

**HELLMAN RANCH GAS PLANT PROJECT  
DRAFT INITIAL STUDY AND  
MITIGATED NEGATIVE DECLARATION**

**JUNE 2020**

**LEAD AGENCY:  
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## **A. Introduction**

This document provides an Initial Study and Mitigated Negative Declaration (MND) for the proposed Hellman Ranch Gas Plant Project. The Project would require a Conditional Use Permit (CUP) from the City of Seal Beach. The proposed Project requires compliance with environmental procedures (CEQA and CEQA Guidelines), with the City of Seal Beach serving as CEQA Lead Agency. The proposed Project would also require a Coastal Development Permit (CDP) from the California Coastal Commission.

The preparation of the Initial Study and MND is governed by two principal sets of documents: The California Environmental Quality Act (hereinafter “CEQA,” *California Public Resources Code* §21000, et seq.) and the CEQA Guidelines (*California Code of Regulations* §15000, et seq.). The environmental analysis presented in this document primarily focuses on the changes in the environment that would result from the proposed Project. The environmental analysis also evaluates all phases of the Project, including construction and operation.

In compliance with state law and procedures, the City has determined that an MND is the appropriate environmental compliance document for the proposed Project. The Initial Study checklist form and explanation discussion format meets the requirements of the CEQA. Section 15063(d)(3) requires that the entries on the Initial Study checklist identifying environmental effects be briefly explained to indicate that there is some evidence to support the entries. An Initial Study/MND is not intended or required to include a level of detail that would be provided in an EIR. Therefore, in compliance with CEQA and the CEQA Guidelines, the IS/MND is not intended to be a lengthy, detailed document.

The CEQA Initial Study Checklist form is provided in Appendix A. Certain documents are incorporated by reference into this Initial Study and MND pursuant to CEQA Guidelines §15150. These documents are included in the references listed in Section E of the document and are available for inspection at the City of Seal Beach offices. Several technical reports were used in developing the Initial Study/MND. These technical reports are included as Appendices, which are available in electronic format only on the attached CD.

## **B. Project Location and Surrounding Land Uses**

The proposed Project site is located just north of First Street in the City of Seal Beach on parcel APN 95-010-68. The proposed gas plant would be located on a 0.37 acre area within the existing Hellman Ranch Oil and Gas Production Facility (OGPF). The existing Hellman Ranch OGPF site is located east of the San Gabriel River, and north of Pacific Coast Highway in the City of Seal Beach and covers about 57 acres. Seal Beach is located in the northwest portion of the County of Orange. A "Regional Map" is provided as Figure 1. Hellman Properties, LLC owns and operates the OGPF on the Hellman Ranch in Seal Beach, California. A project area map is provided in Figure 2.

Figure 1 Regional Map

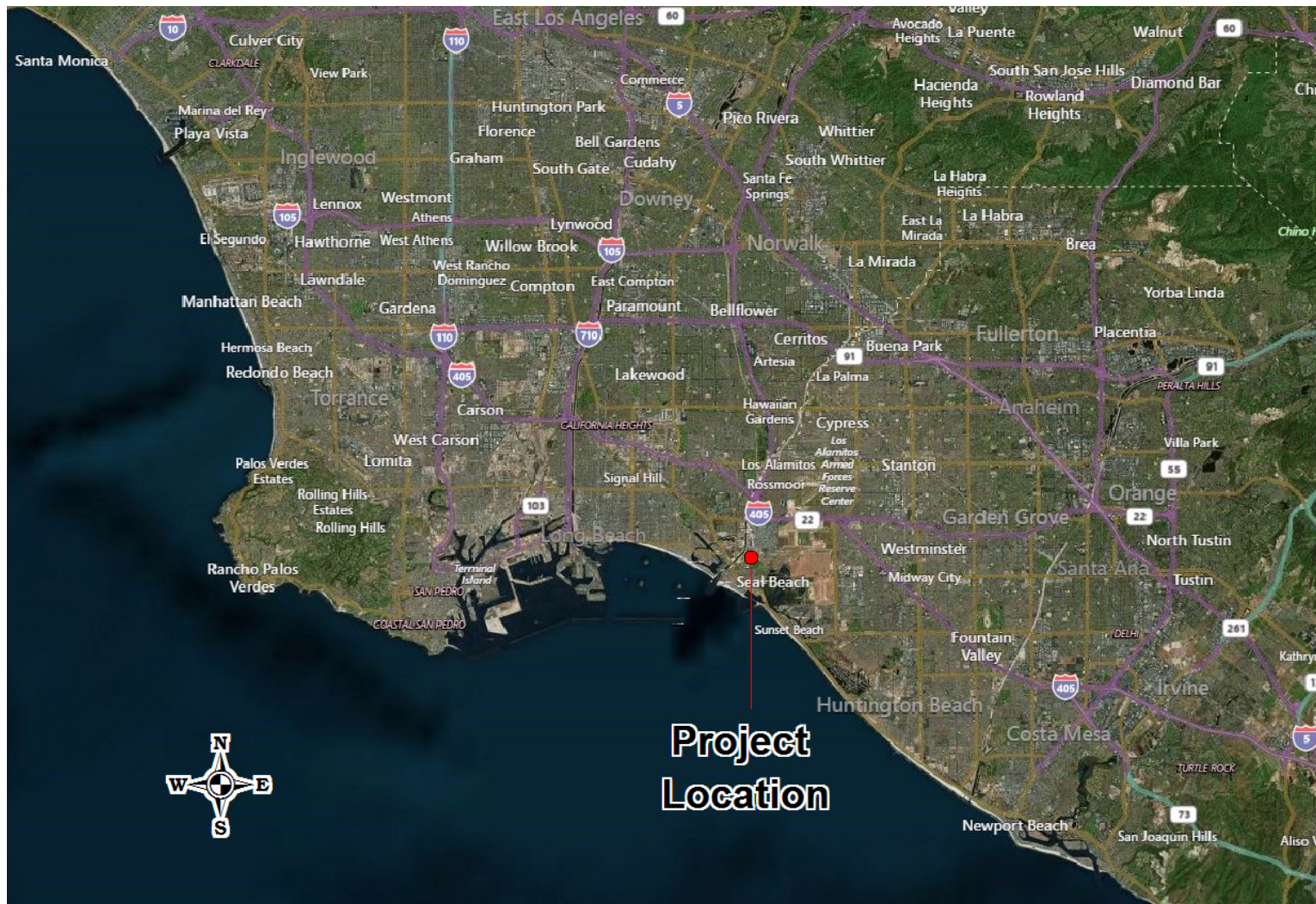




Figure 2 Project Area Map



Source: Hellman Properties, LLC, Project Description, November 2018

The Hellman Ranch property is zoned S.P.R. (Specific Plan Regulation). The Hellman Ranch Specific Plan (HRSP) was adopted by the City in October 1997. The HRSP provides for mineral production uses on portions of the property. The proposed gas plant would be located in Planning Area 9, which allows for oil and gas production and processing activities.

The property to the south of the proposed gas plant property is owned by the Los Cerritos Wetland Authority. This property is about 100 acres in size and is zoned open space-natural (OS-N). The property to the north of the proposed gas plant property is owned by the County of Orange and serves as a regional retention basin. This property is about 43 acres in size and is zoned open space-natural (OS-N). Offsite to the west of the proposed gas plant property is the Department of Water and Power Haynes Cooling Channel. On the far west side of the channel is property owned by the Los Cerritos Wetland Authority, which is about 71 acres in size covering both sides of the San Gabriel River. This property is located within the City of Long Beach. To the east of the proposed gas plant property site is a small open space area that contains the Hellman Ranch Trail. This area is zoned open-space natural (OS-N). Just to the east of this open space is residential housing comprised of all single-family homes. This area is zoned Residential Low Density-9 (RLD-9).

### **C. Project Description**

This section discusses (1) the existing oil and gas operations, and (2) the proposed gas plant project.

#### **1. Existing Mineral Production Operations**

The existing Hellman Ranch OGP has been in operation since the 1930's and consists of over 60 wells, oil and gas pipelines, offices, storage facilities, crude oil truck loading facilities, and a crude oil tank farm.

Currently the produced oil is treated at the site, placed in crude oil tanks, and then loaded on to trucks for shipment to local refineries. The gas produced from the production wells is shipped via pipeline to a joint gas processing facility located at the Beach Oil MAV LLC site<sup>1</sup> in Seal Beach. This gas processing facility is a joint venture and is used to process gas from several local oil and gas production sites. The processed gas is sold to Southern California Gas (SoCal Gas).

Some of the natural gas liquids (NGLs) produced as part of the gas processing operations at the Breitburn Energy Partners, LP site in Seal Beach are trucked back to the Hellman Ranch facility where they are blended with the crude oil. Figure 3 shows the location of the current gas processing site, the pipeline routes used to get the produced gas to the Seal Beach Gas Processing Joint Venture Gas Plant, and the location of the sales gas injection point for SoCal Gas.

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<sup>1</sup> Facility is operated by Synergy and is also known as the Alamitos Lease.



Figure 3 Existing Facility Map



Source: Hellman Properties, LLC, Project Description, November 2018. Aerial Source: Google Earth

## 2. Proposed Hellman Ranch Gas Plant Project

Hellman Properties, LLC is proposing to construct and operate a one million standard cubic foot per day (mmscfd) gas plant at their Hellman Ranch OGPF site in Seal Beach. The proposed gas plant has been designed with capacity to allow other users that currently process their gas at the Joint Venture facility to process their gas at the proposed gas plant. Existing pipelines are currently in place to deliver other gas to the proposed gas plant for processing.

The major pieces of equipment that would be needed for the gas plant are listed in Table 1.

**Table 1 Major Gas Plant Equipment Specifications**

| Equipment                                        | Quantity       | Dimensions                           | Power Use | Design Size     |
|--------------------------------------------------|----------------|--------------------------------------|-----------|-----------------|
| Gas Scrubbers                                    | 2              | 5' diameter x 24'H                   | NA        | 1,000 Mscfd     |
| Main Gas Compressors                             | 2 <sup>a</sup> | 22'L x 8'W x 7'10"H                  | 200 hp    | 1,000 Mscfd     |
| Recycle Compressors                              | 2 <sup>a</sup> | 20'L x 8'W x 7'6"H                   | 100 hp    | 420 Mscfd       |
| Pressure Swing Absorption Unit                   | 1              | 19'L x 7'6"W x 10'H                  | NA        | 1,000 Mscfd     |
| Microturbines                                    | 5 <sup>b</sup> | 32'L x 8'W x 13'H                    | NA        | 1,000 kW output |
| Absorption Chiller                               | 1              | 21'6"L x 7'9"W x 8'4"H               | 7 hp      | 859 MBtu/hr     |
| Air-Chilled Heat Exchangers                      | 1              | 21'L x 12"W x 13'H                   | 20 hp     | 859 MBtu/hr     |
| Main Gas Compressor Discharge Heat Exchangers    | 2 <sup>a</sup> | Included with Main Gas Compressor    | NA        | 657.6 MBtu/hr   |
| Recycle Gas Compressor Discharge Heat Exchangers | 2 <sup>a</sup> | Included with Recycle Gas Compressor | NA        | 201.4 MBtu/hr   |
| Switch Gear                                      | 1              | 15'L x 3'W x 10'H                    | NA        | NA              |
| Transformers                                     | 2              | 4'L x 3'6"W x 7'H                    | NA        | 1,500 KVA       |
| Sales Gas Compressor <sup>c</sup>                | 1 <sup>c</sup> | 10'L x 6'W x 5'H                     | 100 hp    | 673 Mscfd       |

a. One is a backup for use during downtime on the main unit.

b. Each microturbine unit has a design capacity of 200 kW.

c. Sales gas compressor would be located offsite at the SoCal Gas injection point (see Figure 2).

MBtu/hr – thousand british thermal units per hour.

Mscfd – thousand standard cubic feet per day.

KVA– kilo-volt-ampere

kW– kilowatts

Figure 4 shows the layout of the equipment at the proposed gas plant site. The proposed site for the gas plant has access to the existing gas pipelines and SCE powerlines.

Construction of the proposed gas plant would take about six to eight months to complete and involve several phases that include (1) Site Preparation and Grading; (2) Foundation Installation; (3) Equipment Installation; and (4) Paving and Finish Work.

The proposed gas plant would be used to process the gas produced from the onsite production wells. The gas plant would produce natural gas that would be sold to SoCal Gas, natural gas liquids (NGLs) that would be blended with the produced crude oil, and electrical power that would be used at the Hellman Ranch OGPF. A more detailed description of the proposed Gas Plant Project is provided in Appendix B.



Figure 4 Equipment Layout for the Proposed Gas Plant



Source: Hellman Properties, LLC, Project Description, November 2018. Aerial Source: Google Earth

## **D. Environmental Analysis**

The initial step in the City's environmental evaluation is the completion of an Environmental Checklist (also known as an "Initial Study") to identify known or potential impacts and eliminate environmentally irrelevant issues. After each issue listed on the checklist, the City has marked "Potentially Significant Impact," "Less Than Significant Impact with Mitigation Incorporated," "Less Than Significant Impact," or "No Impact" depending on the potential of the Project to have adverse impacts. The Environmental Checklist prepared for the proposed Project is presented in Appendix A of this environmental document.

The following discussion provides explanations for the conclusions contained in the Environmental Checklist regarding the proposed Project's environmental impacts.

### **1. Aesthetics**

The City of Seal Beach is a community located on the Pacific Ocean in northwest Orange County. The proposed Project would be located within the existing Hellman Ranch OGPF site. Pacific Coast Highway is the nearest state highway to the Project site, and views from Pacific Coast Highway would not be impacted by the Project. Gum Grove Park is the nearest public park and borders the eastern edge of the Hellman Ranch OGPF property. The proposed gas plant would be visible from Gum Grove Park. The topography of Hellman Ranch OGPF site is primarily flat terrain.

Would the Project:

#### **a) Have a substantial adverse effect on a scenic vista? (Less Than Significant Impact)**

The views from Gum Grove Park to the west look across the Hellman Ranch OGPF and in the distance are several large electrical generating stations. All the views are dominated by industrial type facilities. Figure 5 shows the current views from Gum Grove Park to the west. Figure 6 shows the views with a simulation of the proposed gas plant. The proposed gas plant would not substantially alter the views from Gum Grove Park and would be consistent with the current views of industrial facilities. Therefore, the Project will not result in a substantial adverse effect on a scenic vista.

#### **b) Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? (Less Than Significant Impact)**

See response to Item 1(a) above. The Project would not have a significant impact to any scenic resources such as trees, rock outcroppings, or historic buildings. No trees or rock outcroppings would be removed from the property as a result of the Project.

**Figure 5**      **Current View from Gum Grove Park**



Viewpoint from Gum Grove Park at 50mm focal length as a simulation of the eye view



**Figure 6**      **View from Gum Grove Park with Simulation of Gas Plant Facility**



Viewpoint from Gum Grove Park at 50mm focal length as a simulation of the eye view

The proposed Project would not alter any views in the area. Therefore, the Project will not result in any significant impacts for this topical area.

**c) Substantially degrade the existing visual character or quality of the site and its surroundings? (Less Than Significant Impact)**

The Project would not substantially impact the visual character or quality of the site and its surroundings since the location of the proposed gas plant would be within the boundaries of the existing Hellman Ranch OGPF, and local views are dominated by various industrial facilities (See Figure 5 and 6). Therefore, the proposed Project would not result in any significant impacts relative to visual character or quality of the site and its surroundings.

**d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? (Less Than Significant Impact with Mitigation Incorporated)**

The nighttime views from Gum Grove Park and the adjacent residential areas includes lighting from the existing Hellman Ranch OGPF equipment as well as the power plants. Lighting for the proposed gas plant would be directed and shielded so that light is directed away from wetlands, other sensitive habitat areas, and residential areas. None of the lighting would be skyward-casting, and all the lighting would be dark sky compliant. The lowest intensity lighting would be used that is appropriate to the intended use. Use of night lighting shall be avoided, except for intermittent use during facility maintenance and during any emergency. Therefore, the proposed Project would not result in any significant impacts relative to light or glare. To assure the impacts associated with lighting are less than significant the following mitigation measure is recommended.

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**Mitigation Measure AE-1** – Prior to issuance of a building permit, a Lighting Plan for the gas plant facility shall be prepared and submitted to the Community Development Department for review and approval. The Lighting Plan shall specify the location and type of exterior light sources and shall include that all lighting fixtures shall be shielded, downward-casting and dark sky compliant.

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## **2. Agriculture and Forestry Resources**

The Agriculture and Forestry Resources section of this environmental document evaluates the impact the proposed Project would have on farmland or forest resources.

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? (No Impact)**

The proposed Project does not involve conversion of any farmland. The proposed Project does not call for rezoning of farmland, nor is it currently zoned for agriculture. Therefore, the proposed Project would not have any impacts on agriculture and forest resources.

**b) Conflict with existing zoning for agricultural use, or a Williamson Act contract? (No Impact)**

See response to Item 2(a) above. The Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. The property is not under a Williamson Act contract. Therefore, no impacts to this topical area would occur as a result of the proposed Project.

