

**Air Products and Chemicals, Inc.
Carson to Paramount Hydrogen Gas Pipeline**

Initial Study

Submitted to:

City of Carson
Community Development Department, Planning Division
701 East Carson Street
Carson, California 90745

Prepared by:

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1306 Santa Barbara St
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1 INTRODUCTION

1.1 Project Overview

The Carson to Paramount Hydrogen Gas Pipeline Project will be constructed and operated by Air Products and Chemicals, Inc. (Air Products). Air Products proposes to utilize an existing 11.5-mile-long series of pipelines plus construct a new 0.5-mile pipeline segment. The pipelines would extend from the Air Products' existing hydrogen facility in the City of Carson to the World Energy Bio-fuels Facility in the City of Paramount, California. The 0.5 mile of new pipeline would connect to 11.5 miles of existing pipeline owned by Paramount Pipeline Company, LLC (PPC), a subsidiary of World Energy. The existing 11.5-mile pipeline crosses the cities of Carson, Los Angeles, Long Beach, Lakewood, Bellflower, and Paramount in addition to an unincorporated part of the County of Los Angeles and land owned or controlled by the Port of Los Angeles and the Joint Ports Authority.

The project is subject to analysis pursuant to the California Environmental Quality Act (CEQA). In accordance with CEQA Guidelines Section 15367, the City is the lead agency with principal responsibility for considering the project for approval (14 CCR 15000 et seq.).

1.2 California Environmental Quality Act Compliance

CEQA, a statewide environmental law contained in California Public Resources Code (PRC) Sections 21000–21177, applies to most public agency decisions to carry out, authorize, or approve actions that have the potential to adversely affect the environment (PRC Section 21000 et seq.). The overarching goal of CEQA is to protect the physical environment. To achieve that goal, CEQA requires that public agencies identify the environmental consequences of their discretionary actions and consider alternatives and mitigation measures that could avoid or reduce significant adverse impacts when avoidance or reduction is feasible. It also gives other public agencies and the public an opportunity to comment on the project. If significant adverse impacts cannot be avoided, reduced, or mitigated to below a level of significance, the public agency is required to prepare an environmental impact report (EIR) and balance the project's environmental concerns with other goals and benefits in a statement of overriding considerations.

This initial study (IS) has been prepared by the City as the lead agency, in accordance with the CEQA Guidelines, to evaluate potential environmental effects and to determine whether an environmental impact report (EIR), a negative declaration, or a mitigated negative declaration (MND) should be prepared for the proposed project

1.3 Preparation and Processing of this Initial Study

The City's Community Development Department, Planning Division, directed and supervised preparation of this Initial Study (IS). Although prepared with assistance from the consulting firm MRS Environmental, Inc., the content contained, and the conclusions drawn within this IS reflect the independent judgment of the City.

1.4 Initial Study Checklist

MRS Environmental, Inc., under the City's guidance, prepared the project's Environmental Checklist (i.e., Initial Study) per CEQA Guidelines Sections 15063–15065. The CEQA Guidelines include a suggested checklist to indicate whether a project would have an adverse impact on the environment. The checklist is found in Section 3, Initial Study, of this document. Following the Environmental Checklist, Sections 3.1 through 3.21 include an explanation and discussion of each significance determination made in the checklist for the project.

For this Initial Study, one of the following four responses is possible for each environmental issue area:

1. Potentially Significant Impact
2. Less-Than-Significant Impact with Mitigation Incorporated
3. Less-Than-Significant Impact
4. No Impact

The checklist and accompanying explanation of checklist responses provide the information and analysis necessary to assess relative environmental impacts of the project. In doing so, the City will determine the extent of additional environmental review, if any, for the project.

1.5 Point of Contact

The City of Carson is the lead agency for this environmental document. Any questions about preparation of this IS, its assumptions, or its conclusions should be referred to the following:

Name: Max Castillo
City of Carson
Community Development Department, Planning Division
701 East Carson Street
Carson, California 90745
Phone: (310) 952-1700 x1317
Email: mcastillo@carson.ca.us

The point of contact for the applicant is as follows:

Eric Guter, General Manager – HyCO Western Region
Air Products and Chemicals, Inc.
4000 MacArthur Boulevard
Suite 420, East Tower
Newport Beach, CA 92660
Phone: 949.474.1860 x 10 (office)

2 PROJECT DESCRIPTION

2.1 Project Location

Air Products proposes to utilize an existing 11.5-mile-long series of pipelines plus construct a new 0.5-mile pipeline segment to connect from the Air Products' existing hydrogen facility in the City of Carson to the World Energy Bio-fuels Facility in the City of Paramount, California. The existing 11.5-mile pipeline crosses the cities of Carson, Los Angeles, Long Beach, Lakewood, Bellflower, and Paramount in addition to an unincorporated part of the County of Los Angeles and land owned or controlled by the Port of Los Angeles and the Joint Ports Authority. The 0.5-mile of new pipeline would be located entirely within the City of Carson.

2.2 Environmental Setting

Existing Project Site

The proposed Project would consist of a pipeline route from the Air Products' hydrogen facility in the City of Carson to the World Energy Bio-Fuels Facility in the City of Paramount. The Project area is generally level and has been modified by urban development. The site of the proposed Project is located within an area of industrial, commercial, and residential land uses. The portion of the Project site that would experience the majority of construction activities currently exists as a developed industrial facility. The Project alignment is predominantly within an existing pipeline corridor; the pipeline would traverse through the cities of Carson, Los Angeles, Long Beach, Lakewood, Bellflower, and Paramount as well as through a portion of Los Angeles County.

Sensitive Receptors

Sensitive receptors are locations in which the occupants are more susceptible to the effects of noise and pollutants. The City of Carson recognizes residences, public and private school/preschool classrooms, churches, hospitals, and elderly care facilities as sensitive receptors. Construction activity has the potential to expose sensitive receptors to dust and pollutants, especially in areas near schools or residential property. However, all areas of construction for the proposed Project are zoned for industrial use, and construction would be short-term. The construction period would be approximately 20 weeks for the 0.5-mile of new pipeline construction and Carson Tie-In, while construction for the Paramount Facility Connection as well as the ASV sites and pipeline connections at Dominguez Station and South Street is expected to occur for approximately 8 weeks. In addition, the nearest sensitive receptor is 0.47 miles from the area with the most intensive construction activity, and there are no sensitive receptors within 500 feet of any construction activity.

Although no sensitive receptors are in the vicinity of construction activity, there are six schools adjacent to the pipeline alignment and one school located 800 feet from the pipeline route. Along the pipeline route there are three elementary schools, two middle schools, and two high schools. The schools are associated with Long Beach Unified School District and Paramount Unified School District and are located in the cities of Lakewood, Long Beach, and Paramount.

