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McFarland, CA 93250  
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**NOTICE OF PREPARATION OF**  
**A DRAFT ENVIRONMENTAL IMPACT REPORT**

SAN JOAQUIN RENEWABLES BIOMASS TO RENEWABLE NATURAL GAS  
FACILITY

**Date:** June 30, 2023

**To:** California State Clearinghouse  
Responsible Agencies  
Trustee Agencies  
County Clerk, Kern County  
Interested Parties and Organizations

**Lead Agency:** City of McFarland, CA

**Project Location:** 12845 Melcher Road, McFarland, CA 93250

**Review Period:** June 30 to July 31, 2023 (extended to August 16, 2023)

The California Environmental Quality Act (CEQA) is a statute that requires state and local agencies to identify the potential environmental impacts of a project and to avoid or mitigate those impacts, if feasible. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project," such as the San Joaquin Renewables Biomass to Renewable Natural Gas Facility. The purpose of the Notice of Preparation (NOP) is to provide responsible agencies and interested persons with sufficient information to enable them to make meaningful comments regarding the scope and content of the EIR. We are requesting the assistance of your agency in defining the scope and content of the environmental information which is relevant to your agency's statutory responsibilities in connection with the proposed project. Responses shall identify, at a minimum: (1) the significant environmental issues and reasonable alternatives and mitigation measures that the responsible or trustee agency will need to have explored in the draft EIR; and (2) whether your agency will be a responsible agency or trustee agency for the project. A generalized list of concerns not related to the specific project shall not meet the requirements for a response.

The project location, description, and potential environmental effects are listed in the following sections.

Due to the time limits mandated by State law, your response must be sent as early as possible, but no later than **30 days after receipt of this notice**. If your agency fails by the end of the 30-day period to provide the lead agency with either a response to the notice or a well-justified request for additional time, the lead agency may presume that your agency does not have a response to make. Please send your response to:

City of McFarland  
Attn: Brianahi De Leon, City Planner, bdeleon@mcfarlandcity.org  
401 West Kern Ave  
McFarland, CA 93250.

You can find other related planning documents at:  
<http://mcfarlandcity.org/237/Community-Development>

A virtual public workshop and EIR scoping meeting has been scheduled to provide additional information about the project and the CEQA process. It will provide interested parties with the opportunity to offer public feedback on the project. The virtual public workshop and scoping meeting will be held at the following time and at the following link:

**June 19, 2023**  
**3 PM**

[https://teams.microsoft.com/l/meetup-join/19%3ameeting\\_Nzc0MWJlYtItYTk0Yi00NmRiLThkNmItYzZjZDFhM2VjNzJm%40thread.v2/0?context=%7b%22Tid%22%3a%22617f67c5-5987-4d23-9300-ffb98f76b269%22%2c%22Oid%22%3a%2236c7775e-a86b-4cbd-98f7-6d78551bd20f%22%7d](https://teams.microsoft.com/l/meetup-join/19%3ameeting_Nzc0MWJlYtItYTk0Yi00NmRiLThkNmItYzZjZDFhM2VjNzJm%40thread.v2/0?context=%7b%22Tid%22%3a%22617f67c5-5987-4d23-9300-ffb98f76b269%22%2c%22Oid%22%3a%2236c7775e-a86b-4cbd-98f7-6d78551bd20f%22%7d)

Signature:



**Date:** June 30, 2023

Paul Saldana, Community Development Director

## **Project Location**

The City of McFarland is in Kern County between Bakersfield (25 miles to the south) and Delano (7 miles to the north). The proposed facility would be located on an 80-acre rectangular parcel (measuring one-half mile by one-quarter mile) bounded by Elmo Highway to the north, Melcher Road to the east, and an unnamed dirt road to the west. The project site is directly north of the City of McFarland's wastewater treatment plant and is currently used for cultivation of mixed fodder that historically was irrigated by the treatment plant's secondary treated wastewater effluent. The site is within the City limits, but on a parcel located approximately 3 miles west of the City proper (Figure 1). The property is currently owned by the City of McFarland, but the applicant, San Joaquin Renewables, LLC (SJR) has executed a land purchase agreement with the City to acquire full site ownership.