**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))? (No Impact)**

The Project does not involve land that is considered forest land or timberland zoned for timberland production. It is a gas processing project that would occur within an existing oil and gas production site, which is zoned for oil extraction. Therefore, no impacts to this topical area would occur as a result of the proposed Project.

**d) Result in the loss of forest land or conversion of forest land to non-forest use? (No Impact)**

The Project is located in an existing oil and gas production facility and does not involve conversion of forest land to nonforest use. Therefore, no impacts to this topical area would occur as a result of the proposed Project.

**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? (No Impact)**

The proposed Project will not have any impact on farmland or agricultural uses. The Project site is within an existing industrial area. Therefore, the Project will not have any impact that could result in the conversion of property to non-agricultural use.

### **3. Air Quality**

The information and analysis presented in this section is based on the Air Quality Analysis dated November 2018 prepared by MRS Environmental, Inc. and Smittle & Associates, LLC. A copy of the Air Quality Analysis is provided in Appendix C. The analysis considers the requirements of the South Coast Air Quality Management District (SCAQMD) and the potential impacts of the Project on local and regional air quality.

Would the Project:

**a) Conflict with or obstruct implementation of the applicable air quality plan? (Less Than Significant Impact)**

The Project site is located in the South Coast Air Basin (SCAB). The Federal Clean Air Act (1977 Amendments) required that designated agencies in any area of the nation not meeting national clean air standards must prepare a plan demonstrating the steps that would bring the area into compliance with all national standards. The SCAB could not meet the deadlines for ozone, nitrogen dioxide, carbon monoxide, or PM<sub>10</sub>. In the SCAB, the agencies designated by the governor to develop regional air quality plans are the SCAQMD and the Southern California Association of Governments (SCAG). The two agencies first adopted an Air Quality Management Plan (AQMP) in 1979 and revised it several times, because earlier attainment forecasts were shown to be overly optimistic.

The 1990 Clean Air Act Amendment (CAAA) required that all states with airsheds with “serious” or worse ozone problems submit a revision to the State Implementation Plan (SIP). Amendments to the SIP have been proposed, revised, and approved over the past decade. The most current regional attainment emissions forecast for the ozone precursor NO<sub>x</sub> and particulate matter are shown in Table 2 below. Substantial reductions in emissions of NO<sub>x</sub> are forecast to continue throughout the next several decades. Unless new particulate control programs are implemented, PM<sub>10</sub> and PM<sub>2.5</sub> are forecast to slightly increase.

**Table 2 South Coast Air Basin Emissions Forecasts (tons per day, annual average)**

| Pollutant         | 2015 | 2020 | 2025 | 2030 | 2035 |
|-------------------|------|------|------|------|------|
| VOC               | 429  | 400  | 393  | 393  | 391  |
| NO <sub>x</sub>   | 451  | 357  | 289  | 266  | 257  |
| SO <sub>x</sub>   | 18   | 17   | 17   | 18   | 20   |
| DPM               | 7    | 5    | 4    | 4    | 4    |
| PM <sub>2.5</sub> | 67   | 67   | 68   | 70   | 71   |
| PM <sub>10</sub>  | 155  | 161  | 165  | 170  | 172  |

Source: California Air Resources Board Almanac, 2013.

The Air Quality Management District (AQMD) adopted an updated clean air “blueprint” in March 2017. The 2016 Air Quality Management Plan (AQMP) outlined the air pollution measures needed to meet federal health-based standards for ozone no later than 2031 and for particulates (PM<sub>2.5</sub>) by no later than 2025. The Federal Clean Air Act requires that non-attainment air basins have EPA-approved attainment plans in place. AQMPs are required to be updated every 3 years. The current attainment deadlines for all federal non-attainment pollutants are provided in Table 3.

The proposed Project relates to the AQMP in that there are specific air quality programs or regulations governing oil and gas production projects. The proposed Project would need to comply with all the applicable SCAQMD rules and regulations.

Also, the proposed Project would not increase the amount of gas currently being processed. It would just transfer existing gas processing to a more energy efficient plant that would meet higher

air quality control standards, thereby reducing the overall emissions associated with processing the gas from the Hellman Ranch OGPF.

**Table 3 Attainment Deadlines for Federal Non-Attainment Pollutants**

| Standard                       | Concentration        | Classification | Latest Attainment Year |
|--------------------------------|----------------------|----------------|------------------------|
| 2008 8-hour Ozone              | 75 ppb               | Extreme        | 2031                   |
| 2012 Annual PM <sub>2.5</sub>  | 12 µg/m <sup>3</sup> | Moderate       | 2021                   |
|                                |                      | Serious        | 2025                   |
| 2006 24-hour PM <sub>2.5</sub> | 35 µg/m <sup>3</sup> | Serious        | 2019                   |
| 1997 8-hour Ozone              | 80 ppb               | Extreme        | 2023                   |
| 1997 1-hour Ozone              | 120 ppb              | Extreme        | 2022                   |

Source: SCAQMD Final 2016 AQMP, March 2017.

The Project will not conflict with or obstruct implementation of the South Coast Air Basin's Air Quality Management Plan. Therefore, less than significant impacts will occur in this issue area.

**b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard? (Less Than Significant Impact with Mitigation Incorporated)**

The SCAQMD has established CEQA threshold to assess the impacts of a project on air quality within the SCAB. These SCAQMD thresholds have been used to assess the significance of the air quality impacts associated with the proposed Project.

**Construction Activity Impacts**

CalEEMod was used to estimate the construction emission for the proposed Project. The CalEEMod output files are provided in Appendix C, as part of the Air Emission Report. Table 4 provides a summary of the peak day construction emissions for each phase. Table 5 provides the total construction emissions by phase. None of the construction emissions would exceed the SCAQMD CEQA construction thresholds, or the localized thresholds.

**Table 4 Peak Day Construction Emissions by Phase**

| Construction Phase                                | Peak Day Emissions, lbs/day |                 |               |                 |                  |                   |
|---------------------------------------------------|-----------------------------|-----------------|---------------|-----------------|------------------|-------------------|
|                                                   | VOC                         | NO <sub>x</sub> | CO            | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Site Preparation/Grading                          | 3.780                       | 42.146          | 21.237        | 0.068           | 2.273            | 1.606             |
| Foundation Installation                           | 2.047                       | 18.396          | 16.981        | 0.036           | 1.130            | 0.837             |
| Equipment Installation                            | 5.036                       | 32.327          | 29.139        | 0.051           | 2.221            | 1.791             |
| Paving and Finish Work                            | 0.765                       | 7.430           | 6.236         | 0.013           | 0.513            | 0.354             |
| <b>Max Peak Day</b>                               | <b>5.036</b>                | <b>42.146</b>   | <b>29.139</b> | <b>0.068</b>    | <b>2.273</b>     | <b>1.791</b>      |
| <b>SCAQMD CEQA Thresholds</b>                     | <b>75</b>                   | <b>100</b>      | <b>550</b>    | <b>150</b>      | <b>150</b>       | <b>55</b>         |
| <b>Exceed Threshold?</b>                          | <b>No</b>                   | <b>No</b>       | <b>No</b>     | <b>No</b>       | <b>No</b>        | <b>No</b>         |
| <b>Localized Thresholds (lbs/day)<sup>1</sup></b> |                             | <b>93</b>       | <b>738</b>    |                 | <b>13</b>        | <b>5</b>          |
| <b>Exceed Localized Thresholds?</b>               |                             | <b>No</b>       | <b>No</b>     |                 | <b>No</b>        | <b>No</b>         |

1. Localized Thresholds based upon SCAQMD Lookup Tables, for North Coastal Orange County, 1- acre site, 50 meters to property boundary. Localized emissions thresholds do not include mobile emissions.

Construction emission estimates calculated using CalEEMod Version: CalEEMod.2016.3.2.

See Appendix C for detailed calculations.



**Table 5 Total Construction Emission by Phase (tons)**

| Construction Phase       | VOC          | NO <sub>x</sub> | CO           | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|--------------------------|--------------|-----------------|--------------|-----------------|------------------|-------------------|
| Site Preparation/Grading | 0.113        | 1.268           | 0.636        | 0.002           | 0.021            | 0.047             |
| Foundation Installation  | 0.020        | 0.185           | 0.169        | 0.000           | 0.004            | 0.008             |
| Equipment Installation   | 0.188        | 1.215           | 1.093        | 0.002           | 0.018            | 0.065             |
| Paving and Finish Work   | 0.004        | 0.037           | 0.031        | 0.000           | 0.001            | 0.002             |
| <b>Total Tons</b>        | <b>0.325</b> | <b>2.705</b>    | <b>1.929</b> | <b>0.004</b>    | <b>0.044</b>     | <b>0.121</b>      |

Construction emission estimates calculated using CalEEMod Version: CalEEMod.2016.3.2.

See Appendix C for detailed calculations.

### Operational Impacts

The sources of operational emissions would be combustion of gas in the microturbine and fugitive hydrocarbon emissions from some of the equipment. Table 6 provides a summary of the peak day criteria pollutant emissions associated with the operation of the facility and includes both onsite and offsite mobile sources.

**Table 6 Peak Day Operational Criteria Pollutant Emissions**

| Source                                            | Peak Day Emissions, lbs/day |                 |               |                 |                  |                   |
|---------------------------------------------------|-----------------------------|-----------------|---------------|-----------------|------------------|-------------------|
|                                                   | VOC                         | NO <sub>x</sub> | CO            | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Microturbine                                      | 2.400                       | 9.600           | 26.400        | 0.089           | 1.284            | 1.284             |
| Fugitive Emissions                                | 4.001                       | 0.000           | 0.000         | 0.000           | 0.000            | 0.000             |
| Offsite Mobile Sources                            | 0.006                       | 0.283           | 0.095         | 0.000           | 0.002            | 0.002             |
| <b>Totals</b>                                     | <b>6.406</b>                | <b>9.883</b>    | <b>26.495</b> | <b>0.089</b>    | <b>1.286</b>     | <b>1.286</b>      |
| <b>SCAQMD CEQA Thresholds</b>                     | <b>55</b>                   | <b>55</b>       | <b>55</b>     | <b>150</b>      | <b>150</b>       | <b>55</b>         |
| <b>Exceed Threshold?</b>                          | <b>No</b>                   | <b>No</b>       | <b>No</b>     | <b>No</b>       | <b>No</b>        | <b>No</b>         |
| <b>Localized Thresholds (lbs/day)<sup>1</sup></b> |                             | <b>738</b>      | <b>93</b>     |                 | <b>4</b>         | <b>2</b>          |
| <b>Exceed Localized Thresholds?</b>               |                             | <b>No</b>       | <b>No</b>     |                 | <b>No</b>        | <b>No</b>         |

1. Localized Thresholds based upon SCAQMD Lookup Tables, for North Coastal Orange County, 1-acre site, 50 meters to property boundary.

2. Note: localized emissions thresholds do not include mobile emissions.

None of the operational emissions would exceed the SCAQMD CEQA operational thresholds, or the localized thresholds. Table 7 provides the annual operational emissions for the gas plant and includes onsite and mobile offsite sources.

**Table 7 Annual Operational Emissions**

| Source                 | VOC          | NO <sub>x</sub> | CO           | SO <sub>2</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
|------------------------|--------------|-----------------|--------------|-----------------|------------------|-------------------|
| Microturbine           | 0.438        | 1.752           | 4.818        | 0.016           | 0.234            | 0.234             |
| Fugitive Emissions     | 0.730        | 0.000           | 0.000        | 0.000           | 0.000            | 0.000             |
| Offsite Mobile Sources | 0.000        | 0.007           | 0.003        | 0.000           | 0.000            | 0.000             |
| <b>Totals</b>          | <b>1.168</b> | <b>1.759</b>    | <b>4.821</b> | <b>0.016</b>    | <b>0.234</b>     | <b>0.234</b>      |

See Appendix C for detailed emission calculations.

The microturbine and fugitive emissions would contain air toxic components. The estimated daily air toxic emissions from operation are provided in Table 8.

**Table 8 Toxic Air Contaminants (TAC) Emissions**

| Microturbine                             |                                              |                                                 |                                            |
|------------------------------------------|----------------------------------------------|-------------------------------------------------|--------------------------------------------|
| TAC Pollutant                            | Emission Factors<br>(lbs/mmscf) <sup>1</sup> |                                                 | Max Emission Rate<br>(lbs/hr) <sup>1</sup> |
| Acetaldehyde                             | 4.30E-03                                     |                                                 | 3.42E-05                                   |
| Acrolein                                 | 2.70E-03                                     |                                                 | 2.15E-05                                   |
| Ammonia                                  | 3.20E+00                                     |                                                 | 2.54E-02                                   |
| Benzene                                  | 8.00E-03                                     |                                                 | 6.36E-05                                   |
| Ethyl Benzene                            | 9.50E-03                                     |                                                 | 7.55E-05                                   |
| Formaldehyde                             | 1.70E-02                                     |                                                 | 1.35E-04                                   |
| n-Hexane                                 | 6.30E-03                                     |                                                 | 5.01E-05                                   |
| Polycyclic Aromatic<br>Hydrocarbon (PAH) | 1.00E-04                                     |                                                 | 7.95E-07                                   |
| Naphthalene                              | 3.00E-04                                     |                                                 | 2.39E-06                                   |
| Toluene                                  | 3.66E-02                                     |                                                 | 2.91E-04                                   |
| Xylenes (Mixed Isomers)                  | 2.72E-02                                     |                                                 | 2.16E-04                                   |
| Fugitives                                |                                              |                                                 |                                            |
| TAC Pollutant                            | Emission Factor<br>(lbs/lb VOC) <sup>2</sup> | Fugitive Emissions<br>(lbs VOC/hr) <sup>3</sup> | Emission Rate<br>(lbs/hr)                  |
| Benzene                                  | 1.00E-03                                     | 1.67e-01                                        | 1.67e-04                                   |

1. Emission Factors and max emission rate from SCAQMD risk tool-(v1-1)-r102617---aqmd-procedure-8-1.xlsm for boilers.
2. Emission Factor from CARB organic profile data in orgprofile19oct16.xlsx for profile #s 756, 757, and 758.

Air toxic emission present potential health risk to nearby residences and other receptors such as commercial development. The SCAQMD has developed several tools for evaluating the health risk associated with air toxic emissions. The SCAQMD risk tool was used to estimate the level of risk associated with the air toxic emissions. The analysis was done using the Tier 1 screen method, which is the most conservative. The Tier 1 screening analysis results are presented in Table 9. The results show that the risk levels would be below the application screening index (ASI) for both cancer/chronic and acute. Levels below an ASI of one assures that the proposed Project would not exceed a cancer risk of one in a million, and a chronic hazard index (CHI), 8-hour Chronic Hazard Index (HIC8), nor the total Acute Hazard Index (HIA) of one.

**Table 9 Air Toxic Risk Estimates (Tier 1 Screening)**

| <b>Item</b>               | <b>Cancer/Chronic<br/>ASI<sup>1</sup></b> | <b>Acute ASI<sup>1</sup></b> |
|---------------------------|-------------------------------------------|------------------------------|
| Microturbine              | 2.91E-01                                  | 1.55E-02                     |
| Fugitives                 | 3.28E-01                                  | 4.47E-03                     |
| Totals                    | 6.19E-01                                  | 2.00E-02                     |
| <b>SCAQMD Threshold</b>   | <b>1</b>                                  | <b>1</b>                     |
| <b>Exceeds Threshold?</b> | <b>No</b>                                 | <b>No</b>                    |

1.ASI=Application Screening Index  
Risk number calculated from SCAQMD risktool-(v1-1)-r102617---aqmd-procedure-8-1.xlsm for boiler.

### **Air Quality Mitigation**

Construction activities are not anticipated to cause dust emissions to exceed SCAQMD CEQA thresholds. Nevertheless, mitigation through enhanced dust control measures is recommended for use because of the non-attainment status of the air basin and because of the proximity of existing homes. Similarly, ozone precursor emissions (ROG and NO<sub>x</sub>) are calculated to be below SCAQMD CEQA thresholds during construction and operation. However, because of the non-attainment for photochemical smog, the use of reasonably available control measures for diesel exhaust is recommended for construction equipment. Recommended mitigation includes:

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**Mitigation Measure AQ-1** – During construction activities, the contractor shall ensure that measures are complied with to reduce short-term (construction) air quality impacts associated with the Project: a) controlling fugitive dust by regular watering or other dust palliative measures (such as covering stock piles with tarps) to meet South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust); b) maintaining equipment engines in proper tune and use Tier-4-rated heavy equipment; c) enforce 5-minute idling limits for both on-road trucks and off-road equipment; d) provide water spray during loading and unloading of earthen materials; e) cover all trucks hauling dirt, sand or loose material or require all trucks to maintain at least two feet of freeboard; and f) sweep streets daily if visible soil material is carried out from construction site.

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**c) Expose sensitive receptors to substantial pollutant concentrations? (Less Than Significant Impact)**

See response to Item 3(b) above and recommended mitigation in compliance with the SCAQMD for short-term construction related impacts. Based upon the analysis presented for Item 3(b) above the proposed Project's impacts on sensitive receptor would be less than significant.