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Initial Study**

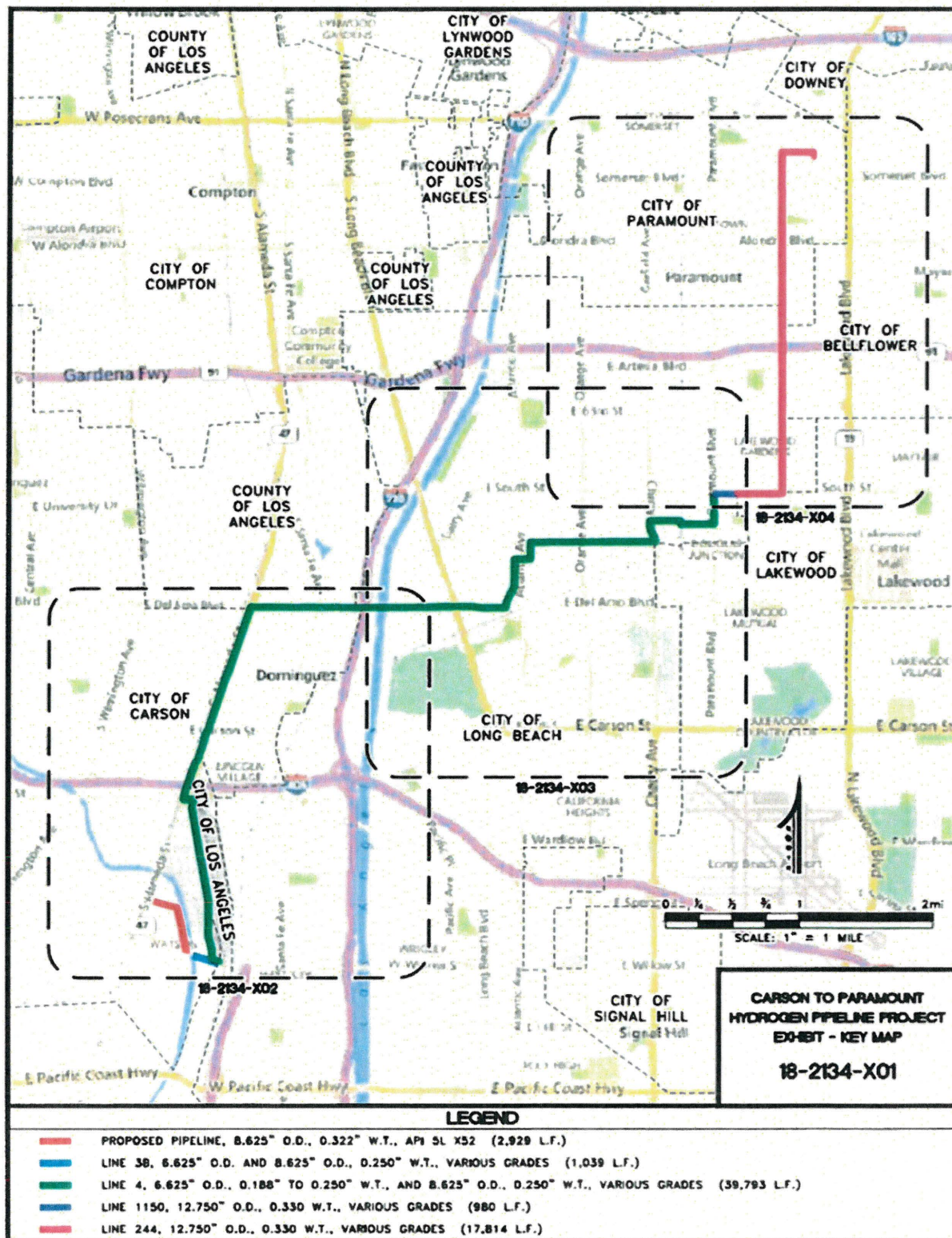


Figure 1: Pipeline Route Overview

**Air Products Carson to Paramount Hydrogen Pipeline
Initial Study**



Figure 2: Pipeline Route Map 1

**Air Products Carson to Paramount Hydrogen Pipeline
Initial Study**

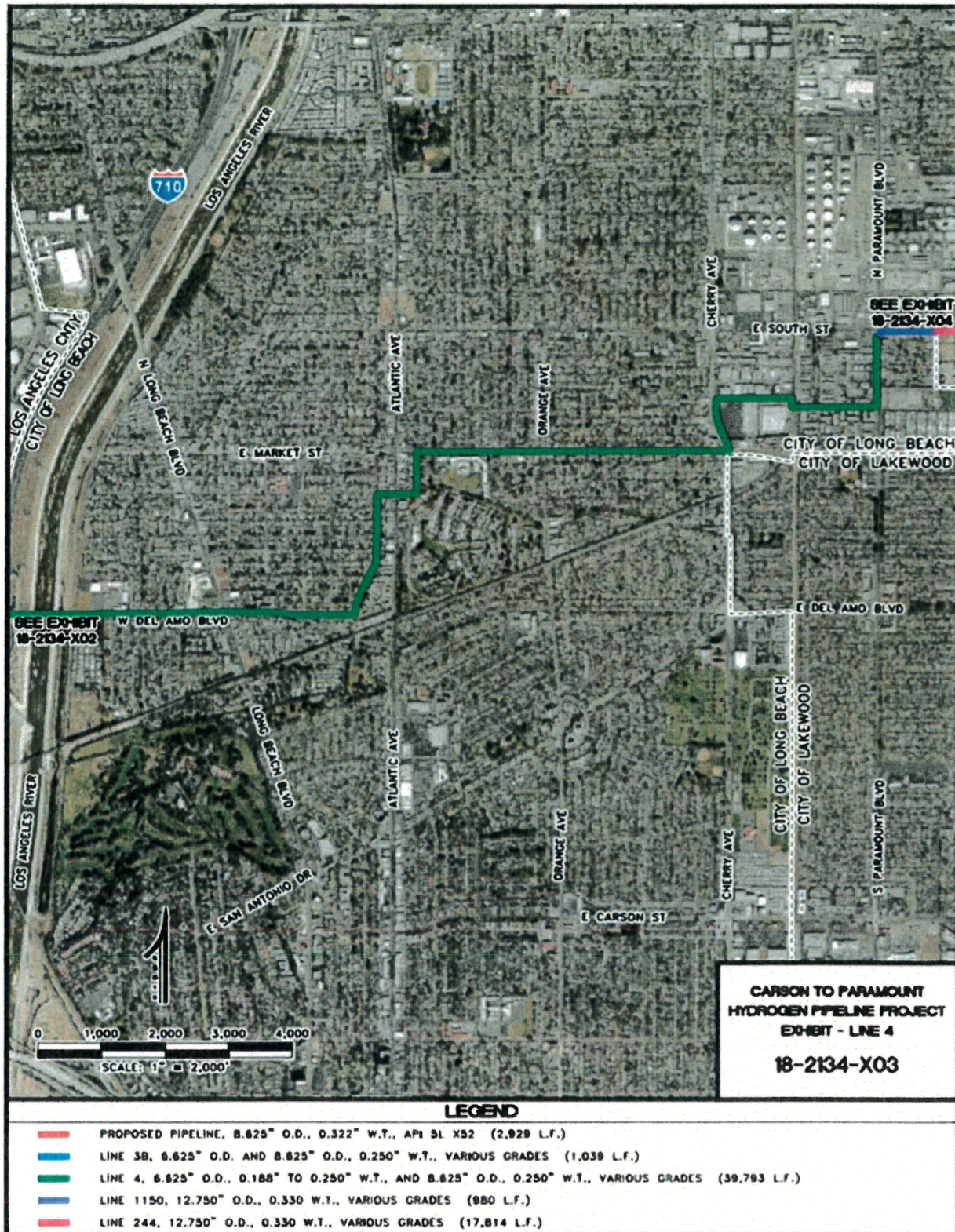


Figure 3: Pipeline Route Map 2

**Air Products Carson to Paramount Hydrogen Pipeline
Initial Study**

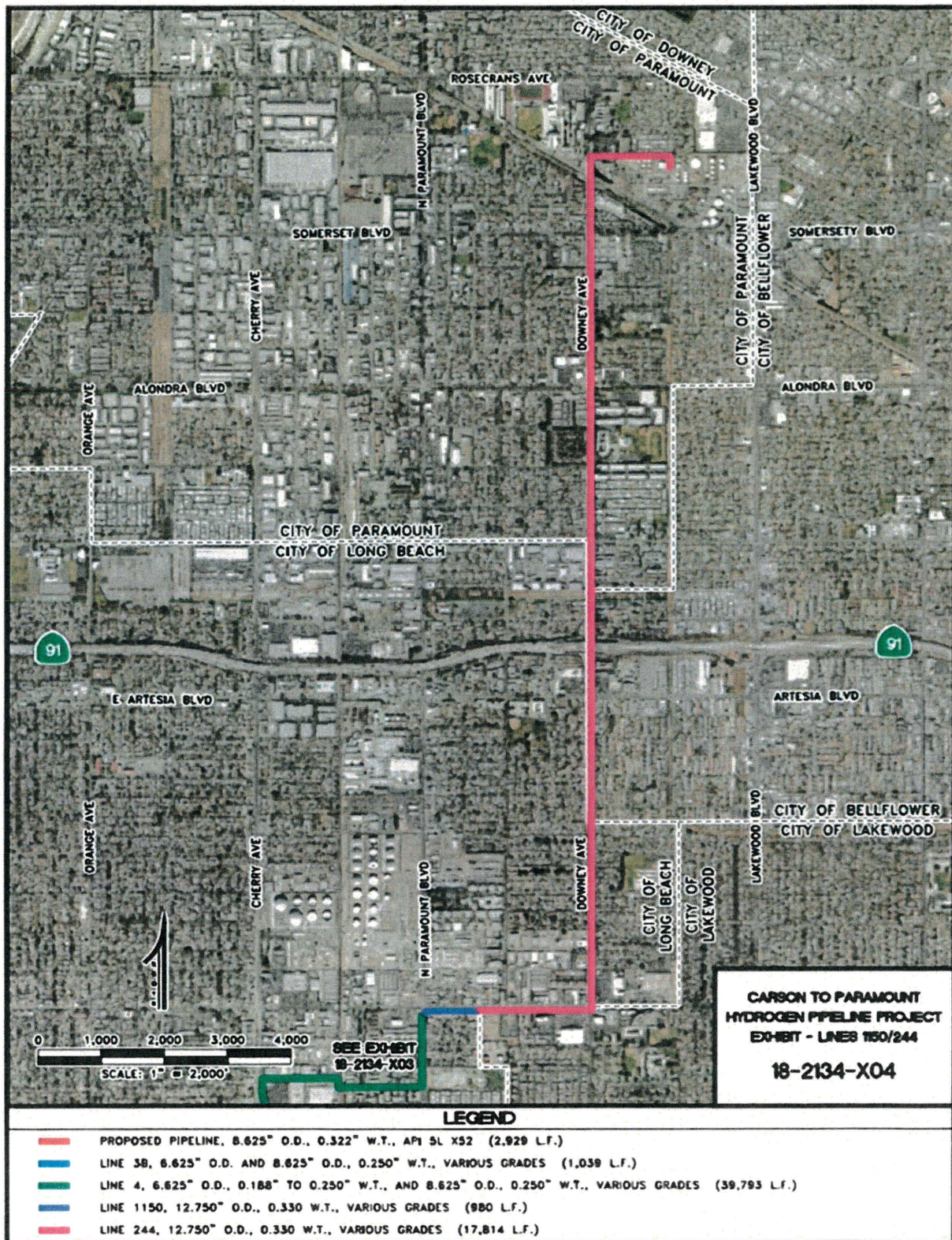


Figure 4: Pipeline Route Map 3

Surrounding Land Uses

The proposed pipeline would begin in the City of Carson and end in the City of Paramount; it would traverse the City of Los Angeles, County of Los Angeles, City of Long Beach, City of Lakewood, and City of Bellflower. The Project area is located within industrial, commercial, and residential land uses. Most construction activities within the City of Carson would take place on private land either within or near the Air Products Carson Hydrogen Facility. This area is highly industrialized and much of the new pipeline segment would border the western bank of the Dominguez Channel. Segment 2 of the pipeline is surrounded by industrial land as it follows the Union Pacific Railroad within the City of Los Angeles. Segment 3 follows Alameda Street (Highway 47) and is surrounded by single-family residences to the east. Segment 4 follows East Del Amo Boulevard and is surrounded by a residential area to the east as well as land used for industrial purposes. Segment 5 crosses into an industrial area of an unincorporated part of Los Angeles County before crossing the Los Angeles River and under the 710 Freeway. After crossing into the City of Long Beach, the pipeline is surrounded by residential areas. Segment 6 and Segment 7 are located within a mixed-use area within the City of Long Beach; there are residential, commercial, and industrial areas adjacent to the pipeline route. Once Segment 8 crosses into the City of Bellflower, the pipeline is bordered by a residential area. Segment 9 crosses into the City of Paramount with residential and commercial areas surrounding the pipeline. The final segment, Segment 10, also extends along residential and commercial areas until it reaches an industrial zone at the World Energy Bio-fuels Facility.

2.3 Proposed Project

World Energy uses hydrogen to produce renewable bio-fuels (diesel and jet) for the transportation market. Refineries have had to increase the amount of hydrogen they use to produce gasoline and other refinery products as demand increases due to the need to produce reformulated fuels. Most of the refiners have chosen to meet this increased demand for hydrogen by purchasing hydrogen gas from a third party such as APCI, who can produce the hydrogen more efficiently. The refineries use hydrogen to produce “clean fuels.” Hydrogen is used by the refineries to reduce the level of sulfur and other undesired pollutants in various types of transportation fuels such as gasoline and diesel fuel. The pipeline network would increase the overall reliability of the hydrogen supply, thereby allowing the refineries to maximize production of clean fuels. The pipeline would reduce the number of trucks currently used (approximately 4-5 trucks per day) to transport liquid hydrogen to the World Energy Facility as part of the bio-fuel refinement process.

