# CITY OF LANCASTER
# INITIAL STUDY

## Environmental Checklist Form

**1. Project Title and File Number**

Lancaster Waste to Renewable Hydrogen Project
Conditional Use Permit (CUP) No. 21-06

**2. Lead Agency Name and Address**

City of Lancaster
Development Services Department
Community Development Division
44933 Fern Avenue
Lancaster, California 93534

**3. Lead Agency Contact**

Jocelyn Swain, Senior Planner
(661) 723-6100

**4. Project Location**

SG H2 Lancaster Holding Company LLC (SGH2), owned by SGH2 Energy Global, proposes to construct the Lancaster Waste to Renewable Hydrogen (WTRH2) facility on an approximately 15-acre site located north of Avenue M between 5th and 6th Streets East in Lancaster, California. The proposed project site is located on three parcels (Assessor's Parcel Numbers [APNs] 3126-017-028, 3126-017-040, and 3126-017-039). The parcels include vacant, undeveloped land designated as Heavy Industrial (City of Lancaster, 2009). Adjacent and surrounding areas are also zoned as Heavy Industrial and include vacant land, industrial uses, and three single-family residences. The project site is approximately two miles east of the Antelope Valley Freeway (State Route 14) in the southern portion of the City of Lancaster, just north of the City of Palmdale (see Figure 1. Project Location).

**5. Applicant Name and Address**

SG H2 Lancaster Holding Company, LLC
Attn: Robert T. Do, MD
1000 Potomac St, NW 5th Floor
Washington, DC 20007

**6. General Plan Designation**

Heavy Industrial (HI)

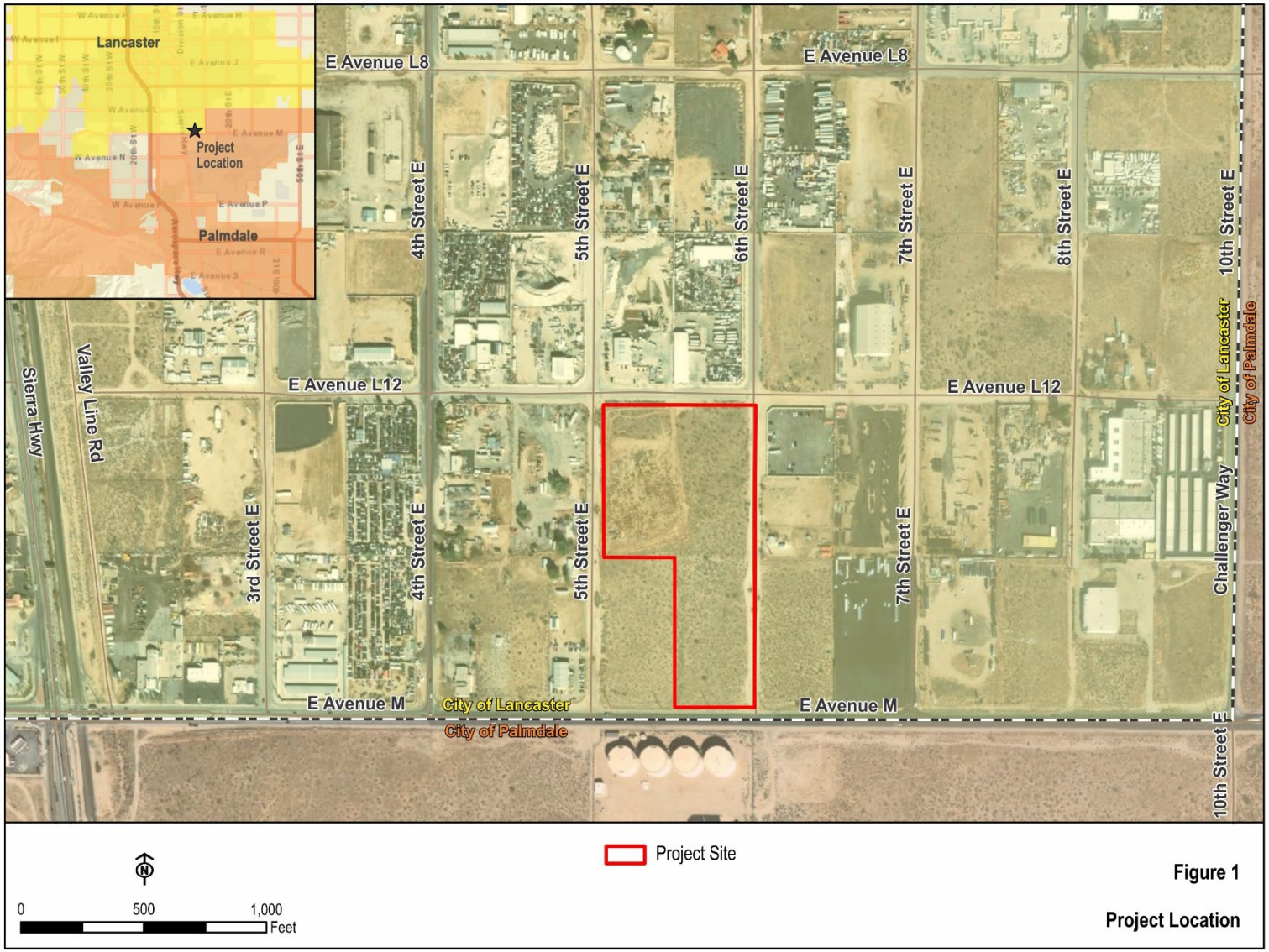
**7. Zoning**

Heavy Industrial (HI)

**8. Description of Project**

The proposed Lancaster WTRH2 Project (project) consists of the construction and operation of a facility that would produce hydrogen ($H_2$) from unrecyclable mixed waste paper feedstock. Feedstock is defined as a raw material to supply or fuel a machine or industrial process. The feedstock would be gasified (i.e., converted from a solid into a gas) to produce a $H_2$-rich gas that would be further processed to reach 99.97 mole percent pure renewable $H_2$. The $H_2$ gas would be transported off-site in pressurized tube-trailer containers for use by Shell Hydrogen and Iwatani Corporation of America (Iwatani) at $H_2$ refueling stations (HRS) located throughout California.

## Figure 1. Project Location




Source: SGH2 and Fluor, City of Lancaster, 2022

The HRS would dispense the $H_2$ as a transportation fuel in motor vehicles. $H_2$ is a "clean fuel" that does not release greenhouse gases or other air pollutants, such as carbon dioxide ($CO_2$), particulate matter, nitrous oxide ($N_2O$), or carbon monoxide (CO) emissions, and does not contribute to climate change.

The California Fuel Cell Partnership, in coordination with the California Air Resources Board (CARB), has set a goal to have 200 HRS by 2025 and 1,000 stations by 2030. Currently, all HRS are being supplied with grey $H_2$, which is derived from natural gas. The State mandate requires that no less than 33.3% of the $H_2$ produced or dispensed for motor vehicles be made from renewable sources. The $H_2$ that would be produced under the proposed project is considered renewable because the fuel would be generated from biomass, which is renewable organic material that comes from either plants or animals. The project would help meet the demand for renewable $H_2$ and assist the State with achieving its renewable energy goals. The California Energy Commission (CEC) awarded $3 million for the engineering and construction of the project through the "Renewable Hydrogen Transportation Fuel Production" program, which funds the construction of hydrogen production facilities that produce renewable hydrogen transportation fuel utilizing in-state renewable resources.

The WTRH2 facility would convert 42,000 metric tons per year of pre-landfilled, unrecyclable mixed waste paper provided by the City of Lancaster. The City has submitted a Letter of Interest to supply the feedstock for the project at a quantity of 120 metric tons per day for 10 years. A long-term feedstock supply agreement has also been secured with the Allan Company. The feedstock would consist of recycled waste paper that has been rejected from further recycling and would otherwise be disposed of in a landfill; any paper that is able to be recycled would not be used at the facility and would be sent to a recycling facility instead. The project would therefore divert the unrecyclable mixed waste paper from landfills and convert the feedstock into 4,570 metric tons of $H_2$ per year, with a full production capacity of 13.1 metric tons of $H_2$ per day.

Another component of the proposed project would include the capture of $CO_2$ gas as a byproduct of the $H_2$ production. The facility would capture approximately 70,000 metric tons of $CO_2$ annually using Air Liquide's proprietary CryoCap™ system from the off-gas of the pressure swing adsorption (PSA) unit after the $H_2$ is separated; the PSA unit absorbs impurities, such as $CO_2$, to obtain a high purity $H_2$. The CryoCap™ system would recover the $CO_2$ and produce $CO_2$ liquid that would be transferred to a site in Bakersfield for permanent sequestration (i.e., stored in a manner that prevents the $CO_2$ from being released into the atmosphere with the goal of reducing climate change impacts).

The WTRH2 facility would operate for a period of approximately 25 years. The facility is designed to operate 24 hours a day, 7 days a week for 350 days each year, or 8,400 hours per year. The facility is expected to employ approximately 43 individuals. During business hours, a total of 25 administrative, technical, and support staff would be at the facility. The operations personnel would be organized into four shifts of 6 people with each shift working 12 hours per day (two shifts per day with the other two shifts off.) This does not include other support personnel that are anticipated to be contractually engaged through 3rd parties, such as security personnel.

### *Gasification Process*

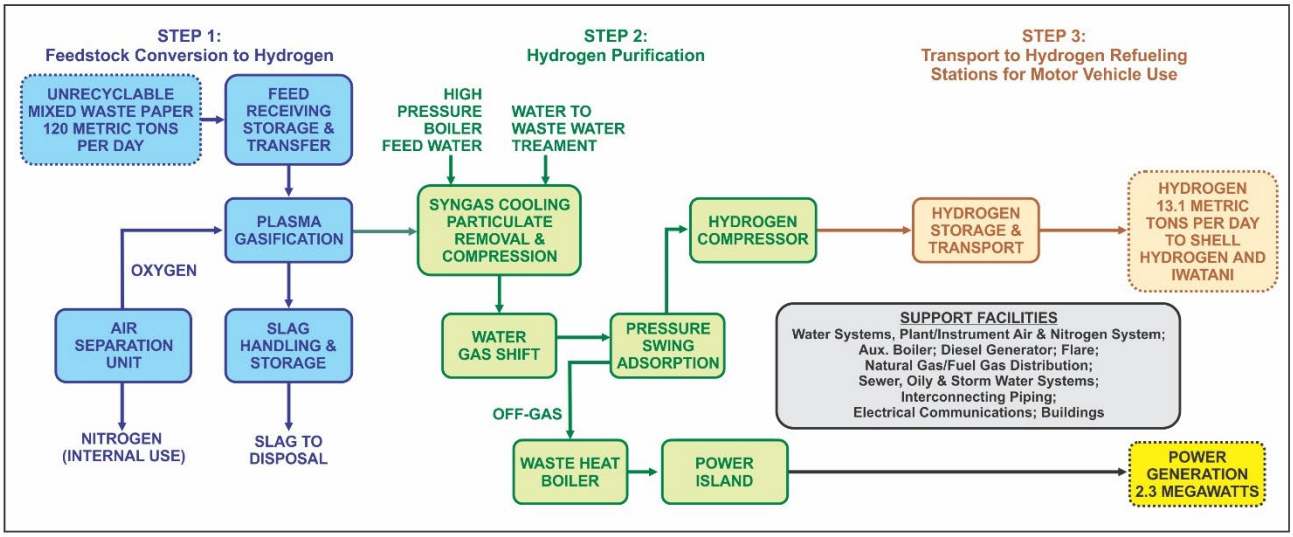
The gasification process would be conducted through the use of Solena Plasma Enhanced Gasification (SPEG) technology, which would allow the complete molecular dissociation of organic hydrocarbon compounds and conversion into a clean and high energy biosyngas[1] composed primarily of CO and $H_2$.

[1] Syngas, or synthesis gas, is a fuel gas mixture consisting primarily of hydrogen and carbon monoxide, and very often carbon dioxide. Biosyngas is renewable syngas made from biomass.

The gasifier would operate under limited oxygen and atmospheric pressure conditions. Because of these conditions, the process does not result in combustion or burning of the feedstock and does not produce any products of combustion, such as bottom or fly ashes, or carcinogenic semi-volatile organic compounds (SVOCs), such as dioxins, furans, or other SVOCs.

The overall process for the production of $H_2$ using the SPEG technology is shown in Figure **2**. The SPEG system is a fixed-bed oxygen-blown gasification system optimized with a plasma[2] heating system. Each SPEG houses three plasma torches of 600-kilowatt (kW) capacity that generate high-temperature plasma jets to heat a carbon catalytic bed. The extreme heat dissociates organic hydrocarbon materials into basic elemental gases while at the same time melting all the inorganic inert materials into a glass matrix, which is cooled into an inert and non-leachable slag (a glass-like by-product).

**Figure 2. WTRH2 Gasification Process**




Source: SGH2 and Fluor

The gasification process includes the following steps:

- **Step 1: Feedstock Conversion to Hydrogen.** During the first step of the gasification process, an air separation unit (ASU) would produce oxygen and nitrogen from ambient air; the oxygen would be used in the plasma gasification unit, which would convert the feedstock to syngas (CO and $H_2$) and produce slag as a waste product.
- **Step 2: Hydrogen Purification.** During the second step of the gasification process, the syngas would be cooled and purified. Solid particles would be removed, and a chloride scrubber would reduce chloride content in the $H_2$ to less than one part per million volume (PPMV). The syngas would be compressed and would go through the water-gas shift process to convert CO and water into additional $H_2$ and $CO_2$. The syngas would be cleaned further and then sent to the PSA unit, which would absorb impurities, such as argon (Ar), nitrogen ($N_2$), CO, and $CO_2$, to obtain a high purity $H_2$. The $H_2$ would then be compressed for storage and transport. During this step, waste heat would be used to generate power for internal plant consumption. In addition, the PSA tail gas containing mostly $CO_2$ would be sent to the $CO_2$ removal and liquefaction unit.

[2] Plasma is superheated matter that is so hot that electrons are ripped away from the atoms forming an ionized gas.

- **Step 3**: **Transport to Hydrogen Refueling Stations for Motor Vehicle Use**. As the final step, the $H_2$ gas would be loaded onto $H_2$ tube trailers for final distribution to refueling stations throughout California.

The gasification process would generate brine from the recovery of recycled process water; iron sponge from the removal of sulfur (S)/hydrogen sulfide ($H_2S$) as waste products from the syngas cleaning process; and liquid $CO_2$, which would be transported offsite by truck for permanent sequestration. Produced $CO_2$ would not be vented except under emergency upset conditions. In addition, all upset vents would be sent to the ground flare for safe combustion.[3] The facility would not discharge any process gas streams into the atmosphere. Overall, the process would convert all carbon from the waste feedstock into $H_2$ and $CO_2$, remove all particulates and acid gases, and produce no toxins or pollutants.

***Project Construction***

Project construction would be completed within approximately 16 months and would include the following:

- Site preparation, grading, and paving;
- Installation of foundations and structural components for process equipment;
- Construction of administrative/control and warehouse building; and
- Underground trenching for utilities, including electrical, process and potable water piping, and sewer piping.

A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during construction, depending on the work being conducted. Prefabricated, skid-mounted process equipment would be delivered to the site to reduce on-site installation of individual equipment components. Skid-mounted equipment would be installed permanently at the site.

***Project Operation***

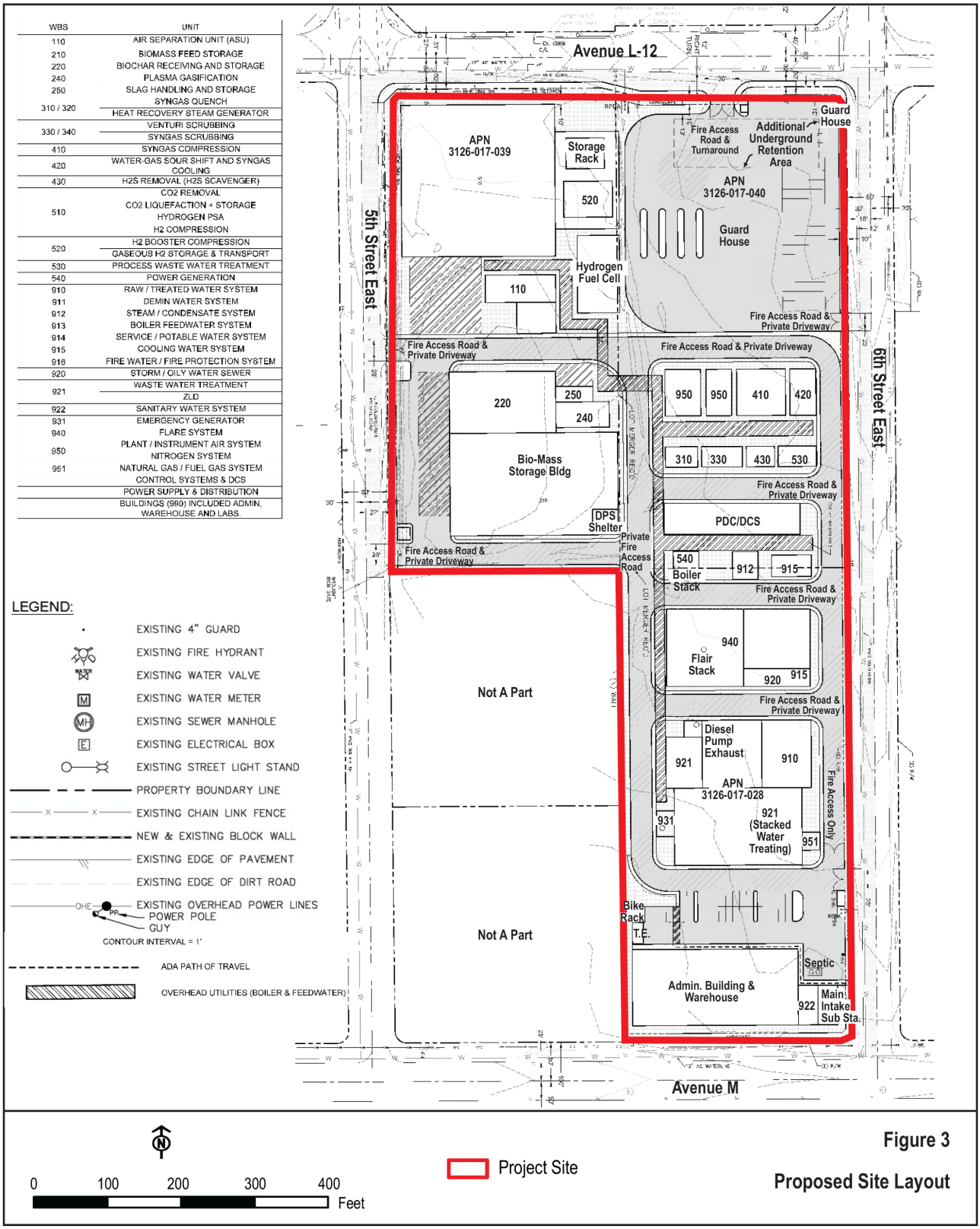
Facility Layout and Equipment

The main areas of the facility include feed and product storage and transport areas, water systems, and a flare system (see Figure 3). Access to the proposed facility would be from Avenue M, Avenue L-12, 5th Street East, and 6th Street East. Additional roadways to access the site include State Route 14, Avenue L, and Challenger Way (10th Street East). Both 5th and 6th Streets are private roads that are currently unpaved; these roads would be paved as part of the project. The entire site would also be paved with concrete or asphalt to prevent dust (particulate matter) emissions from truck movement within the complex.

A concrete block and/or tubular steel wall would be installed around the perimeter of the site to serve as a noise barrier and enhance site security. The height and thickness of the wall would be designed so that noise from the facility equipment would not exceed the City's noise limits (70 A-weighted decibels [dBA]) at the fence line, per Section 8.24 of the Lancaster Municipal Code. Noise-generating equipment would also be located at ground level and would be located within enclosures to reduce noise levels. The site and buildings would be gated and access controlled. Landscaping would be provided on the project site in accordance with the City zoning ordinance including within the parking areas and around the perimeter of the site.

[3] The ground flare is a process unit for air pollution control that would combust hazardous gases at high temperatures.

## Figure 3. Proposed Site Layout




Source: SGH2 and Fluor, 2022

As shown in Figure **4**, the WTRH2 facility would include a two-story administrative/control and warehouse building, as well as process equipment, such as pumps, boilers, compressors, and power generation equipment. The facility would include an oxygen-blown fixed bed gasification island, $H_2$ processing, and storage and transportation by $H_2$ transport modules (tube trailers/trucks).

Additional equipment at the site would include the ground level flare, wastewater treatment system, flare stack, emergency generator, cooling tower, deaerator vent, oil-water separator, PSA unit, and ASU. The ASU, at 90 feet high, would be the tallest piece of equipment at the facility.

The $H_2$ panels would be designed to receive $H_2$ continuously and to automatically direct the $H_2$ to tube trailers that are connected to it. The $H_2$ compressor and the loading panels would be designed to fill two trailers simultaneously. On-site $H_2$ buffer storage of 4,400 pounds would also be provided. Normally the storage would be kept half-filled, which would be used when there is no flow of $H_2$ from the plant due to emergency shutdowns. In the event that empty trailers are not available, the $H_2$ produced in the plant would be routed to on-site buffer storage.

A 250-kilowatt (kW) spare firewater pump and a 500-kW emergency generator for emergency use only would require diesel fuel (natural gas is also being explored as a fuel source, but diesel is assumed as a worst-case scenario for this analysis). The facility would be equipped with safety mechanisms, such as fire protection and sprinkler systems, dust suppression systems, detectors/alarms, shutdown systems, and temperature monitoring and controls, and would undergo a full Hazard and Operability Analysis (HAZOP) review as part of engineering design.