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

The proposed gas plant would generate fugitive emissions that contain various hydrocarbons as shown in Table 8 above. However, the produced gas does not contain hydrogen sulfide, which can be a major source of odors. The existing Hellman Ranch OGP is subject to SCAQMD Rule 1173, which covers fugitive emissions of volatile organic compounds. This rule is intended to control volatile organic compounds leaks from valves, fittings, pumps, compressors, pressure relief devices, diaphragms, hatches, sightglasses, and meters at oil and gas production fields and natural gas processing plants. The proposed gas plant would be subject to the requirements of SCAQMD Rule 1173, which would serve to minimize fugitive emissions. The SCAQMD has not had any odor complaints related to the Hellman Ranch OGP over the past 20 years. The project would be required to comply with SCAQMD Rule 402 (Nuisance). Therefore, the proposed Project will not result in any significant impacts of objectionable odors affecting a substantial number of people.

#### 4. Biological Resources

The Project site has been previously graded as part of past oil and gas development projects. The area that would require surface disturbance for the proposed Project would be about 0.37 acres. Recent biological surveys of the proposed gas plant site were conducted, and a recent wetland delineation of the site was prepared. The wetland delineation found that neither the 0.37-acre gas plant site nor the areas within the 100-foot buffer support wetlands as defined under the Coastal Act.

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

##### Special-Status Plants

Three individuals of southern tarplant *Centromadia parryi* ssp. *australis*), a California Rare Plant Rank (CRPR) List 1B taxon, were detected at the northwest limits of the 0.37-acre gas plant site during focused surveys, and therefore, construction would impact each of the three individuals. The area is highly disturbed, dominated by non-native five-hook bassia, and does not exhibit native-habitat functions. It is also important to note that southern tarplant is highly adapted to disturbance as evidenced by the occurrence of three individuals within the highly disturbed gas plant site. The loss of the three tarplant individuals from such a highly disturbed area would be a less than significant impact.

No other special-status plants were detected within the proposed Project area and none are expected to occur.

##### Special-Status Animals

No candidate, sensitive, or special status animal species identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service were detected on the site and the site does not exhibit suitable habitat for such species. Thus, there would be no significant impacts to special-status animal associated with the proposed Project.

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

Development of the proposed Project would result in direct impacts to three vegetation/land use types totaling 0.37 acres as shown in Table 10. As none of the impacted vegetation types are considered special-status by either CDFW or the CEQA Thresholds Guide, impacts would be less than significant.

**Table 10**      **Summary of Impacts to the Proposed Project Vegetation/Land Use Types**

| <b>Vegetation/Land Use Type</b>                                    | <b>Area (Acres)</b> |
|--------------------------------------------------------------------|---------------------|
| <i>Bassia hyssopifolia</i> Non-Native Herbaceous Stands            | 0.20                |
| <i>Distichlis spicata</i> herbaceous alliance (salt grass patches) | 0.003               |
| Developed                                                          | 0.00                |
| Dirt Road and Staging Area                                         | 0.17                |
| <b>Total Vegetation/Land Use Acreage</b>                           | <b>0.37</b>         |

- 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? (No Impact)**

No features subject to the jurisdiction of the Corps, CDFW, RWQCB, or wetlands defined under the California Coastal Act (CCA) are present within the Proposed Project. Thus, there would be no impacts to state or federal wetlands.

- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? (No Impact)**

The Project site is not within a wildlife corridor. Thus, the Project would not result in a significant impact to regional wildlife migration or local movement corridors.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? (No Impact)**

The Project would not conflict with any local policies or ordinances protecting biological resources. With regards to potential environmentally sensitive habitat area (ESHA), the Coastal Act Section 30107.5 defines an ESHA as:

*...any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.*

Since the land cover on the gas plant site consists of *Bassia hyssopifolia* non-native herbaceous vegetation, small salt grass patches, developed areas, dirt roads, and staging areas, the site does not constitute ESHA and thus construction of the gas plant would not directly affect ESHA. Similarly, areas within the 100-foot buffer/Study Area consist of active oil extraction, including active wells, oil field infrastructure, and staging and equipment storage areas within a mosaic of non-native vegetation. As such, there would be no indicted impacts on ESHA.



**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? (No Impact)**

The project site is not within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

**5. Cultural Resources**

This section analyzes impacts on historical and archeological resources in the Project site. Section 18 discuss the potential impacts of the proposed Project on Tribal Cultural Resources. The Project site has been previously graded as part of past oil and gas development projects. The area that would require surface disturbance for the proposed Project would be about 0.37 acres.

Would the Project:

**a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5? (Less Than Significant Impact)**

A records search failed to indicate the presence of any listed National Register of Historic Places or properties within a half-mile radius of the proposed Project area. Additionally, no California Historical Landmarks or California Points of Historical Interest properties were identified on the site or vicinity. The California State Historic Resource Inventory (HRI) lists no buildings in the vicinity that have been previously evaluated for historical significance. However, as discussed in section 5(b) below, archaeological sites eligible for the California Register of Historical Resources (CRHR) may be present on the Hellman Ranch OGPf property. Sites eligible for the CRHR are considered historical resources under CEQA. As discussed in Response 5(b) below, implementation of Mitigation Measure CR-1 would reduce the potential impact below the level of significance.

**b) Cause a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5? (Less Than Significant Impact with Mitigation Incorporated)**

Many archeological investigations have been conducted on the Hellman property over the past 50 years. Many of these were conducted as part of planning for residential development. The most recent archeological investigation was done in 2006 as part of the Tank Farm Replacement Project. The tank farm site is located a few hundred feet from the location of the proposed gas plant.

Of the numerous archaeological investigations in the Hellman Ranch/Landing Hill area, four have included examination of the present project area. These are summarized below.

***Archaeological Associates (1980)***

In 1980, all the northwestern portion of Landing Hill and the adjacent lowlands on the Hellman property were surveyed by Archaeological Associates. They relocated several of the known sites along the top and sides of Landing Hill, along with three deposits of marine shell within the present survey area. Of these, two (identified as Area 3 and Area 4) were interpreted as disturbed cultural deposits, while one (Area D) was identified as a natural deposit. Area 3 and Area 4 were described as thin and disturbed scatters of marine shell and were later assigned the permanent designations of CA-ORA-850 and CA-ORA-851. An extensive shell scatter, Area A, was noted just south of the present survey area.

***LSA Associates (Rosenthal and Padon 1990)***

In 1990, LSA Associates (LSA) conducted archaeological survey and subsurface testing on the Hellman property in conjunction with a planned residential development. Their initial survey covered the entire Hellman property and included reexamination of CA-ORA-850 and CA-ORA-851. They found no cultural materials associated with CA-ORA-850 and noted that the Archaeological Associates maps seem to indicate that most of the site lies to the north of the Hellman property. At CA-ORA-851, they observed several shellfish fragments and noted that the area was heavily disturbed by oil field activities.

***Environmental Research Archaeologists (Stickel 1996)***

The property was again completely resurveyed in 1996 by Environmental Research Archaeologists during an early phase of the development planning for the Hellman property. CA-ORA-850 and CA-ORA-851 were reexamined to provide additional data on surface densities. Stickel (1996) measured CA-SDI-850 at 5 by 15 meters and quantified surface materials within a single 1-by-1-m grid, finding 20 fragments. Stickel's examination of CA-SDI-851 revealed surface shell densities of between 1 and 23 fragments per square meter in a site area measuring 46 by 33 meters. Stickel also noted a single core of jasper at the site.

***EDAW, Inc. (York 2004)***

As part of the Tank Farm Replacement Project, the Hellman property was reexamined by York and Willey (2004), who identified three shell deposits (HTF-1, -2, and -3) and provided updated information on the conditions of CA-ORA-850 and CA-ORA-851. A fourth shell deposit (HTF-4) was also noted immediately south of the tank farm area and determined to be artificial fill. Site CA-ORA-850 located at the northern corner of the Hellman property, was described as a low density scatter of scallop and Venus clam shell distributed in an area measuring 74 by 45 meters. Examination of the recorded location of CA-ORA-850 during this study effort revealed only a few scattered pieces of shell in disturbed contexts.

Site CA-ORA-851 located at the east end of the Hellman Property, was originally described as a low density scatter of scallop and Venus clam shell in an area measuring about 35 by 46 meters. This study found a very thin scatter within a disturbed context. The scatter was somewhat larger than originally recorded, however, with additional shells observed to the southwest of the original

site. Maximum density of the shells was about three per square meter. This location has experienced extensive discing activity to remove the heavy vegetation and the area was covered with construction debris associated with the oil field activities.

### ***EDAW, Inc. (York 2006)***

In 2006, EDAW conducted an archeological investigation of the tank farm replacement site, which is located a few hundred feet from the proposed gas plant site. The study also looked at several locations where ground disturbance would occur due to pipeline installation activities. Pipeline trench #8 was in the area of the proposed gas plant site.

A total of 31 trenches were excavated in two areas: along the proposed new pipeline alignments (20 trenches) and in the area of the new tank farm (11 trenches). Excavated with a backhoe equipped with a 2-foot bucket, each trench measured about 10 meters in length. The trenches placed along the proposed pipeline alignments were excavated to depths of at least 120 cm, while those within the new tank farm area were excavated to approximately 200 cm. Excavation of each trench was closely observed by an archaeologist, who documented the stratigraphy and examined the spoil and sidewalls for evidence of cultural deposits. The excavations were also monitored by representatives of the Gabrielino/Tongva tribe.

The excavation of the trenches along the proposed new pipeline alignments and within the new tank farm area revealed that, although many locations have been heavily disturbed, intact natural sediments are present throughout most of the proposed Project area. Most trenches revealed that the upper 20 to 40 cm of the soils consist of a disturbed mixture of natural sediments and imported fill containing gravel, modern debris, and occasionally small amounts of shell. Below this overburden in most trenches were natural sediments consisting of varying strata of clay, silt, and sand deposited in the prehistoric and early historic wetland environments along the margin of Alamitos Bay.

The excavations revealed no intact archaeological deposits in any of the trenches. Small amounts of marine shell, a common component of prehistoric cultural sites near the coast, were noted in several of the trenches but appeared to be limited almost entirely to the disturbed upper portion that contained other fill materials. This pattern strongly suggests that the shells observed in the upper portions of these trenches and at various locations on the surface of the proposed Project area were incorporated into fill deposits that were emplaced during development of the area for oil and mineral production.

No prehistoric cultural materials, such as artifacts, modified animal bone, hearths, or human remains were encountered in any of the trenches. Historic materials, including metal, glass, wood, and fragments of bricks and cement, were similarly limited to the upper fill deposits and appear to relate solely to the ongoing operation of the oil and mineral facilities.

**Cultural Resources within Hellman Gas Plant Project Area**

A Cultural Resources Assessment (AECOM, 2019) was conducted for the proposed gas plant site. This assessment was conducted in accordance with Section 15064.5(a)(2)-(3) of the CEQA, and the guidelines, for preparation of archaeological reports by the Office of Historic Preservation. A copy of the cultural resources assessment is provided in Appendix D.

A records search of all areas encompassed by the Project Area of Direct Impact (ADI) and a 0.25-mile radius was conducted on August 21, 2019, at the South Central Coastal Information Center (SCCIC) at California State University at Fullerton. This review identified previous surveys and all known cultural sites within the records search areas, as well as information on previous evaluations for California Register of Historic Resources or National Register of Historic Places eligibility, historic maps on file with the SCCIC, and any historic addresses recorded within the records search area.

The records search identified seven cultural resources within the 0.25-mile-radius buffer radius of the proposed Project site. These resources include six prehistoric archaeological sites and one historic structure. Of the six archaeological sites, one consists of milling features with a scatter of groundstone or flaked stone artifacts; one is a groundstone scatter with a flaked lithic; one is a lithic and shell scatter, and three have midden deposits. Of these three midden sites, one also includes a shell scatter, and one a scatter of flaked stone and groundstone artifacts. The historic structure is a historic-period flood pump station. None of the resources were located within the Project ADI.

Testing done in 2006 by EDAW in a portion of the gas plant site found no evidence of cultural resources. Given the disturbed nature of the proposed Project site, it is unlikely that cultural resources would be found during the required excavation activities. However, given the culturally sensitive nature of the Hellman property and the surrounding areas the following mitigation measure should be implemented.

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**Mitigation Measure CR-1** – Prior to issuance of a grading permit an Archeological Monitoring and Unanticipated Discovery Treatment Plan shall be submitted to the Community Development Department for review and approval. The plan shall be prepared by a City approved archaeologist. The plans shall specify the monitoring procedures, the field and laboratory methods that would be used for treatment of unanticipated discoveries, and the requirements for Native American participation in the monitoring activities.

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**Mitigation Measure CR-2** –An archaeologist and Native American Monitor shall be present at the site during all ground disturbance activities.

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**c) Disturb any human remains, including those interred outside formal cemeteries? (Less Than Significant Impact)**

There are no known human remains within the proposed Project site. As discussed above, the proposed Project site has been previously disturbed and is located within a lowland area of the Hellman Ranch OGPF site, a context generally considered unsuitable for human burial. Therefore, it is unlikely that the proposed Project would disturb any human remains. Implementation of mitigation measure CR-1 above would address the procedures to be followed in the unlikely event that human remains are discovered during the earth moving activities.

**6. Energy**

The proposed gas plant project would use energy for both construction and operations. The main energy use for construction would be diesel fuel for construction equipment. The only energy use for operation would be electrical power.

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? (Less than Significant Impact)**

Most of the equipment needed for construction would use diesel fuel. Construction equipment would meet the Tier 4 standards, which means the equipment would be more fuel efficient. Implementation of mitigation measure AQ-1 that requires maintaining equipment engines in proper tune and enforcing a 5-minute idling limits for both on-road trucks and off-road equipment would serve to reduce energy use from construction.

All the equipment used for operating the proposed gas plant would be electrically driven, except for the microturbine. The microturbine would be used to generate the electrical power needed to operate the gas plant. The microturbine would be fueled by waste gas from the gas processing operations. The proposed gas plant would use high efficiency motors, that are more energy efficient than the current gas plant operations. This will serve to reduce the overall energy use associated with processing the Hellman Ranch OGPF gas over the current operations. Also, the proposed Project would eliminate the need to truck NGLs, which would reduce energy use over the baseline conditions.

Given all these facts, the proposed Project's impacts on consumption of energy resources would be less than significant.



**b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?  
(No Impact)**

The proposed Project is to construct a gas plant to process existing gas production. No new gas production would occur with this project since no new production or injection wells are proposed as part of the Project. As such the proposed Project would not obstruct any state or local plan for renewable energy, or energy efficiency.

**7. Geology/Soils**

A "Geotechnical Investigation Report - Hellman Gas Plant Expansion" was prepared by Wood Environmental & Infrastructure Solutions, Inc. (Wood) in July 2018. The primary purposes of this investigation were to characterize subsurface conditions at the site, evaluate foundation requirements, and develop design recommendations for the proposed gas plant. The findings and recommendations contained in the report are summarized below.

Field activities were conducted in April 2018 to obtain soil samples and to characterize the soils. The field work involved cone penetrometer testing and exploratory borings. Two mud-rotary boring and two hand auger holes were drilled. The two borings B-2 and B-4 were drilled to 40 feet and 60 feet depth, respectively. Hand-auger holes were drilled to 10 feet depth. Figure 7 shows the location of the cone penetrometer testing and exploratory borings on the gas plant site location.

Based on the laboratory tests, research of existing information, and analyses conducted, Wood concluded that the proposed gas plant project is feasible from a geotechnical standpoint, provided that recommendations in their report and appropriate construction practices are followed.