The pipeline system would be built and operated to meet or exceed government safety standards as outlined in 49 Code of Federal Regulations, Part 192 “Transportation of Natural and Other Gas by Pipeline”. The pipeline would operate at a pressure of 260 pounds per square inch gauge (psig) but would be designed for a Maximum Allowable Operating Pressure (MAOP) of 300 psig. The anticipated flow rate for the pipeline would be approximately four million standard cubic feet per day (4 MMSCFD). One new pipe connection would be required to connect two segments of existing pipelines together. Air Products would also add and replace existing valves along the pipeline route. Ten manual valves would be removed and two automatic shutoff valves (ASV) would be installed. One ASV would be installed at the Dominguez pumping station and the other at an existing valve box along South Street near Orizaba Avenue; the latter would tie into PPC Line 12 crude 244. In addition, two new actuated valves would be installed at both ends of the pipeline within the Carson and

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Paramount facilities. The proposed pipeline would utilize existing pipe bridges to cross the three bodies of water intersected by the route: the Domínguez Channel, Compton Creek, and the Los Angeles River.

The table below summarizes five segments of the proposed pipeline. Detailed information regarding pipe age, pipe grade, external corrosion coatings, and other specifics are not available for the existing pipeline segments.

Table 1: Pipe Segment Summaries

Segment Description	Pipe Outside Diameter	Pipe Wall Thickness	Pipe Grade	Segment Length
New Air Products Carson Plant Site to Sepulveda Boulevard	8.625"	0.322"	API 5L X52	2,929
Existing Line 3B from Sepulveda Boulevard to Intermodal Terminal	6.625" and 8.625"	0.250"	Varies	1,039
Existing Line 4 from Intermodal Terminal to North Paramount Boulevard/South Street	6.625" and 8.625"	0.188" (6") 0.250" (8")	Varies (Portion API 5L X42)	39,792
Existing Line 1150 from North Paramount Boulevard to South Street Vault	12.750"	0.33"	Varies	980
Existing Line 244 from South Street Vault to World Energy (Paramount) Refinery	12.750"	0.33"	Varies	11,813

The proposed pipeline route would primarily extend within established utility routes utilizing private corridors and public roadways. The pipeline route would consist of the following ten segments from Air Products' Carson Facility to the World Energy Bio-fuels Facility in Paramount.

- Segment 1 would be the 0.5-mile section of new pipe to be constructed underground from the Carson facility to join with existing PPC Line 3B on Sepulveda boulevard which then crosses the Domínguez Channel. Construction activities would be either trenching or horizontal boring during the limited roadway construction.
- Segment 2 would be in an industrial area utilizing the existing PPC Line 4 along the Union Pacific Railroad.
- Segment 3 would begin under 223rd street and would continue northbound on Alameda Street utilizing the existing PPC Line 4. An ASV would be installed at the Domínguez pumping station. Segment 3's surroundings to the east are single-family residences.
- Segment 4 would continue with PPC Line 4 on Alameda Street before turning east onto East Del Amo Boulevard. Segment 4's eastern surroundings include a residential area as well as industrial land uses.
- Segment 5 would continue with PPC Line 4 on East Del Amo Boulevard, crossing over from Carson into an unincorporated part of Los Angeles County. Segment 5 would cross the Los Angeles River and proceed under the 710 Freeway. The first half of Segment 5 has industrial surroundings, while the second half passes through a residential area.

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- Segment 6 would continue utilizing PPC Line 4 through a residential area along Linden Avenue before turning east onto East Market Street. Segment 6 would be in a residential, commercial, and industrial mixed-use area.
- Segment 7 would begin in an industrial part of Long Beach and would require street level construction on an alleyway on North Paramount Boulevard to tie into PPC Line 12 Crude 1150. A manual valve would be replaced with an ASV at an existing vault on South Street near Orizaba Avenue and would tie into PPC Line 12 Crude 244. Segment 7 would begin in an industrial and commercial area; it would then extend into a residential and commercial area as it continues on South Street before turning North on Downey Avenue.
- Segment 8 would continue with PPC Line 12 Crude 244 bordering a residential area along Downey Avenue as the pipeline route crosses into the City of Bellflower.
- Segment 9 would cross from the City of Bellflower into the City of Paramount as it extends along residential and commercial areas on Downey Avenue.
- Segment 10 would continue along Downey Avenue in residential and commercial areas until reaching Pacific Electric Drive, after which the pipeline turns east on an unnamed road to tie-in at the World Energy Bio-fuels Facility.

Proposed Pipeline Safety Measures

The pipeline project has numerous proposed safety measures. The pipeline would be monitored from a control room 24 hours a day, 365 days a year in order to detect any leaks and changes in pressure. The pipeline would be routinely patrolled and inspected quarterly at all insulating flanges, valve stations, above-ground piping and cased crossings, in addition to ground level patrol and presence on the pipeline right-of-way. The leak detection system and the Supervisory Control and Data Acquisition (SCADA) system operators in the Carson/Wilmington and/or CSC (Houston) Control room would be able to automatically actuate the valves in the event of a leak after determining the size and location of the leak. The Carson Facility and the World Energy Facility would have actuated valves in addition to manual block valves at each terminus of the pipeline. The Carson Facility would also be equipped with an automatic de-inventory vent.

Prior to operation of the pipeline, Air Products would use hydrostatic testing and direct assessment techniques, such as data gathering, pre-assessment, and direct evaluation, to obtain a comprehensive understanding of the pipeline's condition. In accordance with 49 CFR 192, the pipeline's cathodic protection (CP) system would be inspected for satisfactory external corrosion protection. The CP system is comprised of four impressed current cathodic protection (ICCP) rectifiers, four separate ground beds, and 32 test points to check the effectiveness of the CP system. The CP system would also be tested once each year by taking pipe to soil readings. A coating integrity survey would be completed for the new segment of pipeline upon the end of construction. Should any segment of the buried pipeline be exposed in the future, it would be inspected for external corrosion and Air Products would take appropriate action to determine the extent. The U.S. Department of Transportation (USDOT) reviews and keeps records of these inspections.

The pipeline would be registered with the USA North underground service alert "one-call" system. Underground facilities near proposed construction locations would be marked prior to excavation activities so

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as to avoid damage to other utilities. This subscription is in accordance with the requirements of 49 CFR 192. Should an excavator not contact the one-call system prior to excavation, a polyethylene marker tape displaying a warning and the Air Products 24-hour phone number would be placed two feet below the ground surface along the length of new pipeline. To further mitigate potential impacts to existing substructures, there would be coordination with owners of substructures and non-mechanical digging in their vicinity, use of pre-qualified, experienced constriction contractors, use of electronic line locators, pre-excavation meetings, and extensive use of potholing.

In order to avoid third party damage, warning signs and line marker posts would be established at road, railroad, and waterway crossings, as well as at utility line crossings and where the pipeline is accessible to the public.

Air Products would conduct a minimum of four annual inspections of the surface conditions along the pipeline alignment. Vegetation growth would be maintained along the PPC pipeline; however, there is minimal vegetation due to the industrial and urbanized surroundings of most of the pipeline.

An educational program would be established on behalf of Air Products to educate the public, appropriate government organizations, and excavators on effective pipeline emergency protocol.

2.4 Construction and Phasing

The majority of the pipeline system would utilize an existing series of pipelines (11.5 miles), which would minimize the construction impacts of the project. Approximately 0.5-mile of new pipeline would require excavation to install underground. Trenching is the proposed construction method for the new section of pipeline.

Construction is expected to last approximately five months. There would be two active construction areas: the 0.5-mile of new pipeline to be constructed from the Air Products Carson Facility to Sepulveda Boulevard, where it would connect to existing PPC pipeline, and the pipeline connection on Paramount Boulevard in Long Beach. The majority of construction within Carson would occur on private land within the APCI Facility. Pipeline construction and the Carson Facility tie-in are anticipated to require 20-40 people for a duration of 20 weeks. Automatic shutoff valve installation at the Dominguez pumping station and South Street, as well as the pipeline connection on South Street, are anticipated to require 5-10 people for a duration of eight weeks. The Paramount Facility Connection is anticipated to require 5-10 people also for a duration of eight weeks. The Carson Facility and the Paramount Facility would likely be designated as staging areas for the storage of materials and equipment. The pipeline material and equipment would also be strung along the pipeline right-of-way at the start of construction. Materials to be delivered by trucks on existing roadways (paved and unpaved) would include: externally coated pipe sections (40 feet long); miscellaneous pipe and fittings; valves; meters and associated measurement equipment; electrical and control equipment; reinforcing steel and concrete; aggregate base rock, gravel, sand, and slurry for backfill; asphalt for paving; line signs; fencing; and water for dust control and hydrostatic testing.

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Construction wastes would include short sections of pipe; wastes from radiography, welding, and pipe coating; boxes and crates from material shipments; potentially impacted soils; rubble from trenching in paved areas; and water used in hydrostatic testing of the pipeline. Metallic waste would be taken to a local recycling center while non-metallic waste would be taken to a waste disposal center. Non-hazardous waste would be hauled to a sanitary landfill while hazardous waste would be taken to a permitted treatment/disposal facility. Water collection and disposal services for hydrostatic testing would be purchased from the local water authority; alternatively, wastewater would be sent to the World Energy Bio-fuels Facility for treatment or discharge. Water would also be used for fugitive dust control and street washing. All water required for the Project would be purchased from the local water authority and obtained via hydrant. Construction and operation of the pipeline would not produce gaseous waste.

Construction Methods

Mobilization

Trucks and trailers would be used for material and equipment deliveries to the Project site. Underground Service Alert would be notified by the Contractor so that damage to other service providers could be prevented.

Roadway Construction

Construction would occur within existing road rights-of-way in two locations along the pipeline route. Construction within the roadway would occur on Sepulveda Boulevard in the City of Carson to connect the new segment of pipeline to existing PPC Line 3B; it would also occur in an alleyway on North Paramount Boulevard in the City of Long Beach to tie PPC Line 4 into PPC Line 12 Crude 1150. Applicable permits would be obtained, and traffic control would be provided. Part of the pre-construction activities would involve notification of landowners, permittees, and business owners along the right-of-way should there be potential for construction activities to affect their business. In addition to signs around the Project site, notification to business owners would be by mail and telephone while tenants would be notified in person. Emergency response providers in the Project vicinity would also be given notice prior to the start of construction. Alternative routes would be developed, schedules for street parking closures would be published, and signage would be present to direct traffic to detours.