## **Project Description**

SJR proposes to construct and operate a biofuel facility that would convert orchard wood waste and nut shells into biochar (a charcoal-like material), renewable natural gas (RNG), and coproducts including ammonium sulfate fertilizer and carbon dioxide through a non-combustion thermal conversion process called gasification. Biomass materials would be collected from local orchards and nut processing facilities and delivered to the site by truck. Orchard wood waste, which would arrive at the facility already chipped, would comprise approximately 70 to 90 percent of the feedstock used at the facility while a mixture of various types of nut shells would comprise the balance.

RNG production would be achieved by combining oxygen, nitrogen, steam, sand, limestone, and biomass in the gasifier converter to produce a gas mixture called syngas. The oxygen and nitrogen used by the gasifier converter would be produced by another set of equipment at the facility called an air separation unit (ASU), which separates the various constituents of air into concentrated streams of both gas and liquid oxygen, nitrogen, and argon. A component of the ASU would include a 250-foot-tall cold box. The syngas is processed to remove biochar, sulfur, and nitrogen compounds and then converted into a mixture of methane, carbon dioxide, and water. Once carbon dioxide and water are removed, the methane would meet the safety requirements of Southern California Gas Company (SoCalGas) and would be injected into the SoCalGas pipeline, which runs on the northern and eastern sides of the site.

The SJR facility would process up to 1,500 bone-dry tons per day (BDT) or 1,764 wet-basis (typically 15 percent moisture content) tons per day of agricultural waste biomass into approximately 12.5 million standard cubic feet per day (MMSCFD) of RNG. The RNG would be sold for use as a biofuel in transportation, electricity production, or any other application that uses natural gas. The outputs of the gasification process that would be trucked off the facility for sale include liquefied oxygen, nitrogen, and argon; biochar; and ammonium sulfate fertilizer. The carbon dioxide would either be vented to the atmosphere; trucked to an off-site, approved injection well; or manufactured into dry ice or liquified on site and shipped from the facility by truck for sale.

In addition to the gasification area, air separation unit area, and possible dry ice production area, the facility would also include a maintenance and operation building, truck repair building, two administration buildings with one of the buildings containing a visitor center, a scale house, a biomass receiving and storage area (shell storage area and wood yard) with truck tippers to unload

the biomass and conveyers to move the material to the storage area, a compressed natural gas (CNG) fueling station with six fast-fill fueling points open to the public, an enclosed biomass grinder, up to ten acres of solar panel arrays, liquid storage tanks, two stormwater infiltration basins, a flare, roadways and parking lots, and an electric power generation facility that would produce electricity to power the facility (Figures 2 and 3).

A PG&E electrical substation is located in the northeast corner of the project site and would remain operational but would not supply power to the project. Primary access to the site would be via Melcher Road with secondary emergency access and exit gates off Elmo Highway.

Biomass feedstock deliveries would occur from 6 AM to 6 PM, Monday through Friday, and from 6 AM to Noon on Saturdays. During busy seasons for feedstock suppliers, feedstock receiving hours would be extended to Sunday from 6 AM to Noon. Biomass would be stored in outdoor, uncovered piles at the facility, with enough stockpiled inventory storage to enable one month of operation without deliveries.

The facility is planned to operate 24 hours per day, 7 days per week, except for scheduled maintenance outages and any unplanned shutdowns. The facility is projected to require 63 on-site employees and 86 truck drivers for a total of 149 full-time employees.

Trucks delivering biomass from State Route 99 to the site and trucks transporting marketable products from the site would be directed to use the State Route 99/Pond Road intersection to Garzoli Avenue, Elmo Highway, and Melcher Road.

Construction of the SJR facility is expected to take 12 to 18 months and is expected to begin in the second or third quarter of 2024. It is estimated that there would be approximately 475 personnel needed for the construction of the facility. San Joaquin Renewables has entered into a Project Labor Agreement with the State Building and Construction Trades Council of California and the Kern, Inyo, and Mono Counties Building and Construction Trades Council to utilize union workers during construction.

