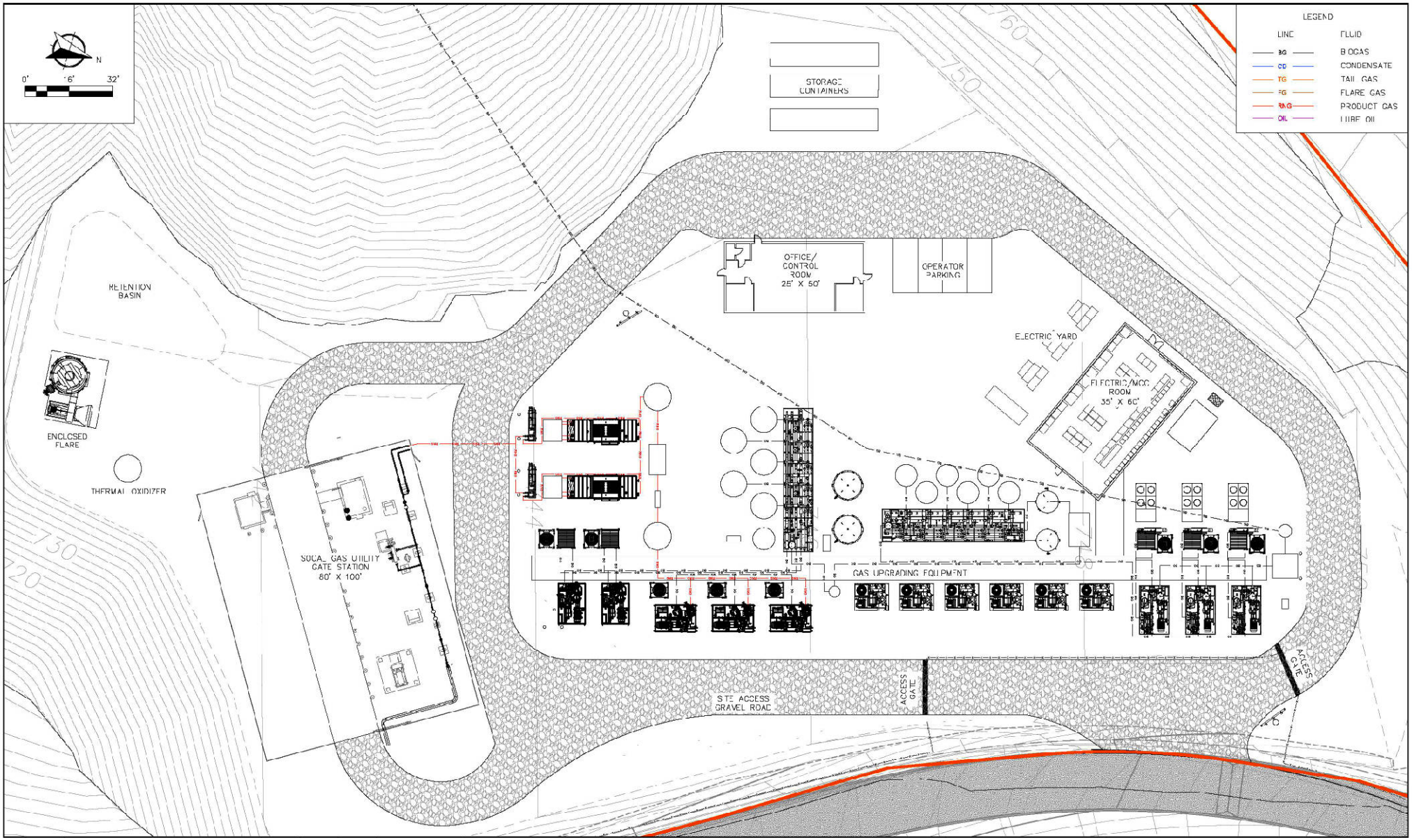


Figure 2-6
Project Site Plan

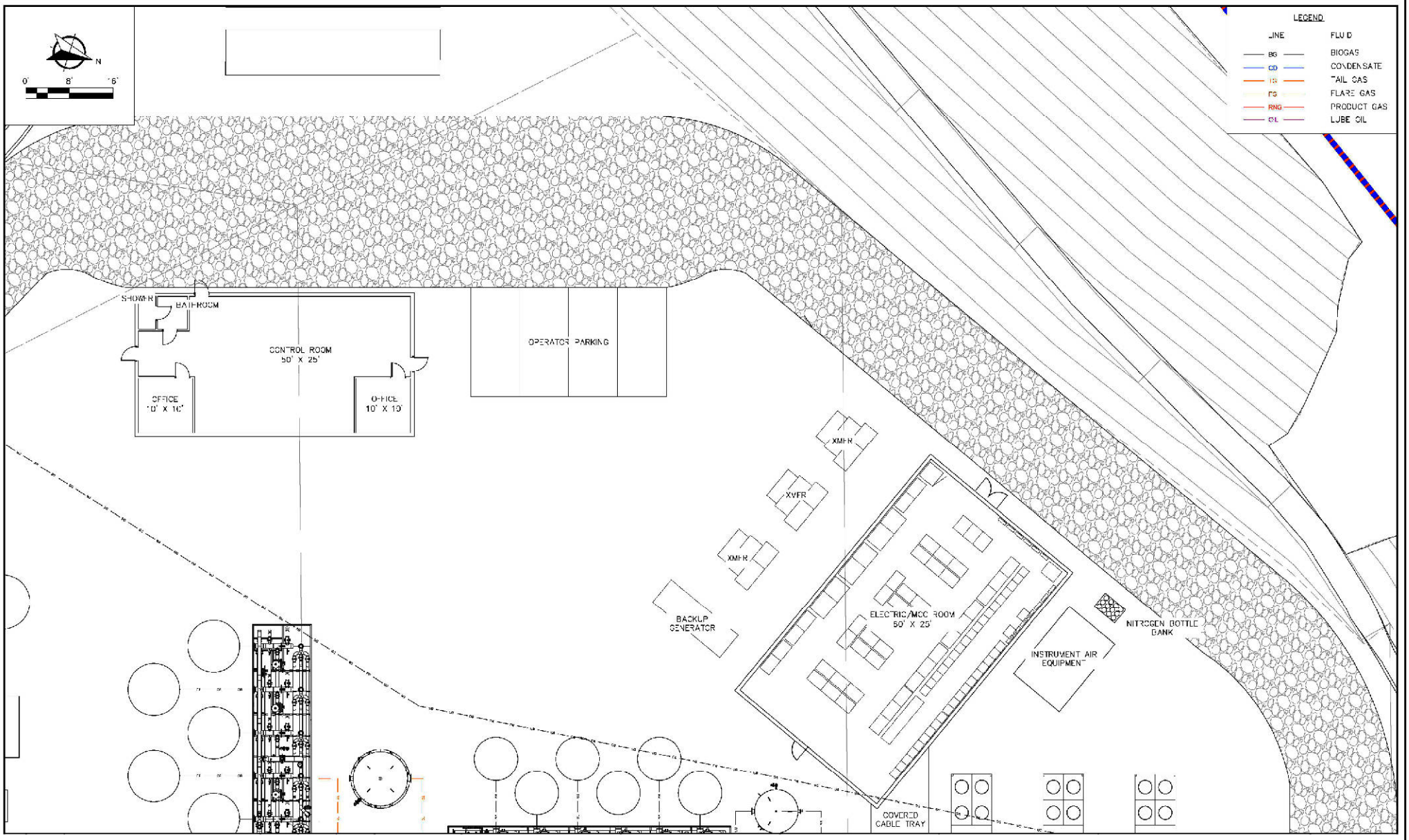
Bowerman Power RNG Plant Project
Orange County, CA