Equipment Fueling

Refueling of construction equipment would take place along the right-of-way. Absorbent material, also available for emergency containment, would be utilized in the case of over-filling.

Right-of-Way Clearing

Due to the lack of vegetation at either construction site along the proposed route, clearing activities are expected to be minimal. Minimal clearing and grading would be required at the site of the new segment of pipe. Fences that intersect the right-of-way would be fitted with gates to be kept open during construction.

Ditching

Rubber-tired backhoes, ditching machines, and track backhoes would be used to excavate ditches between five and six feet deep and three feet in width. Non-mechanical digging would be performed in the vicinity of known substructures so as to avoid potential damage.

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Hauling and Stringing the Line Pipe, Line Lowering, Pipe Bending, Fit-Up, and Welding

Trucks and trailers would be utilized to transport line pipe to the construction zones. Side-boom tractors would be used to lift and lower the pipe into the ditch for it to later be lined-up and welded. Cradles with rubber rollers or padded slings would be used to prevent damage to the pipe's coating during the lowering process. The tractors would be spaced so that the weight of unsupported pipe would not cause buckling or other damage. The pipe would be bent to conform to the ditch by a portable bending machine. Clamps would be used to hold the segments of pipe in position until at least half of the first welding pass is complete. Once the pipe is sitting at its final elevation and alignment, "bell holes" would be dug to facilitate welding at pipe joints. All welds would be 100 percent radiographically inspected and made by qualified welders in accordance with the standards of American Petroleum Institute (API) Standard 1104 "Welding of Pipelines and Related Facilities" and 49 CFR 192.

Circumferential Pipe Weld Joint Coating

The segment of new pipe would be externally coated with fusion bonded epoxy (FBE) before being transported to the Project site. It would be 14 to 16 mils FBE coated. Existing PPC pipe was originally coated with Somastic, cold tar, and Orange X-TRUCOAT. These coatings serve to protect the pipeline during operational corrosion.

Backfilling and Compaction

If suitable (rocks no greater than 0.75-inch), native material would be used for backfilling. Should native material contain rocks exceeding 0.75-inch, sand or other filtered material may be used. The pipe would be covered with 12 inches of material for padding and shading, followed by unsuitable material placed on top if found to be appropriate for compaction. To assure that the Project area's compaction requirements are met, compaction testing would be done in addition to the use of proper material and compaction rollers. Additional construction safety measures would include fencing, backfilling, or covering of trenches at the end of each workday.

Hydrotesting

The entire pipeline would be hydrostatically tested to a minimum of 150 percent (450 psig) of the maximum operating pressure (300 psig), which is specified in DOT 49 CFR 192. Permanent records for each hydrostatic test would be kept. Water collection and disposal services for hydrostatic testing would be purchased from the local water authority; alternatively, wastewater would be sent to the World Energy Bio-fuels Facility for treatment or discharge.

Cleanup and Paving

All construction signs, debris, surplus material, and equipment would be removed from the construction site. Sepulveda Boulevard and Paramount Boulevard would be repaved in the areas where construction occurred. Non-paved areas, such as the new pipe segment, would be returned to pre-construction conditions and would not require re-seeding due to the lack of vegetation present prior to construction.

Erosion and Sediment Control

Erosion control measures would be developed prior to construction and submitted to local agencies for plan approval. Best management practices such as silt fences and straw wattles would be included in the Storm Water Pollution Prevention Plan (SWPPP) and utilized to prevent erosion.

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Operations and Maintenance

The Carson to Paramount hydrogen pipeline will be owned by PPC and operated by Air Products. All pipeline personnel would meet the qualification requirements described in Subpart N of 49 CFR 192. The pipeline would operate at a pressure of approximately 260 psig and would transfer a maximum of seven million cubic feet of hydrogen gas each day (7 MMSCFD). The anticipated flow rate for the pipeline would be approximately four million standard cubic feet per day (4 MMSCFD). The pipeline and ASVs would be continuously monitored by the SCADA system. With its uninterruptible power supply, the SCADA system would analyze data from multiple locations along the pipeline and would send alerts to the pipeline controllers should any unexpected conditions arise.

Air Product's personnel are trained in the Incident Command System as well as gas release emergency response procedures, and community first responders would be trained in accordance with an existing Emergency Response Plan. Ten minutes is the expected response time in the event of a leak, and a personnel technician would be present within one hour. The SCADA system runs on local independent remote terminal units (RTU's) and would therefore function in the event of a local power outage. In the event of a leak, the ASVs would automatically close when the flow rate through the pipeline at the ASV stations reaches an established set point. The location and size of the leak would be identified by the online leak detection system, and the leak detection system's isolation and de-pressurization components would be programmed to actuate automatically. The ASVs would close and vent the identified segment of pipeline to the flare at the Carson Facility. The Carson Facility would also be equipped with an automatic de-inventory vent in addition to the manual block valves located at each end of the pipeline within the Carson and World Energy Facilities. The local Carson Plant operators and the Air Products Customer Service Center in Texas would also have the power to automatically actuate the ASVs in the event of leak detection.

2.5 Project Approvals

Table 2: List of Anticipated Permits and Approvals

Agency	Permit/Approval	Regulated Activity	Authority
State of California Agencies			
Regional Water Quality Control Board	Storm Water Pollution Prevention Plan Approval	Storm water discharges during Project construction	Clean Water Act Porter-Cologne Water Quality
Local Agencies			
City of Carson	Conditional Use Permit, Construction Permit	New use, environmental review, and construction permit	City Code CEQA
City of Carson Public Works Dept.	Encroachment Permit	Work within public right-of-way	City Code

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Agency	Permit/Approval	Regulated Activity	Authority
Los Angeles County Flood Control District	Temporary Use and Access	Modifications to existing pipe bridge crossing the Los Angeles River	County Code
Port of Los Angeles	Amendment to Franchise	Change in pipeline use	City Code
Joint Ports	Amendment to Master Joint Revocable Permit	Change in pipeline use	Joint Powers Authority Charter
City of Long Beach	Amendment to Franchise Agreement/ Construction Permit/ Encroachment Permit	Modification to existing Franchise Agreement, Work within public rights-of-way	City Code
City of Lakewood	Construction Permit	Piping Modification	City Code
City of Paramount	Construction Permit	Pipeline Tie-In	City Code
South Coast Air Quality Management District	Authority to Construct/Permit to Operate	Emissions associated with construction may require permits.	Clean Air Act
Notes: CEQA = California Environmental Quality Act			

3 INITIAL STUDY CHECKLIST

1. Project title:

Carson to Paramount Hydrogen Gas Pipeline

2. Lead agency name and address:

City of Carson
Community Development Department, Planning Division
701 East Carson Street
Carson, California 90745

3. Contact person and phone number:

Name: Max Castillo, Assistant Planner
Phone: (310) 952-1700 x1317
Email: mcastillo@carson.ca.us

4. Project location:

The Project route would initiate in the City of Carson at an existing Air Products and Chemicals, Inc. hydrogen facility and would terminate in the City of Paramount, California at the World Energy Bio-Fuels Facility. The proposed pipeline would traverse the City of Los Angeles, County of Los Angeles, City of Long Beach, City of Lakewood, and City of Bellflower.

5. Project sponsor's name and address:

Eric Guter, General Manager – HyCO Western Region
Air Products and Chemicals, Inc.
4000 MacArthur Boulevard
Suite 420, East Tower
Newport Beach, CA 92660

6. General plan designation: The Project site is located within an area of industrial, commercial, and residential land uses.

7. Zoning: Industrial, Commercial, Residential

8. Description of project:

The project involves the construction of 0.5-mile of pipeline within the City of Carson, the installation of valves on an existing 11.5 miles of pipeline and the operation of the entire 12.0-mile pipeline system. See Section 2.3, Proposed Project, for additional details.

9. Surrounding Land Uses and Setting:

See Section 2.2, Environmental Setting, for details on the surrounding land uses and setting.

10. Other public agencies whose approval is required: (e.g., permits, financing approval, or

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participation agreement.)

See Section 2.5, Project Approvals, for details.

- 11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?**

The city has provided notice of the Project application to California Native American tribes that have requested such notice.

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," as indicated by the checklist on the following pages.

- | | | |
|---|---|--|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology and Soils |
| <input type="checkbox"/> Greenhouse Gas Emissions | <input checked="" type="checkbox"/> Hazards and Hazardous Materials | <input type="checkbox"/> Hydrology and Water Quality |
| <input type="checkbox"/> Land Use and Planning | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise |
| <input type="checkbox"/> Population and Housing | <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Transportation and Traffic | <input type="checkbox"/> Tribal Cultural Resources | <input type="checkbox"/> Utilities and Service Systems |
| <input type="checkbox"/> Mandatory Findings of Significance | | |

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 ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

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 would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, 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.
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:
 - a) Earlier Analyses Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation 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

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
I. AESTHETICS. Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
II. 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:				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IV. BIOLOGICAL RESOURCES. Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
VI. ENERGY. Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VII. GEOLOGY AND SOILS. Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. HYDROLOGY AND WATER QUALITY. Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 a substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
XI. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIII. NOISE. Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIV. POPULATION AND HOUSING. Would the project:				
a) Induce substantial 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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
XV. PUBLIC SERVICES. Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVI. RECREATION.				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVII. TRANSPORTATION. Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
XVIII. TRIBAL CULTURAL RESOURCES.				
a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				

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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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIX. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a determination by the waste water 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XX. WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XXI. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3.1 Aesthetics

- a) *Would the project have a substantial adverse effect on a scenic vista?*
- 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. The proposed project is not located within any designated scenic vistas or resources, and there are no state-designated scenic highways that would be crossed by the new or existing pipeline. The pipeline would be underground except for the following sections requiring aboveground construction: within the Air Products Carson Facility, the new pipeline construction along the Dominguez Channel, the two Automatic Shutoff Valve (ASV) locations, and at the pipeline terminus within the World Energy Bio-fuels Facility in Paramount. Visible construction at these sections of the pipeline would be on a limited timeframe and in industrialized areas. Therefore, no impacts associated with scenic vistas or highways are anticipated.