## **Potential Environmental Effects**

The Draft EIR will address the short-term and long-term effects of the proposed project on the environment. Mitigation measures will be proposed for those impacts that are determined to be significant. A mitigation monitoring program will also be developed as required by Section 15097 of the CEQA Guidelines. The following subject areas include potential environmental effects that will be analyzed in the EIR:

***Aesthetics.*** Construction elements of the project would result in changes to the natural landscape and visual environment. The project would introduce nighttime lighting. The tallest building proposed is the air separation unit cold box, at approximately 250 feet tall. The project would introduce unnatural, manufactured features that would be visible from adjacent roads and private properties. Mitigation measures (temporary and permanent) will be proposed, if needed.

***Agricultural Resources.*** The EIR will assess impacts on agricultural resources. The project area is designated as prime farmland and would be converted to a facility that processes agricultural materials. The project area is not under a Williamson Act contract. Mitigation measures

(temporary and permanent) will be proposed, if needed.

**Air Quality.** The project is expected to generate construction and operational air emissions. The EIR will quantify construction and operational emissions with the California Emissions Estimator Model (CalEEMod) and will compare the estimated emissions to San Joaquin Valley Air Pollution Control District (SJVAPCD) thresholds to determine impact significance. This will include evaluating construction- and operation-related emissions of criteria air pollutants and precursors and toxic air contaminants. Mitigation measures (temporary and permanent) will be proposed, if needed.

**Biological Resources.** The project site is within the range of the federally listed endangered San Joaquin kit fox, but this species has not been observed in the project area. No riparian areas or other sensitive habitats are located on site. The parcel includes an elongated pond in the northwest corner of the site that will be evaluated in the EIR. Any impacts on native vegetation and wildlife will be described in the EIR. The potential for the project to result in the spread of invasive weeds will also be discussed.

**Cultural Resources and Tribal Cultural Resources.** No cultural resources were identified during a pedestrian survey and record search of the project area. Notwithstanding, any tribes traditionally and culturally affiliated with the geographic area that requested, in writing, to be notified of projects undertaken by the City of McFarland will be invited to consult pursuant to AB 52. Actions and results of the AB 52 process will be described in the EIR. If consultation or other analysis identifies potential impacts to cultural or tribal cultural resources, these will be assessed in the EIR.

**Energy.** The project would utilize solar, thermal renewable energy, and other energy sources created on site during operation. The project would create additional haul truck trips, which would require energy use. Energy impacts of the project will be disclosed and assessed.

**Geology and Soils.** The project site is located within a seismically active region and is located close to known faults. The project area is very flat and consists mostly of the Kimberlina fine sandy loam soil type, which has a low water erosion hazard. Any potential geology or soils impacts associated with the project will be evaluated.

**Greenhouse Gas (GHG) Emissions.** The project would use CalEEMod to estimate the level of GHGs associated with construction and operation of the project, including haul trucks. During operation, RNG would be created to replace diesel fuel in some haul trucks, thereby minimizing GHG transportation emissions. The project has the potential to vent carbon dioxide to the atmosphere, which would contribute to the project's operational GHG emissions. Mitigation measures (temporary and permanent) will be proposed, if needed.

**Hazards and Hazardous Materials.** Construction and operation of the project would require use and storage of hazardous materials. Impacts associated with the use and storage of hazardous materials will be analyzed in the EIR.

**Hydrology and Water Quality.** The nearest natural water body is Poso Creek 2.2 miles to the southwest. Groundwater depth at the project site was approximately 290 feet below ground surface (bgs) in the Spring of 2021. The project would generate its own water for biomass processing and would not discharge water. Stormwater would be captured and infiltrated on