NOT FOR CONSTRUCTION

Figure 2-7
Process Equipment Layout

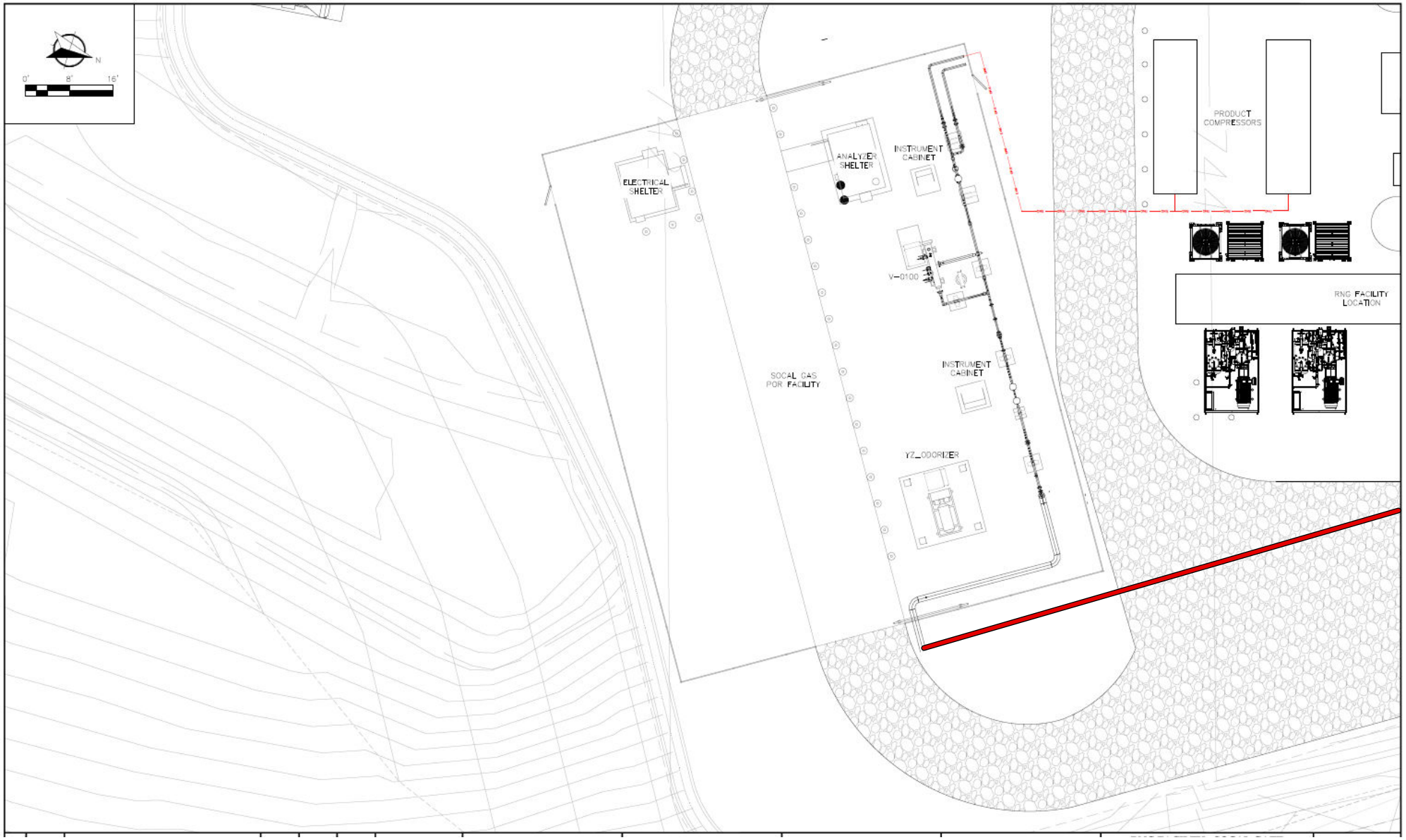
Bowerman Power RNG Plant Project
Orange County, CA



