Montebello Hills Recycled Water Pipeline and Pump Station Project

Draft Initial Study – Mitigated Negative Declaration

prepared by

Central Basin Municipal Water District
6252 Telegraph Road
Commerce, California 90040
Contact: Kevin P. Hunt, P.E., General Manager

prepared with the assistance of

Rincon Consultants, Inc.
250 East 1st Street, Suite 1400
Los Angeles, California 90012

May 2019

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
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Initial Study

1. Project Title

Montebello Hills Recycled Water Pipeline and Pump Station Project

2. Lead Agency Name and Address

Central Basin Municipal Water District
6252 Telegraph Road
Commerce, California 90040

3. Contact Person and Phone Number

Kevin P. Hunt, P.E., General Manager
(323) 201-5548

4. Project Location

The project site is located in the city of Montebello and consists of a linear pipeline alignment in the public right-of-way extending along Montebello Boulevard from Lincoln Avenue to Jefferson Boulevard and an approximately 0.14-acre site located immediately east of the intersection of Montebello Boulevard and Jefferson Boulevard. Figure 1 shows the project site's regional context. Figure 2 shows the project site at a local scale. Site photos are shown in Figure 3 through Figure 7.

5. Project Sponsor's Name and Address

Central Basin Municipal Water District
6252 Telegraph Road
Commerce, California 90040