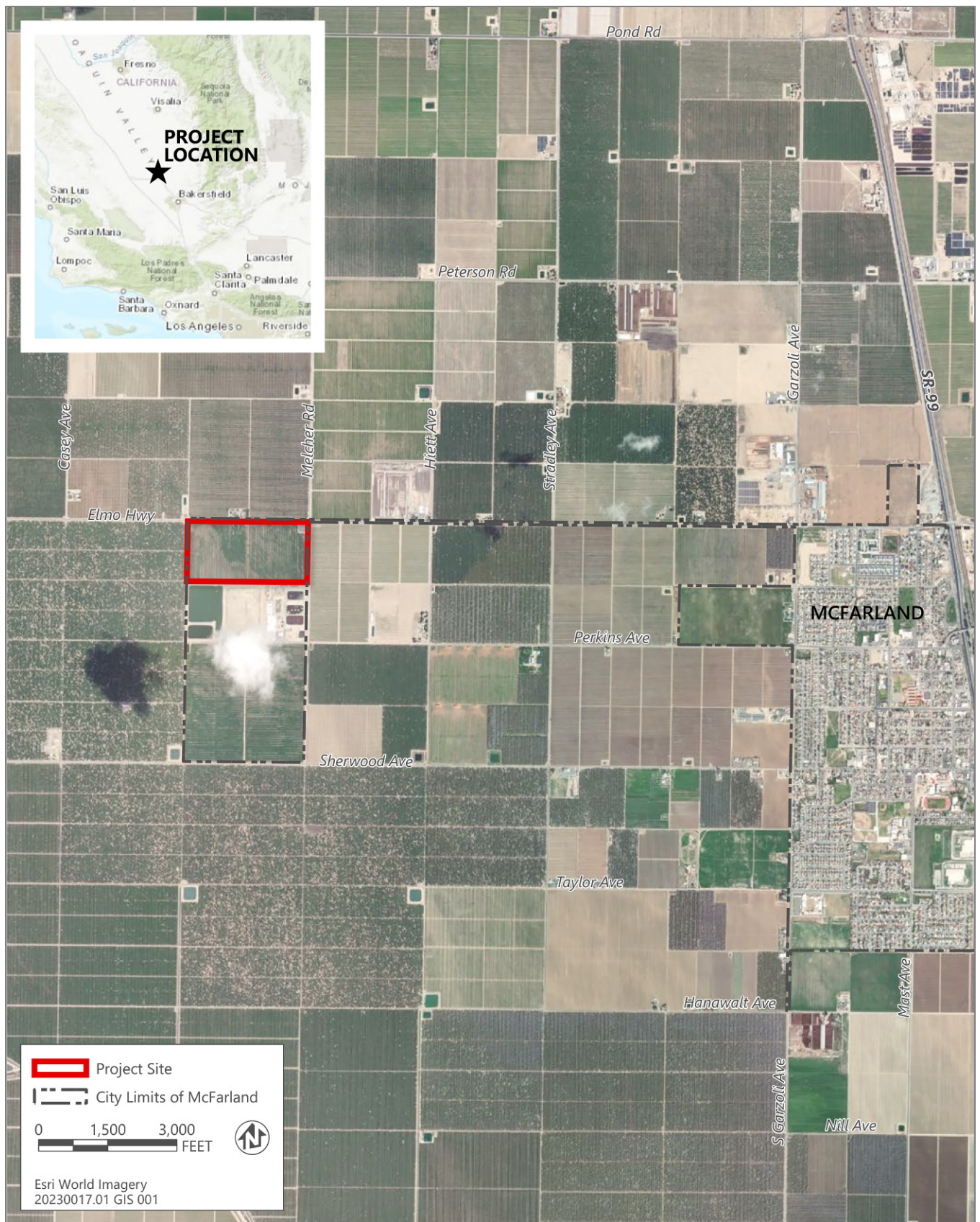
site. Any impacts to hydrology and water quality will be identified in the EIR.

**Noise.** The EIR will analyze noise created by construction, truck traffic, and operation of the facility and identify potential impacts on sensitive receptors in the project vicinity. Noise-sensitive land uses including schools, day-care facilities, hospitals, churches are mostly located approximately 2.5 miles away in the City of McFarland. There are two residences across Elmo Highway to the north, within approximately 200 feet of the project site boundary at its closest approach, and a few other rural residential properties within approximately 0.5 mile of the site. The EIR would conduct qualitative analysis of construction and operation-related levels of ground vibration at sensitive receptors based on reference vibration data and prediction methods. Mitigation measures (temporary and permanent) will be proposed, if needed.