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

Less Than Significant Impact. The project is not expected to degrade the visual character of the area due to the limited timeframe of aboveground construction and the industrialized zoning of most construction areas, in addition to the pipeline predominately being underground. The project would not conflict with any regulations governing scenic quality. Construction equipment and materials for the new pipeline would be contained within the Air Products Facility in Carson, a low-traffic and highly industrialized area. Visibility of this area would be limited to drivers on East Sepulveda Boulevard for an expected 20 weeks. Construction for the pipeline connection on North Paramount Boulevard in Long Beach, zoned General Industrial, is expected to last eight weeks. Therefore, impacts to the visual character of the site and its surroundings are anticipated to be less than significant.

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

Less Than Significant Impact. Operation of the pipeline would not require new sources of illumination except if needed during limited nighttime construction. However, nearly all construction would be conducted during daylight hours. Therefore, impacts associated with substantial light or glare are anticipated to be less than significant.

3.2 Agriculture and Forestry Resources

- a) *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide*

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Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

- b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*
- 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))?*
- d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?*
- e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?*

No Impact. The proposed pipeline route would traverse the City of Carson, City of Los Angeles, County of Los Angeles, City of Long Beach, City of Lakewood, City of Bellflower, and City of Paramount. The pipeline alignment largely utilizes established utility routes following private corridors and public roadways and is therefore not located on any land zoned for agricultural or forestry uses. Therefore, no impacts associated with agriculture and forestry resources are anticipated.

3.3 Air Quality

The proposed Project would generate air emissions from construction of the 0.5-mile segment of pipeline and from vehicle transport of materials and personnel during construction. Construction emissions would be associated with the following equipment and processes:

- Construction equipment, such as backhoes, graders, etc.;
- On road vehicles for equipment delivery;
- On road vehicles for materials delivery and waste materials removal, such as asphalt trucks, dump trucks, and service trucks;
- On road vehicles associated with construction workers;
- Volatile organic emissions from asphalt;
- Fugitive dust associated with soil handling, site clearing and grading; and
- Fugitive dust associated with travel on dirt areas.

Several best management practices would be followed during construction to reduce dust generation:

- Water all active construction sites a minimum of twice daily.

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- Reduce travel speeds of onsite vehicles on unpaved roads within the pipeline trench construction area to 15 miles per hour.
- Cover inactive storage piles
- Sweep streets if visible solid material is carried out from the construction site.

There would be very minimal emissions associated with the operation of the proposed hydrogen pipeline associated with ROW inspections and equipment inspections and due to vehicle travel. No emissions are associated with the normal transport of material through underground pipelines. The emissions estimates for construction of the pipeline with mitigation incorporated are shown in Table 3. More detailed tables are presented in the Air Appendix.

Table 3: Project Construction Emissions (With Mitigation)

Activity	Pollutant									
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	CO ₂	CH ₄	N ₂ O	CO _{2e}
	Peak Pounds per Day									
Pipeline Spread	4.48	35.92	22.66	0.04	5.02	3.43	3704.36	0.95	0.00	3728.00
Pipe Delivery	0.36	8.45	1.34	0.02	0.30	0.20	2259.20	0.02	0.36	2369.64
ASV & Pipeline Connections	1.79	11.15	9.46	0.02	0.75	0.65	1353.65	0.30	0.00	1361.18
World Energy Paramount Bio-fuels Facility Connections	1.79	11.15	9.46	0.02	0.75	0.65	1353.65	0.30	0.00	1361.18
Maximum Total Daily Emissions	8.42	66.67	42.91	0.09	6.82	4.93	8670.87	1.56	0.36	8820.00
Significance Threshold	75	100	550	150	150	55	-	-	-	-
Significant Impact?	No	No	No	No	No	No	-	-	-	-
	Total Tons						Total Metric Tons			
Pipeline Spread	0.19	1.56	0.98	0.00	0.22	0.15	145.57	0.04	0.00	146.50
Pipe Delivery	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.00	0.00	1.07

Emissions of NO_x from construction activities would be primarily from onsite activities. The peak level of emissions would occur during the trenching and pipe installation operations. Emissions of PM₁₀ and PM_{2.5} would be due mostly to onsite sources, particularly fugitive dust sources. These peak emissions would occur during the soil handling activities. Fugitive dust emissions would also be associated with vehicle travel on unpaved areas, which would occur during site clearing, trenching, pipeline installation, and backfilling/clean-up operations. Fugitive dust emissions would be highest in the areas where the pipeline route passes through the unpaved areas. Fugitive dust emission calculations are based on the information in the South Coast AQMD CEQA Air Quality Handbook, Chapter 9 for grading activities, storage pile filling, truck dumping, and vehicle traffic on unpaved areas.

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All emissions associated with construction of the APCI hydrogen pipeline project are estimated to be below the SCAQMD significance levels for construction. Operation of the pipeline is not expected to produce any criteria pollutants.

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

No Impact. The proposed pipeline is aligned with both National Ambient Air Quality Standards and California Clean Air Act in that it contributes to the supply of hydrogen used for the reformulation of fuels. The demand for hydrogen at the refineries has been increasing during the last few years due to the need to produce reformulated fuels. In order to meet the required specifications for reformulated fuels, the refineries have had to increase the amount of hydrogen they use to produce gasoline and other refinery products. Most of the refiners have chosen to meet this increased demand for hydrogen by purchasing hydrogen gas from a third party such as APCI, who can produce the hydrogen more efficiently to supply multiple customers via pipeline. In the 1994 Ultramar SEIR, the cumulative operation of a group of reformulated fuels projects, including a hydrogen pipeline from the hydrogen plant to the refineries, was shown to yield significant reductions in air emissions. Utilization of the APCI pipeline would reduce the number of trucks currently used (approximately 4-5 trucks per day) to transport liquid hydrogen to the World Energy Paramount Bio-Fuels Facility, thereby contributing to a reduction in air emissions. In addition, operation of the pipeline would produce minimal emissions to the atmosphere and would therefore be consistent with the basin air quality plans. Therefore, the project would have a minimal, and possibly, positive (due to the use of clean fuels) impact on air quality plans.

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. According to SCAQMD, a Project would have potentially significant cumulative impacts to regional air quality if the Project's individual impacts would be significant. The proposed pipeline construction emissions would be below the SCAQMD Threshold Levels for construction activities as shown in Table 3. Operation of the proposed pipeline involves the transportation of hydrogen via 12 miles of underground piping. Therefore, emissions from stationary sources associated with the operation of the pipeline are estimated to be negligible. Operational emissions from the Carson Facility would not increase as a result of this project due to the Carson Facility currently operating at maximum hydrogen production capacity. Other emissions associated with operation of the pipeline are estimated to be minimal and associated with only period vehicles associated with equipment inspections and routine pipeline inspections. All insulating flanges, valve stations, above-ground piping, and cased crossings would be inspected quarterly in addition to quarterly ground level patrol and routine presence on the right-of-way. Best available control technology (BACT) and best management practices (BMPs) to reduce dust from construction would be used for the project. Mitigation measures for the pipeline construction would include watering of

unpaved active construction areas, reducing travel speeds to 15 miles per hour on unpaved roads within the pipeline trench construction area, and covering inactive storage piles. Vehicles and construction equipment would also be maintained to minimize emissions. Therefore, construction emissions from the project would be less than significant and would not result in a cumulatively considerable net increase in any criteria pollutant.

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

Less Than Significant. The pipeline would have minimal to no pollutant emissions under normal operation. Construction activity has the potential to expose sensitive receptors to dust and pollutants, especially in areas near schools or residential property. However, all areas of construction are zoned for industrial use, and construction is short-term. In addition, the nearest sensitive receptor is 0.47 miles from the area with the most intensive construction activity, and there are no sensitive receptors within 500 feet of any proposed construction activity. Local significance thresholds published by the AQMD indicate that impacts of the project would be well below those that could produce localized impacts. Mitigation measures would be implemented to reduce construction air emissions, as detailed above III a). Therefore, impacts to sensitive receptors would be less than significant.

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

No Impact. Normal operation of the pipeline would create no objectionable odors. Some odors may be generated during construction excavation activities if contaminated soil is encountered. In the event that contaminated soils with objectionable odors are encountered, a plan to manage the soil would be implemented in order to minimize the production of objectionable odors as per AQMD rules and regulations. Therefore, the project would have no impact with regard to objectionable odors.

3.4 Biological Resources

- 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?*
- 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, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- 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.) through direct removal, filling, hydrological interruption, or other means?*
- 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 native wildlife nursery sites?*
- e) *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*
- f) *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

No Impact. The proposed project site is located within heavily disturbed areas, such as industrial corridors, residential areas, and developed road rights-of-way. Generally, developed areas provide habitat of minimal value for plant and wildlife species. Most of the pipeline would be located underground, and the two segments requiring street-level construction, Segment 1 and Segment 7, support very little to no vegetation. No rare, endangered, or threatened species are expected to be found in the project area. The pipeline would cross three water bodies, the Dominguez Channel, Compton Creek, and Los Angeles River, utilizing existing pipeline bridges. The proposed pipeline would not interfere with wetlands. The pipeline would be designed not to affect the function of any drainage systems and water runoff grades encountered along the pipeline route. Therefore, no impacts associated with biological resources are anticipated.

3.5 Cultural Resources

- a) *Would the project cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?*
- b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?*
- c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

Less Than Significant Impact. A records search from the South Central Coastal Information Center of the California Historical Resources Information System (SCCIC-CHRIS) did not identify any historical or archaeological resources along the proposed 0.5 mile pipeline in the City of Carson. In addition, an intensive archaeological survey did not identify any archaeological resources along the same 0.5-mile pipeline. However, four archaeological sites are recorded within 0.25-mile of the Project site. One site, CA-LAN-2682, is a protohistoric habitation site and cemetery approximately 618 feet west of the western end of the Project site. All visible human remains were removed in 1998; however, future excavation may expose additional human remains in any direction from the known burials. Given the proximity to CA-LAN-2682 there is a possibility that unknown buried prehistoric resources could occur within the Project site. Therefore, the following recommendations are provided to reduce any potential significant impacts to buried cultural resources to a less than significant level:

- A professional archaeologist and Native American monitor should be retained to monitor all Project related earth disturbances within the first 100 feet of the underground portion of the Project site. The area recommended for monitoring would start approximately 400 feet southeast of the intersection with South Alameda Street and where the proposed pipeline would transition from aboveground to underground. The area would continue east for 100 feet into the Air Products Carson Hydrogen Facility.
- At the commencement of Project construction, the archaeological monitor shall give all workers associated with earth-disturbing procedures an orientation regarding the probability of exposing cultural resources and directions as to what steps are to be taken if a find is encountered.
- The archaeologist shall have the authority to temporarily halt or redirect Project construction in the event that potentially significant cultural resources are exposed. Based on monitoring observations and the actual extent of Project disturbance, the lead archaeologist shall have the authority to refine the monitoring requirements as appropriate (i.e., change to spot checks, reduce or increase the area to be monitored) in consultation with Air Products and the lead CEQA Agency.