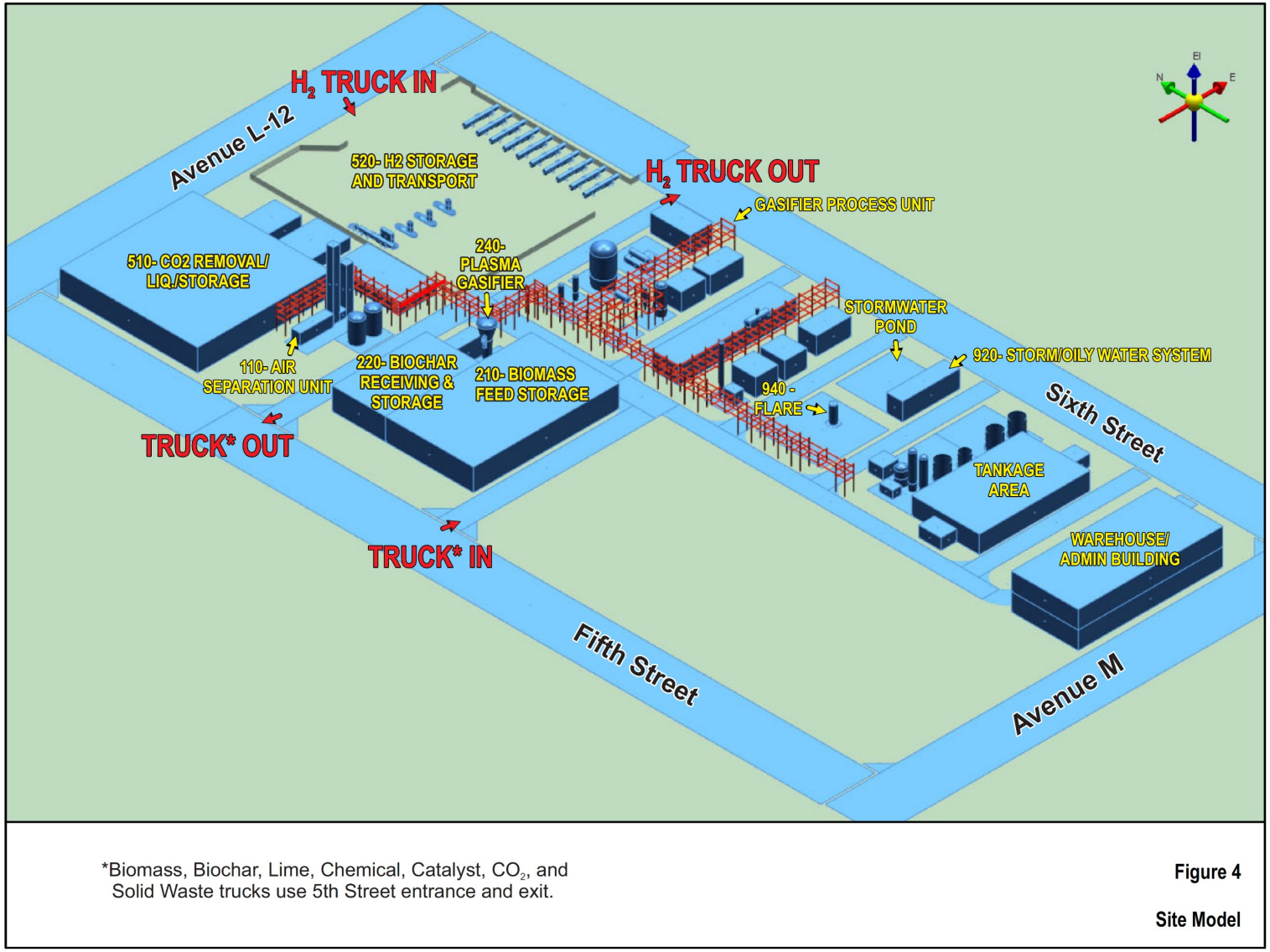
Energy, Water, and Wastewater Requirements

The facility would produce a maximum of 2 megawatts (MW) of energy for internal plant consumption; this energy would be produced with a waste heat steam boiler/generator and fuel cell. The City (Lancaster Choice Energy) would provide 10 MW of renewable energy with grid tie-in to the Lancaster renewable power grid via Southern California Edison (SCE) underground distribution lines connecting to the 20$^{th}$ Street East SCE substation. Landale Mutual Water Company would supply potable water for the plant's power and process water, as well as domestic water requirements. Additional process water would be obtained through stormwater retention via an above ground retention basin on the site. Onsite stormwater drains and catch basins would convey water to the stormwater retention basin. Overflow stormwater would be discharged to storm drains in the public right-of-way.

For wastewater treatment and ammonia ($NH_3$), S, and $H_2S$ removal, the facility would include a brine concentrator, ammonia wash column, and iron sponge bed-based system. The facility's Zero Liquid Discharge (ZLD) design would allow process wastewater to be treated and re-used internally with no discharges into the storm drain system. If the wastewater treatment system is down for any reason, sewer tie-in would be needed to maintain operation of the plant. The facility would tie into the sewer system either on the south side of Avenue M or other nearby sewer line.

The wastewater treatment process would produce a concentrated brine that would be sent offsite by truck to a disposal facility. A septic tank would be installed for the basic sewage treatment of wastewater flows from the administrative/control and warehouse building. Catch basins with filters and depressions would be onsite in spill containment areas, which would be required for all process unit areas. Drains would collect stormwater and spills, which would be directed to the stormwater retention basin after being processed in the oil-water separator.

**Figure 4. Site Model**




Source: SGH2 and Fluor, 2022

Operational Truck Trips

Operational truck trips would be required to deliver feed items to the facility and to export products and waste from the facility. Table 1 lists these truck trips during operation of the facility.

**Table 1. Operational Truck Trips**

| | Frequency |
|---|---|
| **Feed Delivery** | |
| Biomass | 6 trucks per day |
| Biochar | 1 truck every other day |
| Lime | 1 truck every 5 days |
| Catalyst/Chemical | As-Needed |
| **Product and Waste Export** | |
| $H_2$ (product) | 40 trucks per day |
| Liquid $CO_2$ (product) | 20 trucks per day |
| Slag (waste) | 1 truck per day |
| Brine (waste) | 3 trucks per day |

$H_2$ = hydrogen; $CO_2$ = carbon dioxide
Source: Fluor, 2022

Truck trips would be required to deliver feed items to the facility, including biomass, biochar, lime, chemical, and catalyst, as follows:

- **Biomass Trucks.** The unrecyclable mixed waste paper would be transported by truck to the facility from various locations within Los Angeles County, such as Lancaster, Palmdale, and Burbank, on a daily basis, including weekends. Approximately six trucks per day would be required. It is assumed that each truck would carry approximately 20 metric tons of biomass with 120 metric tons per day required for facility operation. The entry point for the biomass trucks is along 5th Street East (south end of complex), and the exit point is also along 5th Street East (north end of complex). Each truck would need 1 to 2 hours to unload. The facility would accommodate 3 days of backup feed storage onsite.
- **Biochar and Lime Trucks.** In addition to biomass trucks, the facility would also require truck deliveries of biochar and lime, which are supplied by a third party for use in the gasification unit. The daily requirements for biochar and lime are 6 metric tons and 1.2 metric tons, respectively. On-site enclosed biochar and lime storage would be designed for 5 days. One truck would deliver 10 metric tons of biochar to the site every other day; and one truck would deliver 6 metric tons of lime every five days. Both trucks would enter and exit along 5th Street East, as described for the biomass trucks.
- **Chemical and Catalyst Trucks.** Chemical and catalyst trucks would also be required on an as-needed basis. All trucks would enter and exit along 5th Street East, as described for the biomass trucks.

Truck trips would be required to export products or waste from the facility, including $H_2$, liquid $CO_2$, and solid waste, as follows:

- **$H_2$ Trucks.** The $H_2$ would be continuously transported offsite as it is produced, and no more than 4,400 pounds of $H_2$ would be stored onsite in permanent/stationary storage tanks as a buffer in the event that the plant is down. Trucks would arrive at regular intervals, 24 hours a day and 7 days a week, for the transportation of compressed $H_2$ to the filling stations. Approximately 40 truck trips per day to the plant are estimated for transferring $H_2$ product. Each truck would need approximately two hours for staging and loading at the facility. The facility is designed to accommodate up to 14 $H_2$ trucks at any given time (2 actively loading, 2 waiting to load, and 10 parking spots).

$H_2$ trucks are not allowed to make unprotected left turns (i.e., only at a traffic signal with a protected left turn arrow). As shown in Figure 5, trucks would access the facility by exiting State Route 14 at Avenue L, going east on Avenue L to Challenger Way (10th Street East), heading south on Challenger Way to Avenue M, and heading west on Avenue M. Trucks would make a right turn onto 5th Street East, which would allow them to enter the facility on 5th Street East or make a right-turn onto Avenue L-12 and enter the facility through the driveway at the northeast corner of the site. This area of the facility would be utilized for the loading of the $H_2$ trucks. To exit the facility, the $H_2$ trucks would exit out of the facility from a driveway on the eastern boundary of the loading area, make a right turn onto 6th Street East, and then another right turn to go west on Avenue M towards State Route 14. The entry and exit points would be kept separate to avoid truck traffic within the plant, as well as to ensure that truck drivers only make right turns on the roads when leaving the plant.

- **Liquid $CO_2$ Trucks.** The facility would produce 200 metric tons per day of $CO_2$ with onsite storage designed for 1 day. Twenty trucks per day would be required to export $CO_2$ from the site. Each truck would need 1 hour to load. The $CO_2$ trucks would enter and exit along 5th Street East, as described for the biomass trucks.
- **Solid Waste Trucks.** Each day, solid waste generated at the facility would include 3.1 metric tons of slag and approximately 17 metric tons of brine. One truck per day would be required to remove slag, and three trucks per day would be required to remove brine. All trucks would enter and exit along 5th Street East, as described for the biomass trucks.

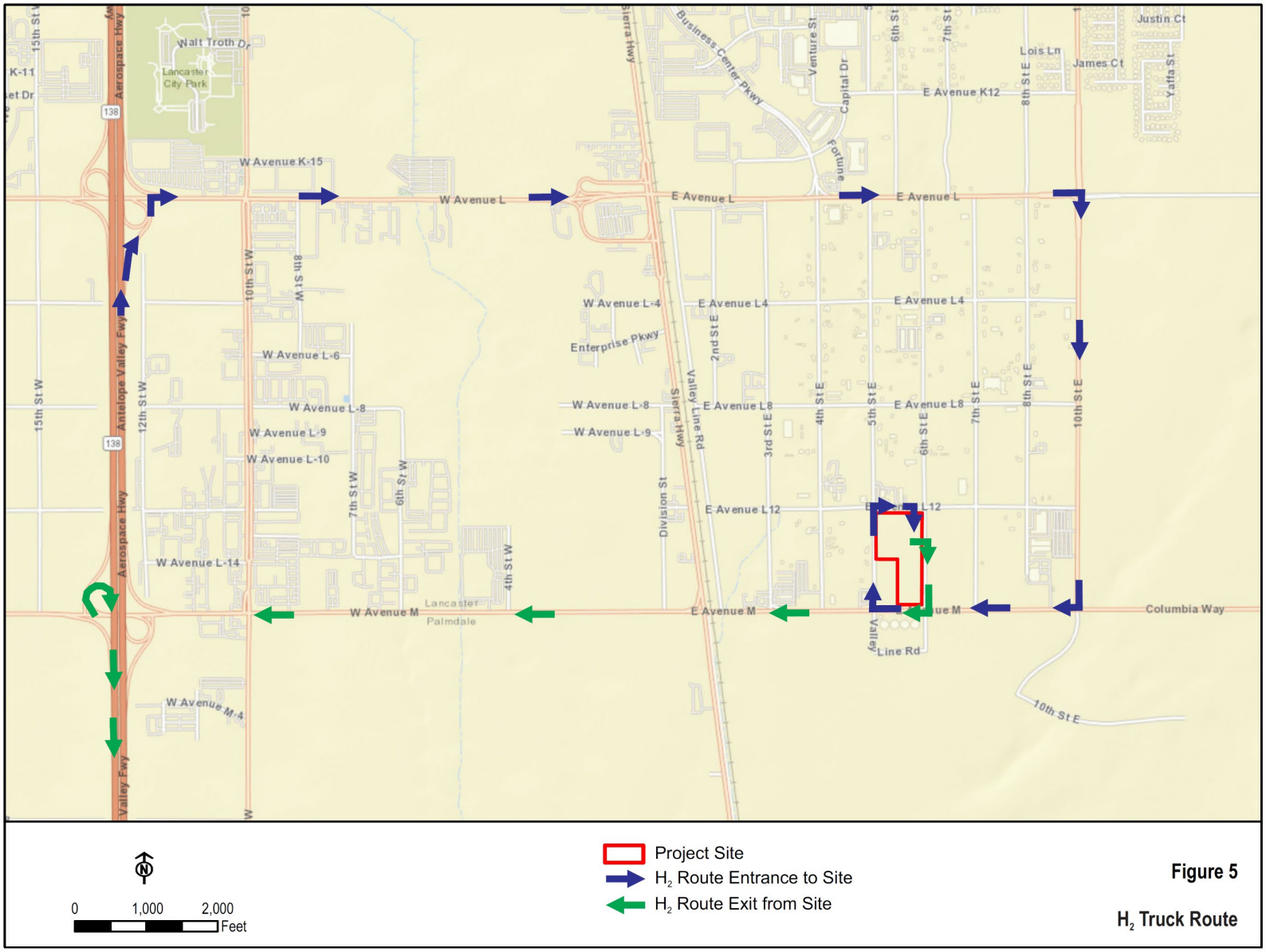
## 9. Surrounding Land Uses and Setting

The project area is located in an industrial area in the southern portion of the City of Lancaster, directly north of the City of Palmdale. The Union Pacific Railroad/Metrolink Antelope Valley Line and Sierra Highway are approximately 0.5 mile to the west of the project site. The Antelope Valley Freeway (State Route 14) is located approximately two miles west of the project site. Palmdale Regional Airport (PMD) and United States Air Force Plant 42 (Plant 42), a classified aircraft manufacturing plant, are approximately 0.7 mile to the south.[4] Surrounding land uses include the following:

- **North:** A cement mixing plant, charter bus rental company, and automobile towing and recovery facility, which are zoned Heavy Industrial (City of Lancaster, 2009), are located to the north of the project site.
- **East:** Vacant, undeveloped land and a single-family residence, which are zoned Heavy Industrial, are located to the east of the project site. The single-family residence is a legal non-conforming use.
- **South:** Across Avenue M and directly south of the project site are four water storage tanks on a property owned by the Los Angeles County Waterworks District; and vacant, undeveloped land is located to the southeast and southwest in the City of Palmdale, which are zoned Public Facility (City of Palmdale, 1993).
- **West:** Vacant, undeveloped land, two single-family residences, and a transmission and automobile repair center, which are zoned Heavy Industrial, are located to the west of the project site. The single-family residences are legal non-conforming uses.

[4] PMD does not have any scheduled passenger airline service. PMD and Plant 42 are separate facilities that share a common runway at the site. Plant 42 is operated as a component of Edwards Air Force Base, which is approximately 23 miles to the northeast.

## Figure 5. $H_2$ Truck Route



## 10. Other Permits and Approvals

A Conditional Use Permit for the project would be required from the City. Approvals from other public agencies for the proposed project include, but are not limited to, the following:

- Antelope Valley Air Quality Management District – Dust control plan and air quality permits for generators and other equipment
- California Department of Transportation – Transportation Permit for movement of vehicles that may qualify as an oversized or excessive load (if required)
- Lahontan Regional Water Quality Control Board – National Pollution Discharge Elimination System, General Construction Storm Water Pollution Prevention Plan (SWPPP), and approval of septic system
- Los Angeles County Fire Department – Fire access, life safety equipment, and hazardous materials permitting
- Los Angeles County Public Health Department – Approval of septic system
- Los Angeles County Sanitation District – Connection to sewer in case the wastewater treatment system is down for any reason; permits for disposal of concentrated brine
- Landale Mutual Water Company – Connection to water system
- Southern California Edison– Connection to electrical system

## 11. California Native American Tribal Consultation

Assembly Bill (AB) 52 requires consultation with Native American Tribes prior to finalizing environmental documents to determine the potential for effects on tribal cultural resources and to identify, in consultation with the tribes, mitigation for potential impacts. In compliance with AB 52, the City sent consultation letters on June 24, 2022 to three tribes for the proposed project. The tribes had previously requested to be included in the City's consultation process. The following responses were received:

- On July 18, 2022, Jairo F. Avila, M.A., RPA., Tribal Historic and Cultural Preservation Officer with the Fernandeño Tataviam Band of Mission Indians (FTBMI), formally requested tribal consultation under the provisions of the California Environmental Quality Act (CEQA) (as amended, 2015) and California Public Resources Code section 21080.2.1. Before providing tribal comments or scheduling a consultation meeting, Mr. Avila requested the Cultural Resources Assessment Report (CRAR) prepared for the project in July 2022 by Aspen Environmental Group (Aspen). After reviewing the report, Mr. Avila asked about two previously recorded cultural resources that had been identified in a previous cultural resources report prepared for a portion of the project site by RT Factfinders in May 2015. Mr. Avila also requested more information about the extent of groundwork, including site grading and the depth of trenching for the utility lines. On July 21, 2022, the City provided additional information regarding the two previously recorded cultural resources identified in the May 2015 cultural resources report and explained that these resources were not identified in the most recent cultural records search conducted by Aspen in July 2022. On July 25, 2022, Mr. Avila stated that the Cultural Resources Management (CRM) Division has reviewed the proposed undertaking and requests that measures be included in the project's Mitigated Negative Declaration / Conditions of Approval under Tribal Cultural Resources.
- On July 20, 2022, Ryan Nordness, Cultural Resources Analyst with the Yuhaaviatam of San Manuel Nation (YSMN, formerly known as the San Manuel Band of Mission Indians) provided a response that

the proposed project area exists within Serrano ancestral territory and, therefore, is of interest to the Tribe. However, due to the nature and location of the proposed project, and given the Cultural Resources Management (CRM) Department's present state of knowledge, YSMN does not have any concerns with the project's implementation, as planned, at this time. Mr. Nordness included a list of mitigation measures to include in the project/permit/plan conditions; requested the final copy of the project/permit/plan conditions so that YSMN may review the included language; and stated that this communication concludes YSMN's input on this project, at this time, and no additional consultation pursuant to CEQA is required unless there is an unanticipated discovery of cultural resources during project implementation.

## Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" and requiring implementation of mitigation 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 |

## Environmental Determination

On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the Proposed Project, nothing further is required.

Jocelyn Swain, Senior Planner
City of Lancaster
Development Services Department
Community Development Division

8/29/22
Date

# 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 where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
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, then 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 where the incorporation of mitigation measures has reduced an effect from "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 (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the 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:
    1. Earlier Analysis Used. Identify and state where they are available for review.
    2. 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.
    3. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which 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, where 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 less than significance.

# List of Acronyms

| | |
|---|---|
| AB | Assembly Bill |
| APN | Assessor Parcel Number |
| Ar | Argon |
| ASU | Air Separation Unit |
| AVAQMD | Antelope Valley Air Quality Management District |
| BMP | Best Management Practice |
| BPEGA | Bald and Golden Eagle Protection Act |
| CaA | Cajon loamy sand, 0 to 2 percent slopes |
| CAAQS | California Ambient Air Quality Standards |
| CalGEM | California Geologic Energy Management Division |
| CAP | Climate Action Plan |
| CARB | California Air Resources Board |
| CEC | California Energy Commission |
| CESA | California Endangered Species Act |
| CEQA | California Environmental Quality Act |
| CDFW | California Department of Fish and Wildlife |
| CDOC | California Department of Conservation |
| CGS | California Geological Survey |
| $CH_4$ | Methane |
| CI | Coccidioides immitis |
| CNEL | Community Equivalent Noise Level |
| $CO_2$ | Carbon dioxide |
| CO | Carbon monoxide |
| CRAR | Cultural Resources Assessment Report |
| CRM | Cultural Resources Management |
| CRHR | California Register of Historical Resources |
| CUP | Conditional Use Permit |
| dB | Decibel |
| dBA | Decibel, A-weighted |
| DMR | Division of Mine Reclamation |
| DPM | Diesel Particulate Matter |
| DTSC | Department of Toxic Substances Control |
| DWR | Department of Water Resources |
| FEMA | Federal Emergency Management Agency |
| FTBMI | Fernandeño Tataviam Band of Mission Indians |
| $H_2$ | Hydrogen |
| $H_2S$ | Hydrogen sulfide |
| HAZOP | Hazard and Operability Analysis |
| HCP | Habitat Conservation Plan |
| HI | Heavy Industrial |
| HRA | Health Risk Assessment |
| HRS | Hydrogen Refueling Stations |
| ITP | Incidental Take Permit |
| kW | Kilowatt |
| Leq | Equivalent sound level |
| Lmax | Maximum sound level |

| | |
|---|---|
| Lmin | Minimum sound level |
| MBTA | Migratory Bird Treaty Act |
| MDAB | Mojave Desert Air Basin |
| MLD | Most Likely Descendant |
| MRZ | Mineral Resource Zone |
| $MTCO_2e$ | Metric tons of carbon dioxide equivalent |
| MW | Megawatt |
| $N_2$ | Nitrogen |
| $N_2O$ | Nitrous oxides |
| NAAQS | National Ambient Air Quality Standards |
| NAHC | Native American Heritage Commission |
| $NH_3$ | Ammonia |
| $NO_x$ | Oxides of nitrogen |
| $NO_2$ | Nitrogen dioxide |
| NPDES | National Pollutant Discharge Elimination System |
| NRCS | Natural Resources Conservation Service |
| NSR | New Source Review |
| OSHA | Occupational Safety and Health Administration |
| $PM_{2.5}$ | Particulate matter, less than 2.5 microns |
| $PM_{10}$ | Particulate matter, less than 10 microns |
| PMD | Palmdale Regional Airport |
| PPMV | Part per million volume |
| PSA | Pressure Swing Adsorption |
| ROG | Reactive organic gases |
| RPS | Renewable Portfolio Standard |
| RTP/SCS | Regional Transportation Plan/Sustainable Communities Strategy |
| RWQCB | Regional Water Quality Control Board |
| S | Sulfur |
| SB | Senate Bill |
| SCAG | Southern California Association of Governments |
| SCCIC | South Central Coastal Information Center |
| SCE | Southern California Edison |
| SGH2 | SG H2 Lancaster Holding Company LLC |
| $SO_x$ | Oxides of sulfur |
| $SO_2$ | Sulfur dioxide |
| SPEG | Solena Plasma Enhanced Gasification |
| SVOC | Semi-volatile organic compounds |
| SWRCB | State Water Resources Control Board |
| TAC | Toxic Air Contaminant |
| UBC | Uniform Building Code |
| USC | United States Code |
| USDA | United States Department of Agriculture |
| USEPA | United States Environmental Protection Agency |
| USFWS | United States Fish and Wildlife Service |
| VOC | Volatile organic compounds |
| WTRH2 | Waste to Renewable Hydrogen |
| YSMN | Yuhaaviatam of San Manuel Nation |
| ZLD | Zero Liquid Discharge |

# 1. Aesthetics

| **AESTHETICS**<br>**Except as provided in Public Resources Code Section 21099, would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Have a substantial adverse effect on a scenic vista? | ☐ | ☐ | ☒ | ☐ |
| b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway? | ☐ | ☐ | ☐ | ☒ |
| c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality? | ☐ | ☒ | ☐ | ☐ |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | ☐ | ☒ | ☐ | ☐ |

Significance criteria established by CEQA Guidelines, Appendix G.