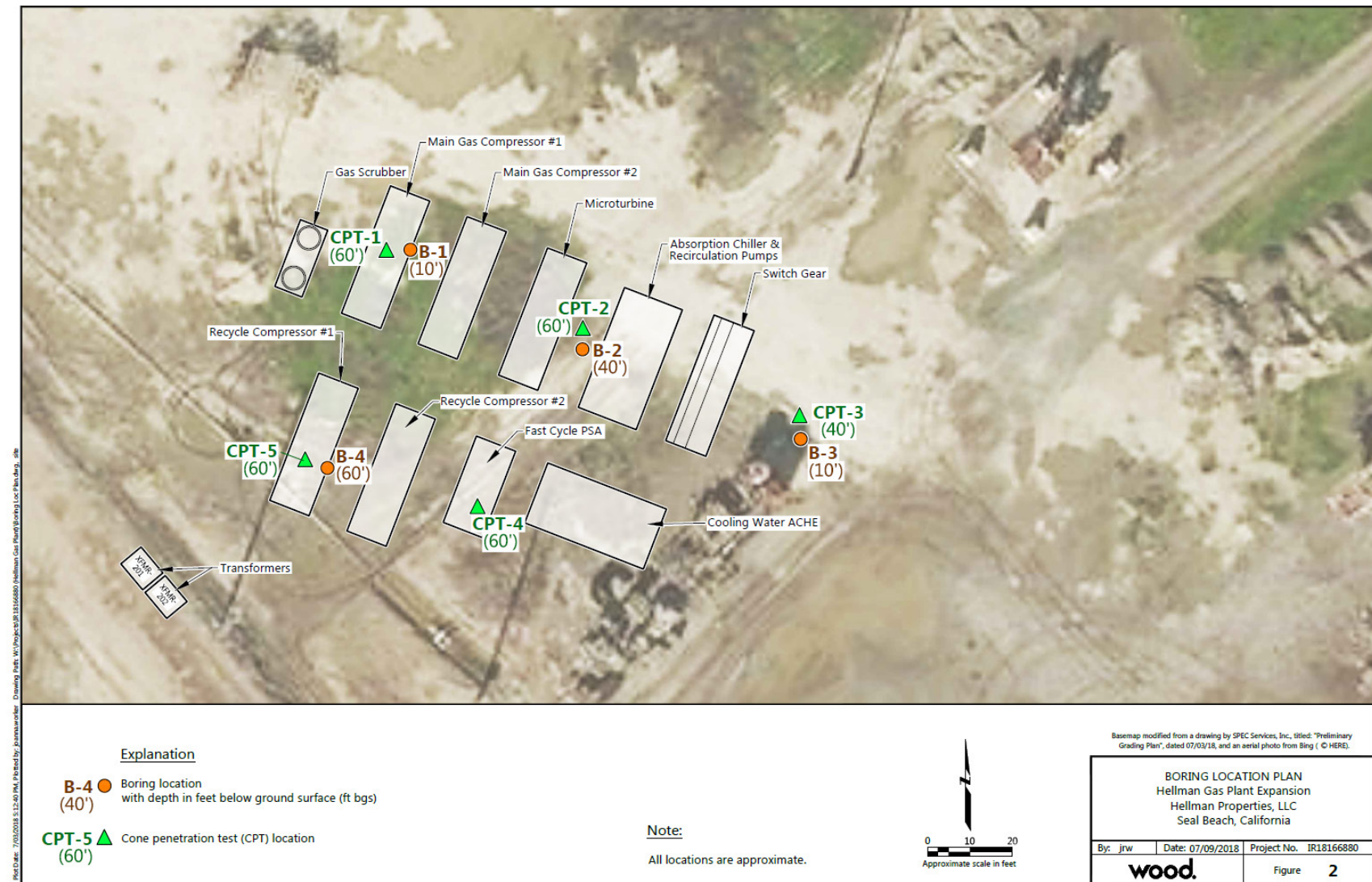
Earthwork for the proposed Project is anticipated to consist of over-excavating for the earth fill pad, placement of nonwoven geotextile separator fabric and crushed aggregate stabilization mat, placement of fill for construction of the earth fill pad.

All earthwork, including excavation, backfill and preparation of subgrade, would be performed in accordance with the geotechnical recommendations and applicable portions of the grading code of local regulatory agencies. All earthworks would be performed under the observation and testing of a qualified geotechnical engineer.

The key recommendations included in the geotechnical report for earthwork are summarized below.

- The earth fill pad should consist of a uniform thickness beneath the structures and provide at least three feet of separation between the mat or spread footing foundations and the native soft clays. This would require over excavation of the pad area to a depth of approximately one foot mean sea level (msl).

Figure 7 Location of Cone Penetrometer Testing and Exploratory Borings



Source: Geotechnical Investigation Report – Hellman Gas Plant Expansion, Wood, July 9, 2019.

- Nonwoven geotextile shall be placed at the bottom of the over-excavation as a separator fabric and placing a minimum of 8-inch thick open-graded crushed rock as a stabilization mat to place the compacted earth fill pad on.
- Engineered fill/backfill material should be placed on top of the open-graded crushed rock. General engineered fill/backfill material should be granular soils with less than 30 percent of fines, free of organic material, debris, and other deleterious substances, and not contain fragments greater than 3 inches in maximum dimension. The engineered fill material should have an Expansion Index (EI) less than 50 (i.e., low expansion potential per ASTM D 4829) and an R value greater than 30. All general engineered fill/backfill should be scarified, plowed, disked, and/or bladed until it is uniform in consistency and free of large, unbroken clods of soil.
- General engineered fill/backfill should be placed in horizontal lifts that do not exceed 8 inches in thickness before compaction and the moisture content of the material should be adjusted to between 0 and 3 percent above the optimum moisture content.
- General engineered fill/backfill should be compacted with suitable equipment to a relative compaction of at least 90 percent. The final surface of the compacted fill/backfill should be graded to promote good surface drainage.
- Imported crushed aggregate base or crushed miscellaneous base material may be used as part of top pavement section. These materials should meet the requirements in the Section 200 of the latest edition Greenbook.

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; (ii) Strong seismic ground shaking; (iii) seismic-related ground failure, including liquefaction; (iv) landslides? (Less than Significant Impact with Mitigation Incorporated)**
- i) All of Southern California, including the proposed Project site, is subject to the effects of seismic activity. The project itself will not expose people or structures to potential adverse effects, including the risk of loss, injury or death involving the rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction or landslides. However, the proposed Project must adhere to the City's adopted Building Code regulations that pertain to mitigating the potential effects of fault ruptures and ground shaking, or failures caused by a seismic event.

Wood reviewed the seismic hazard zone report by the Department of Conservation Division of Mines and Geology (DCDMG, 1998 – Los Alamitos Quadrangle) and Earthquake Zones of Required Investigation Los Alamitos Quadrangle map by California Geological Survey (CGS, 1999). Based on CGS (1999), the planned location for the expansion is within an area/zone identified by the State of California as being potentially susceptible to liquefaction induced ground deformation and within an area encompassing active faults that constitute a potential hazard to structures from surface faulting.

A soils report prepared by Medall Aragon, Worswick & Associates dated December 14, 1981, Project No. S1753C shows that the proposed location of the gas plant is approximately 300 feet away from the estimated location of the fault trace of the Newport Inglewood fault as noted on the map by Mendall Aragon, Worswick & Associates. However, no persons will reside on the site and all proposed structures would be required to be designed to meet Seismic Zone 4 standards per the appropriate section of the California Building Code at the time of construction.

The proposed Project will result in the exposure of people or property to geologic hazards, such as earthquakes, landslides, mudslides, ground failure, or similar hazards. However, this exposure is the same general exposure that all persons in Southern California are susceptible to, due to the high seismic activity level in the general region and will be no higher than under the current situation at the existing gas plant site. The proposed Project will not create a substantially increased exposure, due to the requirements placed upon all future structures at the time of construction.

- ii) See i) above.
- iii) The potential for liquefaction represents a significant impact unless mitigated by adhering to Mitigation Measure GS-1 described below.
- iv) The subject property does not have potential for failure or mudslide in case of seismic activity or other triggering mechanism, such as rainfall or runoff, therefore no such impact will occur.

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**Mitigation Measure GS-1** – The project proponent shall comply with all recommendations identified with the "Geotechnical Investigation Report - Hellman Gas Plant Expansion" was prepared by Wood Environmental & Infrastructure Solutions, Inc. (Wood) dated July 9, 2018 or any subsequent update. All the recommendations from the Geotechnical Investigation Report shall be included in the final project plans that are submitted to the City of Seal Beach for review and approval prior to issuance of grading permits.

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**b) Result in substantial soil erosion or the loss of topsoil? (Less than Significant Impact with Mitigation Incorporated)**

The project consists of construction of a pad and the installation of a gas plant. Based upon the geotechnical investigation construction of the pad would require approximately 2,305 cubic yards of cut and 3,555 cubic yards of fill. The site would be excavated down about four feet and the soil would be removed. The excavated depth would be about one-foot mean sea level. The excavated material would be spread out in various soil recovery areas that were also used for cut removed during the tank farm replacement project. Due to the small size of the proposed Project site (0.37 acres) and scope of the project, significant soil erosion or the loss of topsoil is not anticipated.

Once construction is complete, the site will be generally flat and will be covered with a gravel base that would allow for drainage. Therefore, soil erosion would be minimal after construction. Since the site has not been used for agricultural production, the loss of topsoil would not be considered significant. In addition, compliance with the National Pollution Discharge Elimination System (NPDES) and development of Best Management Practices (further discussed below under Response 10(a), Hydrology and Water Quality) will ensure that no substantial erosion occurs during construction. However, to ensure that any project-related soil erosion does not impact identified wetland areas approximately 150 feet southerly of the proposed Project site and are mitigated to be less than significant, the following mitigation measure is recommended:

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**Mitigation Measure GS-2** – Prior to issuance of grading permits, the project proponent shall submit a drainage and erosion control plan to the Director of Public Works for review and approval. The drainage and erosion plan shall describe the construction site area (including area of immediate construction, all off-site staging, storage and stockpile areas), shall name the persons assuming responsibility for full compliance with the submitted plans for NPDES requirements, and will include topography for the entire project limits. The drainage and erosion control plan shall clearly identify all BMPs to be implemented during construction and their location. The plan will contain provision for specifically identifying and protecting all nearby drainage and wetland features (with sandbag barriers, filter fabric fences, straw bale filters, etc.) to prevent construction-related runoff and sediment from entering into those areas. The drainage and erosion control plan should make it clear that: (a) dry cleanup methods are preferred whenever possible and that if water cleanup is necessary, all runoff shall be collected to settle out sediments prior to discharge from the site; all de-watering operations shall require filtration mechanisms; (b) concrete rinsates shall be collected and shall not be allowed into storm drains; (c) good construction housekeeping shall be required (e.g., clean up all leaks, drips, and other spills immediately; refuel vehicles and heavy equipment off-site; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather); and (d) all erosion and sediment controls shall be in place prior to commencement of grading and/or construction as well as at the end of each day.

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**c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? (Less than Significant with Mitigation Incorporated)**

Based on the DCDMG (1998), the proposed Project site is not located within a zone classified as having a potential for seismically-induced landslides.

Liquefaction is a phenomenon in which saturated granular soils transform from a solid to a liquefied state when subjected to large, rapid loadings such as strong ground shaking during an earthquake. The transformation to a liquid state occurs due to the tendency of granular materials to compact, which consequently results in increased pore water pressure accompanied by a significant reduction in the effective stress. The change of state occurs most readily in recently deposited (i.e., geologically young) loose to moderately dense granular soils. The liquefaction susceptibility is highly dependent on the density of the soil, wherein looser soils are generally more susceptible.

As part of the Geotechnical Investigation, a liquefaction triggering analyses were performed for the proposed gas plant site. Based on the analysis results provided in Geotechnical Report, the liquefaction triggering is anticipated only in scattered thin layers of non-plastic silt soils below 40 feet depth and cyclic softening of fine grained soils are not anticipated. The estimated settlements vary between  $\frac{1}{2}$  inch and  $\frac{3}{4}$  inch and the settlements are typically estimated to occur within the deep silt soils. It should be recognized that the uncertainty associated with estimation of seismically-induced settlement is on the order of  $\pm 50$  percent. In consideration of the uncertainty, the range of seismically induced settlements may be between approximately  $\frac{1}{4}$  inch and 1 inch, and the differential settlements at the ground surface could be up to  $\frac{1}{2}$  inch. For the spread and mat foundations planned to support the compressors, a bearing capacity or punching failure is unlikely due to the separation between the bottom of the foundation and the top of liquefiable layer(s). Implementation of the recommendations from the Geotechnical Investigation (mitigation measure GS-1) would ensure that impacts from liquefaction geological hazards would be less than significant with the mitigation incorporated.

**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? (Less than Significant Impact with Mitigation Incorporated)**

Soil sampling was conducted as part of the geotechnical investigation. The project geotechnical report prepared by Wood does not characterize the site soils as being expansive and concludes that the proposed Project can be feasibly and safely constructed with adherence to report recommendations as required by Mitigation Measure GS-1.

- e) **Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? (No Impact)**

Due to the nature of the proposed Project, no septic tanks or alternative wastewater disposal systems are required or proposed for the implementation as part of the gas plant project.

- f) **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? (No Impact)**

There are no known paleontological resources or unique geologic features on the site. Previous excavation on the Hellman Ranch OGP site, such as for the Tank Farm Replacement Project never encountered any paleontological resources.

## 8. Greenhouse Gas Emissions

This section of the document analyzes the impact the proposed Project would have on emissions that effect climate change around the world. The Greenhouse Gas (GHG) emissions were analyzed as part of the Air Emission Report and are included as Appendix C of this document.

“Greenhouse gases” (so called because of their role in trapping heat near the surface of the earth) emitted by human activity are implicated in global climate change, commonly referred to as “global warming.” The principal GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor. Fossil fuel consumption in the transportation sector (on-road motor vehicles, off-highway mobile sources, and aircraft) is the single largest source of GHG emissions, accounting for approximately one-half of GHG emissions globally. Industrial and commercial sources are the second largest contributors of GHG emissions with about one-fourth of total emissions.

Would the Project:

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

The construction and operational GHG emissions for the proposed gas plant are provided in Table 11. Construction of the gas plant is expected to take less than one year.

**Table 11 Project GHG Emissions (MT/yr.)**

| Project Phase                   | CO <sub>2</sub> | CO <sub>2</sub> e |
|---------------------------------|-----------------|-------------------|
| <i>Construction Phase</i>       |                 |                   |
| Site Preparation/Grading        | 186.01          | 187.21            |
| Foundation Installation         | 32.23           | 32.34             |
| Equipment Installation          | 159.30          | 160.05            |
| Paving and Finish Work          | 5.91            | 5.94              |
| <i>Total Construction Phase</i> | <i>383.45</i>   | <i>385.54</i>     |
|                                 |                 |                   |



**Table 11 Project GHG Emissions (MT/yr.)**

| <b>Project Phase</b>                     | <b>CO<sub>2</sub></b>  | <b>CO<sub>2</sub>e</b> |
|------------------------------------------|------------------------|------------------------|
| <b><i>Operational Phase</i></b>          |                        |                        |
| Microturbine                             | 5,242.86               | 5,248.27               |
| Fugitive Emissions                       | 0.00                   | 57.95                  |
| Offsite Mobile Sources                   | 3.21                   | 3.24                   |
| Construction GHG Amortized over 30 Years |                        | 12.85                  |
| <b><i>Total Operational Phase</i></b>    | <b><i>5,246.07</i></b> | <b><i>5,322.32</i></b> |
| <b>SCAQMD CEQA Threshold</b>             |                        | <b>10,000</b>          |
| <b><i>Exceed Threshold?</i></b>          |                        | <b><i>No</i></b>       |

Construction emission estimates calculated using CalEEMod Version: CalEEMod.2016.3.2.  
See Appendix C for detailed calculations.

As specified by the SCAQMD, the construction GHG emissions were amortized over 30 years and added to the annual operating GHG emissions. As shown in Table 11 the GHG emissions from the proposed Project would be below the CEQA Threshold established by the SCAMD for industrial projects. Therefore, GHG emissions impacts would be less than significant.

**b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? (Less than Significant Impact)**

California has passed several bills and the Governor has signed at least three executive orders regarding greenhouse gases. GHG statutes and executive orders (EO) include AB 32, SB 1368, SB 375, EO S-03-05, EO S-20-06 and EO S-01-07.

AB 32 is one of the most significant pieces of environmental legislation that California has adopted. Among other things, it is designed to maintain California's reputation as a "national and international leader on energy conservation and environmental stewardship." It will have wide-ranging effects on California businesses and lifestyles as well as far reaching effects on other states and countries. A unique aspect of AB 32, beyond its broad and wide-ranging mandatory provisions and dramatic GHG reductions are the short time frames within which it must be implemented. Major components of the AB 32 include:

- Require the monitoring and reporting of GHG emissions beginning with sources or categories of sources that contribute the most to statewide emissions.
- Requires immediate "early action" control programs on the most readily controlled GHG sources.
- Mandates that by 2020, California's GHG emissions be reduced to 1990 levels.
- Forces an overall reduction of GHG gases in California by 25% to 40%, from business as usual, over the next 13 years (by 2020).
- Must complement efforts to achieve and maintain federal and state ambient air quality standards and to reduce toxic air contaminants.

Statewide, the framework for developing the implementing regulations for AB 32 is underway. Additionally, through the California Climate Registry (CCAR) and the Mandatory Report Rule,

general and industry-specific protocols for assessing and reporting GHG emissions have been developed. GHG sources are categorized into direct sources (i.e., company owned) and indirect sources (i.e., not company owned). Direct sources include combustion emissions from on-and off-road mobile sources, and fugitive emissions. Indirect sources include off-site electricity generation and non-company owned mobile sources.

The ARB approved regulations, effective October 1, 2017 (17 CCR 95665-95677) to reduce methane emissions from oil and gas production, processing, storage, and transmission compressor stations by requiring regulated entities to take actions to limit intentional (vented) and unintentional (leaked or fugitive) emissions from active and idle equipment and operations. These types of controls would also have the effect of reducing emissions of ozone-precursor VOCs. The regulation helps to implement the AB 32 Scoping Plan and the statewide strategy for short-lived climate pollutants through the following requirements:

- Vapor collection on uncontrolled oil and water separators and storage tanks with emissions above a set methane standard;
- Vapor collection on all uncontrolled well stimulation circulation tanks;
- Leak Detection and Repair (LDAR) on components, such as valves, flanges, and connectors, currently not covered by local air district rules, as well as from soil at underground natural gas storage well sites;
- Vapor collection of large reciprocating compressors' vent gas, or require repair of the compressor when it is leaking above a set emission flow rate;
- Vapor collection of centrifugal compressor vent gas, or replacement of higher emitting "wet seals" with lower emitting "dry seals";
- "No bleed" pneumatic devices and pumps; and
- More frequent CH<sub>4</sub> monitoring at underground natural gas storage facilities.