- If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission. The lead CEQA Agency and Air Products shall be notified of any such find.

3.6 Energy

- a) *Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*
- b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

No Impact. Construction and operation of the proposed pipeline project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Energy use during construction and operation of the pipeline would be minimal and limited in timeframe for the construction phase. The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Construction of this pipeline would help to meet the demand for reformulated fuels through the production of renewable transportation fuels; APCI can produce the hydrogen more efficiently to supply multiple customers via pipeline. Therefore, the project would not result in significant environmental impacts associated with inefficient energy consumption

3.7 Geology and Soils

- 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.*

- ii) *Strong seismic ground shaking?*
 - iii) *Seismic-related ground failure, including liquefaction?*
 - iv) *Landslides?*
- c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*
- d) *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?*

Less Than Significant. The Project area is not crossed by any active or potentially active fault. The Newport-Inglewood and San Andreas fault zones have the greatest potential to impact the Project site based on their proximity to the proposed alignment and potential maximum ground acceleration. The nearest active fault is the Newport-Inglewood fault, located one mile north of the Project site. The Project site lies outside of the Alquist-Priolo Earthquake Hazard zone for the Newport-Inglewood fault. State and federal regulations are available to minimize the impacts associated with pipeline rupture, including U.S. Department of Transportation pipeline safety regulations (49 CFR 192). The project would include the following several design measures that are proposed to be incorporated into the project. In order to further reduce the risk of damage to the pipeline, all new circumferential welds would be inspected. This exceeds the Department of Transportation requirements for transporting gaseous products (see 49 CFR 192). The pipeline would also include two automatic shutoff valve stations, which would reduce the quantity of hydrogen released in the event of a leak from the system. Compliance with state and federal regulations regarding pipeline safety would reduce the impacts from ground movement on the pipeline to less than significant.

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

No Impact. The construction of the pipeline is planned so that the installed pipe would be covered, the ground compacted, and the surface restored to standard condition or better such that no erosion or ground degradation would ensue. Land stripped of vegetation would be replanted; pavement would be replaced, etc. The finished pipeline route would be properly engineered to impede erosion of soils due to wind, water or traffic. A Storm Water Pollution Prevention Plan (SWPPP) would be prepared, and implemented during construction of the pipeline: the SWPPP identifies sources of sediment and other pollutants that affect quality of storm water discharges; and describes best management practices (BMPs) that would be implemented to reduce sediment and other pollutants in storm water. Therefore, the pipeline would not impact topsoil erosion.

- e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

No Impact. The normal operation of the pipeline does not involve water disposal. Activities during construction that would involve the use of water are dust control practices and hydrostatic testing of the pipeline. These activities would be organized to avoid water runoff and contamination. Water used for fugitive dust control and street washing, as a supplement to sweeping, would be limited to that necessary for the task to avoid unnecessary runoff. A SWPPP would be prepared for construction activities associated with the proposed Project. Used hydrostatic test water would be sent to the World Energy Facility for treatment or discharge, or alternatively discharged onsite, in accordance with applicable laws, ordinances, and regulations (LORS). Therefore, no impacts associated with disposal of water to soil are expected.

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

No Impact. No historical or paleontological resources or unique geologic features have been identified along the route of the proposed pipeline. However, as with all projects requiring excavation, the unearthing of cultural remains would require a halt to construction activities in that particular area, while an archaeological assessment of the remains is completed. None are expected since the route line of the proposed pipeline is situated in heavily disturbed industrial and transportation areas. Therefore, there is expected to be no impact to paleontological resources.

3.8 Greenhouse Gas Emissions

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less Than Significant. There are minimal emissions associated with normal operation of the pipeline, which would involve periodic pipeline inspections and associated vehicle traffic. Emissions associated with construction of the pipeline would be below the SCAQMD threshold of significance for GHG emissions as shown in Table 3 and are therefore less than significant. Therefore, there would be less than significant impacts associated with the generation of greenhouse gas emissions.

- b) *Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

No Impact. Construction and operation of the proposed pipeline would not conflict with any plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases, such as AB 32 or the South Bay Cities Council of Governments Climate Action Plan. Therefore, there would be no impact to plans which aim to reduce the emissions of greenhouse gases.

3.9 Hazards and Hazardous Materials

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

No Impact. The operations of the pipeline system would not generate routine emissions of materials that could cause hazards to the public. Hydrogen is highly flammable but would remain inside the pipelines during routine operations and would have no impact on the public. Activities during construction would utilize some hazardous materials, such as fuels or welding gasses, but there would be no routine releases and there would be no impacts on the public. Therefore, there would be no impact for routine activities. Impacts associated with accidental releases are discussed below.

- 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?*

Potentially Significant. The proposed pipeline would be constructed and tested in accordance with all applicable state and federal standards, specifically those set forth by the American National Standards Institute (ANSI), Code of Federal Regulations and California Pipeline Safety Act. Impacts associated with construction and operations are discussed below.

Construction: The APCI Hydrogen Pipeline construction activities would occur near or parallel to numerous underground utilities including water, sewer, electric, cable, telephone, and natural gas utilities. During pipeline construction, potential impacts to these utilities could occur if these utilities are accidentally damaged by the construction equipment. A result of such accident could be a disruption of utility service, or in the case of a natural gas pipeline, a fire or explosion. This could result in a potentially significant impact. However, this impact potentially exists for any underground construction project, and there are many well developed and long proven to be effective measures that would be instituted to successfully mitigate this impact. These measures include:

- Underground Service Alert would be notified 48 hours in advance of any excavation activity so that utilities can be marked for avoidance during construction. Construction would not commence until all utilities have been marked.
- Non-mechanical digging would be used in utility-intensive areas and in the vicinity of underground structures.
- In the event of inadvertent damage to an underground facility, work would be halted in the immediate vicinity of the damage, until the problem is resolved.
- Local fire departments would be notified of the schedule of construction activities in the vicinity of natural gas lines.

In addition, construction of the 0.5-mile pipeline segment would occur in industrial areas and would not be located close to residences or highly populated areas. Therefore, impacts from pipeline construction would be less than significant.

Operations: The operational hazards of transport of pressurized hydrogen are associated with a potential failure of the pipeline and subsequent release of hydrogen from the pressured pipeline. The pipeline could fail due to external impact (near construction projects, etc.), pipeline wall corrosion, mechanical defects or other issues. The impacts of a release from the proposed pipeline were assessed in the Ultramar SEIR (1994) and 2000 APCI Addendum. The worst-case accident scenario simulated in the SEIR was the rupture of the pipeline, resulting in a horizontal jet of hydrogen gas and formation of a vapor cloud; and immediate ignition with a fire source. For this scenario, the radiant heat zone at the "irritation level" was calculated to extend up to a distance of 250 feet away from the pipeline. All other potential hazards associated with the pipeline were determined to extend less than 250 feet from the pipeline route.

The Applicant has developed modeling of potential releases from the proposed operations of the hydrogen pipeline. Impact distances from a rupture and subsequent fire would extend a maximum distance of 76 feet.

The following pipeline design measures help to minimize the potential impacts associated with a potential pipeline rupture during operation:

- Telemetry system to provide notification in the event of a rupture.
- Line riders to patrol the pipeline periodically as required per DOT 49 CFR 192.
- Monitoring of the differential between input and output pressures at all times by the pipeline operations center.

In addition to these measures, the proposed pipeline would have the following safety features:

- Two automatic shutoff valves (ASVs) to limit the size and duration of a potential release. ASVs are hydraulically operated self-contained mechanical devices, which are designed to automatically close at flowrates that exceed a certain preset flowrate value. They do not require electrical power for operation and are designed to fail closed. If the pipeline sustains a significant damage that is followed by a large hydrogen release, the ASVs immediately downstream and upstream of the damage would sense a variance in the flowrate due to pipeline depressurization. The ASVs would automatically close when the flow rate through the pipeline at the ASV stations reaches an established set point. Thus, the flow through the pipeline would be stopped and the section of the pipeline where the damage occurred would be isolated from the rest of the pipeline. This ASV system would effectively mitigate the volume of hydrogen released in the event of a large pipeline failure. Remote terminal units (RTU), configured with a computer, would be installed at

each ASV station; and provide continuous monitoring of the pipeline and transmit pressure data and valve status information back to the hydrogen plant control room. In case of a pipeline leak, the hydrogen plant control room would be able to identify the section of pipeline where the leak has occurred.

- The installation of a third manual valve underground on South Street near Orizaba Avenue in addition to the manual block valves at each end of the pipeline (within the Carson Facility and the World Energy Bio-fuels Facility).
- Subscription to USA North underground service alert “one-call” system which would notify the owners of other underground facilities in the vicinity of proposed excavation.
- Radiographical inspection of 100% of new circumferential welds on the new section of the pipeline. This exceeds the 49 CFR 192 requirements which state that only a percentage of the welds must be inspected.
- The installation and maintenance of line marker posts and warning signs at road, railroad, and waterway crossings, utility crossings, and aboveground pipeline locations.
- Marker tape laid approximately two feet below the surface, above the pipeline, along the entire length of the new pipeline to help other excavators identify the pipeline.
- Pipeline would be hydrostatically tested at a pressure of 1.5 times the maximum operating pressure as required in 49 CFR 192.
- External corrosion coating would be applied to the outside of the new pipeline segment, and a coating integrity survey would be conducted along the new pipeline in order to identify and repair the coat as necessary.
- Pipeline would be cathodically protected to minimize external corrosion.

Even with these measures, the pipeline could still fail and release hydrogen to the environment, potentially impacting the public. The determination if this potential is a “significant” hazard utilizes risk assessments to determine the level of significance. Currently, the City of Carson does not have specific risk-based thresholds to determine the significance of an accidental hazardous material release and subsequent impact. Therefore, this initial study proposes the use of generally accepted standards current utilized by the County of Los Angeles, the State of California and originally developed by the County of Santa Barbara.