***Except as provided in Public Resources Code Section 21099:***

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

**Less Than Significant Impact.** A vista is a view from a particular location or composite views along a roadway or trail. The items that can be seen within a vista are scenic resources, which are those unique visual features that provide attractive views either into or from the project site.

***Views Into the Project Site***

The project site is relatively flat and includes vacant, undeveloped land with sparse, desert scrub vegetation comprised primarily of shrubs and sandy soils. No trails are located in proximity to the project site (City of Lancaster, 2009c). Based on a site visit conducted on June 14, 2022, vehicle traffic along Avenue L-12, to the north of the project site, was infrequent and consisted mainly of vehicles entering or exiting the adjacent industrial facilities to the north. 5th and 6th Streets East are private roads and are currently unpaved; these roads were observed to have minimal traffic during the site visit. However, Avenue M, to the south of the project site, had heavy vehicle traffic, as observed during the site visit. Avenue M is classified as a major arterial with four lanes (two lanes in each direction) and a capacity of 32,000 vehicles per day (City of Lancaster, 2009c). Therefore, most views into the project site are from vehicles travelling along Avenue M, as well as from adjacent industrial and residential properties.

***Views From the Project Site***

According to the City's Master Environmental Assessment, major visual resources or topographic features are not located within or in proximity to the project site (City of Lancaster, 2009c). The surrounding land to the east, west, and south includes similar properties as the project site, with vacant, undeveloped land and sparse vegetation intermixed with three single-family residences (to the east and west) and water storage tanks (to the south across Avenue M). The properties to the north include industrial uses (cement mixing plant, bus rental company, and automobile towing and recovery facility). Long-range views of the rugged San Gabriel mountains are visible to the south; however, these views are interrupted by the four, large water storage tanks to the south of the project site.

***Project Impacts***

Construction Impacts

Project construction would introduce visual elements to the project site, including various types of construction vehicles and equipment, that would be similar to existing operations at adjacent industrial facilities. Ground disturbance and the use of construction vehicles and equipment would affect views into and from the project site; however, these visual elements would be temporary while the facility is under construction. The project would not have a substantial adverse effect on a scenic vista because construction activities would be largely compatible with existing industrial facilities that are adjacent to the project site, and project construction would be temporary. Therefore, project construction would have a less than significant impact.

Operational Impacts

Project operation would introduce visual elements to the project site, including various types of industrial buildings, equipment, and heavy trucks, that would be similar to existing operations at adjacent industrial facilities. The WTRH2 facility would include the ASU, at 90 feet high, which would be the tallest piece of equipment at the facility and would be visible from Avenue M. The ASU would be located to the rear of the facility near Avenue L-12 (see Figure **4**. Site Model), which would minimize the visibility of this feature from Avenue M. The ASU would have a white, non-reflective exterior. In addition, a concrete block and/or tubular steel wall would be installed around the perimeter of the site, which would also block views of facility equipment from adjacent properties and roadways. Ornamental landscaping would be planted along the perimeter of the site where the facility is visible from public roadways (Avenues M and L-12).

Views from the project site would be blocked by the internal facility equipment and the external perimeter wall. Scenic resources visible from the project site (San Gabriel Mountains) are currently partially blocked by the four, large water storage tanks to the south across Avenue M. Therefore, the project would not result in substantial changes to views of scenic resources from the project site because these views are already interrupted by existing industrial features.

The project would not have a substantial adverse effect on a scenic vista because the project's design would be compatible with adjacent industrial facilities; views of facility equipment would be minimized through the installation of a perimeter wall; the project site would include ornamental landscaping to soften the industrial views of the facility from public roadways; and views of scenic resources from the project site are currently blocked by existing industrial features, which would not substantially change as result of the project. Therefore, project operation would have a less than significant impact.

***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.** No State scenic highways are located in or near the project site (Caltrans, 2018). The project site does not include any rock outcroppings or historic buildings. The project site contains two live Western Joshua trees, which could be considered scenic resources that would be removed to construct the facility; however, these trees are not located along a State scenic highway. The project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway because no scenic resources within a State scenic highway are located at the project site. Therefore, the project would have no impact.

***c. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the 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 With Mitigation Incorporated.** The project site is zoned as Heavy Industrial. While the project site is currently vacant, undeveloped land, the project site is adjacent to or near other industrial facilities and three residences. Therefore, the project site is located in an urbanized area. The City of Lancaster General Plan 2030 includes the following objective, policies, and actions for scenic resources (City of Lancaster, 2009b):

**OBJECTIVE 3.8** Preserve and enhance important views within the City, and significant visual features which are visible from the City of Lancaster.

**Policy 3.8.1:** Preserve views of surrounding ridgelines, slope areas and hilltops, as well as other scenic vistas (see also Policy 19.2.5).

**Specific Actions:**

**3.8.1(a)** Encourage the creation of vistas and view corridors of community or neighborhood value during the development review process, through the siting of buildings to avoid blocking views and view corridors.

**Policy 3.8.2:** Explore the potential for establishing scenic corridors within the Study Area.

**Specific Actions:**

**3.8.2(a)** Conduct a study to determine the potential for designating certain streets within the Study Area as scenic corridors. If it is determined that certain streets would merit such identification, develop a scenic corridor plan which considers the following:

- An emphasis on roadway patterns and grades that fit the natural topography along secondary arterials, collector, and local streets.
- Acquisition of wider rights-of-way than comparable, non-scenic roadways to increase the field of vision along the street and to accommodate appropriate landscaping and street furniture.
- Elimination, to the greatest extent feasible, of unsightly development and outdoor and/or off-site advertisements;
- Provision of vegetative screens for potentially objectionable views;
- Provision of appropriate view corridors; and
- Provision of roadside parking areas and lookouts where warranted.

The project would be compatible with the objective, policies, and actions in the City of Lancaster General Plan 2030 because, as discussed previously in Section 1.a., the project's design would be compatible with adjacent industrial facilities; views of facility equipment would be minimized through the installation of a perimeter wall; the project site would include ornamental landscaping to soften the industrial views of the facility from public roadways; and views of scenic resources from the project site are currently blocked by existing industrial features, which would not substantially change as result of the project. Therefore, the WTRH2 facility would not block views and view corridors (Specific Action 3.81[a]).

The Lancaster Municipal Code, Chapter 17.16 – Industrial Zones, includes several requirements related to scenic quality, including landscaping and screening to minimize potential visual impacts. Four percent of the area used for vehicle ingress, egress, circulation, and parking must be landscaped (applicable to lots of more than 5,000 square feet in the Heavy Industrial zone). In addition, the following screening standards apply to the Heavy Industrial zone:

1) All rooftop mechanical equipment, ducts, tanks, satellite antennae, etc., shall be enclosed or otherwise screened from view from all sides of the building only where necessary to preclude visibility from freeways, expressways or arterial streets or adjoining residential, commercial or light industrial areas. (This requirement does not include wind-powered turbines used for ventilation.)

2) Loading areas shall be screened from view only where necessary to preclude visibility from freeways, expressways and arterial streets and adjacent residentially and commercially zoned properties.

The Lancaster Municipal Code also includes various requirements related to walls, including that all walls must be uniform in height and shall be a minimum of 8 feet and shall not exceed 15 feet; walls shall be constructed of masonry; all walls shall be a uniform neutral color excluding black, which blends with the surrounding terrain; and improvements shall be maintained in a neat, orderly condition at all times. The proposed WTRH2 facility would comply with the landscaping and screening requirements, as well as requirements related to the perimeter wall, as specified in the Lancaster Municipal Code.

The Lancaster Municipal Code also specifies a height restriction of 70 feet for buildings or structures in the Heavy Industrial zone (City of Lancaster, 2022d). However, as stated in the Lancaster Municipal Code, this height restriction does not apply to conditional use permit uses, which shall be subject to Article I of Chapter 17.32. The Lancaster Municipal Code states that in granting a conditional use permit, the commission shall prescribe the height limit. The ASU on the project site would be 90 feet in height, which would require approval as part of the conditional use permit to be obtained for the project. While the ASU would exceed the height restriction for the Heavy Industrial zone, this is the only piece of equipment that would exceed the height restriction. The ASU would be located to the rear of the facility near Avenue L-12 (see Figure **4**. Site Model), which would minimize the visibility of this feature from Avenue M. The ASU would also be a tower with a white, non-reflective exterior; therefore, this project component would have minimal massing, compared to a building, and the external perimeter wall around the site as well as the color of the structure would limit its visibility. Therefore, this exceedance of the height restriction would not substantially deviate from the intent of existing visual policies and standards.

To further reduce potential impacts, the following mitigation measure shall be required to address the color of the equipment, wall, lighting, and landscaping, and to ensure that the facility would not substantially intrude on visual resources. With implementation of Mitigation Measure 1, which requires a plan to minimize visual intrusion that could result from the facility, the project would not conflict with applicable zoning and other regulations governing scenic quality because the project would be designed to be compatible with the Lancaster Municipal Code and General Plan 2030, and a conditional use permit would be obtained to exceed the height restriction of 70 feet in the Heavy Industrial zone with conditions of approval to minimize potential impacts. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

1. **Aesthetics Plan**. During the final design phase of the project, the applicant shall prepare a plan that addresses the color of the equipment, wall, lighting, and landscaping to reduce visual intrusion that could result from the facility, as well as minimize the potential for lighting to

adversely affect views in the area. The plan shall be submitted to the City of Lancaster to demonstrate compliance with this measure.

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

**Less Than Significant With Mitigation Incorporated.** The facility would be designed with materials that would minimize daytime glare. For example, the ASU would have a white, non-reflective exterior, and the perimeter wall would also be constructed of non-reflective materials that would not create substantial glare. Nighttime lighting would be required at the project site because the WTRH2 facility would operate 24 hours a day, 7 days a week. Lighting would be required to comply with the Lancaster Municipal Code for the Heavy Industrial zone (City of Lancaster, 2022d), including requirements to properly illuminate the site without producing an adverse impact on neighboring property. Exterior lighting of the building and site shall be provided, maintained and utilized during the hours of darkness in accordance with the following requirements:

a. Exterior lighting shall be part of the architectural concept. Fixtures, standards, and all exposed accessories shall be compatible with building design.

b. Placement of lighting shall be in accordance with recognized crime prevention, and safety principles.

Lighting at the project site would include canopies and would reflect downward so that light sources would not affect nighttime views for vehicles travelling along Avenues M and L-12. In addition, Mitigation Measure 1 in Section 1.c. shall be required to minimize the potential for lighting to adversely affect views in the area. With implementation of Mitigation Measure 1, the project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area because the facility's lighting and materials would be designed to minimize light or glare that could affect daytime or nighttime views from surrounding areas. Therefore, the project would have a less than significant impact with mitigation incorporated.

# 2. Agriculture and Forestry

**AGRICULTURE AND FORESTRY RESOURCES**

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 Department 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:**

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

Significance criteria established by CEQA Guidelines, Appendix G.

### *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.** The project site is relatively flat and includes vacant, undeveloped land with sparse, desert scrub vegetation comprised primarily of shrubs and sandy soils. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland). The most recent Los Angeles County Important Farmland Map, dated 2018 and published in November 2020, shows that the project site is classified as "Other Land," which is not included in any other mapping category (CDOC, 2020). "Other Land" can include vacant and nonagricultural land surrounded on all sides by urban development. The project site includes vacant and nonagricultural land that is surrounded to the north, south, and west by "Urban and Built-up Land;" and the parcel to the east is also classified as "Other Land." Because Farmland is not present within or surrounding the project site, the project would not convert Farmland to non-agricultural use. Therefore, the project would have no impact.

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

**No Impact.** The project site is zoned as Heavy Industrial and is not zoned for agricultural use. The parcels include vacant, undeveloped land that is not being used for agricultural purposes and is not subject to a Williamson Act contract. The project would not conflict with existing zoning for agricultural use or a Williamson Act contract because these protections do not exist for the site. Therefore, the project would have no impact.

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

**No Impact.** According to Public Resources Code section 12220(g), forest land is defined as land that can support 10 percent native tree cover of any species. As defined in Public Resources Code section 4526, timberland is land that is available for, and capable of, growing a crop of trees of commercial species used to produce lumber and other forest products. Government Code section 51104(g) states that a Timberland production zone is devoted to and used for growing and harvesting timber. The project site includes shrubs and bushes, but no trees are located on the site, with the exception of two live Western Joshua trees, which are not harvested for tree, lumber or other forest products; therefore, the project site does not support 10 percent native tree cover and does not include any forest land. In addition, the project site is not being used to grow commercial species of trees and is zoned as Heavy Industrial; therefore, the project site does not include timberland or timberland zoned Timberland Production. The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production because the site is not zoned for these uses. Therefore, the project would have no impact.

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

**No Impact.** Because no forest land is located on the project site, the project would not result in the loss of forest land or conversion of forest land to non-forest use. Therefore, the project would have no impact.

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

**No Impact.** As shown on the most recent Los Angeles County Important Farmland Map, the project site is surrounded by "Other Land" or "Urban and Built-up Land" (CDOC, 2020). The nearest Farmland is located approximately 1.8 miles northeast of the project site at 20$^{th}$ Street East and Avenue L-8. Because no Farmland is located within or surrounding the project site, the project would not involve other changes to the existing environment that could result in the conversion of Farmland to non-agricultural use. Therefore, the project would have no impact.

# 3. Air Quality

## AIR QUALITY

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

Significance criteria established by CEQA Guidelines, Appendix G.

### *a. Would the project conflict with or obstruct implementation of the applicable air quality plan?*

**Less Than Significant Impact.** This analysis is based on an Air Quality and Greenhouse Gas Technical Report prepared for the project in July 2022 by Aspen Environmental Group. Air quality is determined by measuring ambient concentrations of certain criteria air pollutants. The criteria pollutants are ozone, respirable particulate matter ($PM_{10}$), fine particulate matter ($PM_{2.5}$), carbon monoxide (CO), nitrogen dioxide ($NO_2$), sulfur dioxide ($SO_2$), and lead. Ozone is an example of a secondary pollutant that is not emitted directly from a source (e.g., an automobile tailpipe), but it is formed in the atmosphere by chemical and photochemical reactions. Reactive organic gases (ROG), including volatile organic compounds (VOC), are regulated as precursors to ozone formation.

The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (USEPA) have independent authority to develop and establish health-protective ambient air quality standards. The California Ambient Air Quality Standards (CAAQS) are set at levels to adequately protect the health of the public, including infants and children, with an adequate margin of safety (California Health and Safety Code Section 39606), and in general, the CAAQS are more stringent than the corresponding health-protective National Ambient Air Quality Standards (NAAQS).

The project site is located in the Antelope Valley portion of the Mojave Desert Air Basin (MDAB), which is in nonattainment with the CAAQS and NAAQS for ozone and the CAAQS for $PM_{10}$. Each of California's local air districts is responsible for managing local air quality and administering the state and federal air quality control programs to ensure implementation of applicable air quality management plans. The Antelope Valley Air Quality Management District (AVAQMD) has adopted a single attainment plan for ozone. The AVAQMD adopted its Federal Ozone Attainment Plan in May 2008. The attainment plan relies on the established rules and regulations and control measures for emission sources within the AVAQMD jurisdiction, including the New Source Review program with a 25 ton per year major source level for ozone precursors (AVAQMD, 2016).

The regional air quality management plan anticipates a baseline level of construction activity and some permanent population growth. The anticipated growth includes the addition of industry and employment growth. A project could be inconsistent with the applicable air quality management plan or attainment plan if it could cause population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in the attainment plan. The proposed project is expected to employ approximately 43 individuals for long-term operation and up to 281 staff onsite during construction; this

level of population growth would not be substantial in light of the population growth in the AVAQMD jurisdiction.

All activities associated with proposed project would be subject to compliance with applicable air quality rules and regulations administered by AVAQMD to ensure progress towards achieving attainment. This means that all construction and operational activity would be required to comply with all applicable AVAQMD rules regarding dust control and stationary source emissions controls. Because the project-related stationary sources would be subject to the AVAQMD permitting authority for avoiding substantial emissions increases of ozone precursors, the project would not conflict with or obstruct implementation of the applicable air quality plan. Therefore, the project would have a less than significant impact.

***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.** This analysis is based on an Air Quality and Greenhouse Gas Technical Report prepared for the project in July 2022 by Aspen Environmental Group. This discussion addresses whether the proposed project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment. Within the western portion of the Mojave Desert Air Basin and jurisdiction of AVAQMD, emissions the exceed quantitative thresholds for ozone precursors, $PM_{10}$, or $PM_{2.5}$ could represent a cumulatively considerable net increase by contributing to existing violations of the ambient air quality standards for ozone or particulate matter. The thresholds are defined by AVAQMD in the "*California Environmental Quality Act (CEQA) and Federal Conformity Guidelines*" (AVAQMD, 2016).

***Construction Impacts***

Construction-phase emissions would be the result of project development activity on unpaved and paved surfaces, ground disturbance, and materials hauling, which cause fugitive dust ($PM_{10}$ and $PM_{2.5}$), and the necessary use of equipment and motor vehicles that cause tailpipe emissions through the use of motor gasoline or diesel fuel. Typical fugitive dust sources include earth-moving activities (e.g., site preparation, grading, and installing foundations). Installation of structural components and process equipment would require use of heavy-duty trucks for delivering and unloading materials, and a fleet of diesel-powered off-road equipment, such as cement mixers, loaders, lifts, and cranes. Tailpipe emissions result from the combustion of fuels by the off-road construction equipment and on-road vehicles.

Overall construction-phase emissions would span two calendar years. Table 2 shows the total quantities of criteria air pollutants that could be emitted over the full duration of construction, without consideration of additional controls.

**Table 2. Overall Construction Emissions (tons)**

| Year of Construction | VOC | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Year 1 (2023) | 1.02 | 7.25 | 9.57 | 0.02 | 2.19 | 1.04 |
| Year 2 (2024) | 0.57 | 3.77 | 5.90 | 0.01 | 0.83 | 0.32 |
| **Maximum (tons/year)** | **1.02** | **7.25** | **9.57** | **0.02** | **2.19** | **1.04** |
| Annual Significant Emissions Thresholds (tons per year) | 25 | 25 | 100 | 25 | 15 | 12 |
| Daily Significant Emissions Thresholds (pounds per day) | 137 | 137 | 548 | 137 | 82 | 65 |

Source: Aspen Environmental Group, 2022

Notes: VOC = volatile organic compounds; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = oxides of sulfur; $PM_{10}$ = respirable particulate matter; $PM_{2.5}$ = fine particulate matter

Project construction activities would need to be compliant with federal, state, and local air district rules and regulations. Table 2 shows that during construction, the emissions generated would not exceed the significance threshold levels for any air pollutants. At these levels, the construction emissions would not result in a cumulatively considerable net increase of any criteria air pollutants and would not be likely to violate any air quality standard. Therefore, the project would have a less than significant impact.

***Operational Impacts***

The following types of operation-related emissions sources would occur:

- Mobile sources: vehicle trips generated by the operation of project including trucks to deliver feed to the facility, export the products of $H_2$ and $CO_2$, and dispose of slag and brine waste, and employee vehicles.
- Area and offroad sources: for activities such as landscaping and routine site maintenance.
- Stationary sources subject to air permitting requirements: power block and boiler, cooling tower, process fugitive leaks, a ground flare for emergency use, and the diesel-fueled standby emergency generator engine and fire water pump engine.

The proposed project would primarily emit criteria air pollutants through the operation-related transportation demand and the associated mobile source activity to deliver feed and distribute produced $H_2$ and $CO_2$. The motor vehicle emissions depend on the numbers of vehicle trips generated by the facility and the lengths of the trips. Biomass as a feedstock would be supplied from within Los Angeles County, such as Lancaster, Palmdale, and Burbank, and product would be delivered to $H_2$ refueling stations (HRS) located throughout California. This analysis assumes $H_2$ export trucks would travel approximately 90 miles (one-way) for each trip length to reach HRS outlets as far as Bakersfield or Torrance.

New stationary sources of emissions would be included in the proposed project that require preconstruction permits from the AVAQMD. The stationary sources are regulated through air permitting requirements in AVAQMD Regulations II and XIII for New Source Review (NSR), and the facility would be subject to the AVAQMD Rule 1401 NSR for air toxics. These evaluations and permits are typically issued after the CEQA process.

Table 3 shows the annual quantities of criteria air pollutants that could be emitted during routine operation of the proposed project. Emissions from the power block and boiler, cooling tower, and testing of the emergency standby engines are quantified in this analysis. Upon final design of the facility, additional emissions quantification would be necessary to account for process fugitive leaks and any non-emergency use of the proposed ground flare, although these emissions are likely be minor in comparison to those quantified here.

**Table 3. Operation Emissions, Annual (tons per year)**

| Source Category | VOC | $NO_X$ | CO | $SO_X$ | $PM_{10}$ | $PM_{2.5}$ |
|---|---|---|---|---|---|---|
| Mobile | 0.209 | 12.774 | 3.100 | 0.065 | 2.446 | 0.735 |
| Area | 0.001 | 0.000 | 0.006 | 0.000 | 0.000 | 0.000 |
| Offroad | 0.002 | 0.022 | 0.040 | 0.000 | 0.001 | 0.001 |
| Stationary Sources, Combustion | 0.266 | 0.573 | 4.103 | 0.025 | 0.316 | 0.316 |
| Stationary Sources, Cooling Tower Drift | --- | --- | --- | --- | 3.767 | 3.767 |
| **Total (tons/year)** | **0.477** | **13.369** | **7.249** | **0.089** | **6.529** | **4.818** |
| Significant Emissions Thresholds | 25 | 25 | 100 | 25 | 15 | 12 |

Source: Aspen Environmental Group, 2022
Notes: VOC = volatile organic compounds; $NO_x$ = oxides of nitrogen; CO = carbon monoxide; $SO_x$ = sulfur dioxide; $PM_{10}$ = respirable particulate matter; $PM_{2.5}$ = fine particulate matter

Emissions from process equipment and motor vehicle trips would be below the thresholds for triggering any additional requirements control technologies or for obtaining offsets under AVAQMD Rule 1303 (NSR Requirements). Table 3 shows that the emissions from the proposed project would not exceed the significance threshold levels for any air pollutants. As a result, operation of the project would not result in a cumulatively considerable net increase of any criteria pollutant and would not be likely to violate any air quality standard. Therefore, the project would have a less than significant impact.

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

This analysis is based on an Air Quality and Greenhouse Gas Technical Report prepared for the project in July 2022 by Aspen Environmental Group.