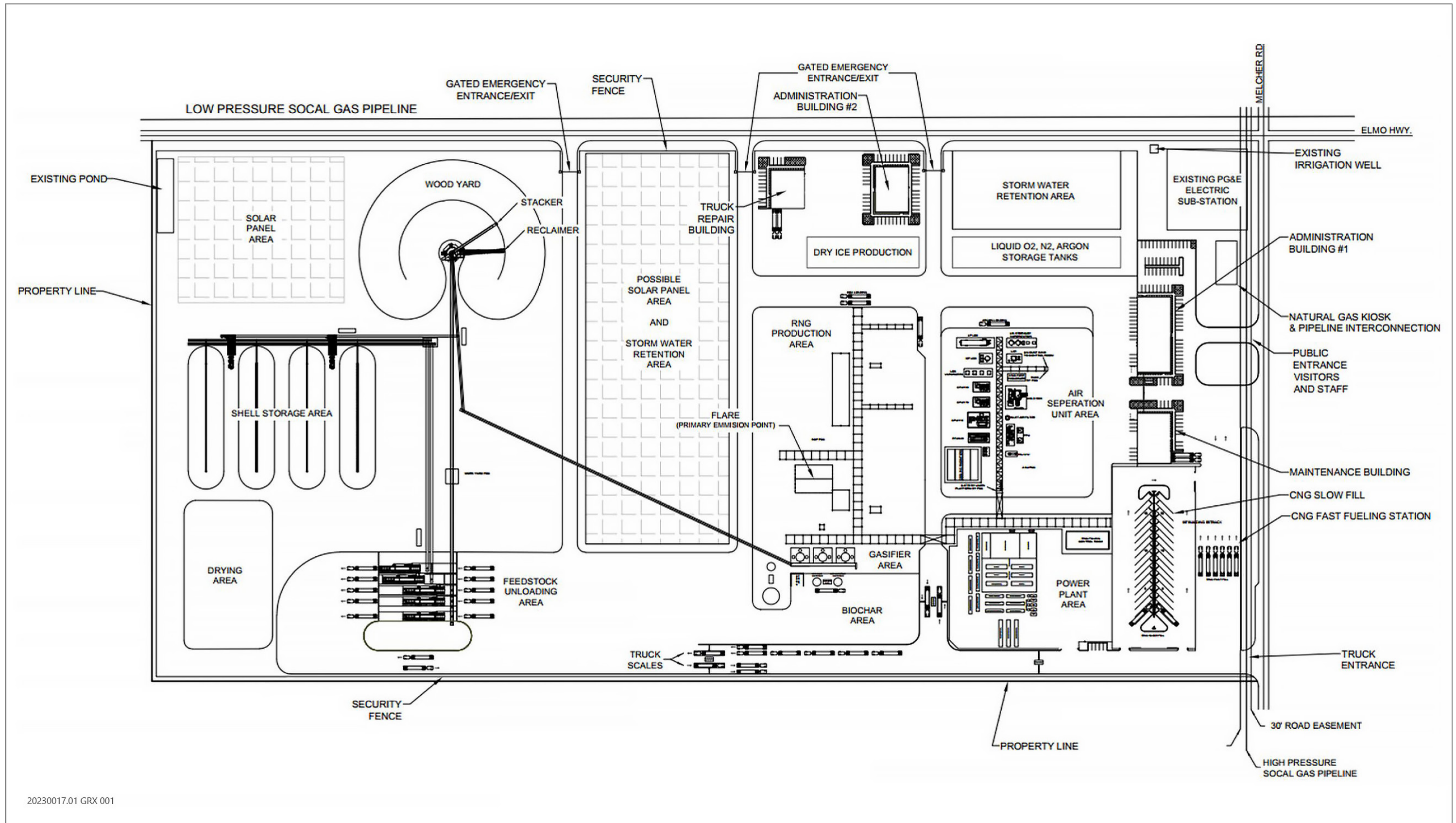
**Public Services and Utilities and Service Systems.** The EIR will disclose any potential increase in demand for water supply/treatment, wastewater conveyance and treatment, and solid waste. The EIR will also discuss the project's effects on law enforcement, fire protection, and schools associated with project implementation. The EIR will identify the ability of local purveyors to supply or accommodate the anticipated demand on public service and utility systems.