The Hellman Ranch OGP and the proposed Gas Plant must comply with the requirements of this ARB regulation.

The City of Seal Beach has not yet developed a Greenhouse Gas Reduction Plan. The applicable GHG planning document is AB-32. As discussed above, the Project is not expected to result in a significant increase in GHG emissions. The proposed Project would result in GHG emissions below the SCAQMD 10,000-ton threshold for industrial projects. Also, the gas processing is just being shifted from the existing location to a new plant, which is more efficient. This will result in a net reduction of GHG emissions at the existing gas processing facility. Therefore, the proposed Project would not conflict with any applicable plan, policy, or regulation to reduce GHG emissions.

## 9. Hazards and Hazardous Materials

This section of the document evaluates any potential impacts from hazardous substances caused by the proposed Project. The proposed gas plant would not use any hazardous materials as part of

the facility operations. However, the plant would handle produced gas and generate natural gas, and natural gas liquids (NGLs), which if accidentally released to the environment could present hazards.

Would the Project:

**a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? (Less than Significant Impact)**

The proposed gas plant project would result in the processing of produced gas and the transportation of natural gas via a pipeline for delivery to a SoCal Gas distribution pipeline. During routine operations all the produced gas would be contained within enclosed systems and would not represent a hazard to the public or the environment. With the proposed Project, the routine truck transportation of natural gas liquids (NGLs), which is currently occurring, would be eliminated, thereby reducing the hazards associated with the type of trucking operation. The proposed Project would not involve the disposal of hazardous materials. Therefore, impacts would be less than significant.

**b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? (Less than Significant Impact)**

In the unlikely event of an upset or accident at the proposed gas plant, flammable gas could be released to the environment. Hazards associated with the release of flammable gas could include fires, explosions, and flammable vapor clouds. A hazards report, prepared by MRS Environmental, Inc. looked at a range of possible upset and accident events for the gas plant and the areas that could be affected by such events. The hazards report is included as Appendix E.

A review of the proposed gas plant process flow diagram was conducted to determine the potential worst-case hazard scenarios in the unlikely event of an upset conditions. The worst-case hazards associated with the proposed gas plant are (1) high pressure gas releases downstream of the compressors, and (2) a release of sales gas from the existing 4-inch pipeline to the SoCal Gas pipeline injection point at the corner of Seal Beach Boulevard and Anchor Way.

These potential release scenarios are unlikely events that would only occur due to a major catastrophic event. These release scenarios were modeled to determine that extent of the hazard zones for both fatality and serious injury. Appendix E provides a detailed write-up on the types of consequence models that were used in the analysis, and the bases for selecting the fatality and serious injury criteria.

Table 12 provides the estimated hazard zones for proposed gas plant release scenarios. Table 12 also provides the distance to the nearest residential and industrial/commercial properties. Hazard distances are provided for thermal radiation, explosions, and flammable vapor clouds.

**Table 12 Proposed Gas Plant Hazard Distances (feet)**

| Scenario                         | Rupture of Piping after Main Gas Compressor | Rupture of Piping after Main Gas Compressor Exchanger | Rupture of Piping after Recycle Compressor | Rupture of Sales Gas Pipeline | Comments                                                                                                                                                                        |
|----------------------------------|---------------------------------------------|-------------------------------------------------------|--------------------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Thermal Hazard Distances         |                                             |                                                       |                                            |                               |                                                                                                                                                                                 |
| 10 kw/m <sup>2</sup>             | 17                                          | 55                                                    | 25                                         | 62                            | Thermal radiation level that could result in fatality.                                                                                                                          |
| 5 kw/m <sup>2</sup>              | 23                                          | 72                                                    | 33                                         | 73                            | Thermal radiation level that could result in serious injury.                                                                                                                    |
| Explosion Hazard Distances       |                                             |                                                       |                                            |                               |                                                                                                                                                                                 |
| 1.0 pound per square inch (psi)  | -                                           | -                                                     | -                                          | -                             | Overpressure level that could result in fatality from debris strike.                                                                                                            |
| 0.3 pound per square inch (psi)  | -                                           | -                                                     | -                                          | -                             | Overpressure level that could result in serious injury from debris strike.                                                                                                      |
| Vapor Cloud Hazard Distances     |                                             |                                                       |                                            |                               |                                                                                                                                                                                 |
| Lower Flammability Limit (LFL)   | 23                                          | 23                                                    | 15                                         | 35                            | Ignition of a vapor cloud with the LFL could result in fatality.                                                                                                                |
| ½ Lower Flammability Limit (LFL) | 56                                          | 61                                                    | 45                                         | 100                           | Ignition of a vapor cloud between the LFL and the ½ LFL could result in serious injury.                                                                                         |
| Distance to Nearest Receptors    |                                             |                                                       |                                            |                               |                                                                                                                                                                                 |
| Residential                      | 1,300                                       | 1,300                                                 | 1,300                                      | 70                            | The proposed gas plant is closest to residential areas south of the site. The existing gas pipeline is closest to residential areas just south of Adolfo Lopez Dr.              |
| Industrial/Commercial            | 1,470                                       | 1,470                                                 | 1,470                                      | 25                            | The proposed gas plant is closest to industrial/commercial areas east of the site. The existing gas pipeline is closest to industrial/commercial just south of Adolfo Lopez Dr. |

1. See Appendix E for discussion of hazards modeling, basis for hazard criteria selection, and hazard modeling input and output files.

Other than the sales gas pipeline, none of the hazard zones for the proposed gas plant would extend beyond the boundaries of the Hellman property.

The hazard zones associated with the sales gas pipeline have the potential to impact both residential and industrial/commercial areas in the unlikely event of a pipeline rupture. However, the sales gas pipeline hazard zones would be reduced from the current operations. This reduction in hazard zones is because the pipeline would switch from produced gas service to sales gas service, thereby eliminating the transportation of heavier gas liquids which are part of the produced gas.

Also, the portion of the existing 6-inch gas pipeline from the SoCal Gas injection point at the intersection of Seal Beach Boulevard and Anchor Way to the Seal Beach Gas Processing Joint Venture Gas Plant would no longer needed to transport gas from the Hellman Properties lease. This would eliminate the potential hazards from a pipeline rupture to most of the homes along Anchor Way.

The proposed Project would also eliminate the current trucking of natural gas liquids (NGLs) from the current gas plant to the Hellman Ranch property. This would eliminate the potential hazards associated with a truck accident and spill of NGLs.

Since none of the hazards identified for the proposed gas plant would extend offsite and the existing pipeline hazards would be reduced from baseline conditions, the hazard impact from a reasonably foreseeable upset or accident condition involving the release of hazardous materials would be less than significant.

**c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? (No Impact)**

There are no schools located with one-quarter of a mile of the proposed gas plant project site.

**d) 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? (No Impact)**

The project site is not listed as a hazardous materials site compiled pursuant to Government Code Section 65962.5 and, as a result, project implementation would not create a significant hazard to the public or the environment.

**e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area? (No Impact)**

The project is not located within an airport land use plan or in the vicinity of a public airport. The site is located over three miles from Los Alamitos Joint Forces Training Base (JFTB) and is not within the Airport Environs Land Use Plan (AELUP) for that facility.

**f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? (Less than Significant Impact)**

The project is required to meet all applicable fire codes and City regulations that provide for adequate access to and from the site and will not impair access. The project will not impair the implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan.

**g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires? (Less than Significant Impact with Mitigation Incorporated)**

The proposed gas plant would be located within the existing Hellman Ranch OGPF in an area that would not be expected to increase the risk of a wildfire in the event of a fire at the gas plant. The project is surrounded mostly by urbanized uses and the San Gabriel River. The Hellman Ranch OGPF abuts Gum Grove Park and a wetland area owned by Los Cerritos Wetland Authority. Gum Grove Park has a series of eucalyptus trees that could catch fire. The Los Cerritos Wetlands has some natural areas that could be at risk of wildfire. The risk of wildfire in these areas is low, however (City of Seal Beach. 2019).

A preliminary Fire Protection Plan has been prepared for the gas plant that details several design features that would be incorporated into the design of the gas plant to reduce the likelihood for a fire. A copy of the Preliminary Fire Protection Plan is provided in Appendix H. The facility would be equipped with fire extinguishers and access to the existing firewater system at the Hellman Ranch OGPF. In order to reduce the possibility of a fire spreading to areas outside gas plant site, the following mitigation measure is recommended.

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**Mitigation Measure HM-1** – The Preliminary Fire Protection Plan dated February 13, 2018 shall be reviewed and approved by the Seal Beach Fire Chief. All recommendations in the Final Fire Protection Plan shall be included in the final project plans that are submitted to the City of Seal Beach for review and approval prior to issuance of grading permits.

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Implementation of mitigation measure HM-1 would reduce the potential for a fire at the proposed gas plant resulting in a wildland fire to less than significant.

## **10. Hydrology/Water Quality**

Would the Project:

**a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality? (Less than Significant with Mitigation Incorporated)**

The project site is smaller than one-acre in size and is therefore not required to submit a Notice of Intent to use the statewide National Pollutant Discharge Elimination System (NPDES) General Construction Activity Storm Water Permit. However, the proposed Project potentially may contribute pollutants due to construction activities such as erosion and sediment from earthwork and project construction activities and waste materials from concrete use. To ensure storm water impacts from construction activities are minimized to less than significant levels, Best Management Practices (BMPs) shall be implemented as identified in the project drainage and erosion plan required under Mitigation Measure GS-2.

The existing Hellman Ranch OGP operations currently operate under General Permit CAS000001 for Industrial Activities, which have Storm Water Pollution Prevention Plan (SWPPP) requirements. Operation of the proposed gas plant would also fall under this general permit. The Applicant has prepared a Non-Priority Water Quality Management Plan for the proposed gas plant as required by the City of Seal Beach.

The entire Gas Plant would be located on an open pad consisting of fill material comprised of open-grade crushed rock, an aggregate base, sand-cement slurry, and engineered backfill. The proposed gas plant will consist of a series of separated, non-contiguous components, which will each have its own individual foundation. Estimated total size of the gas plant pad is 0.37 acres (16,117 sq. ft). Individual foundations will account for 3,312 sq. ft. The majority (79%) of the gas plant pad will be pervious. Each of the non-pervious pads will be surrounded by pervious material.

Runoff at the proposed gas plant pad area would sheet flow away from equipment and foundations. Surface runoff will naturally percolate through proposed fill, any runoff that does not percolate through the proposed fill at the gas plant site would flow to the surrounding areas of native soil. All runoff from the proposed gas plant site would be contained within the existing Hellman Ranch OGP site. The following mitigation measure is recommended.

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**Mitigation Measure WQ-1** – The project proponent shall submit a Final Non-Priority Water Quality Management Plan to the City for review and approval. All BMPs identified in the Non-Priority Water Quality Management Plan, shall be shown on the final construction drawings for the project that are submitted to the City prior to issuance of grading permits.

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Implementation of the BMPs identified in the Non-Priority Water Quality Management Plan would assure operational impacts to water quality would be less than significant.

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

The proposed gas plant project would not be a major user of water. Water would only be needed for misting the air coolers during hot days. It is estimated the proposed Project would consume about 0.5 to 1.0 acre feet of water per year. Water would be supplied from the City of Seal Beach



water system. This small amount of water use would not substantially decrease ground water supplies or interfere with any groundwater recharge. Therefore, impacts would be considered less than significant.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (i) result in a substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (iv) impede or redirect flood flows? (Less Than Significant)**

The project would not result in a substantial change in the existing drainage patterns, nor would it cause substantial erosion or alteration of the course of a stream or river. The proposed gas plant would add about 3,312 sq. ft. of new impervious surfaces. All the impervious surfaces would be surrounded by pervious surfaces composed of crushed gravel. None of the runoff from the proposed gas plant pad area would enter an existing stormwater drain. All runoff would be contained on the Hellman Ranch OGP site near the proposed gas plant location. The construction of the gas plant pad would not affect the current flood flows in the area of the proposed Project site. Therefore, impacts would be less than significant.

- d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation? (Less than Significant)**

The project site is located approximately 0.5 miles from the coast. The site is protected by a natural bluff fronting on the coast, as well as the Old Town and Bridgeport developments of Seal Beach. Due to the location of the site inland from the coast, the proposed Project site is not considered to have an extraordinary exposure to seiche or tsunami. The City of Seal Beach Local Hazard Mitigation Plan shows that the Hellman Ranch OGP site is located outside of the City's projected tsunami inundation zone (City of Seal Beach. 2019). The project site is relatively flat and would not be at risk from mudflows. Flooding of the gas plant site is potentially possible as a result of sea level rise. The top of the graded gas plant pad would be approximately six feet above sea level. The top of the equipment foundations would be at an elevation of approximately seven feet above sea level. This equipment elevation would likely be enough to prevent flooding of the equipment due to 2.5 to 3.0 feet sea level rise.

Some of the proposed gas plant equipment would contain hydrocarbon gases and some light end hydrocarbon liquids. In the event the equipment was flooded, the gas plant would shut down and the hydrocarbon gases and liquids would be contained within the equipment. Therefore, the impacts of pollutant releases due to flooding would be less than significant.

**e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan? (No Impact)**

As discussed in items a through c above, any runoff from the proposed gas plant pad would be contained within the Hellman Ranch OGPf near the gas plant site. The project would have minimal water use requirement. Therefore, the proposed Project would not conflict with implementation of a water quality control plan, the City of Seal Beach Urban Water Management Plan, or the Orange County Water District Groundwater Management Plan.

**11. Land Use/Planning**

Would the Project:

**a) Physically divide an established community? (No Impact)**

Project implementation would not result in a physical division of an established community. Rather, the proposed gas plant would be located within the existing Hellman Ranch OGPf and would bring the required gas processing closer to the gas production source. Therefore, no impacts would occur as a result of the proposed Project.

**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? (No Impact)**

Project implementation will not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the proposed Project. The Hellman Ranch property is zoned S.P.R. (Specific Plan Regulation). The Hellman Ranch Specific Plan (HRSP) was adopted by the City in October 1997. The HRSP provides for mineral production uses on portions of the property. The proposed gas plant is located on parcel APN 95-010-68. The proposed gas plant facilities would be located in Planning Area 9. Permitted land uses identified in the HRSP in Section 7.4.4, Development Planning Area 9, include the following:

- Drilling operations for the extraction, processing and transport of oil, gas, or other mineral substances,
- Separation centers for oil and gas,
- Storage tanks and related facilities,
- Maintenance and operations yards in conjunction with mineral production,
- Administrative offices, and
- All facilities and equipment required for oil, gas, and hydrocarbon production.

Therefore, the gas plant proposed for Planning Area 9 is consistent with the land use regulations of the HRSP. The HRSP was previously analyzed for compliance under the California Environmental Quality Act (CEQA) through the Final Environmental Impact Report (FEIR) for

the HRSP, certified through City Council Resolution 4562. Therefore, no impacts would occur as a result of the proposed Project

## **12. Mineral Resources**

Would the Project:

**a) 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? (No Impact)**

Other than the continuation of oil and gas extraction on the site, no known mineral resources are located on the proposed Project site. Therefore, no impacts would occur as a result of the proposed Project.

**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? (No Impact)**

Other than the continuation of oil and extraction on the site, no known mineral resources are located on the proposed Project site. The loss of known mineral resources of value to the region would not occur as a result of implementation of the proposed Project. Therefore, no impacts would occur as a result of the proposed Project. The project site is not delineated as an important mineral resource recovery site on the City of Seal Beach General Plan or any other local plan.

## **13. Noise**

Would the Project:

**a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? (Less than Significant with Mitigation Incorporated)**

The proposed Project would generate noise during construction and operation. The noise associated with each of these phases is discussed below.

### **Construction Noise**

The introduction of construction in this area would expose residents of the area to intermittently higher noise levels depending on the type of equipment being used during construction. Although the increase in noise in the proposed Project area would be greater than that which currently exists, it would be temporary in nature, would only occur during normal working hours, and would cease upon completion of construction. The nearest residence would be about 1,300 feet from the construction site. Table 13 provides an estimate of the peak noise levels that would be expected during each phase of the construction activities. The peak construction noise would be expected to occur during the site preparation and grading phase, with a noise level of approximately 61 dBA at the nearest residence.