***Construction Impacts***

**Less Than Significant With Mitigation Incorporated.** Construction emissions would present a potential health risk due to emissions of diesel particulate matter (DPM), which is classified as a toxic air contaminant (TAC) because many toxic compounds adhere to diesel exhaust particles. There would be transportation emissions during construction, but those emissions are spread over a large area, rather than being concentrated at the project site. The on-site DPM emissions during construction would occur over a relatively short period of approximately 16 months in relation to potential life-time exposure periods. Because of the limited duration of construction, project-related TAC emissions would not result in substantial pollutant concentrations for nearby receptors.

Coccidioidomycosis, often referred to Valley Fever, is an infectious disease caused by a fungus that lives in the soil and dirt, commonly in hot dry areas with alkaline soil. This disease affects both humans and animals and is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top few inches of soil and may be stirred up by wind, vehicles, excavation, or other ground-disturbing activities and become airborne. Fugitive dust generated during construction could increase the risk of exposing nearby people, as well as workers at the project site, to Valley Fever. There is the potential that CI spores would be made airborne during excavation, grading, and earth-moving activities, exposing construction workers and nearby people to an elevated risk of contracting Valley Fever. Construction fugitive dust emissions would be controlled by an AVAQMD-approved site-specific Dust Control Plan; however, additional mitigation is recommended to reduce the potential health risks to the extent feasible.

The following mitigation measure shall be required to minimize the exposure of construction personnel to CI spores. With implementation of Mitigation Measure 2, which requires training for construction personnel and the use of personal protective equipment, the project would not expose sensitive receptors to substantial pollutant concentrations. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

2. **Valley Fever Awareness and Prevention.** Prior to ground disturbance activities, the project operator shall provide evidence to the Development Services Director that the project operator and/or construction manager has developed a "Valley Fever Training Handout", training, and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s) and schedule shall be submitted to the Development Services Director within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews will come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Development Services Director regarding the "Valley Fever Training Handout" and Session(s) shall include the following:

    - A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.
    - Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.
    - Training on methods that may help prevent Valley Fever infection.
    - A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Where respirators are required, the equipment shall be readily available and shall be provided to employees for use during work. Proof that the demonstration is included in the training shall be submitted to the county. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.

    The project operator also shall consult with the Los Angeles County Public Health to develop a Valley Fever Dust Management Plan that addresses the potential presence of the Coccidioides spore and mitigates for the potential for Coccidioidomycosis (Valley Fever). Prior to issuance of permits, the project operator shall submit the Plan to the Los Angeles County Public Health for review and comment. The Plan shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate safety procedures that shall be implemented, as needed, to minimize personnel and public exposure to potential Coccidioides spores. Measures in the Plan shall include the following:

    - Provide HEP-filters for heavy equipment equipped with factory enclosed cabs capable of accepting the filters. Cause contractors utilizing applicable heavy equipment to furnish proof of worker training on proper use of applicable heavy equipment cabs, such as turning on air conditioning prior to using the equipment.
    - Provide communication methods, such as two-way radios, for use in enclosed cabs.

- Require National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with minimum N-95 protection factor for use during worker collocation with surface disturbance activities, as required per the hazard assessment process.
- Cause employees to be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program in accordance with the applicable Cal/OSHA Respiratory Protection Standard (8 CCR 5144).
- Provide separate, clean eating areas with hand-washing facilities.
- Install equipment inspection stations at each construction equipment access/egress point. Examine construction vehicles and equipment for excess soil material and clean, as necessary, before equipment is moved off-site.
- Train workers to recognize the symptoms of Valley Fever, and to promptly report suspected symptoms of work-related Valley Fever to a supervisor.
- Work with a medical professional to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever.
- Work with a medical professional, in consultation with the Los Angeles County Public Health, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure is available. Prior to construction permit issuance, this handout shall have been created by the project operator and reviewed by the project operator and reviewed by the Development Services Director. No less than 30 days prior to any work commencing, this handout shall be mailed to all existing residences within a specified radius of the project boundaries as determined by the Development Services Director. The radius shall not exceed three miles and is dependent upon the location of the project site.
- When possible, position workers upwind or crosswind when digging a trench or performing other soil-disturbing tasks.
- Prohibit smoking at the worksite outside of designated smoking areas; designated smoking areas will be equipped with handwashing facilities.
- Post warnings on-site and consider limiting access to visitors, especially those without adequate training and respiratory protection.
- Audit and enforce compliance with relevant Cal OSHA health and safety standards on the job site.

***Operational Impacts***

**Less Than Significant Impact.** Operation of the project includes stationary sources that would be new sources of TACs from fuel combustion by the boiler and diesel-fired emergency equipment. The boiler would burn a blend of pipeline natural gas and tail gas, which would be a residual gas from the pressure swing adsorption (PSA) and $CO_2$ removal process that includes a blend of $H_2$, $CO_2$, and CO. Use of these gaseous fuels and diesel in the emergency equipment is subject to permitting through the New Source

Review program for TACs (AVAQMD Rule 1401), which requires a health risk assessment (HRA) for any source that the AVAQMD determines to be of a high priority.

Also during operation, the heavy-duty truck travel created by the project would emit DPM. Statewide programs for heavy-duty vehicle fleets focus on managing this pollutant through motor vehicle fuels, engine, and tailpipe standards. The majority of truck travel emissions would occur along the routes of delivery and not in the vicinity of the project site. Land use compatibility study by the CARB indicates that concentrations of mobile-source DPM emissions are typically reduced by 70 percent at a distance of approximately 500 feet (CARB, 2005). Accordingly, project-related TAC emissions from the anticipated stationary and mobile sources would not result in substantial pollutant concentrations for nearby receptors. Therefore, the project would have a less than significant impact for operational impacts.

***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.** Construction vehicles and equipment may generate some odors, but these odors would be similar to vehicles traveling along Avenue M. During project operation, objectionable odors may result from the use of chemicals in the proposed facility. However, the use, handling, and storage of all chemicals and hazardous materials would be in accordance with applicable regulations. In addition, facility operations would take place within enclosed buildings and other structures, as well as within the site boundaries that would be enclosed by a perimeter wall; and would adhere to all AVAQMD requirements with respect to odors. The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people because construction odors would be similar to existing vehicles along Avenue M, and odors from facility operations would be minimized by complying with applicable regulations and conducting operational activities within enclosed buildings. Therefore, the project would have a less than significant impact.

# 4. Biological Resources

| **BIOLOGICAL RESOURCES**<br>**Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☒ | ☐ | ☐ |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | ☐ | ☐ | ☐ | ☒ |
| c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | ☐ | ☐ | ☐ | ☒ |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | ☐ | ☒ | ☐ | ☐ |
| e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? | ☐ | ☐ | ☐ | ☒ |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

***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 U.S. Fish and Wildlife Service?***

**Less Than Significant With Mitigation Incorporated.** This analysis is based on a Biological Resources Technical Report prepared for the project in July 2022 by Aspen Environmental Group. As part of this study, a reconnaissance-level biological survey was conducted on April 21, 2022, and a focused biological survey was conducted on June 8, 2022. In addition, a literature review was conducted to identify special status plants, wildlife, and vegetation communities in the project site and vicinity.

Vegetation within the project site consists of approximately 68 percent native desert shrubland and approximately 32 percent disturbed or developed areas. Wildlife and wildlife sign observed during the field survey includes species common in these habitats such as California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*), common raven (*Corvus corax*), European collard dove (*Streptopelia decaocto*), Say's phoebe (*Sayornis saya*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), side blotched lizard (*Uta stansburiana*), and cabbage white butterfly (*Pieris rapae*). No special-status wildlife species were observed. Other wildlife species common throughout the region are also likely to occur on the project site but were not observed. These may include secretive reptiles, burrowing mammals, and less common wide-ranging species. Attachment 4 of the Biological Resources Technical Report lists all species observed or detected on the project site during 2022 surveys.

### *Special-Status Plants*

No federally listed threatened or endangered plant species were observed on the project site during the field survey, and none have a potential to be present. The following special-status plant species have potential to be present on the project site:

- Western Joshua tree (*Yucca brevifolia*) is a State candidate for listing and is afforded the same protection as a threatened or endangered species. The project site contains two live Western Joshua trees. Several very old dead Western Joshua trees were also observed and appear to have been dead for more than 10 years.
- Two California Rare Plant Rank (CRPR) 4 species (i.e., a "watch list," not indicating rarity) have at least a moderate potential to be present on the project site and include white pygmy-poppy (*Canbya candida*) and crowned muilla (*Muilla coronata*).

### *Special-Status Wildlife*

No federally listed threatened or endangered wildlife species were observed at the project site. The following special-status wildlife species have potential to be present on the project site:

- Swainson's hawk (*Buteo swainsoni*), which is State listed, has a high potential to be present on or over the project site during migration but a low potential to forage on the project site during the nesting season. No nests were observed within or in proximity to the project site.
- The Bald and Golden Eagle Protection Act (16 U.S.C. §§ 668-668d; BGEPA) prohibits take of bald eagles and golden eagles. Bald eagles are not expected to nest or forage on the project site. However, golden eagles (*Aquila chrysaetos*) have a moderate potential to forage on the project site. Golden eagle nesting habitat is absent from the project site.
- The Northern California legless lizard (*Anniella pulchra*) is a California Department of Fish and Wildlife (CDFW) Species of Special Concern. Legless lizards were not detected on the project site but are known from within 2 miles (iNaturalist.org, 2022).
- The Burrowing owl (*Athene cunicularia*) is a CDFW Species of Special Concern and, as a native bird, is also protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. Suitable foraging habitat is present on the project site, and there is a high potential for them to forage on the project site. Several inactive mammal burrows are present on the project site, and there is a low potential for them to nest on the site given the high level of disturbance on and surrounding the project site.
- The Loggerhead shrike (*Lanius ludovicianus*) is a CDFW Species of Special Concern and as a native bird, is also protected by the federal MBTA and the California Fish and Game Code. The project site contains suitable habitat, and although not detected, Loggerhead shrike was recorded in 2009 from within 0.6 miles of the project site.
- The Le Conte's thrasher (*Toxostoma lecontei*) is a CDFW Species of Special Concern and is a resident bird that inhabits the most arid habitats in North America. Le Conte's thrasher was not observed at the project site; however, the site contains suitable habitat, and the species was recorded in 2009 within 0.6 miles of the project site.
- The Townsend's big-eared bat (*Corynorhinus townsendii*) is a CDFW Species of Special Concern. Townsend's big-eared bat are likely to forage on insects over the project site but are not expected to roost there because of a lack of suitable roosting habitat.

- In addition to the raptors discussed above, several other special-status birds of prey, including Cooper's hawk (*Accipiter cooperii*), ferruginous hawk (*Buteo regalis*), northern harrier (*Circus hudsonius*), and merlin (*Falco columbarius*), are found seasonally in the region, especially during winter and during migration. None of these raptors are expected to nest on the project site due to lack of suitable habitat, but all are expected to fly over or occasionally forage on the site as suitable winter or migratory season foraging habitat is widely available throughout the region.
- Five additional special-status species are reported from the surrounding area (CDFW, 2022): Crotch bumble bee (*Bombus crotchii*), California glossy snake (*Arizona elegans occidentalis*), Bell's sage sparrow (*Artemisiospiza belli belli*), and mountain plover (*Charadrius montanus*). These species are all known from the vicinity of the project site and have at least a moderate potential to be present. These species are all recognized as CDFW Special Animals but have no formal protection.

***Project Impacts***

Project construction would require the removal of two Western Joshua trees, which are a candidate species for State listing. In addition, project construction would require shrub removal and ground-disturbing activities that could affect nesting birds, burrowing owls, and other special-status wildlife species on the project site. The following mitigation measures shall be required to mitigate, avoid, and minimize impacts on these wildlife species. With implementation of Mitigation Measures 3, 4, 5, and 6, which require pre-construction surveys for nesting birds, burrowing owls and other special-status wildlife species, as well as an Incidental Take Permit for the removal of two Joshua trees (pending a final decision by the California Fish and Game Commission), the project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species, because measures would be implemented to mitigate, avoid, and minimize potential impacts to less than significant. In addition, the proposed project would be subject to the requirements of Ordinance No. 848, Biological Impact Fee, which requires the payment of $770 per acre to help offset the cumulative loss of biological resources in the Antelope Valley as a result of development. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

3. **Nesting Birds.** To protect nesting birds that are likely to occur within or adjacent to the project site, project activities should be initiated outside of the nesting season between September 1 and January 31. If project activities must be initiated during the nesting season, a nesting bird survey shall be conducted no more than seven days prior to the start of project activities. If nesting birds are encountered, an appropriate buffer will be established around the nest to avoid potential take of the nest. A biological monitor will track the progress of the nest and will remove the buffer once nesting is complete. No work will be permitted within the buffer.

4. **Burrowing Owl.** To protect burrowing owl that have a potential to be present within or adjacent or the project site, a pre-construction burrowing owl survey shall be completed throughout the project site and in all accessible suitable habitat within 500 feet of the project site. If burrowing owl are nesting on the project site during the nesting season, work will be delayed until the nest has successfully fledged. If burrowing owl are present outside of the nesting season, a qualified biologist shall develop and implement a passive relocation plan. This plan shall be developed and implemented according to the 2012 CDFW Staff Report on Burrowing Owl Mitigation.

5. **Special-Status Wildlife Species.** To avoid or minimize impacts to all other special-status wildlife species, a pre-construction biological survey shall be completed no more than seven (7) days prior to the start of project activities. During the survey, a qualified biologist will survey the site for

special-status wildlife species. Any special-status wildlife species detected will be relocated off-site or allowed to leave the site on their own.

6. **Western Joshua Tree.** To ensure compliance with the California Endangered Species Act (CESA), an Incidental Take Permit (ITP) shall be obtained from the CDFW for the loss of Western Joshua tree and their habitat within the project site. The ITP shall be obtained prior to any project activities within 186-feet of the Western Joshua trees. If the California Fish and Game Commission decides not to list Western Joshua tree under CESA, this measure will no longer be required.

***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, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?***

**No Impact.** Based on a reconnaissance-level biological survey conducted on April 21, 2022 and a focused biological survey conducted on June 8, 2022, vegetation and cover types within the project site include native desert shrubland and disturbed or developed areas. Natural communities on the project site include the following:

- **Creosote bush scrub (*Larrea tridentata* Shrubland Alliance).** Vegetation within the northeast corner of the project site is dominated by creosote bush (*Larrea tridentata*). Additional species such as burro weed (*Ambrosia dumosa*) are also present. Trash and other debris are present within this community. This community is not recognized by CDFW as a Sensitive Natural Community (CDFW, 2021).
- **Nevada joint fir - Anderson's boxthorn - spiny hop sage scrub (*Ephedra nevadensis - Lycium andersonii - Grayia spinosa* Shrubland Alliance).** Vegetation within the majority of the project site is dominated by species such as Nevada ephedra (*Ephedra nevadensis*), Anderson thornbush (*Lycium andersonii*), and Cooper's box thorn (*Lycium cooperi*). Additional species such as creosote bush, burro weed, burrobrush (*Ambrosia salsola*), rubber rabbitbrush, and Western Joshua tree (*Yucca brevifolia*), are also present. This community is not recognized by CDFW as a Sensitive Natural Community (CDFW, 2021).
- **Disturbed/Developed**. This cover type was used to map portions of the project site that are developed or disturbed and lack natural vegetation. Within the project site, these areas include paved and unpaved access roads as well as the northwest quarter of the project site that was recently filled with dirt. These areas are largely unvegetated but may have some species present such as brome grasses (*Bromus* spp.) and common Mediterranean grass (*Schismus barbatus*). Trash and other debris are also present within these areas.

None of the vegetation mapped within the project site are recognized as sensitive natural communities. A total of six sensitive natural communities are known from the region and were identified in the literature review: southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern riparian scrub, southern willow scrub, valley needlegrass grassland, and wildflower field (CDFW, 2022a). None of these sensitive natural communities are present on the project site.

Because riparian habitat and sensitive natural communities are not present on the project site, the project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS. Therefore, the project would have no impact.

***c. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) either individually or in combination***

***with the known or probable impacts of other activities through direct removal, filling, hydrological interruption, or other means?***

**No Impact.** According to the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory, no wetlands have been mapped within or near the project site (USFWS, 2022). No wetlands were observed during a reconnaissance-level biological survey conducted on April 21, 2022 or a focused biological survey conducted on June 8, 2022. Because protected wetlands are not present within or near the project site, the project would not have a substantial adverse effect on state or federally protected wetlands. Therefore, the project would have no impact.

***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 With Mitigation Incorporated.** The California Essential Habitat Connectivity Project was commissioned by the California Department of Transportation (Caltrans) and CDFW to create a statewide assessment of essential habitat connectivity to be used for conservation and infrastructure planning (Caltrans and CDFW, 2010). One of its goals was to create the Essential Connectivity Map, which depicts large, relatively natural habitat blocks that support native biodiversity (natural landscape blocks) and areas essential for ecological connectivity between them (essential connectivity areas). The project site is not identified on the Essential Connectivity Map. In addition, no water bodies are located in the project site; therefore, migratory fish are not present on the project site, and the project would not interfere with the movement of any fish species.

While the project site is not within any designated wildlife corridors, the project site is expected to provide localized wildlife movement within the region. The project site is likely to be used as a forage or dispersal area for wildlife in the immediate vicinity of the project site. In addition, the project site has many shrubs and open areas that may provide nesting habitat. Numerous common species of birds are known to nest in the region and are likely to nest on the project site. With implementation of Mitigation Measures 3, 4, and 5 (see Section 4.a.), which require pre-construction surveys, the project would not interfere substantially with the movement of wildlife species or with established native resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, because measures would be implemented to avoid and minimize disturbance of protected species. Therefore, the project would have a less than significant impact with mitigation incorporated.

***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 conflict with any local policies or ordinances, such as a tree preservation policy, protecting biological resources. The proposed project would be subject to the requirements of Ordinance No. 848, Biological Impact Fee, which requires the payment of $770 per acre to help offset the cumulative loss of biological resources in the Antelope Valley as a result of development. This fee is required of all projects occurring on previously undeveloped land regardless of the biological resources present and is utilized to enhance biological resources through education programs and the acquisition of property for conservation. The Lancaster Municipal Code does not include any other policies or ordinances that protect biological resources on the project site. Therefore, the project would have no impact.

### *f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan?*

**No Impact.** No Habitat Conservation Plans or Natural Communities Conservation Plans have been adopted for the project site or vicinity (CDFW, 2022b). No other local, regional, or State habitat conservation plan has been approved for the site and surrounding area. The West Mojave Coordinated Habitat Conservation Plan only applies to federal land, specifically land owned by the Bureau of Land Management. In conjunction with the Coordinated Managed Plan, a Habitat Conservation Plan (HCP) was proposed which would have applied to all private properties within the Plan Area. However, this HCP was never approved by the California Department of Fish and Wildlife nor was it adopted by the local agencies (counties and cities) within the Plan Area. As such, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, the project would have no impact.

# 5. Cultural Resources

| **CULTURAL RESOURCES**<br>**Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? | ☐ | ☐ | ☐ | ☒ |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5? | ☐ | ☒ | ☐ | ☐ |
| c. Disturb any human remains, including those interred outside of dedicated cemeteries? | ☐ | ☒ | ☐ | ☐ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *a. Would the project cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5?*

**No Impact.** Section 15064.5 of the CEQA Guidelines defines an historical resource under CEQA. Under CEQA, a resource is considered historically significant if it meets the criteria for listing in the California Register of Historical Resources (CRHR). A Cultural Resources Assessment Report (CRAR) was completed for the project in July 2022 by Aspen Environmental Group. As part of this study, a cultural records search was conducted for the project site and a 0.5-mile buffer at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton on June 30, 2022. A field survey was also conducted on June 22, 2022, which included systematic, pedestrian parallel transects spaced 15 meters apart using east-west transects. The project site is vacant, undeveloped land. A review of historic aerial photographs and topographic maps dating to 1948 showed that the project site has never been developed. The entire project site was intensively surveyed, with 100% visibility across the entire site. No new resources were observed on the site during the field survey, and no previously recorded resources were identified on the project site through the cultural records search. The project would not cause a substantial adverse change in the significance of an historical resource pursuant to §15064.5 because these resources are not present on the project site based on a field survey and cultural records search. Therefore, the project would have no impact.

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

**Less Than Significant With Mitigation Incorporated.** Based on the cultural records search conducted for the project site and a 0.5-mile buffer, 11 previous studies have been conducted within 0.5 miles of the project site; however, none of these studies are within the project site. Additionally, the record search did not identify any previously recorded archaeological resources within the project site or 0.5-mile buffer. No archaeological resources were observed during the field survey. However, this does not preclude the possibility of resources being discovered in the course of ground disturbance. Therefore, the following mitigation measures shall be required in the event of an unanticipated cultural resource discovery. With implementation of the identified mitigation measures, which identify procedures in the event of an inadvertent discovery of potential resources, the project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064 because a qualified archaeologist would identify the treatment for the find. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

7. **Inadvertent Discovery of Cultural Resources.** During construction, a professional archaeologist meeting the Secretary of Interior qualifications should be available on-call to identify and evaluate previously unidentified cultural resources discovered during construction activities. If cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall assess the find. Work on the portions of the project outside of the buffered area may continue during this assessment period. The archaeologist shall consult with the City of Lancaster regarding necessary plans for treatment of the find(s), and for the evaluation and mitigation of impacts if the finds are thought to be potentially eligible for the CRHR or may qualify as a unique archaeological resource under CEQA Section 21083.2.

8. **Tribal Notification.** During construction, the Fernandeño Tataviam Band of Mission Indians (FTBMI) and the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted about any pre-contact and/or post-contact finds and be provided information after the archaeologist makes their initial assessment of the nature of the find, to provide Tribal input with regards to significance and treatment.

9. **Native American Monitor.** During construction, should the find be deemed significant, as defined by CEQA (as amended, 2015), the project applicant shall retain a professional Native American monitor procured by the FTBMI and YSMN to observe all remaining ground-disturbing activities including, but not limited to, excavating, digging, trenching, plowing, drilling, tunneling, quarrying, grading, leveling, clearing, driving posts, auguring, blasting, stripping topsoil or similar activity, and archaeological work.

10. **Monitoring and Treatment Plan.** During construction, if significant pre-contact and/or historic-era cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to FTBMI and YSMN for review and comment. All subsequent finds shall be subject to this Plan. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly. This Plan shall allow for a monitor to be present that represents FTBMI and YSMN for the remainder of the project, should FTBMI and YSMN elect to place a monitor on-site.

11. **Tribal Consultation.** Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the City of Lancaster for dissemination to FTBMI and YSMN. The applicant in consultation with the City of Lancaster shall, in good faith, consult with the FTBMI and YSMN on the disposition and treatment of any Tribal Cultural Resource encountered during all ground disturbing activities and throughout the life of the project.