NOT FOR CONSTRUCTION

Figure 2-8
RNG Control / Electric Buildings Layout

Bowerman Power RNG Plant Project
Orange County, CA



Pipeline Route (underground)

NOT FOR CONSTRUCTION

Figure 2-9
Point of Receipt Facility

Bowerman Power RNG Plant Project
Orange County, CA

RNG Plant Construction

Equipment Type	Quantity
Dump Truck	10-15
Trackhoe	2
Bulldozer	2
Street Sweeper	1
Water Truck	1
Mixer	1
40 Ton Crane	1
100 Ton Crane	1
Extended Boom Forklift	1
Man Lift	1
Skid Steer Loader	1
Grader	1

Pipeline Construction

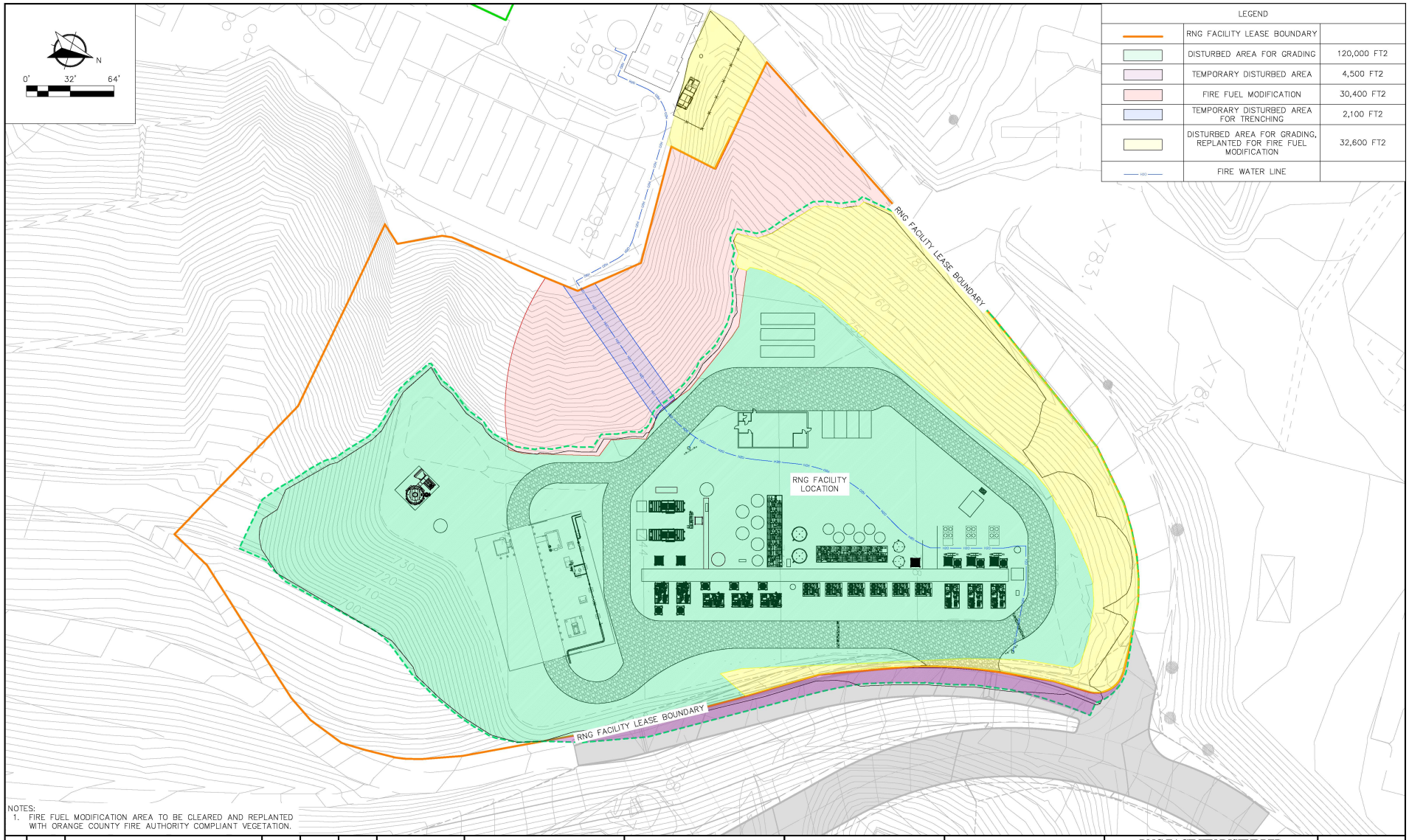
Equipment Type	Quantity
Boring Machine	1
Trackhoe	1
Bulldozer	1
Backhoe	1
Crane	1
Motor Grader	1
Pneumatic Hammer	1
Air Compressor	1
Side Boom Tractor	1
Tractor Tailer	1
Paver	1
Paving Equipment	1
Roller	1
Cement Mixer	1