**Table 13 Estimated Peak Construction Noise Levels by Phase**

| Phase/Equipment                        | Number | Reference Noise Level (dBA@50 feet) |
|----------------------------------------|--------|-------------------------------------|
| Site Preparation/Grading               |        |                                     |
| Dozer, Cat D6                          | 1      | 82                                  |
| Grader, Cat14                          | 1      | 85                                  |
| Excavator, 4.0 cy                      | 1      | 81                                  |
| Tractor/Loader/Backhoe, 1.5-2.0 cy     | 1      | 79                                  |
| Wheel Loader, 3.4-4.0 cy               | 1      | 78                                  |
| Truck, 10 cy                           | 2      | 74                                  |
| <b>Combined Noise Level</b>            |        | <b>89</b>                           |
| <b>Noise Level at Nearest Receptor</b> |        | <b>61</b>                           |
| Foundation Installation                |        |                                     |
| Tractor/Loader/Backhoe, 1.5-2.0 CY     | 1      | 79                                  |
| Bore/Drill Rig, 24-36" Auger           | 1      | 79                                  |
| Water Pump, 100-500 gpm                | 1      | 81                                  |
| <b>Combined Noise Level</b>            |        | <b>85</b>                           |
| <b>Noise Level at Nearest Receptor</b> |        | <b>56</b>                           |
| Equipment Installation                 |        |                                     |
| Crane, 20-50 ton, hydraulic            | 1      | 81                                  |
| Forklift, 8-9 K# teleboom              | 1      | 75                                  |
| Aerial Lift, 30'                       | 1      | 75                                  |
| Tractor/Loader/Backhoe, 1.5-2.0 CY     | 1      | 79                                  |
| <b>Combined Noise Level</b>            |        | <b>84</b>                           |
| <b>Noise Level at Nearest Receptor</b> |        | <b>56</b>                           |
| Paving and Finish Work                 |        |                                     |
| Paver                                  | 1      | 77                                  |
| Compactor, 24-36" Roller Walk behind   | 1      | 83                                  |
| Tractor/Loader/Backhoe, 1.5-2.0 CY     | 1      | 79                                  |
| <b>Combined Noise Level</b>            |        | <b>86</b>                           |
| <b>Noise Level at Nearest Receptor</b> |        | <b>58</b>                           |

Source: FHWA Construction Noise Handbook, 2018. Table 9.1  
<https://www.nrc.gov/docs/ML1805/ML18059A141.pdf>

The City of Seal Beach Municipal Code (Chapter 7.15) exempts construction activities from adhering to City noise standards as long as construction is limited to the hours of 7:00 a.m. to 8:00 p.m. on weekdays, between 8:00 a.m. and 8:00 p.m. on Saturdays and never on Sundays or city-observed federal holidays. The above impacts, however, are also short-term and would cease upon completion of the grading/construction phase.

Compliance with the City regulations regarding limitations on construction hours and noise restrictions would reduce potential project impacts to less than significant levels. However, notification is recommended to adjacent residents to provide information regarding dates and times during allowed construction hours when construction activities will likely produce substantial noise (see Mitigation Measure N-1 below). Further, the City's standard construction regulations

require all construction vehicles or equipment, fixed or mobile, to be equipped with properly operating and maintained mufflers to minimize noise.

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**Mitigation Measure N-1** – Construction, grading, and haul truck deliveries shall not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, 8:00 p.m. and 8:00 a.m. on Saturday, or at any time on Sunday or a national holiday.

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**Mitigation Measure N-2** – Prior to commencement of construction activities, notice shall be provided to surrounding residences immediately adjacent to Hellman Ranch, including Gum Grove Nature Park, regarding anticipated construction activity dates and times when substantial noise generating activities are anticipated to occur. Prior to distribution, the notice shall be reviewed and approved by the Community Development Director.

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### **Operational Noise**

Equipment associated with the proposed gas plant would generate noise as a part of normal operations. The Applicant conducted a noise study to evaluate the potential noise impacts of the gas plant on the surrounding sensitive receptors. A copy of the Noise Analysis is provided in Appendix F. A list of the noise generating equipment that would be associated with the proposed gas plant is provided in Table 14 along with the estimated noise level.

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**Table 14 Major Gas Plant Equipment Specifications at the Project Site**

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| Equipment                         | Quantity       | Design Size        | Noise Level<br>At 50 feet<br>dBA | Noise Source                                                                      |
|-----------------------------------|----------------|--------------------|----------------------------------|-----------------------------------------------------------------------------------|
| Main Gas Compressors              | 2 <sup>a</sup> | 1,000 mmscfd       | 71                               | Com-Pac Systems, Inc.-<br>Manufacture Estimate (85 dBA<br>@10 feet)               |
| Recycle Compressors               | 2 <sup>a</sup> | 420 mmscfd         | 71                               | Com-Pac Systems, Inc.-<br>Manufacture Estimate (85 dBA<br>@10 feet)               |
| Pressure Swing Absorption<br>Unit | 1              | 1,000 mmscfd       | 61                               | Quadrogen Power Systems, Inc.-<br>Manufacture Data (85 dBA @ 3<br>feet)           |
| Microturbines                     | 5 <sup>b</sup> | 1,000 kW<br>output | 63.6-76.1                        | In-field measurements                                                             |
| Absorption Chiller                | 1              | 859 MBtu/hr        | 62                               | An Introduction to Sound Level<br>Data for Mechanical and<br>Electrical Equipment |
| Air-Chilled Heat Exchangers       | 1              | 859 MBtu/hr        | 64                               | An Introduction to Sound Level<br>Data for Mechanical and<br>Electrical Equipment |

a. One is a backup for use during downtime on the main unit.

b. Each microturbine unit has a design capacity of 200 kW.

MBtu/hr – thousand British thermal units per hour. mmscfd – million standard cubic feet per day, kW– kilowatts

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Baseline noise levels were monitored at four different locations around the Hellman Ranch OGPF site on February 25, 2019. Noise levels were monitored during the daytime, evening and at night for periods of 30 minutes at each location. The results of the baseline noise monitoring are shown in Table 15. The primary contributors to the baseline noise levels were the power plant noise, occasional helicopters and airplanes, and frog noises in the evening and nighttime.

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**Table 15 Background Noise Level Near the Project Site**

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| Location                                                          | Zoning                            | Daytime Leq, dBA | Evening Leq, dBA | Nighttime Leq, dBA | CNEL, dBA | CNEL, Estimated without Frog Noises, dBA |
|-------------------------------------------------------------------|-----------------------------------|------------------|------------------|--------------------|-----------|------------------------------------------|
| Location 1: Entrance to Gum Grove Park                            | Residential Low Density-9 (RLD-9) | 50.0             | 52.2             | 47.6               | 55.2      | 54.6                                     |
| Location 2: Hellman Ranch Trail at Po-Koo Path                    | Residential Low Density-9 (RLD-9) | 46.9             | 53.6             | 51.1               | 57.8      | 53.6                                     |
| Location 3: End of Aldolfo Lopez Drive near Hellman Entrance gate | Light Manufacturing (LM)          | 49.7             | 63.3             | 61.0               | 67.5      | 55.8                                     |
| Location 4: West Side of Site near San Gabriel River              | Oil Extraction (OE)               | 53.2             | 63.3             | 61.0               | 67.5      | 57.7                                     |

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CNEL – Community Noise Equivalent Level.

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Noise levels of the proposed gas plant equipment were utilized in the SoundPlan<sup>®</sup> modeling software to estimate noise levels at the different receptors. The SoundPlan<sup>®</sup> modeling software is a program that takes into account terrain, ground attenuation effects, buildings, wind, octave band attenuation effects and a range of characteristics to estimate the noise levels.

Equipment is assumed to operate continuously 24 hours per day, 7 days per week. The maximum microturbine noise level was used from the exhaust outlet side. Baseline noise levels were estimated without frog noises, which were used to be conservative.

Noise levels were assessed for both the Community Noise Equivalent Level (CNEL) and the minimum nighttime hour to ensure that for the average 24-hour noise levels and the quietest baseline hour, the noise levels would be acceptable. The CNEL and the minimum hour are shown in Tables 16 and 17, respectively.

The City of Seal Beach has established guidelines for acceptable community noise levels that are based upon the CNEL rating scale to ensure that noise exposure is considered in any development. CNEL-based standards apply to noise sources whose noise generation is preempted from local control (such as from on-road vehicles, trains, airplanes, etc.) and are used to make land use decisions as to the suitability of a given site for its intended use. These CNEL-based standards are articulated in the Noise Element of the General Plan.

**Table 16 CNEL Levels Baseline and With the Project**

| Location                                                          | Baseline CNEL, dBA | Project CNEL, dBA | Combined CNEL, Baseline + Project, dBA | CNEL Increase, dBA |
|-------------------------------------------------------------------|--------------------|-------------------|----------------------------------------|--------------------|
| Location 1: Entrance to Gum Grove Park                            | 54.6               | 51.4              | 56.3                                   | 1.7                |
| Location 2: Hellman Ranch Trail at Po-Koo path                    | 53.6               | 49.3              | 55.0                                   | 1.4                |
| Location 3: End of Aldolfo Lopez Drive near Hellman Entrance gate | 55.8               | 50.4              | 56.9                                   | 1.1                |
| Location 4: West Side of Site near San Gabriel River              | 57.7               | 54.9              | 59.5                                   | 1.8                |

Note: Baseline values estimated without Frog Noises

As shown in Tables 16 and 17, the CNEL of the proposed Project plus the baseline levels would be below 60 dBA associated with the General Plan acceptability criteria and would therefore be less than significant.

For the minimum hour and compliance with the Municipal Code, the noise levels would be below 50 dBA during the nighttime at monitoring locations 1 and 2, which are both considered residential and subject to the Zone 1 requirements.

The other two locations produce noise levels above 50 dBA - location 3 (located at the End of Aldolfo Lopez Drive near Hellman Entrance gate) and location 4 (located at the West Side of the Hellman site near San Gabriel River). Location 4 is located along the San Gabriel River and does not have any residences or commercial/industrial properties located in proximity and would therefore be considered acceptable and noise impacts would be less than significant.

**Table 17 Minimum Hour Noise Levels**

| Location                                                          | Baseline Minimum Hour, Estimated without Frog Noises, dBA | Project Peak Hour, dBA | Combined Minimum Hour Baseline + Project, dBA | Minimum Hour Increase, dBA |
|-------------------------------------------------------------------|-----------------------------------------------------------|------------------------|-----------------------------------------------|----------------------------|
| Location 1: Entrance to Gum Grove Park                            | 47.6                                                      | 44.7                   | 49.4                                          | 1.8                        |
| Location 2: Hellman Ranch Trail at Po-Koo path                    | 46.9                                                      | 42.7                   | 48.3                                          | 1.4                        |
| Location 3: End of Aldolfo Lopez Drive near Hellman Entrance gate | 49.0                                                      | 43.7                   | 50.1                                          | 1.1                        |
| Location 4: West Side of Site near San Gabriel River              | 50.7                                                      | 48.3                   | 52.7                                          | 2.0                        |

Location 3 is near the Seal Beach Animal Care Center and other commercial activities. As such this location would be subject to the Zone 2 requirements of the City's Municipal Code. Noise



impacts at location 3 are well below the Zone 2 threshold noise level of 65 dBA and would therefore be acceptable and less than significant.

Increases in noise levels would range as high as 1.8 dBA for increases in the CNEL and up to 2.0 dBA for the nighttime noise levels. Both of these increases would be below a 3.0 dBA increase and would therefore be acceptable and less than significant.

**b) Generation of excessive groundborne vibration or groundborne noise levels? (Less Than Significant)**

The project would involve the use of primary excavation equipment for construction of the equipment pad. Table 18 provides data on vibration annoyance criteria.

**Table 18 Guideline Vibration Annoyance Potential Criteria**

| Human Response         | Maximum PPV (in/sec) |
|------------------------|----------------------|
| Barely Perceptible     | 0.01                 |
| Distinctly Perceptible | 0.04                 |
| Strongly Perceptible   | 0.10                 |
| Severe                 | 0.40                 |

Source: Caltrans 2013.

The project would not involve the use of pile drivers or other equipment that typically generate large amounts of ground borne vibration or noise. The Seal Beach Municipal Code states that no use, activity or process shall produce vibrations that are perceptible without instruments by a reasonable person at or beyond the property line of the site on which they are situated (Seal Beach Municipal Code §11.4.10.020 Performance Standards).

Table 19 provides estimated vibration levels for construction equipment as a function of distance from the source.

**Table 19 Estimated Construction Equipment Vibration Levels**

| Equipment                 | Vibration Level (in/sec) |             |             |
|---------------------------|--------------------------|-------------|-------------|
|                           | at 25-feet               | at 100-feet | at 200-feet |
| Large Hydraulic Excavator | 0.089                    | 0.0111      | 0.0039      |
| Backhoe                   | 0.089                    | 0.0111      | 0.0039      |
| Auger                     | 0.022                    | 0.0028      | 0.0010      |
| Large Bulldozer           | 0.089                    | 0.0111      | 0.0039      |
| Vibratory Roller          | 0.210                    | 0.0263      | 0.0093      |
| Tamper                    | 0.210                    | 0.0263      | 0.0093      |
| Crane                     | 0.008                    | 0.0010      | 0.0004      |
| Large Truck               | 0.076                    | 0.0095      | 0.0034      |

Source: Adapted from FTA 2006 and Caltrans 2013.

Based on threshold for vibration of 0.01 in/sec vibration velocity, construction equipment used for the proposed Project would not exceed the vibration threshold beyond about 190 feet which is well within the property boundary.

Operational activities would not be expected to exceed the construction levels of vibrations as no large equipment would be used for operations. Also, the operational equipment with large electric motors such as the compressors would be mounted on concrete pads with vibration damping pads. Based on the type of proposed activity and construction and operations that would occur, no excessive ground borne vibration would be generated that would reach nearby receptors. Therefore, ground borne vibration impacts resulting from construction and operational activities would be less than significant.

- c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? (No Impact)**

The project is not located within an airport land use plan or in the vicinity of a public or private airport. The project site is located over four miles from the Los Alamitos Joint Forces Training Base (JFTB), the closest such site, and is not within the Airport Environs Land Use Plan (AELUP) for that facility.

#### **14. Population/Housing**

The construction workers would be drawn from the local Los Angeles Basin workforce. Construction of the proposed Project would take approximately six to eight months. No new workers would be required to operate the gas plant. The existing Hellman Ranch OGFP staff would be adequate to operate the plant.

Would the Project:

- a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? (No Impact)**

The project involves the construction of a new gas plant within an existing Hellman Ranch OGFP. Given the limited staffing needs for the proposed Project, all required works would be drawn from the local Los Angeles Basin workforce. As such, the proposed Project would not generate any population growth. Therefore, no impact to the local population levels would occur.

- b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere? (No Impact)**

The project would not displace existing housing as no housing exists on the proposed Project site. The project would not displace substantial numbers of people since it does not propose demolition of residential units. All construction and operational activities would occur within the existing Hellman Ranch OGFP. Therefore, there would be no impact to housing from the proposed Project.

## 15. 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: (i) Fire protection? (ii) Police protection? (iii) Schools? (iv) Parks? (v) Other public facilities? (No Impact)**

Project implementation would not result in the need for any new or physically altered governmental facilities for public services. The proposed Project would be exempt from school and park fees. The proposed gas plant would be constructed with the boundaries of the existing Hellman Ranch OGP and would not affect the current response times for fire or police protection. Therefore, no impacts would occur as a result of the proposed Project.

## 16. Recreation

Would the Project

- a) **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? (No Impact)**

The proposed Project involves the construction and operation of a new gas plant within the existing Hellman Ranch OGP. Operation of the proposed gas plant would not require any new full-time workers and would not result in any increase in demand for housing. Therefore, the proposed Project would not increase the use of existing neighborhood or regional parks or other recreational facilities. The project would be exempt from park dedication fees or from dedicating land for park uses in keeping with the City's current parkland dedication requirements. Therefore, no impacts would occur as a result of the proposed Project.

- 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)**

The proposed Project does not include any recreational facilities or require the construction or expansion of recreational facilities. Therefore, no impacts would occur as a result of the proposed Project.

## 17. Transportation

Access to the Hellman Ranch OGP is from Pacific Coast Highway via a private road at the intersection of First Street. This intersection is controlled by an existing traffic signal. A secondary

access to the site is provided to the Hellman Ranch OGP site from Seal Beach Boulevard via Adolfo Lopez Drive. This access point is used for employees to access wells located on Seal Beach Boulevard. This access point is also available to emergency response vehicles. Traffic associated with the proposed Project would use the private road entrance from Pacific Coast Highway.

No new employees would be needed to operate the gas plant. The existing staffing at the Hellman facility would be adequate to operate the plant. Maintenance work on the facility would be done by outside contracts. It is expected that as many as three maintenance visits per week would be required. In addition, three to four deliveries per month would be needed to service the new gas plant. The peak day operational traffic for the proposed gas plant would be about two round trips. The project would also result in the elimination of the truck trips that currently deliver NGLs to the Hellman site.

Peak day construction trips would be about 40 round trips for trucks delivering material and supplies, and 22 round trips for workers. This peak would be expected to occur for about 10 days. The average number of round trips per day during construction would be about 20 for both deliveries and workers.

Would the Project:

**a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities? (No Impact)**

As discussed above, the proposed Project will generate a nominal amount of traffic and would not exceed, either individually or cumulatively, a level of service standard established by the county congestion management plan due to the small amount of traffic associated with the proposed Project. Therefore, the proposed Project would not conflict with any applicable traffic program, plan, or ordinance.

**b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)? (Less than Significant with Mitigation Incorporated)**

As discussed above, the proposed Project will generate a nominal amount of traffic. Caltrans traffic counts for 2017 show that Pacific Coast Highway in the vicinity of the proposed Project site has an average annual daily traffic (AADT) of about 46,000. The peak hour traffic is about 4,500 (Caltrans, 2019). During construction, which is temporary, the proposed Project would add well less than 0.15 percent to the AADD, which would not affect the overall level of service.