***c. Would the project disturb any human remains, including those interred outside of formal cemeteries?***

**Less Than Significant With Mitigation Incorporated.** On May 20, 2022, a request was submitted to the Native American Heritage Commission (NAHC) for a complete a search of its Sacred Lands File to determine if resources significant to Native Americans have been recorded within the project site or vicinity. On June 22, 2022, Aspen received a response from the NAHC stating that the search of its Sacred Lands File was negative for the presence of resources. Additionally, no resources were identified through the cultural record search or survey, and there are no known cemeteries within the project site. However,

this does not preclude the possibility of resources, including human remains, being discovered in the course of ground disturbance. Therefore, the following mitigation measure shall be required in the event of an unanticipated cultural resource discovery. With implementation of Mitigation Measure 12, which requires construction to halt and notification of the County Coroner in the event that human remains or potential human remains are discovered, the project would not disturb any human remains, including those interred outside of formal cemeteries, because coordination will be conducted with the County Coroner, NAHC, landowner, and Native American tribes to avoid disturbance of the remains or identify proper treatment. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

12. **Inadvertent Discovery of Human Remains.** In the event that human remains, potential human remains, or funerary objects are discovered during any activities associated with the project, work within 100 feet of the find shall be immediately halted. The construction manager shall immediately notify the City of Lancaster and the County Coroner pursuant to State Health and Safety Code §7050.5 and that code shall be enforced for the duration of the project. The County Coroner will make a determination as to the origin of the remains and, if determined to be of Native American origin, will contact the NAHC by telephone within 24 hours. If the remains are not of Native American origin, the County Coroner will make a determination as to the disposition of the remains. Once contacted by the County Coroner, the NAHC shall immediately identify and notify the Most Likely Descendant (MLD). The MLD has 48 hours to make recommendations to the landowner for treatment or disposition of the human remains. If the descendant does not make recommendations within 48 hours, the City of Lancaster shall reinter the remains in an area of the property secure from further disturbance. If the responsible public agency does not accept the descendant's recommendations, the appropriate responsible public agency or the descendant may request mediation by the NAHC. Construction may continue once compliance with all relevant sections of the California Health and Safety Code have been addressed and authorization to proceed is issued by the County Coroner and the responsible public agency.

# 6. Energy

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

Significance criteria established by CEQA Guidelines, Appendix G.

### *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?*

**No Impact.** Project construction would require energy consumption during a 16-month period to operate construction vehicles and equipment. Because the use of energy is necessary to construct the facility and this energy use would be temporary, the consumption of energy resources during project construction would not be wasteful, inefficient, or unnecessary.

The WTRH2 facility would require 10 MW for operation of the gasification system. The facility is designed to produce a portion of its own power (a maximum of 2 MW) for internal plant consumption; this energy would be generated from waste heat that is produced during the gasification process. The facility is designed to optimize energy efficiency by internally reusing the waste heat to minimize the need for additional energy resources. Energy consumption is necessary for operation of the facility, and energy efficiency would be optimized through the facility design. In addition, the facility would convert unrecyclable mixed waste paper into 4,244 tons of $H_2$ per year, which would be used as a transportation fuel that would not release greenhouse gases and would therefore not contribute environmental impacts associated with climate change. Furthermore, building lighting would comply with California Building Energy Efficiency Standards – Title 24, which is California's energy code that is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation, because of the project's energy-efficient design, and the consumption of energy is necessary to construct a facility that would generate clean $H_2$ fuel to reduce climate change impacts. Therefore, the project would have no impact.

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

**No Impact.** The WTRH2 facility would produce $H_2$ fuel from unrecyclable mixed waste paper, a renewable resource, and would therefore help meet CARB's requirement to produce no less than 33.3 percent of $H_2$ for motor vehicles from renewable sources. In addition, the facility is designed to optimize energy efficiency by internally reusing the waste heat during the gasification process to generate a maximum of 2 MW of power for plant consumption. An additional 10 MW of renewable energy would be supplied through a grid tie-in to the Lancaster renewable power grid. This power is generated through 100 percent renewable energy sources with solar, wind, or geo-thermal sources (Lancaster Energy, 2022). Because the facility would use 100 percent renewable energy and would be designed to optimize energy efficiency, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Therefore, the project would have no impact.

# 7. Geology and Soils

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

Significance criteria established by CEQA Guidelines, Appendix G.

***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.***

**No Impact**. The project site is not within an Alquist-Priolo Earthquake Fault Zone, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist (CGS, 2022a). Because the project site does not include any earthquake faults, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving the rupture of a known earthquake fault. Therefore, the project would have no impact.

***ii) Strong seismic ground shaking?***

**Less Than Significant Impact.** An Alquist-Priolo Earthquake Fault Zone (San Andreas Fault, Palmdale segment) is located approximately 5.5 miles to the south of the project site (CGS, 2022a; California Division of Mines and Geology, 1978). Because the project site is near a major, active fault, the site would on average experience stronger shaking more frequently; this intense shaking can damage even strong, modern buildings (Branum, et al., 2016). The WTRH2 facility would be designed in compliance with Uniform Building Code (UBC) standards specific to Zone 4, which is based on the UBC's seismic zone

factors and is the zone where the project site is located. In addition, the facility would be equipped with safety mechanisms, such as detectors/alarms and shutdown systems in the event of a seismic event or other emergency. The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking because compliance with standard seismic design requirements would minimize potential risks. Therefore, the project would have a less than significant impact.

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

**No Impact.** Liquefaction occurs when ground shaking loosens soil particles and causes soil to liquefy and resemble quicksand. The project site is not within a Liquefaction Hazard Zone, which is a zone where liquefaction may occur during a strong earthquake (CGS, 2022a). Because the project site is not prone to liquefaction, and the project would be designed in compliance with UBC standards, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Therefore, the project would have no impact.

***iv) Landslides?***

**No Impact.** The project site is relatively flat and is not susceptible to landslides. In addition, the project site is not within a Landslide Hazard Zone, which is a zone where landslides may occur during a strong earthquake (CGS, 2022a). Because the project site is not prone to landslides, the project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Therefore, the project would have no impact.

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

**Less Than Significant With Mitigation Incorporated.** The project site is currently vacant, undeveloped land with sparse, desert scrub vegetation comprised primarily of shrubs and sandy soils. The vegetation on the site would be removed, and the site would be graded and completely paved during project construction. Vegetation removal and grading would likely result in the loss of topsoil. In addition, soils at the project site are sandy soils, which are typically very susceptible to wind and water erosion.

The proposed project would be required, under the provisions of the Lancaster Municipal Code, Chapter 8.16, to adequately wet or seal the soil to prevent wind erosion (City of Lancaster, 2022c). Water erosion controls must be provided as part of the proposed project's grading plans to be reviewed and approved by the Capital Engineering Division. The City of Lancaster would also require an Erosion Control Plan as a standard condition of approval for the project. This plan would require the installation of erosion control devices and the removal of loose soil and debris that may create a potential hazard to off-site property. Additionally, the following mitigation measure shall be required to control dust/wind erosion. With implementation of Mitigation Measure 13, which requires a Dust Control Plan in accordance with AVAQMD Rule 403, Fugitive Dust, the project would not result in substantial soil erosion or the loss of topsoil because the application of water or other dust suppressant equipment would minimize the disturbance of loose soils. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

13. **Dust Control Plan.** Prior to the issuance of any grading and/or construction permits, the applicant shall submit a Dust Control Plan to the AVAQMD for review and approval in accordance with Rule 403, Fugitive Dust. This plan shall demonstrate adequate water or dust suppressant application

equipment to mitigate all disturbed areas. The approved plan shall be submitted to the City of Lancaster to demonstrate compliance with this measure.

***c. Would the project be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?***

**Less Than Significant Impact.** The project site is relatively flat and is not susceptible to landslides or lateral spreading, which are hazards that occur on slopes. Subsidence is the compacting and sinking of soils, which typically does not occur in sandy soils. Also, the City's Master Environmental Assessment does not indicate that the project site is prone to these hazards (City of Lancaster, 2009c). In addition, sandy soils are not typically prone to expansion; however, these soils are susceptible to collapse. Project construction would include site grading and preparation to stabilize the project site prior to paving and the installation of facility buildings and equipment. In addition, the project would be designed in accordance with standard geotechnical requirements, which include constructing appropriate foundations and equipment supports. The proposed project would be required to have a geotechnical study prepared and all recommendations followed as part of the City's building permit process. The project would not be located on geologic units or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, or liquefaction, because the site is not susceptible to these hazards; in addition, site preparation activities and compliance with standard geotechnical requirements would minimize the potential for the project to destabilize soils and result in collapse. Therefore, the project would have a less than significant impact.

***d. Would the project 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?***

**No Impact.** Expansive soils are fine-grained clays that expand or contract when they absorb or lose water. The project site is underlain by sandy soils, which are not prone to expansion (USDA, NRCS, 2022). The project site is not located on expansive soil as defined in Table 18-1-B of the Uniform Building Code (1994) and would not create substantial direct or indirect risks to life or property. Therefore, the project would have no impact.

***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 waste water?***

**Less Than Significant With Mitigation Incorporated.** The project includes the installation of a septic tank for the basic sewage treatment of wastewater flows from the administrative/control and warehouse buildings. The soil underlying the project site is identified as Cajon loamy sand, 0 to 2 percent slopes (CaA), according to the United States Department of Agriculture, Natural Resources Conservation Service (USDA, NRCS) Web Soil Survey (USDA, NRCS, 2022). This soil type is excessively drained with a depth to water table of more than 80 inches. The typical soil profile for this soil type is loamy sand from 0 to 9 inches and sand from 9 to 60 inches. Loamy sand is a soil material containing 70 to 85 percent sand, up to 30 percent silt, and up to 15 percent clay.

According to the Web Soil Survey, Cajon loamy sand is unfavorable for septic tanks because of the filtering capacity of the soil. The installation of the septic system would require approval by the Lahontan Regional Water Quality Control Board (RWQCB). In addition, the City's Department of Building and Safety also requires that plot plans be approved by the Los Angeles County Health Department for installation of the septic system prior to the issuance of a New Commercial/Industrial Building Permit. Furthermore, the following mitigation measure shall be required to ensure soils can accommodate the septic system. With

implementation of Mitigation Measure 14, the project's soils would not be incapable of adequately supporting the use of a septic tank because a geotechnical study would be conducted and any soils that cannot support the septic system would be remediated. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

14. **Geotechnical Study.** The applicant shall conduct a geotechnical study prior to issuance of building permits to determine if soil remediation is required to adequately support the use of a septic tank and achieve proper drainage and filtration. If the study determines that remediation is required, the applicant shall conduct soil remediation activities prior to installing the septic system.

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

**Less Than Significant With Mitigation Incorporated.** The project site is relatively flat and includes vacant, undeveloped land with sparse, desert scrub vegetation. Based on a field survey conducted on June 22, 2022, the geology of the project site consists mainly of coarse to very fine sand(s), with some additional small (less than 4 centimeters in size) gravel. The project would not directly or indirectly destroy any unique geologic features because these features are not present on the project site.

On May 20, 2022, a paleontological record search was conducted of the project site and surrounding vicinity. The search included the entire project site and involved a review of known fossil localities and geologic maps covering the project site to determine the fossil-bearing rock units underlying the site. The objective of this record search was to identify unique geologic units or identify documented fossil specimens within the project site. The review also included a review of published and unpublished reports relevant to the geology and paleontology of the project site. The record search did not identify any fossils within the project site; however, localities have been noted within the same Pleistocene (2,580,000 to 11,700 years ago) sedimentary deposits in the surrounding vicinity. The documented fossil specimens in the nearby vicinity include camel, snakes, lizards, birds, and rodents, located at depths of 3 to 11 feet.

Because fossil localities have been uncovered within the same sedimentary deposits nearby the project site, even relatively shallow excavations in the project site have the potential to uncover significant fossil specimens. Therefore, the following mitigation measure shall be required to avoid impacts on paleontological resources. With implementation of Mitigation Measure 15, which requires paleontological monitoring for excavations deeper than 3 feet, the project would not directly or indirectly destroy a unique paleontological resource or site because disturbance of paleontological resources would be avoided. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

15. **Paleontological Monitoring.** During construction, excavations deeper than three feet, in native soil, shall be monitored by a qualified paleontologist. Any recovered specimens shall be deposited at an accredited institution.

# 8. Greenhouse Gas Emissions

| **GREENHOUSE GAS EMISSIONS**<br>**Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? | ☐ | ☐ | ☒ | ☐ |
| b. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *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.** Project construction would cause greenhouse gas (GHG) emissions during a 16-month period from the use of diesel fuel and gasoline to power construction vehicles and equipment. The different sources of GHG emissions include diesel-powered off-road equipment and the diesel and gasoline-powered construction vehicles including trucks and autos for moving crews, equipment, materials, and water. Equipment and motor vehicles would directly emit $CO_2$, methane ($CH_4$), and nitrous oxide ($N_2O$) due to fuel use and combustion. Motor vehicle fuel combustion emissions in terms of $CO_2e$ are approximately 95 percent $CO_2$, with $CH_4$ and $N_2O$ emissions occurring at rates of less than 1 percent of the mass of combustion $CO_2$ emissions.

Construction phase GHG emissions would be temporary and limited to the short-term duration of construction. The one-time quantity of GHG emitted during construction of the project would be a total of approximately 3,335 metric tons of carbon dioxide equivalent ($MTCO_2e$), spanning two calendar years.

Project operation would create GHG emissions through the transportation demand to deliver feed, distribute products, and dispose of project wastes. Additionally, stationary sources would use fossil fuels in the routine operation of process equipment. Operation of the facility would also use up to 10 MW in electric power from the grid for routine operations while producing up to a maximum of 2 MW for onsite use.

Table 4 shows the total GHG emissions related to the proposed project construction and operational activities. This total does not include the indirect and off-site effects of the new $H_2$ supplies that could displace the end-use of gasoline by motor vehicles, which are difficult to quantify but would provide a beneficial effect to overall GHG emissions in California. Proposed project GHG emissions would be well below the AVAQMD recommended annual GHG emissions significance threshold of 100,000 tons (AVAQMD, 2016), equivalent to 90,719 $MTCO_2e$ per year, and would not have a significant impact on the environment. Therefore, the project would have a less than significant impact.

**Table 4. Construction and Operation GHG Emissions ($MTCO_2e$)**

| Year of Construction | One-Time During Construction ($MTCO_2e$) | Annual Proposed Project Operation ($MTCO_2e$/year) |
|---|---|---|
| Year 1 (2023) | 2,027.60 | --- |
| Year 2 (2024) | 1,307.25 | --- |
| **Total, Duration of Construction** | **3,334.85** | --- |

**Table 4. Construction and Operation GHG Emissions ($MTCO_2e$)**

| | | |
|---|---|---|
| **Operation and Maintenance** | | |
| Mobile | --- | 6,493.37 |
| Area | --- | 0.01 |
| Offroad | --- | 5.40 |
| Stationary Sources, Combustion | --- | 4,462.36 |
| Waste | --- | 407.46 |
| Water | --- | 757.18 |
| **Total, Operation (MTCO2e/year)** | --- | **12,125.79** |
| Significant Emissions Thresholds | --- | 90,719 |

Source: Aspen Environmental Group, July 2022
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent

***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?***

**No Impact.** The State and City GHG emissions reduction plans that would be applicable to the proposed project are the California Air Resources Board (CARB) Climate Change Scoping Plan (ARB, 2017) and the City's Climate Action Plan. These plans are discussed in the following paragraphs.

The following major policies are listed as "known commitments" within the 2017 Climate Change Scoping Plan (CARB, 2017):

- **Renewables Portfolio Standard (RPS) and Senate Bill (SB) 350.** Reducing GHG emissions in the electricity sector through the implementation of the 50 percent RPS and doubling of energy savings (SB 350).
- **Low Carbon Fuel Standard.** Transition to less-polluting transportation fuels that have a lower carbon footprint.
- **Mobile Source Strategy.** Reduce GHG and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of vehicle miles traveled.
- **California Sustainable Freight Action Plan.** Improve freight efficiency, transition to zero emission technologies, and increase competitiveness of California's freight system.
- **Cap-and-Trade Program.** Implement the post-2020 program to reduce GHG from large sources, such as transportation fuel suppliers, through declining caps to ensure the State's 2030 target is achieved.

The CARB's Draft 2022 Scoping Plan Update is presently under development to document ongoing progress towards statutory 2030 targets and to establish a path to achieving carbon neutrality no later than 2045 (CARB, 2022). The Draft 2022 Scoping Plan Update addresses the increasingly stringent 60 precent RPS goal by 2030, as set by SB 100; SB 100 also sets a target for California to achieve a GHG-free electricity supply for 100 percent of retail sales of electricity to California end-use customers by December 31, 2045. Although different scenarios and a range of actions remain under evaluation, some similarities include the following characteristics:

- Drastic reduction in fossil fuel dependence, with some remaining in-state demand for fossil fuels for aviation, marine, and locomotion applications, and for gas for buildings and industry.

- Ambitious deployment of efficient non-combustion technologies such as zero emission vehicles and heat pumps.
- Rapid growth in the production and distribution of clean energy such as zero carbon electricity and hydrogen.
- Progressive phasedown of fossil fuel production and distribution activities as part of the transition to clean energy.

Project activities related to both construction and operation would emit GHG mostly by using transportation fuels that are within the present-day management commitments identified in the 2017 Climate Change Scoping Plan. The majority of emissions would be from mobile sources, the off-road equipment and on-road motor vehicles, that are not directly subject to GHG controls but would be users of transportation fuels from refiners and suppliers that are required to comply with Cap-and-Trade Program and Low Carbon Fuel Standard regulations to reduce GHG emissions.

The project would add to California's supply of low carbon transportation fuel by producing $H_2$ for distribution to motor vehicle refueling stations. The project would use a unrecyclable mixed waste-paper feedstock and consume electricity from the grid that is from 100 percent renewable resources, consistent with California's RPS, as set forth by SB 350 and SB 100. Accordingly, the GHG emissions associated with the project construction and operation activities would not conflict with the California's GHG emissions reduction targets, as set forth within the ARB 2017 Climate Change Scoping Plan and carried forward in the Draft 2022 Scoping Plan Update.

The City Council adopted Resolution No. 17-14 (March 28, 2017), approving the City of Lancaster's Climate Action Plan (CAP) and adopting the associated Initial Study. As part of the CAP, the City developed a GHG emissions inventory which consisted of both community-wide emissions and emissions from government operations for future years based on demographic growth. The CAP also identified projects that would enhance the City's ability to further reduce GHG emissions. A total of 61 projects/measures across eight sectors were identified, which include: 1) traffic; 2) energy; 3) municipal operations; 4) water; 5) waste; 6) built environment; 7) community; and 8) land use. Forecasts for both community and government operations were prepared for 2020, 2030, 2040, and 2050. Under all scenarios assessed, the City meets the 2020 target and makes substantial progress towards achieving the post-2020 reductions (City of Lancaster, 2016).

The following two CAP Measures would be relevant to the project:

- Measure 4.2.1a, Renewable Energy Purchase Plan. Increase Lancaster Choice Energy's renewable energy and carbon free energy purchases.
- Measure 4.2.1f, Bio-Fuels. Install a biodiesel plant to convert used cooking oil into bio-fuel to power City fleet.

The project would commit to using only renewable and carbon-free electricity from Lancaster Choice Energy. As a result, the project would be supportive of the CAP by becoming a consumer of the renewable and carbon-free resources offered by City CAP Measure 4.2.1a, Renewable Energy Purchase Plan. By producing a new supply of $H_2$ for use as an alternative transportation fuel, the project would also be supportive of the CAP by providing an alternative fuel resource with benefits similar to those envisioned by City CAP Measure 4.2.1f, Bio-Fuels. The project would not have the potential to conflict with the CARB Scoping Plan or the City's CAP. Therefore, the project would have no impact.

# 9. Hazards and Hazardous Materials

| HAZARDS AND HAZARDOUS MATERIALS<br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | ☐ | ☒ | ☐ | ☐ |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | ☐ | ☒ | ☐ | ☐ |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | ☐ | ☐ | ☐ | ☒ |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | ☐ | ☐ | ☐ | ☒ |
| e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? | ☐ | ☐ | ☒ | ☐ |
| f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☒ | ☐ |
| g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *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 With Mitigation Incorporated.** Project construction would require typical construction materials to install the facility buildings and equipment. The project would not involve the demolition of any structures, and therefore, would not expose individuals or the environment to asbestos-containing materials or lead-based paint.

The project would require the routine transport, use, and disposal of hazardous materials for facility operations, including various chemicals for the gasification system and support processes, as well as the routine transport of $H_2$. These routine activities would be conducted in compliance with applicable regulations to minimize potential hazards to the public and to the environment. Waste products, including brine and slag, would be transported offsite to appropriate disposal facilities. Catch basins with filters and depressions would be onsite in spill containment areas, which would be required for all process unit areas. Drains would collect stormwater and spills, which would be directed to the stormwater retention basin after being processed in the oil-water separator.

The facility would also be equipped with safety mechanisms, such as fire protection and sprinkler systems, dust suppression systems, detectors/alarms, shutdown systems, and temperature monitoring and controls, and would undergo a full Hazard and Operability Analysis (HAZOP) review as part of engineering design. In addition, the project would require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting. No more than

4,400 pounds) of $H_2$ would be stored onsite at any given time(see Project Description); this amount of $H_2$ storage is below the USEPA $H_2$ threshold for requiring a management plan for a permanent/stationary fire hazard.

The project site is not located along a hazardous materials transportation corridor (City of Lancaster, 2009c). The facility is designed to accommodate up to 14 $H_2$ trucks at any given time (2 actively loading, 2 waiting to load, and 10 parking spots). $H_2$ trucks are not allowed to make unprotected left turns (i.e., only at a traffic signal with a protected left turn arrow). Trucks would access the facility by exiting State Route 14 at Avenue L, going east on Avenue L to Challenger Way (10th Street East), heading south on Challenger Way to Avenue M, and heading west on Avenue M. Trucks would make a right turn onto 5th Street East which would allow them to enter the facility on 5th Street East or make a right-turn onto Avenue L-12 and enter the facility through the driveway at the northeast corner of the site. This area of the facility would be utilized for the loading of the $H_2$ trucks. To exit the facility, the $H_2$ trucks would exit out of the facility from a driveway on the eastern boundary of the loading area, make a right turn onto 6th Street East, and then another right turn to go west on Avenue M towards State Route 14. The entry and exit points would be kept separate to avoid truck traffic within the plant, as well as to ensure that truck drivers only make right turns on the roads when leaving the plant.