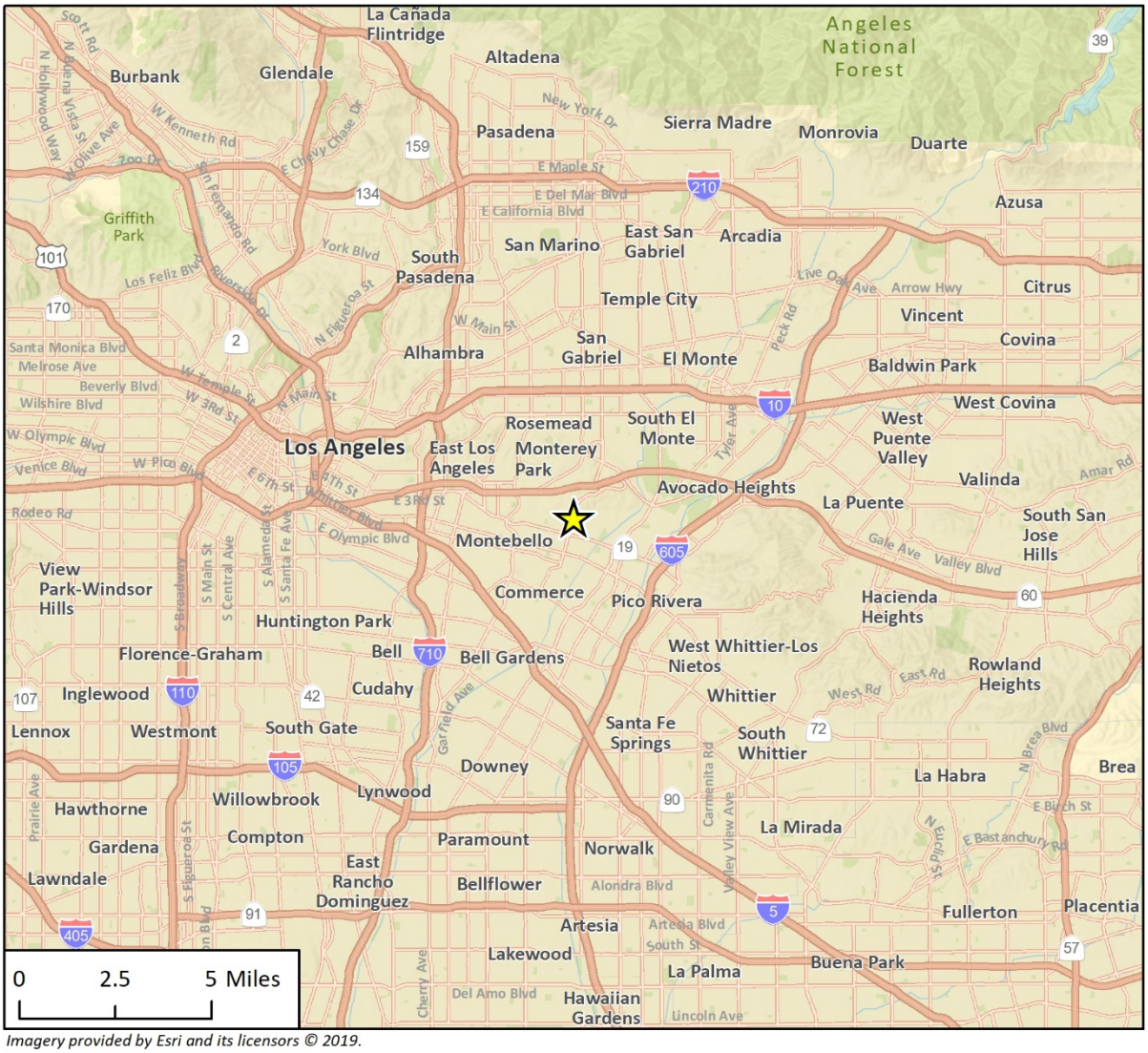
6. General Plan Designation

The pipeline alignment is located within existing public roadway rights-of-way and does not have a land use designation. The pump station location is designated Specific Plan.

7. Zoning

The pipeline alignment is located within existing public roadway rights-of-way and is not zoned. The pump station location is zoned as SP-O (Specific Plan) (Oil and Gas Production Overlay District).

Figure 1 Regional Location



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Project Location

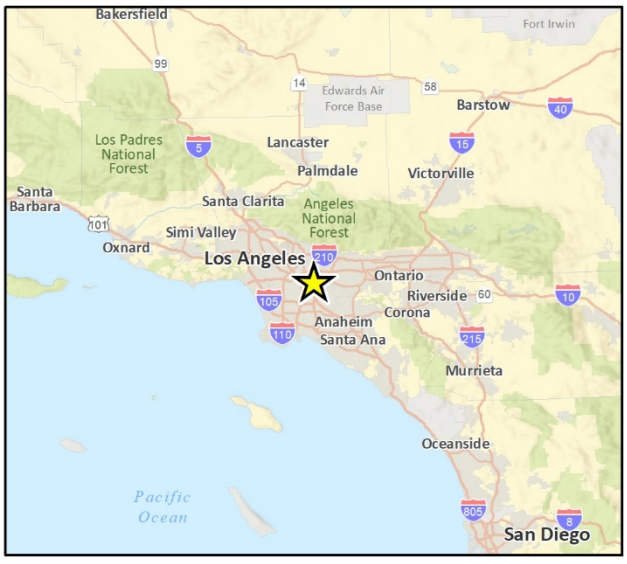

Figure 2 Project Site Location

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Figure 3 Representative View of Pipeline Alignment along Montebello Boulevard

Figure 4 View of Pump Station Location Facing North

Figure 5 View of Pump Station Location Facing Northeast

Figure 6 View of Pump Station Location Facing South

Figure 7 View of Pump Station Location Facing Southeast

8. Description of Project

Background

The Montebello Hills Recycled Water Pipeline and Pump Station Project (herein referred to as "proposed project" or "project") is associated with development contemplated in the Montebello Hills Specific Plan, which is a planned 1,200-unit residential development encompassing 488 acres. The Montebello Hills Specific Plan and its accompanying Final Environmental Impact Report (FEIR) were approved and certified in June 2015. The environmental impacts of the proposed project were not addressed fully in the Montebello Hills Specific Plan FEIR because project design information was not available at that time. This Initial Study-Mitigated Negative Declaration considers the environmental impacts of the proposed project and is a standalone document that does not tier from the prior FEIR.