During construction activities, some access and staging would be needed on the site. To ensure that construction access and staging is conducted in a manner that would not impact adjacent residential or wetland areas, the following mitigation measure is recommended.

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**Mitigation Measure TR-1** – Prior to approval of construction documents, a construction access and staging plan shall be submitted for review and approval by the Director of Public Works to ensure adequate separation from adjacent residential uses and wetland areas will be provided during construction activities.

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**c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? (No Impact)**

The proposed Project would not require the construction of any new public roads or create any new incompatible uses for local roadways. The proposed Project would eliminate the current trucking of NGLs to the Hellman Ranch OGP along existing public roadways, which would eliminate a potential existing trucking hazard.

**d) Result in inadequate emergency access? (No Impact)**

As discussed above, the existing Hellman Ranch OGP has two access points for emergency service vehicles. The addition of the proposed gas plant would not alter the existing emergency access to the site. Therefore, there would be no impact to emergency access.

## **18. Tribal Cultural Resources**

Would the Project:

- 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). (Less Than Significant with Mitigation Incorporated)**

A Cultural Resources Assessment (AECOM, 2019) was conducted for the proposed gas plant site. This assessment was conducted in accordance with Section 15064.5(a)(2)-(3) of the CEQA, and the guidelines, for preparation of archaeological reports by the Office of Historic Preservation. A records search of all areas encompassed by the Project Area of Direct Impact (ADI) and a 0.25-mile radius was conducted on August 21, 2019, at the South Central Coastal Information Center (SCCIC) at California State University at Fullerton. This review identified previous surveys and all known cultural sites within the records search areas, as well as information on previous evaluations for California Register of Historic Resources or National Register of Historic Places eligibility, historic maps on file with the SCCIC, and any historic addresses recorded within the records search area.



The records search identified seven cultural resources within the 0.25-mile-radius buffer radius of the proposed Project site. These resources include six prehistoric archaeological sites and one historic structure. Of the six archaeological sites, one consists of milling features with a scatter of groundstone or flaked stone artifacts; one is a groundstone scatter with a flaked lithic; one is a lithic and shell scatter, and three have midden deposits. Of these three midden sites, one also includes a shell scatter, and one a scatter of flaked stone and groundstone artifacts. The historic structure is a historic-period flood pump station. None of the resources were located within the Project Area of Direct Impact (ADI).

Testing done in 2006 by EDAW in a portion of the gas plant site found no evidence of cultural resources. Given the disturbed nature of the proposed Project site, it is unlikely that cultural resources would be found during the required excavation activities. However, given the culturally sensitive nature of the Hellman property and the surrounding areas the mitigation measure CR-1 should be implemented.

- 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. (Less Than Significant with Mitigation Incorporated)**

For purposes of impact analysis, a tribal cultural resource is considered a site, feature, place, cultural landscape, sacred place, or object which is of cultural value to a California Native American Tribe and is either on or eligible for the California Register or a local historic register.

The City sent notification letters on November 1, 2019 to the California Native American Tribes that requested inclusion on the City's AB 52 notification list. As of January 17, 2020, the City had received two written response to these notification letters, one from Joyce Stanfield Perry of the Juaneño Band of Mission Indians, Acjachemen Nation, and one from Deneen Pelton of the Rincon Band of Luiseño Indians. In addition, the City received a phone call in response to the AB 52 notification from Robert Dorame of the Gabrielino Tongva Indians of California Tribal Council.

The e-mail from Joyce Stanfield Perry requested that the proposed Project have archeological monitoring for all ground disturbing activities. The letter from Deneen Pelton stated that the proposed Project site is not within the Luiseño Aboriginal Territory. The phone call from Robert Dorame was to inform the City that the Gabrielino Tongva Indians of California Tribal Council has historically done archeological monitoring on the Hellman Properties, and had been to the proposed Project site for consultation with the Applicant. The Applicant has agreed to use Gabrielino Tongva Indians of California Tribal Council members to conduct archeological monitoring of all ground disturbance activities associate with the proposed Project. In addition, the Applicant has committed to having an archeologist present during all ground disturbance activities.

Given the culturally sensitive nature of the Hellman property and the surrounding areas the mitigation measure CR-1 should be implemented

## **19. Utilities/Service Systems**

The Hellman Ranch OGP is served by Southern California Edison (SCE) for electrical power and by the City of Seal Beach water and wastewater infrastructure. The proposed gas plant would use electrical power from the microturbines that would be part of the proposed gas plant. No wastewater would be generated as part of the proposed Project. Water use would be limited to hot days when misters would be needed for the air coolers.

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? (No Impact)**

The project will not require the construction of new storm water drainage facilities. The gas plant pad would be constructed of permeable gravel and any runoff would either be contained on the pad or would sheet flow on to the surrounding areas of the Hellman Ranch property. All runoff from the proposed Project site would remain on the Hellman Ranch property. No new water or wastewater treatment facilities would need to be constructed for the Proposed Project. There would be no new or expanded natural gas facilities. Therefore, no impacts would occur as a result of the proposed Project.

- b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years? (No Impact)**

There would be sufficient water supplies available to serve the proposed Project from existing entitlements and resources. No new or expanded entitlements would be needed. Therefore, no impacts would occur as a result of the proposed Project.

- 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? (No Impact)**

The Hellman Ranch Property is served by the City of Seal Beach water and wastewater infrastructure. The Proposed Project would not generate any wastewater from the gas plant operations and would not require any modifications to the existing sewer or water connections that currently exist at the facility. Therefore, no impacts would occur as a result of the proposed Project.

- d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals? (No Impact)**

The Hellman Ranch property is currently served by the Frank R. Bowerman landfill. The Frank R. Bowerman Landfill is a state-of-the-art, Class III, municipal solid waste landfill. Opened in 1990 near Irvine, CA, it is permitted for 11,500 tons per day (TPD) maximum with an 8,500 TPD annual average. The landfill has enough projected capacity to serve residents and businesses until approximately 2053. Operation of the gas plant would generate minimal solid waste. The County's landfill system has enough permitted capacity to accommodate the proposed Project's solid waste disposal needs. Therefore, no impacts would occur as a result of the proposed Project.

**e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste? (No Impact)**

All local, state, and federal guidelines regarding solid waste will be complied with during project construction and operation. Therefore, no impacts would occur as a result of the proposed Project.

**20. Wildfire**

Wildfire risk in California is evaluated on a three-tier scale based on fire hazard severity potential: very high, high, and moderate. The California Department of Forestry and Fire Protection (CALFIRE) maps all areas in the state that could fall under any tier of this scale and divides these areas into zones. This Plan is concerned with the location of Very High Fire Hazard Severity Zones (VHFHSZs). The City of Seal Beach has no land that is currently classified as VHFHSZs. Seal Beach does not have a history of wildfires. As the City has become increasingly developed over time, the amount of land where wildfires could emerge has shrunk. Given how little undeveloped land remains in Seal Beach that the City directly controls, it is unlikely that the City will be affected by a wildfire of any significance (City of Seal Beach, 2019).

Would the Project:

**a) Substantially impair an adopted emergency response plan or emergency evacuation plan? (No Impact)**

The project is required to meet all applicable fire codes and City regulations that provide for adequate access to and from the site and would not impair access. The project would not impair the implementation or physically interfere with an adopted emergency response plan or emergency evacuation plan. Therefore, no impacts would occur as a result of the proposed Project.

**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? (Less than Significant Impact with Mitigation Incorporated)**

The proposed gas plant would be located with the existing Hellman Ranch OGP in an area that would not be expected to increase the risk of a wildfire in the event of a fire at the gas plant. A preliminary Fire Protection Plan has been prepared for the gas plant that details several design features that would be incorporated into the design of the gas plant to reduce the likelihood for a

fire. The facility would be equipped with fire extinguishers and access to the existing firewater system at the Hellman Ranch OGPF. Implementation of the Fire Protection Plan would reduce the potential for a fire at the proposed gas plant resulting in a wildland fire to less than significant. Mitigation measure HM-1 requires the City Fire Chief to review and approval a final Fire Protection Plan.

**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? (No Impact)**

No new roads, fuel breaks, emergency water sources, power lines or other utilities would need to be installed as part of the proposed gas plant project. All required roads and associated utility connections for the proposed gas plant are currently located at the proposed Project site. Fire water for the gas plant would be provided from the existing fire water system located at the crude oil storage facility. Maintenance of the existing roads, power lines and other utilities at the Hellman Ranch OGPF would remain that same as the current operations. Therefore, no impacts would occur as a result of the proposed Project.

**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? (No Impact)**

The project is surrounded by urbanized uses and the San Gabriel River and is located on flat land. In the unlikely event of a fire, the area around the Hellman Ranch OGPF would not pose a significant risk to people or structures due to runoff, post-fire slope instability or drainage changes due to the flat topography of the site. Therefore, no impacts would occur as a result of the proposed Project.

## **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?**

Based on the preceding analysis, the proposed Project does not have the potential to substantially degrade the quality of the environment, nor 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. Specifically, the proposed Project involves the construction and operation of a gas plant within an

existing oil extraction facility. Therefore, no impacts would occur as a result of the proposed Project.

- 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.)**

The proposed Project involves the construction and operations of a gas plant within an existing oil extraction facility. The new gas plant would transfer the existing gas processing operations to a more efficient plant at a safer location, which would also be closer to the source of the production than the current gas plant. This would eliminate the need to transport produced gas to the existing offsite gas plant and would also eliminate the need to truck natural gas liquids from the existing gas plant back to the Hellman Ranch facility. The proposed gas plant would not result in an increase in oil or gas production at the site. Therefore, the proposed Project would not directly result in impacts that would be individually limited, but cumulatively considerable.

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

The proposed Project involves the construction and operation of a gas plant within an existing oil extraction facility. The proposed gas plant would not result in an increase in oil and gas production at the site. Based upon the analysis presented above, the proposed Project would not have a substantial adverse effect on human beings either directly or indirectly with the incorporation of the recommended mitigation measures.

In view of the above analysis, it is determined that the proposed Project would not have a significant impact on the environment and an environmental impact report is not required.

## **E. List of Reference Documents**

AECOM. 2019. Hellman Proposed Gas Plant Cultural Resources Assessment Report, October 18, 2019.

Association of Environmental Professionals. 2019. 2019 CEQA Statute & Guidelines, 2019.

California Coastal Commission. 2019. Public Resources Code Division 20 California Coastal Act, 2019.

\_\_\_\_\_. 2000. Coastal Development Permit 5-97-367-A 1, October 2000

Caltrans. 2019. Caltrans Traffic Volumes, <https://dot.ca.gov/programs/traffic-operations/census/traffic-volumes/2017/route-1>

\_\_\_\_\_. 2020. Transportation and Construction Vibration Guidance Manual. April 2020.

- City of Seal Beach. 2003. City of Seal Beach General Plan, Adopted December 2003.
- \_\_\_\_. 2003. Land Use Element, Adopted December 2003.
- \_\_\_\_. 2003. Open Space/Conservation Element, Adopted December 2003.
- \_\_\_\_. 2003. Noise Element, Adopted December 2003.
- \_\_\_\_. 2003. Circulation Element, Adopted December 2003.
- \_\_\_\_. 2003. Cultural Resources Element, Adopted December 2003.
- \_\_\_\_. Zoning Map, Marina Hill, Hellman Ranch & Boeing Facility.
- \_\_\_\_. 2016. 2015 Urban Water Management Plan, June 2016.
- \_\_\_\_. 2018. Sewer System Management Plan, February 2018.
- \_\_\_\_. 2019. Local Hazard Mitigation Plan, May 31, 2019.
- \_\_\_\_. 2019a. Sea Level Rise Vulnerability Assessment. July 2019.
- \_\_\_\_. 1996. Hellman Ranch Specific Plan, 1996.
- Fusco Engineering, Inc. 2018. County of Orange/Santa Ana Region Non-Priority Project Water Quality Plan for Hellman Ranch Gas Plant, November 9, 2018.
- Federal Transit Administration. 2006. Transit Noise and Vibration Impact Assessment. May 2006.
- Glenn Lukos Associates. 2018. Jurisdictional Determination for Proposed Hellman Gas Plant Project, Seal Beach, Orange County, California, September 13, 2018.
- Moffatt & Nichol. 2019. Hellman Ranch Gas Plant Sea Level Rise Study, June 20, 2019.
- MRS Environmental, Inc. 2018. Hellman Ranch Gas Plant Project Air Emission Report, November 2018.
- \_\_\_\_. 2018a. Hellman Gas Plant Project Hazards Report, November 2018.
- \_\_\_\_. 2019. Hellman Gas Plant Project Noise Report, June 2019.
- Spec Services. 2018. Hellman Gas Plant Preliminary Fire Protection Plan, February 13, 2018.
- Wood. 2018. Geotechnical Investigation Report-Hellman Gas Plant, July 9, 2018.
- Orange County Water District. 2015. Groundwater Management Plan 2015 Update, June 2015.

## **Appendix A.1**

### **CEQA Environmental Checklist**





## Environmental Checklist Form

### Introduction

This Initial Study has been prepared pursuant to the California Environmental Quality Act (CEQA) and the CEQA Guidelines as amended to determine if the proposed Hellman Ranch Gas Plant Project in the City of Seal Beach would have the potential to cause significant effects on the environment. The City of Seal Beach will use the Initial Study in deciding whether to approve the Project and whether to prepare an Environmental Impact Report (EIR), approve a Negative Declaration (ND), or approve a Mitigated Negative Declaration (MND) with mitigation measures.

### Project Background

**a) *Project Title:***

Hellman Gas Plant Project

**b) *Lead Agency Name and Address:***

City of Seal Beach  
211 Eighth Street  
Seal Beach, CA 90740

**c) *Contact Person and Phone Number:***

Steven Fowler  
Senior Planner, Department of Community Development  
City of Seal Beach  
211 Eighth Street  
Seal Beach, CA 90740  
(562) 431-2527, ext. 1316

**d) *Project Location:***

1 Pacific Coast Highway, Seal Beach, CA 90740 (just east of First Street)

**e) *Project Sponsor's Name and Address:***

Hellman Properties, LLC  
P.O. Box 2398, Seal Beach, CA 90740

**f) *General Plan Designation:***

Hellman Ranch Specific Plant-Development Planning Area 9

**g) *Zoning:***

Oil Extraction/Hellman Ranch Specific Plan

**h) *Description of Project:***

Hellman Properties, LLC proposes to construct and operate a one million standard cubic foot per day (MMscfd) gas plant at the Hellman Ranch Oil and Gas Production Facility (OGPF). The Hellman OGPF property is located east of the San Gabriel River and north of Pacific Highway, in the City of Seal Beach. The proposed gas plant would be designed with capacity to allow other

users of the current joint venture facility to process their gas. The proposed gas plant pad would be approximately 0.37 acres in size and would be in a previously disturbed area of the OGP. The site would be excavated to a depth of four feet and engineered material would be brought to the site to construct the final pad to an elevation of five to six feet above mean sea level. The work would require about 2,305 cubic yards of cut and 3,555 cubic yards of fill. Excavated material would be spread in previously designated soil recovery areas that were used during prior improvements to the property, and any organic rich soil would be stockpiled separately for future landscaping use. Existing improvements near the site consist of graded unpaved roads, graded pads, above and below ground pipelines, storage tanks, pumping units, and electrical power lines.

***i) Surrounding Land Uses:***

The property to the south of the proposed gas plant property is owned by the Los Cerritos Wetland Authority. This property is about 100 acres in size and is zoned open space-natural (OS-N). The property to the north of the proposed gas plant property is owned by the County of Orange and serves as a retention basin. This property is about 43 acres in size and is zoned open space-natural (OS-N). To the west of the proposed gas plant property is the Department of Water and Power Haynes Cooling Channel. On the far west side of the channel is property owned by the Los Cerritos Wetland Authority, which is about 71 acres in size coving both sides of the San Gabriel River. This property is located within the City of Long Beach. To the east of the proposed gas plant property site is a small open space area that contains the Hellman Ranch Trail. This area is zoned open-space natural (OS-N). The site primarily contains ruderal upland vegetation. Just to the east of this open space is residential housing comprised of all single-family homes. This area is zoned Residential Low Density-9 (RLD-9).