The following mitigation measure shall be implemented to ensure that traffic patterns are met while trucks are traveling to and within the project site during operation. With implementation of Mitigation Measure 16, which requires onsite traffic signage to be incorporated into the project's general circulation plan, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials because the project would comply with applicable regulations to minimize potential hazards to the public and to the environment; the facility would be designed with spill containment and safety mechanisms, in coordination with the Los Angeles County Fire Department; and $H_2$ would be stored at quantities below regulatory thresholds and would be transported in a manner that would reduce potential hazards (only protected left turns for $H_2$ trucks and separate entry and exit points into the project site). Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

16. **Traffic Signage.** During the final design phase of the project, the applicant shall incorporate onsite traffic signage in the general circulation plan, which shall be submitted to the City for approval to ensure that traffic patterns are met.

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

**Less Than Significant With Mitigation Incorporated.** The facility would be equipped with safety mechanisms, such as fire protection and sprinkler systems, dust suppression systems, detectors/alarms, shutdown systems, and temperature monitoring and controls, and would undergo a full HAZOP review as part of engineering design. The project would also require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting. Produced $CO_2$ would not be vented except under emergency upset conditions. In addition, all upset vents would be sent to the ground level flare for safe combustion. The facility would not discharge any process gas streams into the atmosphere. Furthermore, catch basins with filters and depressions would be onsite in spill containment areas, which would be required for all process unit areas. Drains

would collect stormwater and spills, which would be directed to the stormwater retention basin after being processed in the oil-water separator.

The following mitigation measure shall be required to ensure the public has project contact information in the event they would like to report a potentially hazardous incident at the site. With implementation of Mitigation Measure 17, the project would not 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 because the facility would be designed with safety mechanisms, in coordination with the Los Angeles County Fire Department, to minimize potential hazards during upset and accident conditions; no process gas streams or spills would be discharged to the environment; and project contact information will be provided to the public in the event of a potentially hazardous incident or other nuisance originating from the site. Therefore, the project would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

17. **Incident Notification.** Throughout the duration of project construction and operation, project contact information shall be posted at the project site in a manner that is readily visible to the public, so that any member of the public can notify the facility manager of a potentially hazardous incident or a nuisance (e.g., exceedance of the City's noise limits) originating at the site.

***c. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

**No Impact.** No existing or proposed schools are within one-quarter mile of the project site. The project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Therefore, the project would have no impact.

***d. Would the project 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?***

**No Impact.** According to the State Water Resources Control Board (SWRCB) GeoTracker and the California Department of Toxic Substances Control (DTSC) EnviroStor databases, as well as a Phase I Environmental Site Assessment prepared for the project in July 2022 by Aspen Environmental Group, no hazardous waste cleanup sites are located within or adjacent to the project site. The project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and would not create a significant hazard to the public or the environment. Therefore, the project would have no impact.

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

**Less Than Significant Impact.** Palmdale Regional Airport (PMD) and United States Air Force Plant 42 (Plant 42), a classified aircraft manufacturing plant, are approximately 0.7 mile to the south of the project site. During a site visit conducted on June 14, 2022, several military airplanes were observed flying overhead the project site. PMD does not have any scheduled passenger airline service, and Plant 42 is operated as a component of Edwards Air Force Base, which is approximately 23 miles to the northeast. Therefore, military airplanes were observed to be intermittent during the site visit.

During project construction and operation, no people would reside at the project site. A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during construction, depending on the work being conducted. After the facility is constructed, a total of 25 administrative, technical, and support staff would be at the facility during business hours. The operations personnel would be organized into four shifts of 6 people with each shift working 12 hours per day (two shifts per day with the other two shifts off.)

Construction staff would be exposed to noise from activities conducted at the project site. Construction would be completed within 16 months and would be limited to the hours specified in the Lancaster Municipal Code (between 7:00 a.m. to 8:00 p.m. and not on Sunday); therefore, construction workers would not be exposed to excessive noise levels as a result of working near PMD and Plant 42. Operational employees would use hearing protection near loud equipment when inside the facility, and the concrete block and/or tubular steel wall along the perimeter of the project site would serve as a buffer from internal and external noise sources, including noise from surrounding industrial facilities and airplane noise.

The ASU, at 90 feet high, would be the tallest piece of equipment at the facility. The Federal Aviation Administration requires aircraft warning lights on temporary and permanent structures above 200 feet to prevent accidents. The proposed facility would not include any structures that would reach 200 feet in height, and none of the facility structures or equipment would pose a safety hazard because of proximity to operations at PMD and Plant 42.

The project would not result in a safety hazard or excessive noise for people residing or working in the project area because construction staff and operational employees would not reside in this area; construction activities would be temporary; airplane operations at PMD and Plant 42 are intermittent and of short duration; the proposed facility would not interfere with PMD or Plant 42 operations; and operational employees would be shielded from noise sources within and outside the plant to minimize their exposure to noise. Therefore, the project would have a less than significant impact.

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

**Less Than Significant Impact.** The facility would be equipped with safety mechanisms, such as fire protection and sprinkler systems, dust suppression systems, detectors/alarms, shutdown systems, and temperature monitoring and controls, and would undergo a full HAZOP review as part of engineering design. The project would also require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting.

Temporary construction traffic would be generated during the construction period to transport vehicles and equipment to the project site. In addition, trucks would be used during project operation to transport feedstock to the WTRH2 facility, export solid waste for appropriate disposal, as well as transport $H_2$ offsite for use by Shell Hydrogen and Iwatani. Project-related vehicles would use surrounding roadways, including State Route 14 and Avenue M, to access the project site. During operation, a total of 37 employee commute trips would be required each day (25 administrative, technical, and support staff during business hours; and 6 operations staff per shift over two 12-hour shifts). In addition, at most 72 trucks per day would enter the project site during a 24-hour period, which is approximately three trucks per hour if shipments are distributed evenly over the 24-hour period. This number of vehicles per hour would not be expected to substantially impair emergency evacuation.

While traffic to and from the project site would increase after project implementation, vehicles would not obstruct any evacuation routes. The $H_2$ trucks would be required to only make protected left turns (i.e., using a turn signal) when traveling to and from the project site. Adequate space is provided within the

facility for $H_2$ truck staging and loading (see Figure 3 in Section 7., Description of Project). Because the project would be designed with safety mechanisms in coordination with the Los Angeles County Fire Department and would accommodate truck shipments to and from the site, the project would not impair an adopted emergency response plan or emergency evacuation plan. Therefore, the project would have a less than significant impact.

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

**No Impact.** The project site and surrounding area is not located within a state responsibility area or in a very high fire hazard severity zone (CAL FIRE, 2022). The project site is relatively flat and includes vacant, undeveloped land with sparse, desert scrub vegetation comprised primarily of shrubs and sandy soils. The surrounding land to the east, west, and south include similar properties with vacant, undeveloped land and sparse vegetation intermixed with three single-family residences (to the east and west) and water storage tanks (to the south across Avenue M). The properties to the north include industrial uses (cement mixing plant, bus rental company, and automobile towing and recovery facility) and are completely paved. Because the project site is not susceptible to wildfires, the project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. Therefore, the project would have no impact.

# 10. Hydrology and Water Quality

| **HYDROLOGY AND WATER QUALITY**<br>**Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? | ☐ | ☒ | ☐ | ☐ |
| b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin? | ☐ | ☐ | ☒ | ☐ |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: | | | | |
| (i) result in substantial erosion or siltation on- or off-site; | ☐ | ☐ | ☒ | ☐ |
| (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; | ☐ | ☐ | ☒ | ☐ |
| (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or | ☐ | ☐ | ☒ | ☐ |
| (iv) impede or redirect flood flows? | ☐ | ☐ | ☐ | ☒ |
| d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? | ☐ | ☐ | ☐ | ☒ |
| e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? | ☐ | ☒ | ☐ | ☐ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *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 With Mitigation Incorporated.** The project site does not include any water bodies. The nearest body of water, Amargosa Creek, is approximately one mile west of the project site. The project site is in the Antelope Valley Groundwater Basin (DWR, 2022). The Lahontan Regional Water Quality Control Board (RWQCB) oversees compliance with water quality standards and waste discharge requirements for surface waters and groundwater in the Lahontan Region where the project site is located. Water quality objectives and standards relevant to the project site are included in the Water Quality Control Plan for the Lahontan Region (Lahontan RWQCB, 1995).

For wastewater treatment and $NH_3$/S/$H_2S$ removal, the facility would include a brine concentrator, ammonia wash column, and iron sponge bed-based system. The facility's Zero Liquid Discharge (ZLD) design would allow process wastewater to be treated and re-used internally with no discharges into the storm drain system. If the wastewater treatment system is down for any reason, sewer tie-in would be needed to maintain operation of the plant. The wastewater treatment process would produce a concentrated brine that would be sent offsite by truck to a disposal facility. A septic tank would be installed for the basic sewage treatment of wastewater flows from the administrative/control and warehouse building. Catch basins with filters and depressions would be onsite in spill containment areas, which would be required for all process unit areas. Drains would collect stormwater and spills, which would be directed to the stormwater retention basin after being processed in the oil-water separator (a

piece of equipment that separates oil and water mixtures into their separate components). Any overflow stormwater would be discharged to storm drains in the public right-of-way.

A National Pollution Discharge Elimination System (NPDES), General Construction SWPPP with water quality Beset Management Practices (BMPs) would be implemented for the project, as required by the Lahontan RWQCB. In addition, the project would require approval by the Lahontan RWQCB and Los Angeles County Public Health Department for the septic system, as well as approval by the Los Angeles County Sanitation District for a connection to the sewer system. Mitigation Measure 14 in Section 7.e. shall be required to ensure that soils can adequately support the septic system and achieve proper drainage and filtration. With implementation of this measure, the project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality because a geotechnical study would be conducted and any soils that cannot support the septic system would be remediated. In addition, stormwater and wastewater would be contained within the project site; or accommodated by existing storm drains (stormwater) or a connection to the sewer system (wastewater) with oversight by the Lahontan RWQCB, Los Angeles County Public Health Department, and Los Angeles County Sanitation District. Therefore, the project would have a less than significant impact with mitigation incorporated.

***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.** An aquifer is an underground layer of water-bearing permeable rock, rock factures, or unconsolidated materials (gravel, sand, or silt) from which groundwater can be extracted using a water well. A Sole Source Aquifer is an aquifer that has been designated by the USEPA as the sole or principal source of drinking water for an area. No Sole Source Aquifers are within or in proximity to the project site (USEPA, 2022). A groundwater basin is an underground reserve of water, which may take the form of a single aquifer or a group of linked aquifers. The project site is in the Antelope Valley Groundwater Basin (DWR, 2022). This groundwater basin has not been identified as a Critically Overdrafted Groundwater Basin (DWR, 2020). However, the groundwater basin is in an overdraft condition, which limits the amount of water that can be pumped in the long-term (RMC Water and Environment, 2007). Because the Antelope Valley is a desert environment, the region currently obtains its water supply from groundwater and surface water imported from other parts of the state through the California Aqueduct as part of the State Water Project.

The project would not include any groundwater wells or pumping activities. Landale Mutual Water Company would supply potable water for the plant's power and process water, as well as domestic water, requirements. Additional process water would be obtained through stormwater retention via an above ground retention basin on the site. Onsite stormwater drains and catch basins would convey water to the stormwater retention basin. In addition, the facility's ZLD design would allow process wastewater to be treated and re-used internally. Because the proposed facility would retain stormwater for onsite use, as well as re-use process wastewater, the project's water requirements would be minimized. During project implementation, the entire site would be paved, which would prevent surface water from moving downward to recharge groundwater. However, the project site is only 15 acres in size, and the paving of this size of an area would not be expected to substantially interfere with groundwater recharge in such a manner that would impede sustainable groundwater management of the basin.

The project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, because the facility would be designed to minimize water requirements, and the paving of the 15-

acre site would not substantially interfere with groundwater recharge. Therefore, the project would have a less than significant impact.

***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 which would:***

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

**Less Than Significant Impact.** The project site does not include any water bodies. The nearest body of water, Amargosa Creek, is approximately one mile west of the project site. Amargosa Creek is a desert wash which contains water seasonally. Therefore, the project would not alter the existing drainage pattern of the site or area through the alteration of the course of a stream or river.

Project construction would require ground disturbance, which would loosen soils and could result in erosion or siltation on- of off-site. However, during construction, the project would be required to comply with a SWPPP, which would require BMPs to control stormwater and prevent erosion or siltation. During project implementation, the entire site as well as 5$^{th}$ and 6$^{th}$ Street East would be paved, which could alter the existing drainage pattern of the site. However, paved areas would not be susceptible to erosion because soils would not be loosened or exposed during project operation. In addition, surface runoff would be controlled and contained within the project site in a stormwater retention basin or accommodated by existing storm drains.

The project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site, because a SWPPP would be implemented during construction to control erosion, the entire site and adjacent streets would be paved, and surface runoff would be contained within the site or would be accommodated by existing storm drains. Therefore, the project would have a less than significant impact.

***ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite?***

**Less Than Significant Impact.** The project site is designated as Zone X, which is an area of minimal flood hazard as shown on the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer (FEMA, 2020) (outside both the 100-year and 500-year flood zones). During project implementation, the entire site would be paved, which could alter the existing drainage pattern of the site in a manner that would increase the rate or amount of surface runoff. However, stormwater would drain into catch basins on the site and would be conveyed to a stormwater retention basin after being processed in the oil-water separator. Any overflow stormwater would be discharged to storm drains in the public right-of-way. During construction, the project would be required to comply with a SWPPP, which would require BMPs to control stormwater and prevent flooding on- or off-site.

The project would not substantially alter the existing drainage pattern of the site or area in manner which would substantially increase the rate or amount of surface runoff and result in flooding on- or offsite, because surface runoff would be controlled and contained within the project site in a stormwater retention basin or accommodated by existing storm drains. Therefore, the project would have a less than significant impact.

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

**Less Than Significant Impact.** Stormwater would drain into catch basins on the site and would be conveyed to a stormwater retention basin after being processed in the oil-water separator. Stormwater would be used for process water within the plant. Any overflow stormwater would be discharged to storm drains in the public right-of-way. During construction, the project would be required to comply with a SWPPP, which would require BMPs to control stormwater and minimize sources of polluted runoff. Because stormwater would be contained and used onsite to minimize potential stormwater discharges, the project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Therefore, the project would have a less than significant impact.

***iv) Impede or redirect flood flows?***

**No Impact.** The project site is designated as Zone X, which is an area of minimal flood hazard as shown on FEMA's National Flood Hazard Layer (FEMA, 2020) (located outside both the 100-year and 500-year flood zones). During project implementation, the entire site would be paved. Stormwater would be controlled and contained within the project site in a stormwater retention basin or accommodated by existing storm drains. During construction, the project would be required to comply with a SWPPP, which would require BMPs to control stormwater and prevent flooding on- or off-site. The project would not impede or redirect flood flows because the project site is not susceptible to flooding, and stormwater runoff would be controlled and contained within the project site or accommodated by existing storm drains. Therefore, the project would have no impact.

***d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?***

**No Impact.** The project site is designated as Zone X, which is an area of minimal flood hazard as shown on FEMA's National Flood Hazard Layer (FEMA, 2020) (located outside both the 100-year and 500-year flood zones). In addition, the project site is not susceptible to hazards related to tsunamis (a series of waves in an ocean or large lake) or seiches (a standing wave oscillating in a body of water), as the project site is approximately one mile east of the nearest body of water, Amargosa Creek, and is not located near an ocean or large lake. Amargosa Creek is a desert wash which contains water seasonally. The project would not risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones because the project site is not located within these zones. Therefore, the project would have no impact.

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

**Less Than Significant With Mitigation Incorporated.** Water quality objectives and standards relevant to the project site are included in the Water Quality Control Plan for the Lahontan Region (Lahontan RWQCB, 1995). The applicable sustainable groundwater management plan is the Antelope Valley Integrated Regional Water Management Plan (LACPW, 2019). As stated previously, stormwater and wastewater would be contained within the project site; or accommodated by existing storm drains (stormwater) or a connection to the sewer system (wastewater) with oversight by the Lahontan RWQCB, Los Angeles County Public Health Department, and Los Angeles County Sanitation District. In addition, the facility would be designed to minimize water requirements through the retention of stormwater for onsite use, as well as the re-use of process wastewater.

The project would require approval by the Lahontan RWQCB and Los Angeles County Public Health Department for the septic system. Mitigation Measure 14 in Section 7.e. shall be required to ensure that soils can adequately support the septic system and achieve proper drainage and filtration. With implementation of this measure, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Therefore, the project would have a less than significant impact with mitigation incorporated.

# 11. Land Use and Planning

| LAND USE PLANNING<br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Physically divide an established community? | ☐ | ☐ | ☐ | ☒ |
| b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect? | ☐ | ☒ | ☐ | ☐ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *a. Would the project physically divide an established community?*

**No Impact.** The project site is located on vacant, undeveloped land zoned as Heavy Industrial. The surrounding land to the east, west, and south include similar properties as the project site, with vacant, undeveloped land and sparse vegetation intermixed with three single-family residences (to the east and west) and water storage tanks (to the south across Avenue M). The properties to the north include industrial uses (cement mixing plant, bus rental company, and automobile towing and recovery facility). All of the adjacent and surrounding properties are also zoned Heavy Industrial. The single-family residences adjacent to the east and west are legal non-conforming uses. The project site is separated from adjacent properties by 5th and 6th Streets East and Avenues M and L-12. One adjoining property in the southwest corner of Avenue M and 5th Street East is not included in the project site; this property is also vacant, undeveloped land. Because the project site is currently vacant, undeveloped land that is already separated from adjacent, developed properties by roadways, the project would not physically divide an established community. Therefore, the project would have no impact.

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

**Less Than Significant With Mitigation Incorporated.** With implementation of mitigation measures listed throughout this document, the proposed project is consistent with the City's General Plan and must be in conformance with the Lancaster Municipal Code. Table 5 provides a consistency analysis of the proposed project with respect to the relevant policies of the General Plan. The proposed project would be in compliance with the City-adopted Uniform Building Code (UBC) and erosion control requirements. Additionally, as noted in Section 4.f., the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other approved local, regional, or State habitat conservation plan. As the proposed project does not involve the provision of housing nor is housing permitted under the Heavy Industrial zoning, a consistency analysis with the Housing Element was not conducted.

**Table 5. General Plan Consistency Analysis**

| Policies | Consistency Analysis |
|---|---|
| **Policy 3.1.1:** Ensure that development does not adversely affect the groundwater basin. | **Consistent.** The proposed facility would not adversely affect the groundwater basin because the project's water requirements would be minimized by retaining stormwater for onsite use and internally reusing process wastewater. |
| **Policy 3.1.3:** Encourage the use of recycled tertiary treated wastewater when possible. | **Consistent.** The facility's Zero Liquid Discharge (ZLD) design would allow process wastewater to be treated and re-used internally with no discharges into the storm drain system. |

**Table 5. General Plan Consistency Analysis**

| Policies | Consistency Analysis |
|---|---|
| **Policy 3.2.1:** Promote the use of water conservation measures in the landscape plans of new developments. | **Consistent.** The facility's landscaping plan would include plants from the City's approved plant list to promote water conservation in the new development. |
| **Policy 3.2.5:** Promote the use of water conservation measures in the design of new developments. | **Consistent.** The project is designed to conserve water by retaining stormwater for onsite use and internally reusing process wastewater. |
| **Policy 3.3.1:** Minimize the amount of vehicular miles traveled. | **Potentially Consistent.** As discussed in Section 17 (Transportation) of this document, the project would generate a maximum of 113 trips each day; therefore, a mitigation measure would be required to reduce project-related trips to less than 110 trips per day, which is less than the City's thresholds of significance for transportation impacts. |
| **Policy 3.3.3:** Minimize air pollutant emissions generated by new and existing development. | **Consistent.** A dust control plan would be implemented and air quality permits would be obtained from the AVAQMD to minimize air pollutant emissions generated by the proposed facility. |
| **Policy 3.4.4:** Ensure that development proposals, including City sponsored projects, are analyzed for short- and long-term impacts to biological resources and that appropriate mitigation measures are implemented. | **Potentially Consistent.** Short- and long-term impacts on biological resources have been analyzed in Section 4 (Biological Resources) of this document. Appropriate mitigation measures are listed in this section and will be implemented during project construction. |
| **Policy 3.6.1:** Reduce energy consumption by establishing land use patterns which would decrease automobile travel and increase the use of energy efficient modes of transportation. | **Consistent.** The project is located near the Antelope Valley Freeway in the Heavy Industrial zone, which is consistent with land use patterns approved by the City's general plan and would minimize the distance for truck travel. |
| **Policy 3.6.4:** Support state and federal legislation that would eliminate wasteful energy consumption in an appropriate manner. | **Consistent.** The facility is designed to optimize energy efficiency by internally reusing waste heat to produce a maximum of 2 MW of energy for internal plant consumption, which would minimize the need for additional energy resources consistent with state and federal legislation to eliminate wasteful energy consumption. |
| **Policy 4.3.1:** Ensure that noise-sensitive land uses and noise generators are located and designed in such a manner that City noise objectives will be achieved. | **Potentially Consistent.** As discussed in Section 13 (Noise) of this document, a mitigation measure will require implementation of noise control features adequate to ensure that the operation of the project will not exceed the City's noise standards. |
| **Policy 4.3.2:** Wherever feasible, manage the generation of single event noise levels (SENL) from motor vehicles, trains, aircraft, commercial, industrial, construction, and other activities such that SENL levels are no greater than 15 dBA above the noise objectives included in the Plan for Public Health and Safety. | **Potentially Consistent.** As discussed in Section 13 (Noise) of this document, several measures will be required to reduce construction and operational noise from the project. |

**Table 5. General Plan Consistency Analysis**

| Policies | Consistency Analysis |
|---|---|
| **Policy 4.3.3:** Ensure that the provision of noise attenuation does not create significant negative visual impacts. | **Consistent.** The proposed plot plan would include a 6' 4" high concrete block and/or tubular steel wall around the outside perimeter for security and noise. Louder equipment would be positioned to the middle of the site or within buildings to reduce noise measured at the fence lines. Ornamental landscaping would be planted along the perimeter of the site where the facility is visible from public roadways (Avenues M and L-12). |
| **Policy 4.5.1:** Ensure that activities within the City of Lancaster transport, use, store, and dispose of hazardous materials in a responsible manner which protects the public health and safety. | **Consistent.** The project would require the routine transport, use, and disposal of hazardous materials for facility operations, including various chemicals for the gasification system and support processes, as well as the routine transport of $H_2$. These routine activities would be conducted in compliance with applicable regulations to minimize potential hazards to the public and to the environment. |
| **Policy 4.7.2:** Ensure that the design of new development minimizes the potential for fire. | **Consistent.** The facility would be equipped with safety mechanisms, such as fire protection and sprinkler systems, dust suppression systems, detectors/alarms, shutdown systems, and temperature monitoring and controls, and would undergo a full Hazard and Operability Analysis (HAZOP) review as part of engineering design. In addition, the project would require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting. |
| **Policy 16.1.1:** Promote a jobs/housing balance that places an emphasis on the attraction of high-paying jobs which will enable the local workforce to achieve the standard of living necessary to both live and work within the community. | **Consistent.** The project would promote jobs for the local workforce, including a range of 81 to 277 employees during construction, depending on the work being conducted. After the facility is constructed, a total of 25 administrative, technical, and support staff would be at the facility during business hours. The operations personnel would be organized into four shifts of 6 people with each shift working 12 hours per day (two shifts per day with the other two shifts off.) |
| **Policy 16.6.1:** Require new development to construct and/or pay for new on-site capital improvements necessitated by their project, consistent with performance criteria identified in Objective 15.1. | **Consistent.** The applicant will be required to pay for on-site improvements necessitated by the project, including sewer and electrical connections, a septic system, and traffic safety improvements. |

In addition to the City's General Plan, the Southern California Association of Governments (SCAG) adopts a Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) every five years. On May 7, 2020 SCAG adopted the 2020-2045 RTP/SCS, known as Connect SoCal, for federal transportation conformity purposes only. On September 3, 2020, SCAG adopted Connect SoCal for all other purposes. The RTP/SCS identifies ten regional goals; these goals are identified in Table 6 along with the project's consistency with these goals.