RNG Plant Operation

Equipment Type	Quantity	Inside Enclosure (Yes/No)
Feed Compressors	3	No
Feed Compressors Aftercoolers	3	No
Feed Compressors Oil Coolers	3	No
Glycol Circulation Pumps	3	No
CO_2 Removal Vacuum Compressors	6	No
RNG Product Gas Cooler	1	No
N_2 Removal Vacuum Compressors	3	No
N_2 Removal Vacuum Compressors Oil Coolers	3	No
N_2 Removal Recycle Compressors	2	No
N_2 Removal Recycle Compressors Aftercoolers	2	No
N_2 Removal Recycle Compressors Oil Coolers	2	No
Product Gas Cooler from EQ PSA	1	No
Product Compressors	2	No
Product Compressors Aftercoolers	2	No
Thermal Oxidizer	1	No
Thermal Oxidizer Blower	1	No
Thermal Oxidizer Combustion Air Blower	1	No
Off-spec gas Flare	1	No
Off-spec gas Flare Combustion Blower	1	No
Instrument Air Compressors	2	No
Ventilation Fans	6	No
Back Up Generator	1	No
PSA Vessels	1	No
CO_2 Removal Vacuum Oil Coolers	3	No
H2S Removal Vessel	1	No

Figure 2-10
Equipment List

Bowerman Power RNG Plant Project
Orange County, CA



NOTES:
1. FIRE FUEL MODIFICATION AREA TO BE CLEARED AND REPLANTED WITH ORANGE COUNTY FIRE AUTHORITY COMPLIANT VEGETATION.

REV	DATE	DESCRIPTION	DRN BY	DSN BY	CHK BY
0	05/03/24	ISSUED FOR CEQA	MV	-	JF

MONTAUK RENEWABLES
5313 Campbells Run Road,
Pittsburgh, PA 15205

TENT ENGINEERING
452 NE Greenwood Ave.
Bend, OR 97701
www.tentengr.com

RNG FACILITY DISTURBED AREA

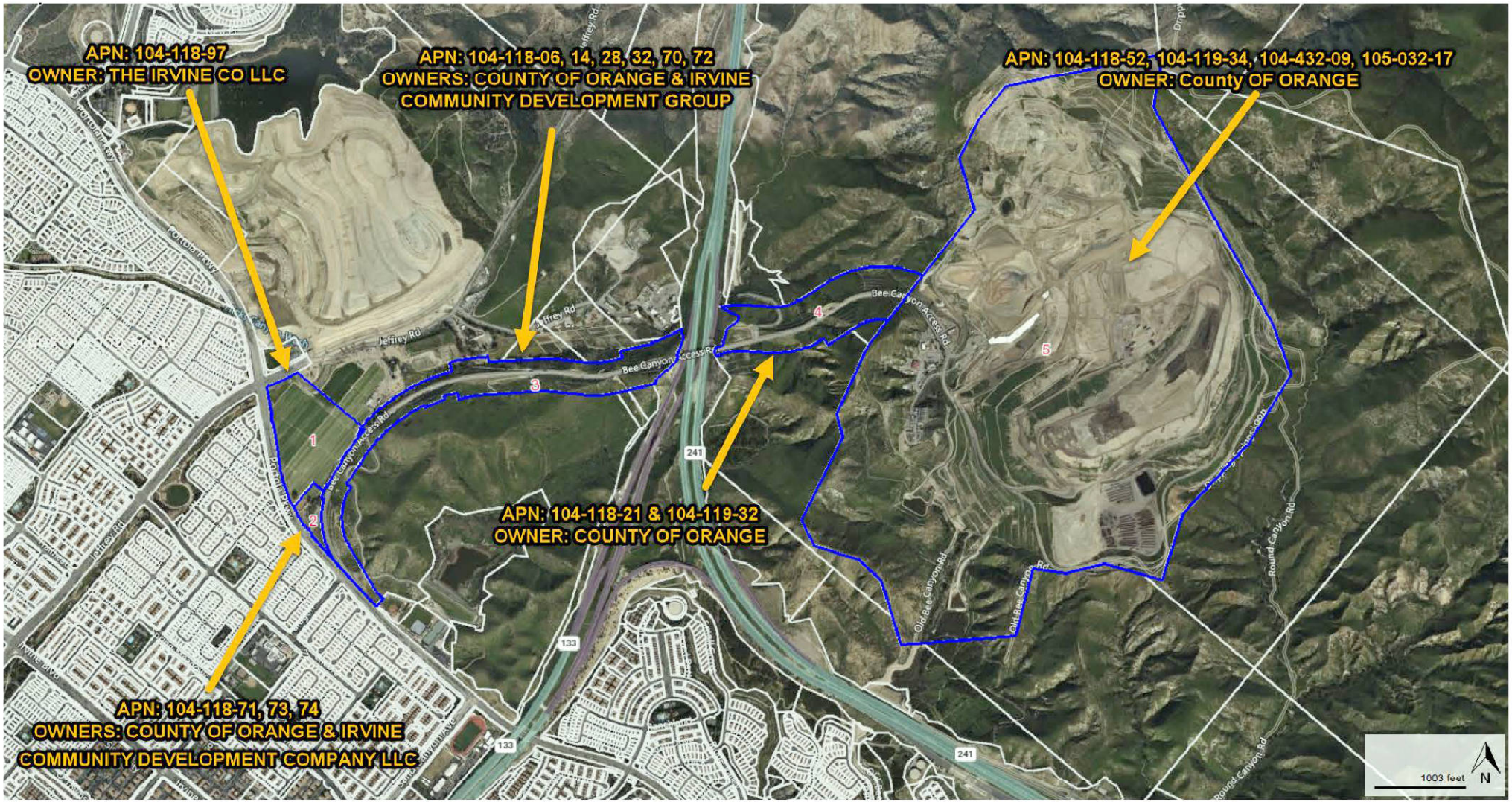
Bowerman RNG Facility
Bowerman Power LFG, LLC
11006 Bee Canyon Access Road,
Irvine, CA 92602