Project Description

The project would involve construction and operation of approximately 2,600 linear feet (LF) of a 16-inch recycled water pipeline and a pump station with a peak demand capacity of 1,825 gallons per minute (gpm).[1] The proposed pipeline would connect to the District's existing recycled water system pipeline at the intersection of Lincoln Avenue and Montebello Boulevard. Beginning at this

[1] A temporary skid-mounted pump station placed on a concrete slab within a small prefabricated enclosure may be utilized by the construction contractor for the Montebello Hills Specific Plan development until the permanent pump station can be completed. The temporary pump station would be located on the same footprint as the permanent pump station.

intersection, the pipeline would extend north along Montebello Boulevard to the intersection of Montebello Boulevard and Jefferson Boulevard. At this intersection, the pipeline would proceed to the east and connect to the proposed pump station. In accordance with State requirements, the pipeline would be purple and would contain lettering identifying the pipe as a recycled water pipeline to prevent any potential potable use. The pump station would consist of a concrete foundation and a pre-fabricated wood building that would enclose steel or cast iron pumps and steel pipeline. The pump station building would be approximately 252 square feet and would be approximately 14 feet in height. In addition, the pump station would include an approximately 15-foot wide, 100-foot long, gated access driveway off Montebello Boulevard and three parking spaces. Recycled water conveyed by the proposed pipeline and pump station would be supplied by the Sanitation Districts of Los Angeles County (LACSD) and would be delivered to the Montebello Hills Specific Plan area to be used for construction purposes, dust control, and landscaping irrigation. At the beginning of project operation, the maximum amount of recycled water delivered would be approximately 446 acre-feet per year (AFY); however, this amount would decrease over time to a long-term maximum of 240 AFY. The temporary, additional supply of 206 AFY would decrease over time as other projects originally designated this supply are completed and are ready to receive recycled water service. The recycled water supplied by the LACSD is part of the existing recycled water supply and would not cause a decrease in flow in any portion of a watercourse (Sullivan 2019). Because the timing of the decrease in maximum recycled water supply is unknown at this time and to provide a conservative estimate of project impacts, this analysis evaluates the impacts of a maximum of 446 AFY.

Construction

Construction of the pipeline would entail conventional, open trench excavation within existing public roadway rights-of-way. Open-trench excavation is a construction method typically utilized to install pipelines and their appurtenant structures, which include blow-offs, service meters, valves, and vaults. In general, the process consists of site preparation, excavation and shoring, pipe installation and backfilling, and street restoration (where applicable). Construction usually progresses along the alignment with the maximum length of open trench at one time being approximately 500 feet in length. The following is a description of the phases of construction for trenching:

- **Site Preparation.** Traffic control plans, where necessary, would be first prepared in coordination with the City of Montebello to detour and delineate the traffic lanes around the work area. The approved plans would then be implemented. The existing pavement along the pipeline alignment would be cut with a concrete saw or otherwise broken and then removed using jackhammers, pavement breakers, and loaders. Other similar equipment may be used. The pavement would be removed from the project site and recycled or disposed of at an appropriate facility.
- **Excavation and Shoring.** A trench would be excavated along the alignment using backhoes, excavators, or other types of excavation equipment. Portions of the trench adjacent to some utilities may be manually excavated. Approximately 211 cubic yards of soil would be hauled away and disposed of at an appropriate facility. The remainder of the excavated soil would be temporarily stored adjacent to the trenches or stored at off-site staging areas to be used as trench backfill.

  The maximum width of the trench for the proposed pipeline would be approximately four feet wide with a maximum open trench length of approximately 500 feet long. Depending on the

depth of adjacent substructures along the alignment, the depth of the trench would range from approximately 4 feet to 10 feet below the ground surface. As the trench is excavated, the trench walls would be supported, or shored, typically with hydraulic jacks or trench boxes. Steel or wood sheeting between H-beams (e.g., beam and plate) may also be used for shoring. Other similar shoring methods may be utilized. Utilities not relocated prior to trenching would be supported as excavation and shoring occurs.