**Transportation and Circulation.** Implementation of the project would generate substantial haul truck traffic on surrounding roads during construction and operation. Construction of the proposed project would generate short-term construction-related traffic and long-term operation would result in traffic impacts through the addition of haul trucks. The transportation analysis will include identification of major roadways and intersections in the project area and an SB 743-compliant vehicle miles traveled (VMT) assessment. Effects on local circulation patterns will also be discussed in these locations. Trucks delivering biomass from State Route 99 to the site and trucks transporting marketable products from the site would be directed to use the State Route 99/Pond Road intersection to Garzoli Avenue, Elmo Highway, and Melcher Road. Mitigation measures (temporary and permanent) will be proposed, if needed.

**Wildfire.** The project site is not located in a fire severity risk area as mapped by CalFire. The EIR will analyze whether the project would exacerbate wildfire risks.



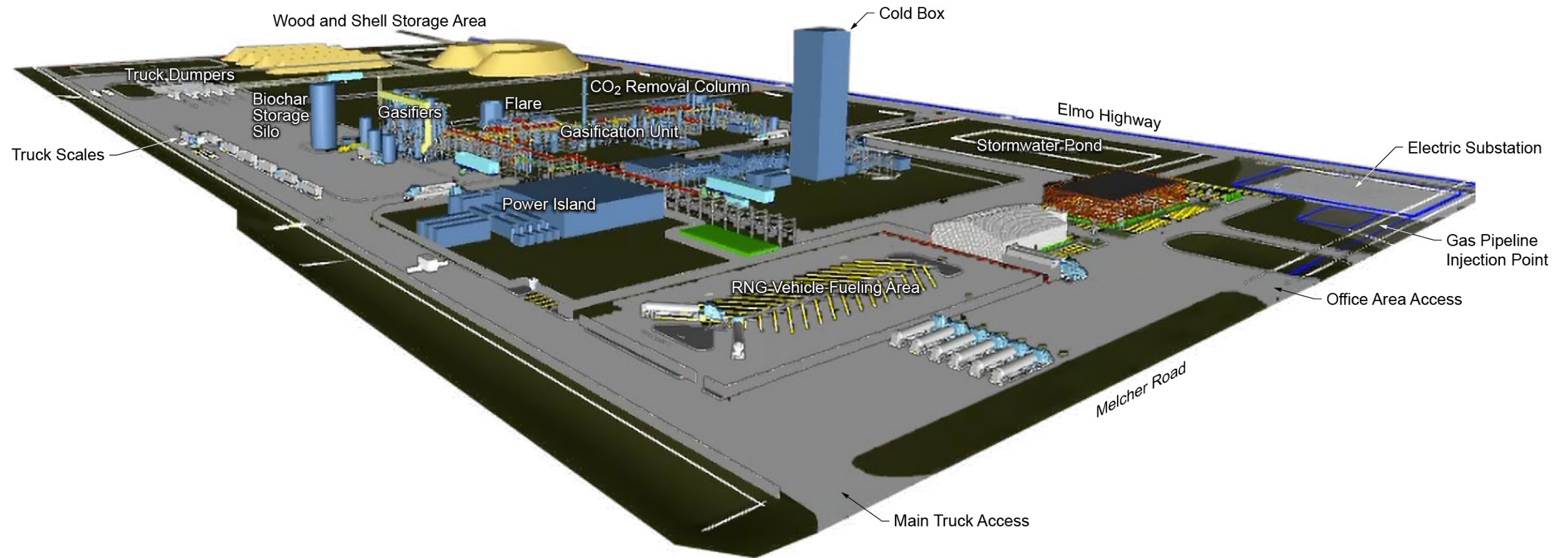
**Figure 1 Site Location**



20230017.01 GRX 001

Figure 2 Site Plan





20230017.01 GRX 002

**Figure 3** Visual Simulation