DRAWING NO.
G1.12
PROJECT NO.
164.02

NOT FOR CONSTRUCTION

Figure 2-11
Disturbed Area

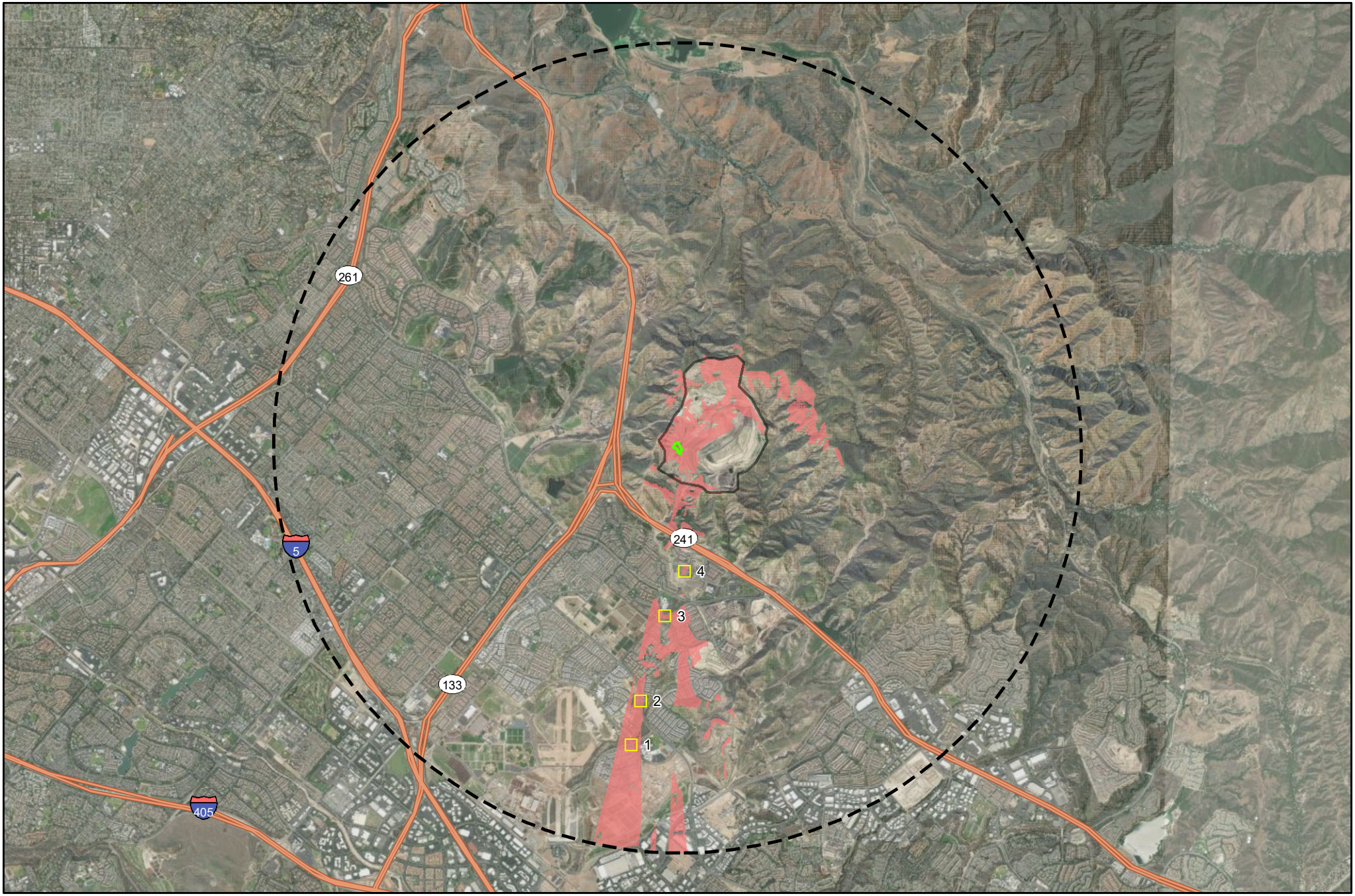
Bowerman Power RNG Plant Project
Orange County, CA



NOT FOR CONSTRUCTION

Figure 2-12
Project Site Parcels

Bowerman Power RNG Plant Project
Orange County, CA



Bowerman Landfill
Project Site
Project Site 4-mile Buffer
Project Potentially Visible
Key Observation Point

NOT FOR CONSTRUCTION

Potential Visibility assumes building height of 55 feet and viewer height of 6 feet.
Analysis incorporated bare earth elevation, with no vegetative screening.