Based on groundwater levels in the project area, it is not anticipated that pipeline construction activities would encounter groundwater. However, in the event that construction occurs in areas with high groundwater, the groundwater would be removed during the excavation of the trenches, usually by pumping it from the ground through dewatering wells that have been drilled along the alignment. The extracted groundwater would first be treated for any contaminants, if present, via settling out solids before being discharged to the storm drain or sewer system in accordance with applicable permits and regulations.

- **Pipe Installation and Backfilling**. Once the trench has been excavated and shored, pipelaying would begin. Bedding material (such as sand or slurry) would be placed on the bottom of the trench. Pipe segments would then be lowered into the trench and placed on the bedding. If pipeline segments used do not include push-on joints, the segments would be bolted or welded to one another at the joints. Pipeline segments are brought from the staging area to the active portion of the trench in approximately 20-foot lengths. Pipe joints would be deflected per the pipe manufacturer's recommendations for slight route changes or curves to conform to topography. Fittings would be installed to account for horizontal and vertical changes in route.

  The amount of pipe installed in a single day would vary but is expected to range from 100 to 300 feet per day for the proposed project. The recycled water line would be constructed to maintain the minimum separation from existing potable water lines in accordance with applicable regulations. Prior to backfilling, appurtenant structures would be installed as necessitated by design. After laying and attaching the pipe segments, additional fine grained sand would be placed at least 12 inches above the pipeline. The trench would then be immediately backfilled with native soils, crushed miscellaneous bases, or cement slurry. No more than 500 feet of trench would be left open at any given time and location. Any open trench at the end of each work day would be covered with steel plates for public safety and so traffic could resume use of the roadway lanes.

- **Street Restoration.** Any portion of the roadway or landscaped areas damaged by construction activities would be repaved or restored in accordance with all applicable City of Montebello Department of Public Works standards. Once the pavement has been restored, traffic delineation (striping) would also be restored.

Construction Staging and Equipment

Project construction would consist of the linear pipeline construction tasks for the recycled water line expansion and the fixed construction tasks for the new pump station. The pipeline construction tasks, such as the pipeline trenching, would require a staging area to temporarily store supplies, materials, and equipment overnight. It is assumed the staging area for pipeline construction would be at existing parking lots in the nearby area or along the pipeline alignment within the paved roadway and the staging area for pump station construction would be at the pump station site. Off-road construction equipment would include backhoes, loaders, excavators, compressors, rollers, concrete pumps, cold planers, pavers, cranes, and generators depending on the task.

Construction Schedule

Construction of the new recycled water pipeline system would occur between August 2019 and October 2019. Construction of the pump station would occur between September 2019 and February 2020.[2] Construction activities would occur between 7:00 a.m. and 3:00 p.m. Monday through Friday. No nighttime construction is proposed.

Operation and Maintenance

Recycled water would be moved through the pipeline by the proposed pump station to be constructed east of the intersection of Montebello Boulevard and Jefferson Boulevard. The pump station would be unmanned, and the pumps would be electronically controlled and normally operated from a remote location. The quantity of water pumped would vary with maximum flows coinciding with peak demand for irrigation water in summer and minimum flows during winter. A maximum of approximately 446 AFY would be delivered through the pipeline annually, and the pump station would require a maximum of approximately 255,792 kWh of electricity per year for operation, which would be supplied by the electricity grid.

Maintenance of the proposed project facilities (pipeline and pump station) would include remote monitoring via the District's supervisory control and data acquisition (SCADA) system, meter reading, routine inspections and maintenance of facilities, periodic testing, and emergency repairs. Trash and weeds would be regularly removed from the vicinity of aboveground facilities. Maintenance activities would occur quarterly and on an as-needed basis, and approximately six to 12 vehicle trips by maintenance staff per year would occur. Regular and routine maintenance activities would not include any ground-disturbing activities.