Risk is determined through an examination of the combination of the potential frequency of a series of events occurring and the potential impacts of each of the events. For a hydrogen pipeline, the events would include ruptures and leaks from the pipelines, with the potential impacts being exposure to fires and flammable vapor clouds resulting in fatalities or serious injuries. Risk is further defined as either individual risk or societal risk. The individual risk expresses the risk that a single individual suffers a fatality or a serious injury. For this project, the individual risk levels are based on an analysis

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of the frequency of a release at a single point on the pipeline, in front of one of the schools for example, and the resulting potential for impacts at only that point.

Societal risk addresses the risk that anyone in the area of the project suffers a fatality or serious injury. For this project, the societal risk levels would be based on an analysis of the frequency of a release at any point along the entire pipeline route, summing the frequencies of the releases occurring in front of all of the schools for example, and the resulting potential for impacts at any of those points. Societal risk is more of a cumulative analysis whereas individual risk expresses the risk to a single individual without consideration of the total vulnerable population.

The Santa Barbara thresholds present a series of "screening" steps in order to determine if a detailed analysis should be conducted. The "screening" steps utilize the individual risk levels. Assessing individual risk is substantially less effort than conducting a detailed societal risk assessment, hence the "screening". The detailed analysis examines the societal risk. In order to ensure that impacts are less than significant, both the individual and societal risk assessments should present a less than significant impact as per the thresholds.

As this project would utilize pipelines that pass directly in front of seven schools, literally beneath child drop-off areas, both the individual and societal risk methods should be utilized and demonstrate that risk levels are acceptable for both individual and societal risk in order to determine if this project presents acceptable risk levels. The Santa Barbara thresholds are focused on the use of societal risk levels. CEQA, as per section 15003 and 15378, requires an EIR to examine "the whole of an action, not simply its constituent parts" in order to assess the impacts. Reviewing the entire pipeline through a detailed societal analysis, thereby addressing the combination of the potential individual risks at all of the schools, and other locations, along the route, addresses the CEQA requirement to assess the whole of the action and the Santa Barbara County risk thresholds comprehensive approach using a detailed analysis.

The Applicant has prepared an individual risk analysis addressing the potential individual risk levels. As per the screening risk approach in the Santa Barbara County thresholds, the individual risks would be less than significant. However, as the societal risk levels have not been examined, and, based on the results of the individual risk levels, the high density residential areas through which the pipeline would pass, the length of the pipeline and the number of schools located along the route, the societal risk would most likely present significant risk levels and would therefore be potentially significant.

The Air Products Carson facility currently transports hydrogen to the World Energy pilot plant facility in Paramount with trucks. Trucks can present a higher risk level than pipelines depending on the amount of throughput. If the entire proposed throughput of the proposed project were to be transported by truck, it would most likely present greater risk levels than transportation by pipeline. However, the Paramount World Energy project is currently proposing projects to expand the pilot project in Paramount, including the installation of a hydrogen production plant, which would thereby

supply all of the hydrogen needed in Paramount. At this point, therefore, the level of trucks that could be removed from the roadway is not certain, and any offsetting risk levels from reducing truck transport of hydrogen would be speculative and most likely be limited to only the current transportation levels utilized by the World Energy pilot plant. While this level of truck transport that could be removed from the roadway with this project would reduce the societal risk levels associated with the pipeline project, the resulting risk levels may still be potentially significant.

- 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?***

Potentially Significant. There are seven schools within one-quarter mile of the pipeline; six of these schools are adjacent to the pipeline, and one school is located 800 feet from the pipeline. The schools are associated with Long Beach Unified School District and Paramount Unified School District and are a mix of three elementary schools, two middle schools, and two high schools. Under normal, routine operation the pipeline would not emit hazardous materials. With the incorporation of automatic shutoff valves, the potential hazard zone from a pipeline rupture would be minimized but could still impact at least 6 schools along the pipeline route. Therefore, the hazard impact to a school is potentially significant even with the incorporated mitigation measure. A detailed risk assessment discussed above would indicate the extent to which the pipeline presents significant risk to the schools.

- d) ***Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code §65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

Less Than Significant. The pipeline route follows mainly roadways and existing utility rights-of-way. The pipeline route is not located in an area included on a government list of hazardous materials sites. However, environmental site assessments identified lead contaminated soils in excess of California Title 22 thresholds along approximately 1,100 linear feet of the proposed new pipeline segment. Soil contaminated with petroleum hydrocarbon potentially could be found along 500 feet of pipeline along the Dominguez Channel. Soils with a lead concentration exceeding California Title 22 thresholds would need to be handled by HAZWOPER-trained workers and disposed of at a licensed Class I hazardous waste facility; petroleum hydrocarbon-containing soil must be disposed of at a licensed disposal/recycling facility. As contaminated materials would be required to be handled appropriately by existing regulations and AQMD rules, the pipeline would have less than significant impact with regard to hazardous materials sites.

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

No Impact. The Project site for the new 0.5-mile segment of pipeline is not located within an airport land use plan or within two miles of a public airport. However, one segment of the pipeline route,

Segment 6 along Linden Avenue, is located approximately 1.8 miles from Long Beach Airport. Segment 6 is a segment of existing PPC pipeline that would not require construction activities for the Project. The pipeline should not produce any noise during normal operation. Therefore, no impacts associated with excessive construction related noise or safety hazards within an airport land use plan are anticipated.

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

Less Than Significant. Normal operation of the pipeline would not affect emergency response or evacuation plans. However, during the construction period, a Traffic Control Plan would be developed which would safeguard traffic flow and consider emergency routes. Alternative routes for emergency vehicles shall be identified that may be used to avoid construction areas. Therefore, the project would have a less than significant impact on any adopted emergency plans.

- 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 area is located in industrial, commercial, and residential zones. The Project area is not adjacent to wildlands nor is it located on lands classified as very high fire hazard severity zones. People and structures in the Project area would not be at risk of loss, injury, or death involving wildland fires. Therefore, no impacts associated with wildland fires are expected.

3.10 Hydrology and Water Quality

- a) *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*
- 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?*
- 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 a substantial erosion or siltation on- or off-site?*
- e) *Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

No Impact. Construction and operation of the proposed pipeline project would not significantly affect surface water or ground water in the project vicinity, nor would it conflict with plans regarding water quality control or groundwater management. The pipeline would be designed to have no effect

on the function of surface drainage, roadway drainage, culverts, and drainage channels along the route. The Project would utilize existing pipes within existing pipeline bridges to cross the Dominguez Channel in Carson and Los Angeles River in Long Beach. There is no water involved in normal operation of the pipeline. Therefore, there would be no substantial impact on water quality standards, groundwater supply, or drainage patterns. Therefore, the pipeline would have no impact on hydrology and water quality.

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:*

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. There would be no operational impact of the Project on runoff or stormwater drainage. However, there is potential for impacts to hydrology and water quality from construction related stormwater runoff in the Dominguez Channel and the Los Angeles River. As mentioned in Section VI e), activities during construction that would involve the use of water are:

- Dust control
- Hydrostatic testing

These activities would be organized to avoid water runoff and contamination. Water used for fugitive dust control and street washing, as a supplement to sweeping, would be limited to that necessary for the task to avoid unnecessary runoff. A SWPPP would be prepared for construction activities associated with the proposed Project. Used hydrostatic test water would be sent to the World Energy Facility for treatment or discharge, or alternatively discharged onsite, in accordance with applicable laws, ordinances, and regulations (LORS). Therefore, construction related impacts to stormwater drainage systems and runoff are expected to be less than significant.

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:*

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

iv) *impede or redirect flood flows?*

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

No Impact. The proposed pipeline project has no flood, tsunami, or seiche potential. There would be no risk of flooding, either on or offsite, due to an increase in surface runoff. Therefore, there is no impact associated with flood hazard zones.

3.11 Land Use and Planning

a) *Would the project physically divide an established community?*

No Impact. The pipeline is mainly underground except for the automatic shutoff valve stations and the pipeline bridges used to cross the Dominguez Channel, Los Angeles River, and Compton Creek. The Project would utilize 11.5 miles of existing pipeline, and the 0.5-mile of new pipeline would be constructed underground. Therefore, the pipeline would not divide an established community.

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

No Impact. The proposed pipeline route primarily extends within established utility routes utilizing private corridors and public roadways, and all areas of construction are zoned for industrial uses. The pipeline is consistent with the zoning and existing land uses in the area. Construction and operation of the pipeline would not conflict with general plan designation, zoning, or conservation plans. Therefore, the pipeline would have no impact on any land use plan.

3.12 Mineral Resources

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

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 would not result in the loss of availability of any mineral resources. Therefore, the project would have no impact on mineral resources.

3.13 Noise

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. Construction is expected to occur for approximately 20 weeks for the 0.5-mile of new pipeline construction and Carson Tie-In. Construction is expected to occur for approximately 8 weeks for the Paramount Facility Connection as well as the ASV sites and pipeline connections at Dominguez Station and South Street. In order to reduce construction related noise,

construction would mainly take place during daylight hours. The industrial zoning of all construction areas would allow for nighttime construction; however, it would be minimal. To further reduce noise, equipment engine covers shall be in place and mufflers shall be in good working condition. The federal Noise and Land Compatibility Matrix adopted by the City of Carson's General Plan considers noise ranging from 50-70 dB to be acceptable for industrial and manufacturing land uses, while 70-75 dB is considered conditionally acceptable. The construction area within the City of Long Beach for the pipeline connection is zoned primarily industrial and is not to exceed 65 dB. There are no sensitive receptors within 500 feet of any construction area. The pipeline should not produce any noise during normal operation; therefore, the project would generate no noise impacts during operation. Therefore, impacts regarding noise are expected to be less than significant.

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

No Impact. Normal operation of the pipeline would not generate vibrations. Ground-born vibration and ground-born noise levels from construction activities are expected to be minimal. Some ground vibrations may be associated with trenching, and boring activities. The perception threshold for ground-born vibration is a velocity of 0.01 inches per second. The Federal Transit Administration's 2006 Noise and Vibration Manual lists the threshold distance in feet for various types of construction equipment. For example, the feet to threshold distance could range from 11 feet to 711 feet for a small bulldozer or a pile driver, respectively. The use of a pile driver is unlikely for the pipeline project's associated construction activities; the more likely range for the perceived vibration threshold would extend from 11 feet to 190 feet for a vibratory roller. There are no sensitive receptors within 500 feet of any construction area. Therefore, no impacts from ground vibrations are expected.