N

0 0.5 1 Miles

Figure 3.4-1
Project Zone of Visual Influence and Key Observation Points

Bowerman RNG Plant Project
Orange County, CA

BOWERMAN POWER RNG PLANT PROJECT

Figure 3.4-2
KOP 1: Cadence

PHOTO SIMULATIONS

VICINITY MAP

LEGEND

- PROPOSED PROJECT LOCATION
- KOP WITH SIMULATION
- BOWERMAN LANDFILL BOUNDARY

PHOTOGRAPH INFORMATION

TIME:	1:12 PM
DATE:	8/11/2023
WEATHER CONDITION:	PARTLY CLOUDY
VIEWING DIRECTION:	NORTHEAST
LATITIUDE:	33.673353°
LONGITUDE:	-117.716923°
DISTANCE FROM PROJECT:	2.9 MILES

DISCLAIMER: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT IS IN DEVELOPMENT AND SUBJECT TO CHANGE.

BOWERMAN POWER RNG PLANT PROJECT

Figure 3.4-3
KOP 2: Episode

PHOTO SIMULATIONS

VICINITY MAP

LEGEND

- PROPOSED PROJECT LOCATION
- KOP WITH SIMULATION
- BOWERMAN LANDFILL BOUNDARY

PHOTOGRAPH INFORMATION

TIME:	12:52 PM
DATE:	8/11/2023
WEATHER CONDITION:	PARTLY CLOUDY
VIEWING DIRECTION:	NORTHEAST
LATITIUDE:	33.680717°
LONGITUDE:	-117.717133°
DISTANCE FROM PROJECT:	2.46 MILES

DISCLAIMER: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT IS IN DEVELOPMENT AND SUBJECT TO CHANGE.

BOWERMAN POWER RNG PLANT PROJECT

Figure 3.4-4
KOP 3: Portola Overlook Trail
PHOTO SIMULATIONS

VICINITY MAP

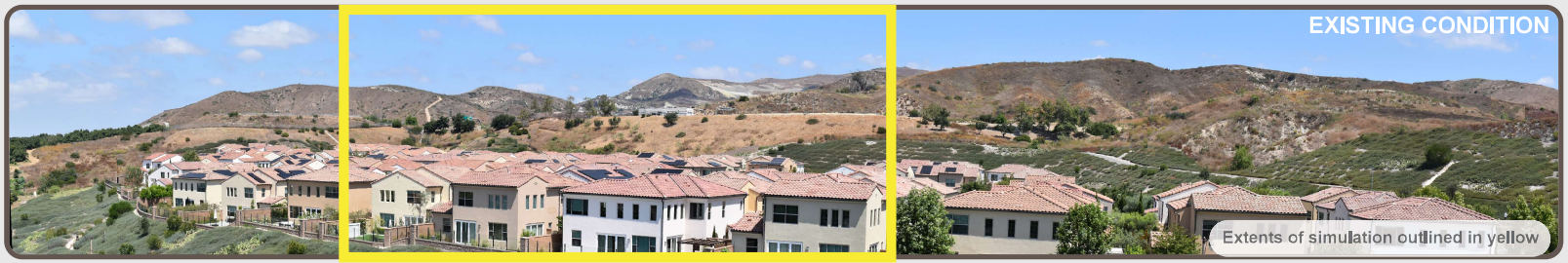
LEGEND

- PROPOSED PROJECT LOCATION
- KOP WITH SIMULATION
- BOWERMAN LANDFILL BOUNDARY

PHOTOGRAPH INFORMATION

TIME:	12:27 PM
DATE:	8/11/2023
WEATHER CONDITION:	PARTLY CLOUDY
VIEWING DIRECTION:	NORTH
LATITIUDE:	33.692200°
LONGITUDE:	-117.711400°
DISTANCE FROM PROJECT:	1.64 MILES

DISCLAIMER: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT IS IN DEVELOPMENT AND SUBJECT TO CHANGE.