**Table 6. Connect SoCal Consistency Analysis**

| Policies | Consistency Analysis |
|---|---|
| **Goal 1**: Encourage regional economic prosperity and global competitiveness. | **Consistent.** The proposed project would help support regional economic prosperity by providing more local jobs |
| **Goal 2:** Improve mobility, accessibility, reliability and travel safety for people and goods. | **Consistent.** The project site is located in close proximity to the Antelope Valley Freeway which will facilitate the movement of goods; specifically, renewable $H_2$ fuel. |
| **Goal 3:** Enhance the preservation, security, and resilience of the regional transportation system. | **Not Applicable.** This goal is not applicable to the proposed project. |
| **Goal 4:** Increase person and goods movement and travel choices within the transportation system. | This goal is not applicable to the proposed project. |
| **Goal 5:** Reduce greenhouse gas emissions and improve air quality. | **Consistent.** The project would add to California's supply of low carbon transportation fuel by producing $H_2$ for distribution to motor vehicle refueling stations. |
| **Goal 6:** Support health and equitable communities. | **Not Applicable.** This goal is not applicable to the proposed project. |
| **Goal 7:** Adapt to a changing climate and support an integrated regional development pattern and transportation network. | **Consistent.** To adapt to a changing climate, the project would add to California's supply of low carbon transportation fuel. The goal of supporting an integrated regional development pattern and transportation network is not applicable to the proposed project. |
| **Goal 8:** Leverage new transportation technologies and data-driven solutions that result in more efficient travel. | **Not Applicable.** This goal is not applicable to the proposed project. |
| **Goal 9:** Encourage development of diverse housing types in areas that are supported by multiple transportation options. | **Not Applicable.** There is no housing associated with the proposed project. This goal is not applicable to the proposed project. |
| **Goal 10:** Promote conservation of natural and agricultural lands and restoration of habitats. | **Not Applicable.** This goal is not applicable to the proposed project. |

With implementation of mitigation measures discussed throughout this document, the project would not 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. Therefore, the project would have a less than significant impact with mitigation incorporated.

# 12. Mineral Resources

| MINERAL RESOURCES<br>Would the project: | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State? | ☐ | ☐ | ☐ | ☒ |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *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.** According to the California Geologic Energy Management Division's (CalGEM) Well Finder online mapping data, no oil or gas wells are located at the project site (CalGEM, 2022). In addition, according to the Division of Mine Reclamation's (DMR) Mines Online mapping data, no mines are located at the project site (DMR, 2022). The California Geological Survey's (CGS) Mineral Land Classification Portal also includes maps and reports identifying areas with economically significant non-fuel mineral deposits (CGS, 2022b). Lands are classified into Mineral Resource Zones (MRZs). The project site is located in MRZ-3 (Miller and Fuller, 1983), which is an area classified as containing mineral deposits, the significance of which cannot be evaluated from available data (Joseph, et al., 1984). These areas are located in valley and flatland regions and are generally underlain by Quaternary alluvial deposits (loose clay, silt, sand, or gravel deposited by running water from approximately 2.6 million years ago to present) containing sand and gravel of unknown quality. However, because the project site is currently vacant and is not being used for the extraction of mineral resources, the proposed construction and operation of the WTRH2 facility would not result in the loss of availability of a known mineral resource. Therefore, the project would have no impact.

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

**No Impact.** The project site is not delineated as a locally important mineral resource recovery site in the City of Lancaster General Plan 2030 (City of Lancaster, 2009b). The project would not result in the loss of availability of any of these sites. Therefore, the project would have no impact.

# 13. Noise

| **NOISE**<br>**Would the project result in:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | ☐ | ☒ | ☐ | ☐ |
| b. Generation of excessive groundborne vibration or groundborne noise levels? | ☐ | ☐ | ☒ | ☐ |
| c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | ☐ | ☐ | ☒ | ☐ |

Significance criteria established by CEQA Guidelines, Appendix G.

### *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 With Mitigation Incorporated.** This analysis is based on a Noise Technical Report prepared for the project in July 2022 by Aspen Environmental Group. To describe environmental noise and to assess project impacts on areas that are sensitive to community noise, a measurement scale that simulates human perception is used. The A-weighted scale of frequency sensitivity accounts for the sensitivity of the human ear, which is less sensitive to low frequencies, and correlates well with human perceptions of the annoying aspects of noise. The A-weighted decibel scale (dBA) is cited in most noise criteria. Decibels (dB) are logarithmic units that can be used to conveniently compare wide ranges of sound intensities.

#### *Noise-Sensitive Receptors*

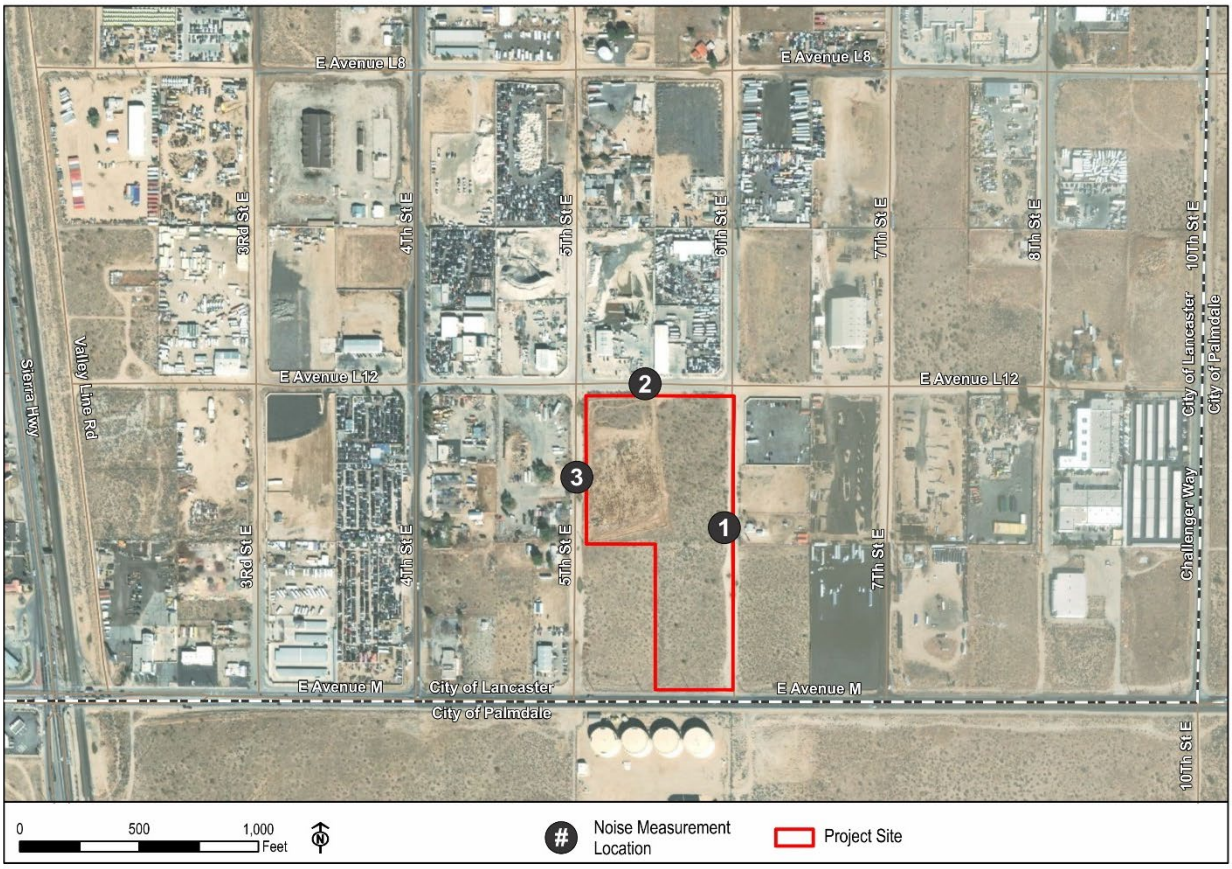
Noise-sensitive receptors are areas where excessive noise may conflict with the intended use; examples include residential areas, schools, hospitals, day care centers, campgrounds, and certain other outdoor recreation areas. Noise-sensitive residences occur on parcels adjacent to the proposed project site, although no other noise-sensitive land uses, such as schools, community parks, or other recreational uses are within 1,000 feet of the site.

#### *Existing Noise Sources*

The project site is currently vacant, undeveloped land and does not include any noise sources. Adjacent land uses include single-family residences to the east and west, and industrial facilities to the north. Palmdale Regional Airport and United States Air Force Plant 42, a classified aircraft manufacturing plant, are approximately 0.7 mile to the south of the project site. Based on a site visit conducted on June 14, 2022, existing noise sources from the surrounding area include distant and nearby traffic on Avenue M, intermittent vehicles and trucks on surrounding roadways (5$^{th}$ and 6$^{th}$ Streets East and Avenue L-12), adjacent industrial operational noise (cement mixing plant, bus rental company, and automobile towing and recovery facility to the north), intermittent airplanes flying overhead, a distant train, wind gusts, birds chirping, and dogs barking. During the site visit, six 15-minute ambient noise measurements (three daytime measurements and three evening measurements) were conducted for the proposed project, as

shown in Figure 6. These noise measurements are presented in Table 7. Ambient sound levels ranged from a minimum sound level (Lmin) of 40.3 dB to a maximum sound level (Lmax) of 93.8 dB.

**Figure 6. Ambient Noise Measurement Locations**




Source: Aspen, 2022

**Table 7. Lancaster WTRH2 Project Ambient Noise Measures**

| | Location ID | Location Description | Leq | Lmax | Lmin |
|---|---|---|---|---|---|
| Daytime Measurements | #1 | East of project site on 6th Street East | 58.2 dB | 74.9 dB | 40.6 dB |
| | #2 | North of project site on Avenue L-12 | 65.7 dB | 89.4 dB | 40.3 dB |
| | #3 | West of project site on 5th Street East | 56.1 dB | 75.0 dB | 42.5 dB |
| Evening Measurements | #1 | East of project site on 6th Street East | 67.0 dB | 80.2 dB | 48.4 dB |
| | #2 | North of project site on Avenue L-12 | 81.2 dB | 93.8 dB | 61.6dB |
| | #3 | West of project site on 5th Street East | 78.0 dB | 87.8 dB | 60.4 dB |

Source: Aspen, 2022

Leq = Equivalent sound level, which includes all of the time-varying sound energy in the measurement period; Lmax = Maximum sound level; Lmin = Minimum sound level; dB = decibels

Notes: Two stray dogs were observed barking at 5th Street East (Location ID#3) during evening noise measurements. An increase in wind gusts was observed during evening measurements, explaining increased overall noise levels.

### *Noise Standards*

Community Noise Equivalent Level (CNEL) is a metric that is the average equivalent A-weighted sound level during a 24-hour day, obtained after the addition of five decibels to sound levels in the evening from

7:00 p.m. to 10:00 p.m. and after addition of 10 decibels to sound levels in the night from 10:00 p.m. to 7:00 a.m. According to the City of Lancaster General Plan 2030, the maximum exterior noise level is 70 dBA CNEL for commercial and industrial uses (City of Lancaster, 2009b). Under Policy 4.3.1 of the General Plan, where new development is likely to exceed the compatible noise levels, a detailed noise attenuation study should be prepared by a qualified acoustical engineer in order to determine appropriate mitigation and ways to incorporate such mitigation into the project design.

The City of Lancaster's Noise Ordinance (Municipal Code, Section 8.24.040, Loud, unnecessary and unusual noise prohibited – Construction and building), prohibits any construction or repair work of any kind or performing any earth excavating, filling, or moving "where any of the foregoing entails the use of any air compressor, jack hammer, power-driven drill, riveting machine, excavator, diesel-powered truck, tractor or other earth-moving equipment, hard hammers on steel or iron or any other machine tool, device or equipment which makes loud noises within five hundred (500) feet of an occupied dwelling, apartment, hotel, mobile home or other place of residence" between the hours of 8:00 p.m. and 7:00 a.m. and at any time on Sunday (City of Lancaster, 2022b).

***Project Impacts***

Construction Impacts

Construction activities could create both intermittent and continuous noises. Intermittent noise would be caused by periodic instances of short-term equipment use. For example, a backhoe or loader would cycle while placing foundations or creating trenches. Continuous noise would emanate from other equipment over longer periods, such as with the turning of a cement mixer or the lifting and positioning with a crane. Multiple work spreads could occur within the site and along adjacent roadways. The maximum intermittent noise levels from a construction work spread would typically range from 84 to 90 dBA at 50 feet. These would be the highest levels expected for foundation development or excavation activities. At 50 feet, continuous noise levels could range up to about 85 dBA. Because sound fades over distance, these levels would diminish over additional distance and could be reduced further by intervening structures. At 100 feet from a work spread, continuous noise levels could range up to 79 dBA and at 200 feet, up to 73 dBA.

Construction would temporarily increase the noise levels near the project site. Although the site is undeveloped, construction would occur near existing land uses that include occupied dwellings and are sensitive to noise. Construction noise would affect the locations closest to the work and staging areas and along site access routes used by haul trucks and other construction traffic. The surrounding land uses would experience a temporary increase in noise above the conditions that exist without project. However, the intermittent and variable nature of construction noise would limit the potential for adverse effects such as annoyance to be experienced by off-site receptors, and sleep interference would not be a concern because work would occur at an industrial land use and most activities would occur during daylight hours. Construction noise during daytime hours would be exempt from the standards established in the City's Noise Ordinance.

Provided construction work is conducted during the hours specified in the Lancaster Municipal Code (between 7:00 a.m. to 8:00 p.m. and not on Sunday) when occurring within 500 feet of an occupied residence, this temporary disturbance would not 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 City of Lancaster General Plan 2030 or Noise Ordinance. Additionally, mitigation measures (BMPs) have been added to reduce noise from construction to extent practicable. Therefore, project construction would have a less than significant impact.

Operational Impacts

The WTRH2 facility would include various types of equipment that would generate noise during operation of the gasification system. The applicant proposes to design the plant so as to not exceed the property line noise limit of 70 dBA as set by the City of Lancaster, Plan for Public Health and Safety, and on-site noise levels would be maintained to achieve Occupational Safety and Health Administration (OSHA) standards, not to exceed 85 dBA at 1 meter from the equipment, for hearing protection for the employees. The proposed plot plan would include a 6' 4" high concrete block and/or tubular steel wall around the outside perimeter for security and noise. Louder equipment would be positioned to the middle of the site or within buildings to reduce noise measured at the fence lines. Compressors would have acoustic enclosures or containment for noise suppression, and the steam generator would release to the atmosphere through a silencer in the steam discharge line.

Achieving the City's standard of 70 dBA CNEL at the property line would require the proposed project to achieve approximately 60 dBA Leq at the fence line, at all times, to account for the +10 dBA adjustment that penalizes nighttime exterior noise levels in the CNEL metric. The following mitigation measure, as well as Mitigation Measures 17 in Section 9.b., shall be required to ensure that the project's operational noise does not exceed the City's standards. With implementation of Mitigation Measures 17 (see Section 9.b.) and 18 through 25 (below), which include several measures to reduce noise impacts, the project would not 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 City of Lancaster General Plan 2030 or Noise Ordinance, because a public reporting process and noise control features would ensure that the facility equipment would not exceed these standards. Therefore, project operation would have a less than significant impact with mitigation incorporated.

**Mitigation Measures**

18. **Restriction on Construction Hours.** Construction operations shall not occur between 8 p.m. and 7 a.m. on weekdays or Saturday or at any time on Sunday. The hours of any construction-related activities shall be restricted to the periods and days permitted by local ordinance.

19. **Resolution of Noise Problems.** The on-site construction supervisor shall have the responsibility and authority to receive and resolve complaints. A clear appeal process to the owner shall be established prior to construction commencement that will allow for resolution of noise problems that cannot be immediately solved by the site supervisor.

20. **Electrically Powered Construction Equipment.** Electrically powered equipment shall be used instead of pneumatic or internal combustion power equipment, where feasible.

21. **Construction Locations Away From Noise Sensitive Receptors.** Material stockpiles and mobile equipment staging, parking and maintenance areas shall be located as far away as practicable from noise sensitive receptors.

22. **Minimizing Noise Producing Signals.** The use of noise producing signals, including horns, whistles, alarms, and bells shall be for safety warning purposes only.

23. **Minimizing Public Address and Music Systems.** No project-related public address or music system shall be audible at any adjacent receptor.

24. **Noise-Reducing Features.** All noise producing construction equipment and vehicles using internal combustion engines shall be equipped with mufflers, air-inlet silencers where appropriate, and other shrouds, shields, or other noise-reducing features in good operating condition that meets

or exceeds original factory specifications. Mobile or fixed "package" equipment (e.g., arc-welders, air compressors, etc.) shall be equipped with shrouds and noise controls features that are readily available for the type of equipment.

25. **Operational Noise Performance Standard.** Prior to issuance of building permits, the project design and implementation shall include appropriate noise control features adequate to ensure that the operation of the project will not cause the noise levels due to plant operation alone to exceed 60 dBA Leq or 70 dBA CNEL when measured at any property boundary (City of Lancaster, General Plan, Policy 4.3.1). Stationary mechanical equipment that includes substantial sources of noise shall be located, enclosed, or shielded, if necessary, to meet this standard. No new pure-tone components shall be caused by mechanical equipment associated with the project. No single piece of equipment shall be allowed to stand out as a source of noise that draws legitimate complaints. To achieve this standard, the final project design in site plans shall avoid placing stationary sources of noise within 200 feet of any property boundaries. If the final design of the project includes any stationary source of noise within 200 feet of a property boundary, then a final, detailed noise attenuation study shall be prepared and submitted by a qualified acoustical engineer, in order to determine appropriate mitigation and ways to incorporate such mitigation into the project design, to the satisfaction of the City.

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

**Less Than Significant Impact.** Construction activities would generate groundborne vibration and noise during ground-disturbing activities; however, construction would be completed within 16 months and would be limited to the hours specified in the Lancaster Municipal Code (between 7:00 a.m. to 8:00 p.m. and not on Sunday). The applicant proposes to design the plant so as not to exceed the property line noise limit of 70 dBA as set by the City of Lancaster, Plan for Public Health and Safety, and on-site noise levels would be maintained to achieve OSHA standards, not to exceed 85 dBA at 1 meter from the equipment, for hearing protection for the employees. During operation, at most 72 trucks per day would enter the project site during a 24-hour period, which is approximately three trucks per hour if shipments are distributed evenly over the 24-hour period. This number of vehicles per hour would not be expected to generate excessive groundborne vibration and noise levels. The project would not result in generation of excessive groundborne vibration or groundborne noise levels because construction activities would be temporary; the project would be designed to limit operational noise levels in compliance with City and OSHA standards; and truck traffic would be distributed over a 24-hour period at regular intervals, which would minimize groundborne vibration and noise levels. Therefore, the project would have a less than significant impact.

***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?***

**Less Than Significant Impact.** Palmdale Regional Airport (PMD) and United States Air Force Plant 42 (Plant 42), a classified aircraft manufacturing plant, are approximately 0.7 mile to the south of the project site. During a site visit conducted on June 14, 2022, several military airplanes were observed flying overhead the project site. PMD does not have any scheduled passenger airline service, and Plant 42 is operated as a component of Edwards Air Force Base, which is approximately 23 miles to the northeast. Therefore, military airplanes were observed to be intermittent during the site visit, resulting in a maximum noise level (Lmax) of 93.8 over one 15-minute period.

During project construction and operation, no people would reside at the project site. A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during construction, depending on the work being conducted. After the facility is constructed, a total of 25 administrative, technical, and support staff would be at the facility during business hours. The operations personnel would be organized into four shifts of 6 people with each shift working 12 hours per day (two shifts per day with the other two shifts off.)

Construction staff would be exposed to noise from activities conducted at the project site, including up to 90 dBA at 50 feet from the project site. Construction would be completed within 16 months and would be limited to the hours specified in the Lancaster Municipal Code (between 7:00 a.m. to 8:00 p.m. and not on Sunday); therefore, construction workers would not be exposed to excessive noise levels as a result of working near PMD and Plant 42. Operational employees would use hearing protection near loud equipment when inside the facility, and the concrete block and/or tubular steel wall along the perimeter of the project site would serve as a buffer from internal and external noise sources, including noise from surrounding industrial facilities and airplane noise. The project would not expose people residing or working in the project area to excessive noise levels because construction staff and operational employees would not reside in this area, construction activities would be temporary, airplane operations at PMD and Plant 42 are intermittent and of short duration, and operational employees would be shielded from noise sources within and outside the plant to minimize their exposure to noise. Therefore, the project would have a less than significant impact.

# 14. Population and Housing

| **POPULATION AND HOUSING**<br>**Would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | ☐ | ☐ | ☐ | ☒ |
| b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

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

**No Impact.** The project site is currently vacant, undeveloped land that would be developed with a facility that would convert unrecyclable waste paper into $H_2$ fuel. Existing roadways would be used to access the project site. The project does not include the construction of homes and would not require the extension of roads. However, a septic tank, wastewater treatment system, and connections to existing electrical, wastewater, and water utilities would be required for facility operations. In addition, the project includes a new business that would require a total of 43 employees. This new business, as well as the extension of infrastructure to support this new business, could induce population growth in the area.