***j) Other Public Agencies Whose Approval is Required:***

South Coast Air Quality Management District  
Orange County Fire Authority

## 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.

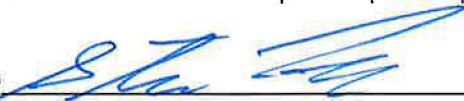
- |                                                    |                                                           |                                                             |
|----------------------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------|
| <input type="checkbox"/> Aesthetics                | <input type="checkbox"/> Agriculture / Forestry Resources | <input type="checkbox"/> Air Quality                        |
| <input type="checkbox"/> Biological Resources      | <input type="checkbox"/> Cultural Resources               | <input type="checkbox"/> Energy                             |
| <input type="checkbox"/> Geology/Soils             | <input type="checkbox"/> Greenhouse Gas Emissions         | <input type="checkbox"/> Hazards and Hazardous Materials    |
| <input type="checkbox"/> Hydrology/Water Quality   | <input type="checkbox"/> Land Use / Planning              | <input type="checkbox"/> Mineral Resources                  |
| <input type="checkbox"/> Noise                     | <input type="checkbox"/> Population / Housing             | <input type="checkbox"/> Public Services                    |
| <input type="checkbox"/> Recreation                | <input type="checkbox"/> Transportation                   | <input type="checkbox"/> Tribal Cultural Resources          |
| <input type="checkbox"/> Utilities/Service Systems | <input type="checkbox"/> Wildfire                         | <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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature



Date

5/29/20

## 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

### City of Seal Beach Environmental Checklist

| Issue                                                                                                                                                                                                                                                                                                                                                                      | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| <b>I. AESTHETICS.</b> 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/> |

| Issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>II. AGRICULTURE AND FORESTRY RESOURCES.</b> In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project: |                                |                                                    |                              |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on 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"/> |
| 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"/> |

## Initial Study and Mitigated Negative Declaration

| Issue                                                                                                                                                                                                                                           | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| <b>III. AIR QUALITY.</b> Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project: |                                |                                                    |                                     |                          |
| a) Conflict with or obstruct implementation of the applicable air quality plan?                                                                                                                                                                 | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/>                | <input 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

| Issue                                                                                                                                                                                                                                                                                                                | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>IV. BIOLOGICAL RESOURCES.</b> Would the project:                                                                                                                                                                                                                                                                  |                                |                                                    |                                     |                                     |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service? | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input 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 Wildlife or U.S. Fish and Wildlife Service?                                                               | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input 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"/> |
| 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"/> |

| Issue                                                                                                          | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|----------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| <b>V. CULTURAL RESOURCES.</b> Would the project:                                                               |                                |                                                    |                                     |                          |
| a) Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5?      | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5? | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input 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"/> |



## Initial Study and Mitigated Negative Declaration

| Issue                                                                                                                                                                             | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>VI. ENERGY.</b> 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 checked="" type="checkbox"/> | <input 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"/> |

| Issue                                                                                                                                                                                                                                                                                   | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>VII. GEOLOGY AND SOILS.</b> Would the project:                                                                                                                                                                                                                                       |                                |                                                    |                              |                                     |
| a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:                                                                                                                                                          | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/>            |
| 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?                                                                                                                                                                                                                                                      | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/>            |
| iii. Seismic-related ground failure, including liquefaction?                                                                                                                                                                                                                            | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/>            |
| iv. Landslides?                                                                                                                                                                                                                                                                         | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/>            |
| b) Result in substantial soil erosion or the loss of topsoil?                                                                                                                                                                                                                           | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/>            |
| 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 checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input 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 checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input 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"/> |

| Issue                                                                                                                            | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                |
|----------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|--------------------------|
| <b>VIII. GREENHOUSE GAS EMISSIONS.</b> 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 checked="" type="checkbox"/> | <input type="checkbox"/> |

## Initial Study and Mitigated Negative Declaration

| Issue                                                                                                                                                                                                                                                                               | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>IX. HAZARDS AND HAZARDOUS MATERIALS.</b> 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 checked="" type="checkbox"/> | <input 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 type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" 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 type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) 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?                                                            | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 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 checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/>            |

| Issue                                                                                                                                                                                                                  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>X. HYDROLOGY AND WATER QUALITY.</b> 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 checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input 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 checked="" type="checkbox"/> | <input 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: | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| i. result in a substantial erosion or siltation on- or off-site;                                                                                                                                                       | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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 checked="" type="checkbox"/> | <input 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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| Issue                                                                                                                                                                                  | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XI. LAND USE AND PLANNING.</b> 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"/> |

| Issue                                                                                                                                                                 | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XII. MINERAL RESOURCES.</b> Would the project:                                                                                                                     |                                |                                                    |                              |                                     |
| a) 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?                                 | <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"/> |

| Issue                                                                                                                                                                                                                                                                                                     | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>XIII. NOISE.</b> 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 checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/>            |
| b) Generation of excessive groundborne vibration or groundborne noise levels?                                                                                                                                                                                                                             | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input checked="" type="checkbox"/> | <input 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"/> |

| Issue                                                                                                                                                                                                               | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XIV. POPULATION AND HOUSING.</b> Would the project:                                                                                                                                                              |                                |                                                    |                              |                                     |
| a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <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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| Issue                                                                                                                                                                                                                                                                                                                                                                                                      | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XV. PUBLIC SERVICES.</b> 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: | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| i. Fire protection?                                                                                                                                                                                                                                                                                                                                                                                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| ii. Police protection?                                                                                                                                                                                                                                                                                                                                                                                     | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| iii. Schools?                                                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| iv. Parks?                                                                                                                                                                                                                                                                                                                                                                                                 | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| v. Other public facilities?                                                                                                                                                                                                                                                                                                                                                                                | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

| Issue                                                                                                                                                                                                          | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XIV. RECREATION.</b> Would the project:                                                                                                                                                                     |                                |                                                    |                              |                                     |
| 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"/> |

| Issue                                                                                                                                                            | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XVII. TRANSPORTATION.</b> 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 type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?                                                                                  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input 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 type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| d) Result in inadequate emergency access?                                                                                                                        | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

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| Issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|--------------------------|
| <b>XVIII. TRIBAL CULTURAL RESOURCES.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                |                                                    |                              |                          |
| 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:<br>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 checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input 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 § 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.                                                                                                                                                                               | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input type="checkbox"/> |

| Issue                                                                                                                                                                                                                                                                                | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XIX. UTILITIES AND SERVICE SYSTEMS.</b> 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"/> |
| d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?                                                                                              | <input type="checkbox"/>       | <input type="checkbox"/>                           | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| e) 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"/> |

| Issue                                                                                                                                                 | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XX. WILDFIRE.</b> 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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| Issue                                                                                                                                                                                                                                                              | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact | No Impact                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|------------------------------|-------------------------------------|
| <b>XX. WILDFIRE.</b> If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:                                                                                                              |                                |                                                    |                              |                                     |
| 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 checked="" type="checkbox"/>                | <input type="checkbox"/>     | <input 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"/> |

| Issue                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Potentially Significant Impact | Less Than Significant With Mitigation Incorporated | Less Than Significant Impact        | No Impact                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|----------------------------------------------------|-------------------------------------|-------------------------------------|
| <b>XXI. MANDATORY FINDINGS OF SIGNIFICANCE.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                |                                                    |                                     |                                     |
| 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? | <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 type="checkbox"/>       | <input checked="" type="checkbox"/>                | <input type="checkbox"/>            | <input type="checkbox"/>            |

## **Appendix A.2**

### **Mitigation Monitoring Program**





## MITIGATION MONITORING PROGRAM CHECKLIST

Project Name.: Hellman Gas Plant ProjectApplicant: Hellman Properties, LLCInitial Study/MND Approved by: Steve FowlerDate: June 1, 2020

| Mitigation Measures No. /<br>Implementing Action                                                                                                                                                                                                                                                                                                                                                                                        | Responsible<br>for Monitoring | Monitoring<br>Frequency | Timing of<br>Verification                                                         | Method of<br>Verification | Verified<br>Date /Initials | Sanctions for<br>Non-Compliance |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------|-----------------------------------------------------------------------------------|---------------------------|----------------------------|---------------------------------|
| <b>Aesthetics</b>                                                                                                                                                                                                                                                                                                                                                                                                                       |                               |                         |                                                                                   |                           |                            |                                 |
| <b>Mitigation Measure AE-1</b> – Prior to issuance of a building permit, a Lighting Plan for the gas plant facility shall be prepared and submitted to the Community Development Department for review and approval. The Lighting Plan shall specify the location and type of exterior light sources and shall include that all lighting figures shall be shielded, downward-casting and dark sky compliant.                            | CDD                           | B/D                     | Prior to<br>Issuance of<br>Building Permits<br><br>Prior to Facility<br>Operation | D/A                       |                            | 2                               |
| <b>Air Quality</b>                                                                                                                                                                                                                                                                                                                                                                                                                      |                               |                         |                                                                                   |                           |                            |                                 |
| <b>Mitigation Measure AQ-1</b> – During construction activities, the contractor shall ensure that measures are complied with to reduce short-term (construction) air quality impacts associated with the Project:<br>a) controlling fugitive dust by regular watering or other dust palliative measures (such as covering stockpiles with tarps) to meet South Coast Air Quality Management District (SCAQMD) Rule 403 (Fugitive Dust); | PD                            | C                       | During<br>construction                                                            | A                         |                            | 4                               |
| b) maintaining equipment engines in proper tune and use Tier-4-rated heavy equipment;                                                                                                                                                                                                                                                                                                                                                   | PD                            | C                       | During<br>construction                                                            | A                         |                            | 4                               |
| c) enforce 5-minute idling limits for both on-road trucks and off-road equipment;                                                                                                                                                                                                                                                                                                                                                       | PD                            | C                       | During<br>construction                                                            | A                         |                            | 4                               |
| d) provide water spray during loading and unloading of earthen materials;                                                                                                                                                                                                                                                                                                                                                               | PD                            | C                       | During<br>construction                                                            | A                         |                            | 4                               |

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| Mitigation Measures No. / Implementing Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Responsible for Monitoring | Monitoring Frequency | Timing of Verification                                           | Method of Verification | Verified Date /Initials | Sanctions for Non-Compliance |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|------------------------------------------------------------------|------------------------|-------------------------|------------------------------|
| e) cover all trucks hauling dirt, sand or loose material or require all trucks to maintain at least two feet of freeboard;                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | PD                         | C                    | During construction                                              | A                      |                         | 4                            |
| f) sweep streets daily if visible soil material is carried out from construction site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | PD                         | C                    | During construction                                              | A                      |                         | 4                            |
| <b>Cultural Resources</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                      |                                                                  |                        |                         |                              |
| <b>Mitigation Measure CR-1</b> – Prior to issuance of a grading permit an Archeological Monitoring and Unanticipated Discovery Treatment Plan shall be submitted to the Community Development Department for review and approval. The plan shall be prepared by a City approved archaeologist. The plans shall specify the monitoring procedures, the field and laboratory methods that would be used for treatment of unanticipated discoveries, and the requirements for Native American participation in the monitoring activities. An archaeologist and Native American Monitor shall be present at the site during all ground disturbance activities. | CDD                        | B                    | Prior to Issuance of Building Permit                             | D                      |                         | 2                            |
| <b>Mitigation Measure CR-2</b> - An archaeologist and Native American Monitor shall be present at the site during all ground disturbance activities.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | PD                         | C                    | During Construction                                              | A                      |                         | 4                            |
| <b>Geology and Soils</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                            |                      |                                                                  |                        |                         |                              |
| <b>Mitigation Measure GS-1</b> – The project proponent shall comply with all recommendations identified with the "Geotechnical Investigation Report - Hellman Gas Plant Expansion" was prepared by Wood Environmental & Infrastructure Solutions, Inc. (Wood) dated July 9, 2018 or any subsequent update. All the recommendations from the Geotechnical Investigation Report shall be included in the final project plans that are submitted to the City of Seal Beach for review and approval prior to issuance of grading permits.                                                                                                                      | BO                         | B/C                  | Prior to Issuance of Building Permits<br><br>During Construction | C/A                    |                         | 2/4                          |

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| Mitigation Measures No. / Implementing Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Responsible for Monitoring | Monitoring Frequency | Timing of Verification                                           | Method of Verification | Verified Date /Initials | Sanctions for Non-Compliance |
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| <b>Mitigation Measure GS-2</b> – Prior to issuance of grading permits, the project proponent shall submit a drainage and erosion control plan to the Director of Public Works for review and approval. The drainage and erosion plan shall describe the construction site area (including area of immediate construction, all off-site staging, storage and stockpile areas), shall name the persons assuming responsibility for full compliance with the submitted plans for NPDES requirements, and will include topography for the entire project limits. The drainage and erosion control plan shall clearly identify all BMPs to be implemented during construction and their location. The plan will contain provision for specifically identifying and protecting all nearby drainage and wetland features (with sandbag barriers, filter fabric fences, straw bale filters, etc.) to prevent construction-related runoff and sediment from entering into those areas. The drainage and erosion control plan should make it clear that: (a) dry cleanup methods are preferred whenever possible and that if water cleanup is necessary, all runoff shall be collected to settle out sediments prior to discharge from the site; all dewatering operations shall require filtration mechanisms; (b) concrete rinsates shall be collected and shall not be allowed into storm drains; (c) good construction housekeeping shall be required (e.g., clean up all leaks, drips, and other spills immediately; refuel vehicles and heavy equipment off-site; keep materials covered and out of the rain (including covering exposed piles of soil and wastes); dispose of all wastes properly, place trash receptacles on site for that purpose, and cover open trash receptacles during wet weather); and (d) all erosion and sediment controls shall be in place prior to commencement of grading and/or construction as well as at the end of each day. | BO                         | B/C                  | Prior to Issuance of Building Permits<br><br>During Construction | C/A                    |                         | 2/4                          |

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| Mitigation Measures No. / Implementing Action                                                                                                                                                                                                                                                                                                                                                                                                           | Responsible for Monitoring | Monitoring Frequency | Timing of Verification                                                   | Method of Verification | Verified Date /Initials | Sanctions for Non-Compliance |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|----------------------|--------------------------------------------------------------------------|------------------------|-------------------------|------------------------------|
| <b>Hazards and Hazardous Materials</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |                            |                      |                                                                          |                        |                         |                              |
| <b>Mitigation Measure HM-1</b> – The “Preliminary Fire Protection Plan” dated February 13, 2018 shall be reviewed and approved by the Seal Beach Fire Chief. All recommendations in the Final Fire Protection Plan shall be included in the final project plans that are submitted to the City of Seal Beach for review and approval prior to issuance of grading permits.                                                                              | FC                         | B/D                  | Prior to Issuance of Building Permits<br><br>Prior to Facility Operation | D/A                    |                         | 2/4                          |
| <b>Hydrology and Water Quality</b>                                                                                                                                                                                                                                                                                                                                                                                                                      |                            |                      |                                                                          |                        |                         |                              |
| <b>Mitigation Measure WQ-1</b> – The project proponent shall submit a Final Non-Priority Water Quality Management Plan to the City for review and approval. All BMPs identified in the Non-Priority Water Quality Management Plan, shall be shown on the final construction drawings for the project that are submitted to the City prior to issuance of grading permits.                                                                               | BO                         | B/C                  | Prior to Issuance of Building Permit<br><br>During Construction          | D/A                    |                         | 2/4                          |
| <b>Noise</b>                                                                                                                                                                                                                                                                                                                                                                                                                                            |                            |                      |                                                                          |                        |                         |                              |
| <b>Mitigation Measure N-1</b> – Construction, grading, and haul truck deliveries shall not take place between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, 8:00 p.m. and 8:00 a.m. on Saturday, or at any time on Sunday or a national holiday.                                                                                                                                                                                                    | BO                         | C                    | During Construction                                                      | A                      |                         | 4                            |
| <b>Mitigation Measure N-2</b> – Prior to commencement of construction activities, notice shall be provided to surrounding residences immediately adjacent to Hellman Ranch, including Gum Grove Nature Park, regarding anticipated construction activity dates and times when substantial noise generating activities are anticipated to occur. Prior to distribution, the notice shall be reviewed and approved by the Community Development Director. | CDD                        | B                    | Prior to Issuance of Building Permit                                     | D                      |                         | 2                            |

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| Mitigation Measures No. /<br>Implementing Action                                                                                                                                                                                                                                                                                | Responsible<br>for Monitoring | Monitoring<br>Frequency | Timing of<br>Verification                  | Method of<br>Verification | Verified<br>Date /Initials | Sanctions for<br>Non-Compliance |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------|--------------------------------------------|---------------------------|----------------------------|---------------------------------|
| <b>Transportation</b>                                                                                                                                                                                                                                                                                                           |                               |                         |                                            |                           |                            |                                 |
| <b>Mitigation Measure TR-1</b> – Prior to approval of construction documents, a construction access and staging plan shall be submitted for review and approval by the Director of Public Works to ensure adequate separation from adjacent residential uses and wetland areas will be provided during construction activities. | BO                            | B                       | Prior to<br>Issuance of<br>Building Permit | D                         |                            | 2                               |

### Key to Checklist Abbreviations

| Responsible Person                               | Monitoring Frequency          | Method of Verification                          | Sanctions                               |
|--------------------------------------------------|-------------------------------|-------------------------------------------------|-----------------------------------------|
| CDD - Community Development Director or designee | A - With Each New Development | A - On-site Inspection                          | 1 - Withhold Recordation of Final Map   |
| PD - Planning Director or designee               | B - Prior To Construction     | B - Other Agency Permit / Approval              | 2 - Withhold Grading or Building Permit |
| CE - City Engineer or designee                   | C - Throughout Construction   | C - Plan Check                                  | 3 - Withhold Certificate of Occupancy   |
| BO - Building Official or designee               | D - On Completion             | D - Separate Submittal (Reports/Studies/ Plans) | 4 - Stop Work Order                     |
| PO - Police Captain or designee                  | E - Operating                 |                                                 | 5 - Retain Deposit or Bonds             |
| FC - Fire Chief or designee                      |                               |                                                 | 6 - Revoke CUP                          |
|                                                  |                               |                                                 | 7 - Citation                            |