BOWERMAN POWER RNG PLANT PROJECT

Figure 3.4-5
KOP 4: Tomato Springs

PHOTO SIMULATIONS

VICINITY MAP

LEGEND

- PROPOSED PROJECT LOCATION
- KOP WITH SIMULATION
- BOWERMAN LANDFILL BOUNDARY

PHOTOGRAPH INFORMATION

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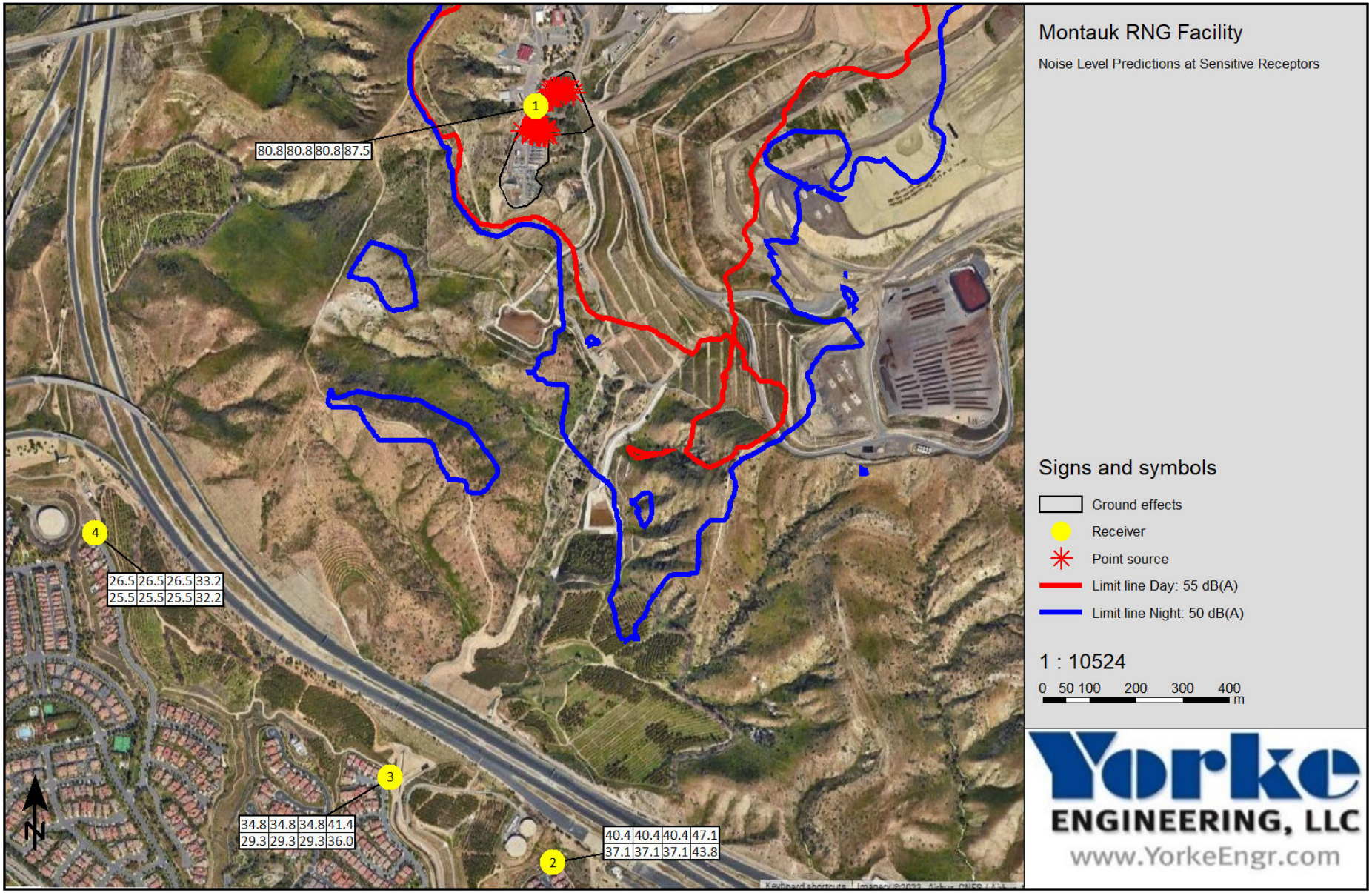
DATE:	8/11/2023
WEATHER CONDITION:	PARTLY CLOUDY
VIEWING DIRECTION:	NORTH
LATITIUDE:	33.698850°
LONGITUDE:	-117.708133°
DISTANCE FROM PROJECT:	1.17 MILES

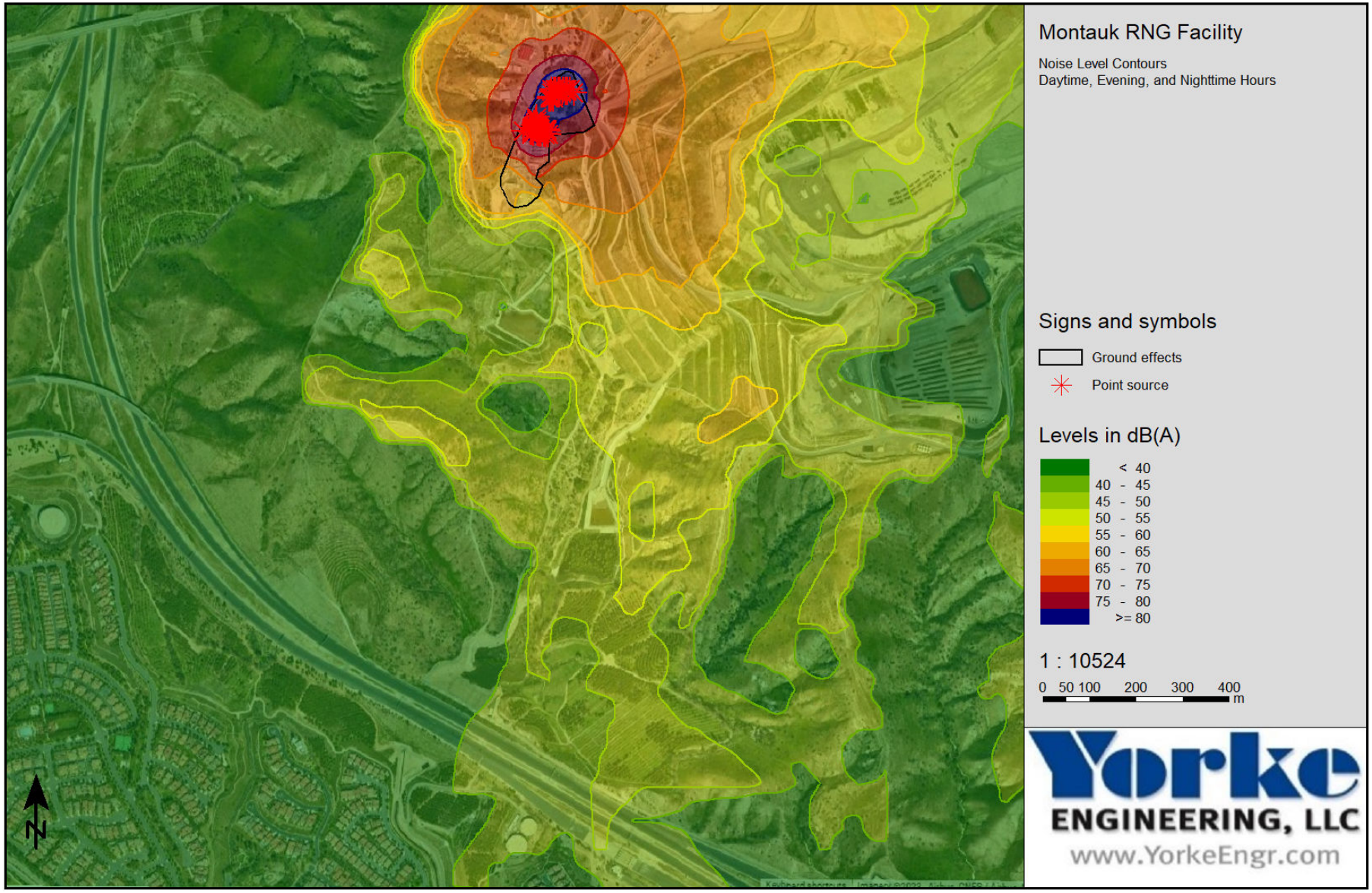
DISCLAIMER: PRELIMINARY VISUALIZATIONS ARE FOR REFERENCE ONLY; PROJECT LAYOUT IS IN DEVELOPMENT AND SUBJECT TO CHANGE.