The City's population is expected to grow by 31.9 percent from 2020 to 2045 (from a population of 161,699 in 2020, to a population of 213,300 in 2045) (City of Lancaster, 2022a). The City has planned for this level of growth in its General Plan. In addition, the project site and surrounding area is designated as Heavy Industrial. As stated in the City's Zoning Code (Lancaster Municipal Code, Chapter 17.16 – Industrial Zones [City of Lancaster, 2022d]), the Heavy Industrial zone is "intended to allow the development of industrial uses thereby providing for the industrial and employment needs of the city and adjoining areas and business in an urban environment with full urban services." The proposed construction and operation of the WTRH2 facility would not induce substantial unplanned population growth in the area, either directly or indirectly, because this growth has already been anticipated in the City of Lancaster General Plan 2030 (City of Lancaster, 2022a). Therefore, the project would have no impact.

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

**No Impact.** The project site is currently vacant, undeveloped land with no housing or people on the site. Three single-family residences are adjacent to the project site and would not be displaced as a result of the project. The project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere; therefore, the project would have no impact.

# 15. Public Services

## PUBLIC SERVICES

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

Significance criteria established by CEQA Guidelines, Appendix G.

***a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:***

***Fire protection?***

**No Impact.** The City contracts with the Los Angeles County Fire Department for fire protection services. The City currently has six fire stations, along with one station in the unincorporated community of Antelope Acres. The nearest fire station to the project site, Fire Station 129 at 42110 6th Street West, is approximately 1.25 miles to the west. The Fire Department's goal is to have a fire station within 1.5 miles of all fully developed urban areas. The nationally recognized guideline is a five-minute response time in urban areas, which is usually achieved within a 1.5-mile distance (City of Lancaster, 2009c).

The project would require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting. Because the project site is currently a vacant, undeveloped site that would be developed with a WTRH2 facility, additional fire protection service would be required at the site compared to existing conditions. However, the project site is already within the service area for the Los Angeles County Fire Department and can be serviced by existing facilities. In addition, the development of the project site is consistent with the Heavy Industrial land use and zoning designation. Therefore, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. After project implementation, existing facilities would adequately serve the needs of the proposed project, and no new or physically altered facilities would be required to maintain existing performance objectives.

The project would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered fire protection facilities because the project would not affect existing performance objectives for these services, and no new or physically altered facilities would be required. Therefore, the project would have no impact.

***Police protection?***

**No Impact.** The Los Angeles County Sheriff's Department provides law enforcement services in the City. The Lancaster Station is located at 501 West Lancaster Boulevard, approximately 3.5 miles northwest of the project site. The Los Angeles County Sheriff's Department recommends a staffing level of one officer per 1,000 people (City of Lancaster, 2009c). According to the Los Angeles County Sheriff's Department, the average response times from the Lancaster Station to the surrounding service area are four to six minutes for emergency calls, 11 to 13 minutes for priority calls, and 41 minutes for routine calls (City of Lancaster, 2009c).

As stated previously, because the project site is currently a vacant, undeveloped site that would be developed with a WTRH2 facility, additional law enforcement service would be required at the site compared to existing conditions. However, the project site is already within the service area for the Los Angeles County Sheriff's Department. In addition, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. After project implementation, existing facilities would adequately serve the needs of the proposed project, and no new or physically altered facilities would be required to maintain existing performance objectives.

The project would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered police protection facilities because the project would not affect existing performance objectives for these services, and no new or physically altered facilities would be required. Therefore, the project would have no impact.

***Schools?***

**No Impact.** The City has three elementary school districts: Eastside Union School District, Westside Union School District, and Lancaster School District. The Antelope Valley Union High School District covers all high schools in the City. A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during the 16-month construction period, depending on the work being conducted. In addition, the project includes a new business that would require a total of 43 employees who may relocate to the City from other areas, resulting in population growth. However, as stated previously, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. After project implementation, existing facilities would adequately serve the needs of any additional residents resulting from the proposed project, and no new or physically altered facilities would be required to maintain existing performance objectives. Additionally, Proposition IA, which governs the way in which school funding is carried out, predetermines by statute that payment of developer fees is adequate mitigation for school impacts.

The project would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered school facilities because the project would not affect existing performance objectives for these services, and no new or physically altered facilities would be required. Therefore, the project would have no impact.

***Parks?***

**No Impact.** As of January 28, 2003, the City established a new park standard of 5.0 acres of parkland per 1,000 residents (City of Lancaster, 2009c). A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during the 16-month

construction period, depending on the work being conducted. In addition, the project includes a new business that would require a total of 43 employees who may relocate to the City from other areas, resulting in population growth. However, as stated previously, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. After project implementation, existing facilities would adequately serve the needs of any additional residents resulting from the proposed project, and no new or physically altered facilities would be required to maintain existing performance objectives. The project would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered park facilities because the project would not affect existing performance objectives for these services, and no new or physically altered facilities would be required. Therefore, the project would have no impact.

***Other public facilities?***

**No Impact.** The City contains a variety of public institutions, which include City, County, State, and Federal offices; public hospitals; two public libraries; recreation, cultural, and social service facilities; homeless shelters; and a detention center (City of Lancaster, 2009c). A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during the 16-month construction period, depending on the work being conducted. In addition, the project includes a new business that would require a total of 43 employees who may relocate to the City from other areas, resulting in population growth. However, as stated previously, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. After project implementation, existing facilities would adequately serve the needs of any additional residents resulting from the proposed project, and no new or physically altered facilities would be required to maintain existing performance objectives. The project would not result in substantial adverse physical impacts associated with the provision of, or need for, new or physically altered public facilities because the project would not affect existing performance objectives for public services, and no new or physically altered facilities would be required. Therefore, the project would have no impact.

# 16. Recreation

| RECREATION | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? | ☐ | ☐ | ☐ | ☒ |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

***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.** A maximum of 281 staff would be onsite during construction for a limited time, and generally a range of 81 to 277 staff would be on site during the 16-month construction period, depending on the work being conducted. In addition, the project includes a new business that would require a total of 43 employees who may relocate to the City from other areas, resulting in population growth. However, as stated previously, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. The project would not 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 because existing facilities would adequately serve the needs of any additional residents resulting from the proposed project. Therefore, the project would have no impact.

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

**No Impact.** As stated previously, the project is consistent with planned development in the City of Lancaster General Plan 2030 and Zoning Code, which ensures that necessary public services and facilities are provided to accommodate both existing and proposed development in the City. Because existing facilities would adequately serve the needs of any additional residents resulting from the proposed project, the project does not include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. Therefore, the project would have no impact.

# 17. Transportation

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

Significance criteria established by CEQA Guidelines, Appendix G.

### *a. Would the project conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*

**No Impact.** Transit and bicycle facilities are not located within or near the project site. A sidewalk is located on the north side of Avenue L-12 and would not be affected by the project. 5th and 6th Streets East, which are unpaved, private roads located along the western and eastern boundaries of the project site, respectively, would be paved to facilitate truck movement to and from the project site. During project operation, the $H_2$ trucks would be required to only make protected left turns (i.e., only at a traffic signal with a protected left turn arrow) when traveling to and from the project site. Trucks would access the facility by exiting State Route 14 at Avenue L, going east on Avenue L to Challenger Way (10th Street East), heading south on Challenger Way to Avenue M, and heading west on Avenue M. Trucks would make a right turn onto 5th Street East which would allow them to enter the facility on 5th Street East or make a right-turn onto Avenue L-12 and enter the facility through the driveway at the northeast corner of the site. All public roadway improvements would be conducted in compliance with the Lancaster Municipal Code, Chapter 12.12 – Streets, Curbs, and Sidewalks. The project would not conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, because no transit, bicycle, or pedestrian facilities would be affect by the project; and roadway improvements would be completed to facilitate truck movement to and from the project site. Therefore, the project would have no impact.

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

**Less Than Significant Impact.** CEQA Guidelines section 15064.3, subdivision (b) provides criteria for analyzing transportation impacts, stating that vehicle miles traveled (VMT), defined as the amount and distance of automobile travel attributable to a project, is the most appropriate measure of transportation impacts. In July 2020, the City of Lancaster adopted standards and thresholds for analyzing projects with respect to VMT (City of Lancaster, 2020). A series of screening criteria were adopted and if a project meets one of these criteria, a VMT analysis is not required. These criteria are: 1) project site – generates fewer than 110 trips per day; 2) locally serving retail – commercial developments of 50,000 square feet or smaller; 3) project located in a low VMT area – 15% below baseline; 4) transit proximity; 5) affordable housing; and 6) transportation facilities.

Truck and employee commute trips during construction would be limited to the 16-month construction period and would be temporary. During operation, the project would generate 37 employee commute trips per day and at most 72 truck trips, which brings the total number of project-related trips to a

maximum of 109 daily vehicle trips. The project meets Criterion 1, as the project would generate fewer than 110 trips per day (City of Lancaster, 2020). The project would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b) because the project does not meet the City-approved thresholds of significance for VMT impacts based on the daily trips generated by the project. Therefore, the project would have a less than significant impact.

***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)?***

**Less Than Significant Impact.** The project would require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting. 5th and 6th Streets East would be paved to facilitate truck movement to and from the project site. Truck and employee commute trips during construction would be limited to the 16-month construction period and would be temporary. During project operation, the $H_2$ trucks would be required to only make protected left turns (i.e., a traffic signal with a left turn arrow) when traveling to and from the project site. In addition, adequate space is provided within the facility for $H_2$ truck staging and loading (see Figure 3 in Section 7. Description of Project). $H_2$ trucks would enter and exit from 6th Street and would be kept separate from other trucks (biomass, other feed products, solid waste, etc.), which would enter and exit from 5th Street. Lastly, no changers are being proposed to the roadway network that would create dangerous situations.

The project would not substantially increase hazards due to a geometric design feature or incompatible uses because the project would be designed in coordination with the Los Angeles County Fire Department to minimize potential hazards; $H_2$ would be transported in a manner that would reduce potential hazards (only protected left turns for $H_2$ trucks and separate entry and exit points into the project site); and no changers are being proposed to the roadway network that would create dangerous situations. Therefore, the project would have a less than significant impact.

***d. Would the project result in inadequate emergency access?***

**Less Than Significant Impact.** The project would require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting. 5th and 6th Streets East would be paved to facilitate truck movement to and from the project site. Temporary construction traffic would be generated during the construction period to transport vehicles and equipment to the project site. In addition, trucks would be used during project operation to transport feedstock to the WTRH2 facility, export solid waste for appropriate disposal, as well as transport $H_2$ offsite for use by Shell Hydrogen and Iwatani. Project-related vehicles would use surrounding roadways, including State Route 14, Avenue L, Avenue M, and Challenger Way, to access the project site. During operation, a total of 37 employee commute trips would be required each day (25 administrative, technical, and support staff during business hours; and 6 operations staff per shift over two 12-hour shifts). In addition, at most 72 trucks per day would enter the project site during a 24-hour period, which is approximately three trucks per hour if shipments are distributed evenly over the 24-hour period. This number of vehicles per hour would not be expected to substantially impair emergency access.

While traffic to and from the project site would increase after project implementation, vehicles would not obstruct any emergency access routes. The $H_2$ trucks would be required to only make protected left turns (i.e., only at traffic signals with protected left turn arrows) when traveling to and from the project site. Trucks would access the facility by exiting State Route 14 at Avenue L, going east on Avenue L to Challenger Way (10th Street East), heading south on Challenger Way to Avenue M, and heading west on Avenue M. Trucks would make a right turn onto 5th Street East which would allow them to enter the facility on 5th

Street East or make a right-turn onto Avenue L-12 and enter the facility through the driveway at the northeast corner of the site. In addition, adequate space is provided within the facility for $H_2$ truck staging and loading (see Figure 3 in Section 7. Description of Project). Because the project would be designed with safety mechanisms in coordination with the Los Angeles County Fire Department to minimize potential access impacts and would accommodate truck shipments to and from the site, the project would not result in inadequate emergency access. Therefore, the project would have a less than significant impact.

# 18. Tribal Cultural Resources

| TRIBAL CULTURAL RESOURCES | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | | | | |
| i) listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or | ☐ | ☐ | ☐ | ☒ |
| ii) a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

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

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

**No Impact.** The cultural records search conducted for the project in July 2022 did not identify any previously recorded cultural resources within the project site or 0.5-mile buffer. No cultural resources were observed during the field survey. On May 20, 2022, a request was submitted to the NAHC for a complete a search of its Sacred Lands File to determine if resources significant to Native Americans have been recorded within the project site or vicinity. On June 22, 2022, Aspen received a response from the NAHC stating that the search of its Sacred Lands File was negative for the presence of resources. In compliance with AB 52, the City sent consultation letters on June 24, 2022 to three tribes for the proposed project. The tribes had previously requested to be included in the City's consultation process. The City received a response from two tribes, as discussed in the Environmental Checklist Form, Section 10. (California Native American Tribal Consultation).

No tribal cultural resources were identified by any of the Native American tribes with cultural affiliations in the area. Mitigation Measures 7, 8, 9, 10, and 11 in Section 5.b., and Mitigation Measure 12 in Section 5.c., have been requested by the tribes and shall be required in the event of an unanticipated tribal cultural resource discovery. The project would not cause a substantial adverse change in the significance of tribal cultural resources because no resources have been identified on the project site and measures requested by the tribes would be implemented in the event of an inadvertent discovery. Therefore, the project would have no impact.

***ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code***

***Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.***

**No Impact.** As stated in Section 18.a.i., no known Tribal Cultural Resources have been identified on the project site. Mitigation Measures 7, 8, 9, 10, and 11 in Section 5.b. and Mitigation Measure 12 in Section 5.c., which require avoidance measures in the event of an inadvertent discovery of potential resources, have been requested by the tribes and shall be required in the event of an unanticipated tribal cultural resource discovery. The project would not cause a substantial adverse change in the significance of tribal cultural resources because no resources have been identified on the project site and measures requested by the tribes would be implemented in the event of an inadvertent discovery. Therefore, the project would have no impact.

## 19. Utilities and Service Systems

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

Significance criteria established by CEQA Guidelines, Appendix G.

***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 With Mitigation Incorporated.** Landale Mutual Water Company would supply potable water for the plant's power and process water, as well as domestic water, requirements. Additional process water would be obtained through stormwater retention via an above ground retention basin on the site. Catch basins with filters and depressions would be onsite in spill containment areas, which would be required for all process unit areas. Drains would collect stormwater and spills, which would be directed to the stormwater retention basin after being processed in the oil-water separator. Overflow stormwater would be discharged to storm drains in the public right-of-way. The facility's Zero Liquid Discharge (ZLD) design would allow process wastewater to be treated and re-used internally with no discharges into the storm drain system. The septic system would be installed onsite for the basic sewage treatment of wastewater flows from the administrative/control and warehouse building. The project would require connections to the electrical power grid, water, and sewer systems. The sewer tie-in would only be utilized in the event that the on-site wastewater treatment system is not operating.

Utility connections and improvements would be limited to the project site and public right-of-way. Mitigation measures discussed throughout this document for Air Quality (Section 3.), Biological Resources (Section 4.), Cultural Resources (Section 5.), Geology and Soils (Section 7.), and Tribal Cultural Resources (Section 18.) would reduce environmental effects to less than significant. Therefore, the project would have a less than significant impact with mitigation incorporated.

***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?***

**No Impact.** The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development because the facility would be designed to minimize water requirements

through the retention of stormwater for onsite use, as well as the re-use of process wastewater. Therefore, the project would have no impact.

***c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?***

**No Impact.** The facility's ZLD design would allow process wastewater to be treated and re-used internally with no discharges into the storm drain system. The sewer tie-in would only be needed if the wastewater treatment system is down for any reason. The septic system would also be installed onsite for the basic sewage treatment of wastewater flows from the administrative/control and warehouse building and would not affect the capacity of wastewater treatment services. The wastewater treatment provider would have adequate capacity to serve the project's demand in addition to existing commitments because the project would have redundant systems to minimize wastewater requirements. Therefore, the project would have no impact.

***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?***

**No Impact.** Each day, solid waste generated at the facility would include 3.1 metric tons of slag and approximately 17 metric tons of brine. These wastes would be removed from the facility by truck and taken to an appropriate disposal facility. In addition, the project would divert unrecyclable mixed waste paper from landfills and convert the waste paper into $H_2$, which could help to achieve solid waste reduction goals. The project would not 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, because solid waste generated at the facility would not be sent to local landfills, and the project would also prevent waste paper from being disposed of in landfills to help achieve solid waste reduction goals. Therefore, the project would have no impact.

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

**No Impact.** The project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste, because solid waste generated at the facility would be removed from the facility by truck and disposed of at an appropriate disposal facility in compliance with solid waste statues and regulations; and the project would also prevent waste paper from being disposed of in landfills, which would achieve solid waste reduction. Therefore, the project would have no impact.

# 20. Wildfire

| WILDFIRE<br>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, **would the project:** | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| a. Substantially impair an adopted emergency response plan or emergency evacuation plan? | ☐ | ☐ | ☐ | ☒ |
| b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? | ☐ | ☐ | ☐ | ☒ |
| c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment? | ☐ | ☐ | ☐ | ☒ |
| d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes? | ☐ | ☐ | ☐ | ☒ |

Significance criteria established by CEQA Guidelines, Appendix G.

***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?***

**No Impact.** The project site and surrounding area is not located within a state responsibility area or in a very high fire hazard severity zone (CAL FIRE, 2022). The project site is relatively flat and includes vacant, undeveloped land with sparse, desert scrub vegetation comprised primarily of shrubs and sandy soils. The surrounding land to the east, west, and south include similar properties with vacant, undeveloped land and sparse vegetation intermixed with three single-family residences (to the east and west) and water storage tanks (to the south across Avenue M). The properties to the north include industrial uses (cement mixing plant, bus rental company, and automobile towing and recovery facility) and are completely paved. The project site is not susceptible to wildfires, and therefore, the project would not generate additional demand for wildfire response services.

The facility would be equipped with safety mechanisms, such as fire protection and sprinkler systems, dust suppression systems, detectors/alarms, shutdown systems, and temperature monitoring and controls, and would undergo a full Hazard and Operability Analysis (HAZOP) review as part of engineering design. The project would also require coordination with, and approval by, the Los Angeles County Fire Department for fire access, life safety equipment, and hazardous materials permitting.

Temporary construction traffic would be generated during the construction period to transport vehicles and equipment to the project site. In addition, trucks would be used during project operation to transport feedstock to the WTRH2 facility, export solid waste for appropriate disposal, as well as transport $H_2$ offsite for use by Shell Hydrogen and Iwatani. Project-related vehicles would use surrounding roadways, including State Route 14, Avenue L, Avenue M, and Challenger Way, to access the project site. During operation, a total of 37 employee commute trips would be required each day (25 administrative, technical, and support staff during business hours; and 6 operations staff per shift over two 12-hour shifts). In addition, at most 72 trucks per day would enter the project site during a 24-hour period, which is approximately three trucks per hour if shipments are distributed evenly over the 24-hour period. This number of vehicles per hour would not be expected to substantially impair emergency evacuation.

While traffic to and from the project site would increase after project implementation, vehicles would not obstruct any evacuation routes. The $H_2$ trucks would be required to only make protected left turns (i.e., only at signal with a protected left-turn arrow) when traveling to and from the project site. Adequate space is provided within the facility for $H_2$ truck staging and loading (see Figure 3 in Section 7. Description of Project). Because the project has been designed to accommodate truck shipments to and from the site, the project would not impair an adopted emergency response plan or emergency evacuation plan. Therefore, the project would have no impact.

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

**No Impact.** The project site is not located within a state responsibility area or in a very high fire hazard severity zone (CAL FIRE, 2022). The project site does not include any conditions, including slope, prevailing winds, or other factors, that could exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Therefore, the project would have no impact.

***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?***

**No Impact.** The project site is not susceptible to wildfires. During project implementation, the entire site would be paved. Ornamental vegetation would be planted in the parking area and along the perimeter of the site in front of a wall that would be constructed around the property boundary to enhance site security and shield equipment noise. While the project's operational activities would generate or require the use of materials that may be a fire hazard, the facility would be equipped with safety mechanisms, such as fire protection and sprinkler systems, detectors/alarms, shutdown systems, and temperature monitoring and controls. The project site is not located in a state responsibility area or in a very high fire hazard severity zone, and with safety mechanisms in place, the proposed facility infrastructure would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. Therefore, the project would have no impact.

***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?***

**No Impact.** The project site is relatively flat and is not susceptible to wildfires, flooding, landslides, or slope instability. The project site is designated as Zone X, which is an area of minimal flood hazard as shown on FEMA's National Flood Hazard Layer (FEMA, 2020) (outside both the 100-year and 500-year flood zones). During project implementation, the entire site would be paved. Stormwater would drain into catch basins on the site and would be conveyed to a stormwater retention basin after being processed in the oil-water separator. Any overflow stormwater would be discharged to storm drains in the public right-of-way. The project site is not located in a state responsibility area or in a very high fire hazard severity zone, and the project would not expose people or structures to significant risks of flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes, because the project site is not susceptible to these hazards. Therefore, the project would have no impact.

# 21. Mandatory Findings of Significance

| MANDATORY FINDINGS OF SIGNIFICANCE | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact |
|---|---|---|---|---|
| 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? | ☐ | ☒ | ☐ | ☐ |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.) | ☐ | ☒ | ☐ | ☐ |
| c. Does the project have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly? | ☐ | ☒ | ☐ | ☐ |

Significance criteria established by CEQA Guidelines, Appendix G.

***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 With Mitigation Incorporated.** The project would not 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, because mitigation measures would be implemented for Biological Resources (Section 4.), and Cultural Resources (Section 5.) to reduce environmental effects to less than significant. Therefore, the project would have a less than significant impact with mitigation incorporated.

***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 with Mitigation Incorporated.** As of the writing of this document, no other projects have been approved or submitted within one mile of the project site. For the proposed project, mitigation measures would be implemented to reduce impacts to less than significant for Aesthetics (Section 1.), Air Quality (Section 3.), Biological Resources (Section 4.), Cultural Resources (Section 5.), Geology and Soils and (Section 7.), Hazards and Hazardous Materials (Section 9.), Hydrology and Water Quality (Section 10.), and Noise (Section 13.). The project does not have impacts that are individually limited, but cumulatively considerable because with implementation of mitigation measures, the project would not result in a cumulatively considerable contribution to cumulative impacts. Therefore, the project would have a less than significant impact with mitigation incorporated.

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

**Less Than Significant With Mitigation Incorporated.** The project does not have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly because mitigation measures would be incorporated into the project for Aesthetics (Section 1.), Air Quality (Section 3.), Geology and Soils (Section 7.), Hazards and Hazardous Materials (Section 9.), Hydrology and Water Quality (Section 10.), and Noise (Section 13.) to reduce environmental effects to less than significant. Therefore, the project would have a less than significant impact with mitigation incorporated.

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