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?*

No Impact. None of the construction sites for the proposed pipeline project are located within an airport land use plan or within the vicinity of a private airstrip. However, one segment of the pipeline route, Segment 6 along Linden Avenue, is located approximately 1.8 miles from Long Beach Airport. Segment 6 is a segment of existing PPC pipeline that would not require construction activities for the Project. Therefore, the segment of pipe located within the vicinity of an airport land use plan is not expected to have any impacts on the nearby airport. Therefore, there would be no impacts associated with airports.

3.14 Population and Housing

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

No Impact. Construction and operation of the proposed pipeline project would not involve the relocation of individuals, impact housing or commercial facilities, or change the distribution of the population. The construction work force would be expected to come from the existing labor pool in the Southern California area. Operation of the pipeline would not affect population and housing. Since no population growth or reduction is expected to arise from the proposed project, the housing needs are not expected to change as well. Therefore, no impacts to housing and population are expected.

3.15 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, including: fire protection, police protection, schools, parks, or other public facilities?*

No Impact. Both construction and operation of the proposed pipeline should have no impacts to public services. There would be no need for new or physically altered governmental facilities due to construction or operation of the pipeline. An increase in existing police or fire resources is not expected from either the construction activities or the operation of the pipeline system. It is not anticipated that the project would have any impact on schools, parks, or other public facilities other than traffic. Traffic impacts would be temporary and limited to the construction period. Therefore, the project would have no impact on public resources.

3.16 Recreation

- 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?*

No Impact. All construction activities associated with the proposed project would be within roadway and utility rights-of-way and would not interfere with use of existing recreational facilities. The Project

does not include recreational facilities or their construction. In addition, the proposed project would not result in changes in population or population densities, which could impact recreational facilities. Therefore, no impacts to recreation would be expected.

3.17 Transportation

- a) *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities*
- b) *Would the project conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?*

Less Than Significant. The pipeline route mostly utilizes private corridors and public roadways. The proposed pipeline route runs along the following roads:

- Sepulveda Boulevard;
- 223rd Street;
- Alameda Street;
- East Del Amo Boulevard;
- Linden Avenue;
- East Market Street;
- North Paramount Boulevard;
- South Street; and
- Downey Avenue

During operation of the pipeline, there would be no impact to transportation. Operation of the pipeline would not interfere or conflict with plans or policies regarding transit, roadway, bicycle, or pedestrian facilities. In addition, pipeline operation would not conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). Through the utilization of the APCI pipeline, rather than trucks, for the delivery of hydrogen gas, vehicle miles traveled would be reduced, thereby reducing impacts to transportation. Construction of the pipeline would affect traffic flow and circulation in the project vicinity. During construction of the pipeline, no roadways would be closed to all through traffic. A traffic and circulation plan specific to the pipeline route would be prepared and implemented for the Project. Therefore, impacts to transportation would be less than significant.

- 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 with Mitigation. Construction trenches would not be left open, but would be fenced, backfilled, or covered with steel plates at the end of the workday. Emergency response

providers shall be notified regarding the schedule and duration of construction activities. As required, alternative routes for emergency vehicles shall be identified that may be used to avoid construction areas. Pedestrian and bicycle circulation would potentially be impacted if the construction team blocked or disrupted established sidewalks or bicycle routes. Although the Project route crosses the Los Angeles River Bicycle Path along East Del Amo Boulevard in the City of Carson, there would be no impact to the bicycle path. Where existing sidewalks or roadways would be obstructed by pipeline construction activities, alternative pedestrian and vehicle access routes shall be developed and marked accordingly. Therefore, the impacts of substantially increased hazards due to design features would be less than significant with mitigation.

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

Less Than Significant with Mitigation. Pipeline construction could potentially inhibit emergency response by paramedic, fire, ambulance, and police vehicles. Emergency response providers in the vicinity of construction sites would be given advance notice of construction locations, road closures, and possible alternate routes. Mitigation measures would also include the use of signs, traffic cones, and flaggers in accordance with the Manual of Uniform Traffic Control Devices. Therefore, the impact to emergency access would be less than significant with mitigation.

3.18 Tribal Cultural Resources

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

- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or***
- ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?***

No Impact. The project would not cause a substantial adverse change in the significance of a tribal cultural resource. No historical or archaeological resources were identified along the proposed 0.5-mile pipeline in the City of Carson. Therefore, no impact to tribal cultural resources are expected.

3.19 Utilities and Service Systems

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?*

- 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?*
- 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. Construction and operation of the proposed pipeline project would not result in the need for new facilities or service systems, or substantial alterations to existing systems. Potential damage to other underground utilities during construction would be mitigated through consultation with a regional notification center such as Underground Service Alert, including a notification 48 hours prior to excavation so that utilities in the project vicinity can be marked. Mitigation would also include coordination with owners of existing substructures, non-mechanical digging nearby known substructures, and extensive use of potholing. Increased demand on utilities or service systems during the limited construction period would be small. Water for dust suppression and hydrostatic testing would be purchased from the local water district. Operation of the pipeline would not require water supply and would not create any waste. Therefore, there would be no impact to utilities and services.

- d) *Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less Than Significant. The construction of the pipeline would generate construction waste materials including short sections of pipe, waste from welding and coating, asphalt, concrete, and rubble. The non-hazardous waste materials would be transported to a landfill or recycled as feasible. Therefore, the project may have a negative impact on landfill capacities. Mitigation against waste generated by the project would include pre-construction planning and implementing waste reduction measures to the greatest extent possible, and recycling of construction wastes such as metals and applicable non-hazardous wastes, as feasible. Any contaminated soil encountered during construction shall be addressed pursuant to local, state, and federal regulations and in consultation with appropriate landowners. The volumes of waste generated from pipeline construction would normally be small and there would be no waste generated during operation of the pipeline. Therefore, the impact on landfill capacity would be less than significant.

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

No Impact. The pipeline project would comply with all federal, state, and local statutes and regulations related to solid waste. Therefore, there would be no impact.

3.20 Wildfire

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?*
- b) *Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- 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?*
- 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 route would initiate in the City of Carson and would terminate in the City of Paramount, California. The proposed pipeline would traverse the City of Los Angeles, County of Los Angeles, City of Long Beach, City of Lakewood, and City of Bellflower. The Project area is not located in or near state responsibility areas or lands classified as very high fire hazard severity zones. Therefore, impacts associated with wildfire risks are not expected.

3.21 Mandatory Findings of Significance

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

No Impact. The project does not have the potential to degrade the environment, or damage wildlife or plant species. As previously detailed in Section IV of this Environmental Checklist, the project would have no impact on biological resources.

- 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. Although impacts from the proposed project on air quality and human health were not found to be individually significant, these issue areas were found to have the following potential cumulative impacts based on information contained in this Initial Study:

Air Quality

The construction emissions from the hydrogen pipeline project would be below the SCAQMD significance threshold for construction activities as per section III b) of this checklist. The pipeline project would only result in air emissions during construction, so the emissions are only temporary. In addition, there are positive benefits attributed to the usage of reformulated fuels by mobile sources

which would be expected to outweigh some of the adverse impacts of other projects operating in the surrounding area, reducing the total cumulative impact on air quality to less than significant. Therefore, the cumulative impact on air quality from the hydrogen pipeline project is less than significant.

Human Health

The proposed hydrogen pipeline project and other cumulative projects are not expected to use large quantities of hazardous materials that would create a potential risk to public health and safety. When considered together, development of the proposed action and cumulative projects would not affect, interfere with, or alter the City's emergency evacuation routes. Therefore, the cumulative impact on human health of the hydrogen pipeline project is less than significant.

Therefore, the cumulative impacts of the hydrogen pipeline project would be less than significant.

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

Potentially Significant. The proposed pipeline would introduce a hazard to the route due to potential pipeline rupture (see Section IX of this Environmental Checklist). It should be emphasized that normal operation of the pipeline would not have any impact to human health, and that it is only in the unlikely event of an accidental pipeline rupture and release of hydrogen gas that there would be a possible risk to human health. Potential sources of pipeline failure include external impact (near construction projects, etc.), pipeline wall corrosion, or mechanical defects, among other issues.

The Applicant has developed modeling of potential releases from the proposed operations of the hydrogen pipeline. Impact distances from a rupture and subsequent fire would extend a maximum distance of 76 feet. Various design measures and safety features have been developed in order to help minimize the potential impacts associated with a potential pipeline rupture during operation; they are listed in detail in Section IX b) of this checklist. These measures and features include a telemetry system to provide notification in the event of a rupture, monitoring of the differential between input and output pressures at all times, ASVs to limit the size and duration of a potential release, and the installation and maintenance of line marker posts and warning signs to help the public and other excavators identify the pipeline.

The pipeline could still fail and potentially impact the public despite the implementation of these safety measures and design features. Currently, the City of Carson does not have specific risk-based thresholds to determine the significance of an accidental hazardous material release and subsequent impact. An individual risk analysis has been prepared by the Applicant to address the potential individual risk levels. As per the screening risk approach in the Santa Barbara County thresholds, the individual risks would be less than significant. However, as the societal risk levels have not been examined, and, based on the results of the individual risk levels, the high density residential areas through which the pipeline would pass, the length of the pipeline and the number of schools located

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along the route, the societal risk would most likely present significant risk levels and would therefore be potentially significant. Therefore, the Project has potentially significant impacts which could cause substantial adverse effects on human beings.

References

Air Quality Impact Assessment (2019) for Carson Pipeline Project prepared for Air Products and Chemicals, Inc. by Trinity Consultants.

Draft Initial Study (2009) for Torrance to El Segundo Hydrogen Pipeline prepared for Air Products and Chemicals, Inc. by Marine Research Specialists (MRS). For submittal to the City of Torrance.

Pipeline Safety Technical Report (2019) for Carson to Paramount Hydrogen Pipeline Project prepared for Padre Associates, Inc. by EDM Services, Inc.

Project Execution Plan (2019) for proposed Carson to Paramount Hydrogen Pipeline prepared for Air Products and Chemicals, Inc. by Padre Associates, Inc. For submittal to the City of Carson.

Ultramar SEIR (1994) Environmental Audit, Inc. Ultramar Inc. Wilmington Refinery Reformulated Fuels Program, Final Subsequent Environmental Impact Report. Prepared for South Coast Air Quality Management District, SCH No. 92111042, August 1994.