NOT FOR CONSTRUCTION

Figure 3.4-6
Receptor Locations

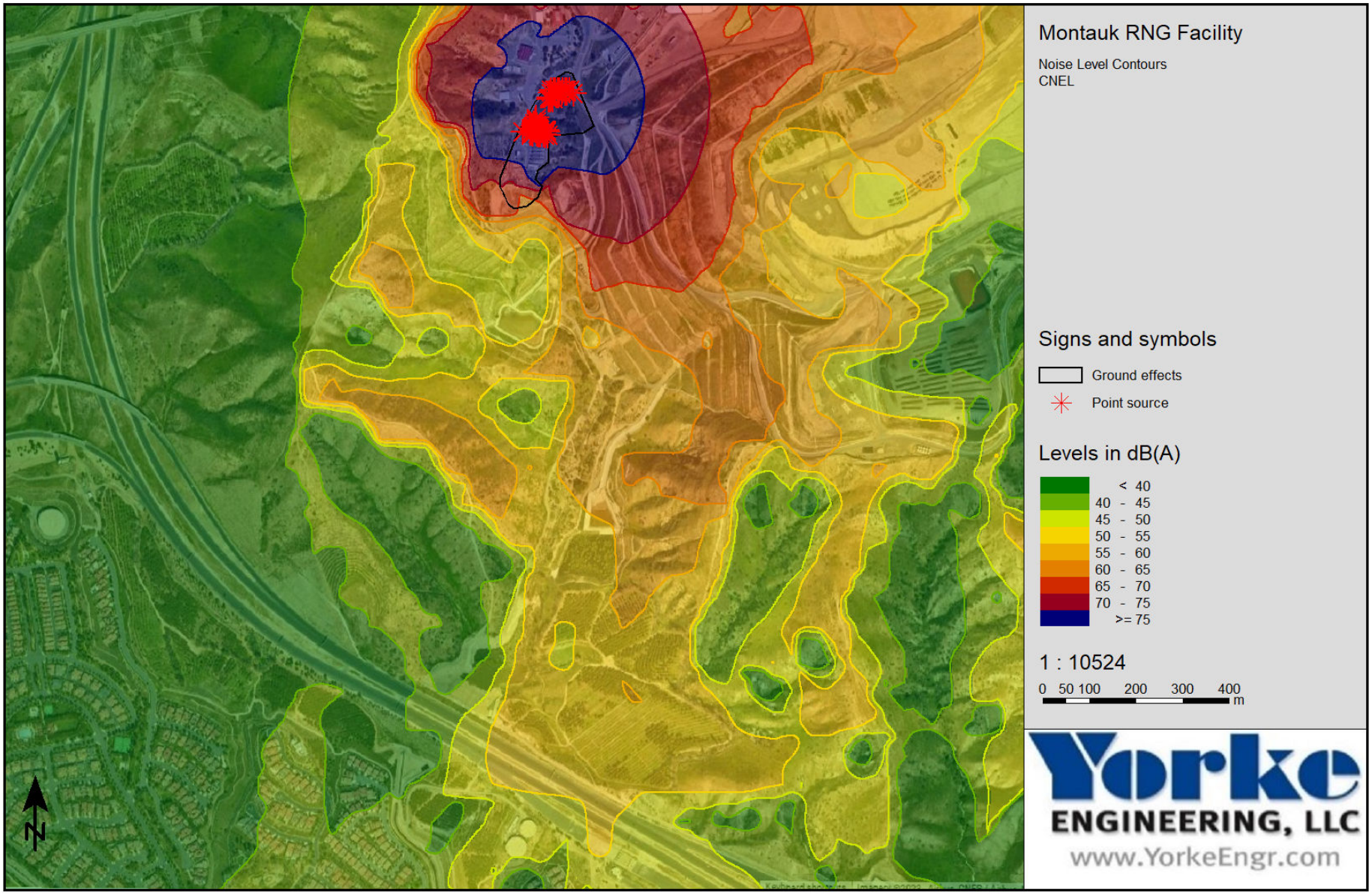
Bowerman Power RNG Plant Project
Orange County, CA



NOT FOR CONSTRUCTION

Figure 3.4-7
Operations Noise Level
Contours (dBA)

Bowerman Power RNG Plant Project
Orange County, CA



NOT FOR CONSTRUCTION

Figure 3.4-8
Operations Noise Level Contours (CNEL)

Bowerman Power RNG Plant Project
Orange County, CA