9. Surrounding Land Uses and Setting

The pipeline alignment is surrounded primarily by residential, institutional, and recreational land uses. The Holy Cross Armenian Apostolic Church and Taylor Ranch Park are located west of the pipeline alignment near the intersection of Montebello Boulevard and Lincoln Avenue. The pump station location is surrounded by residential land uses and undeveloped land which is part of the Montebello Hills Specific Plan area.

10. Approvals from Other Agencies that May Be Required

CBMWD is the lead agency under the California Environmental Quality Act (CEQA) with responsibility for approving the project. Table 1 lists the other approvals that would likely be required for the project.

[2] All vegetation clearing and earthwork within occupied CAGN habitat (defined as within 500 feet of any gnatcatcher sighting [USFWS 2007a]) would be conducted between September 16 through February 14, outside of the breeding season for CAGN.

Table 1 Summary of Approvals that May Be Required

Entitlement	Jurisdiction(s)
Encroachment Permit	City of Montebello
Street Work Permit	City of Montebello
Temporary Construction Permits (for disturbance)	City of Montebello
Temporary Construction Easements (for legal permission to cross or use property or rights-of-way)	City of Montebello
Building, Electrical, Mechanical, and Plumbing permits (for pump station)	City of Montebello
Permanent Maintenance Easement	City of Montebello
Construction Site Maintenance Agreement	City of Montebello
National Pollutant Discharge Elimination System Stormwater Construction General Permit - Stormwater Pollution Prevention Plan Approval	Regional Water Quality Control Board – Los Angeles Region
Recycled Water Availability	Los Angeles County Sanitation District
Letter Approval to Connect Recycled Water Site	Los Angeles County Department of Public Health
Design Compliance with Title 22	State Water Resources Control Board

Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is "Potentially Significant" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

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

Determination

Based on 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 to the project have been made by or agreed to by Central Basin Municipal Water District. 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 "less than significant with mitigation incorporated" 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 potential 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

5/1/2019
Date

Kevin Hunt P.E.
Printed Name

General Manager
Title

Environmental Checklist

1 Aesthetics

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

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

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

Scenic vistas along the pipeline alignment are primarily visible from Montebello Boulevard near its intersection with Jefferson Boulevard and include limited views of the San Gabriel Mountains to the north, broad views of surrounding communities to the southeast, and views of the Montebello Hills. Scenic vistas at the pump station location consist of views of the Montebello Hills located immediately northeast of the pump station location. According to the City's General Plan Open Space Element, the hills in Montebello (which include the project site) are considered "scenic in nature" because they are "a landmark, an immediate point of identification, large enough to be seen from almost every location" within the city (City of Montebello 1973).

Scenic resources in the project vicinity consist of the Montebello Hills. There are no officially designated State or County scenic highways in the vicinity of the project site (California Department of Transportation [Caltrans] 2018a and 2018b). Furthermore, according to the City's General Plan Scenic Highways Element, there are no locally-designated scenic routes (City of Montebello 1973).

The proposed pipeline alignment is surrounded by residential, commercial, institutional, and recreational land uses typical of urbanized areas (see Figure 3 for a representative photograph of existing site conditions along the pipeline alignment). During construction of the proposed pipeline, scenic vistas visible from Montebello Boulevard would be temporarily impaired by the staging and operation of construction equipment. Up to 500 feet of scenic vistas would be temporarily impaired at any given time as construction activities move along the pipeline alignment. Once construction of the pipeline is complete, the pipeline would not result in permanent aesthetic changes that would alter scenic vistas from their existing conditions because it would be entirely underground. In addition, no trees would be removed due to construction of the project, and any damaged features, including landscaped areas and roadway pavement, would be restored. Therefore, the proposed pipeline would not have a substantial adverse impact on scenic vistas or scenic resources.

Scenic vistas near the pump station location consist of the surrounding Montebello Hills with native and non-native vegetation, chain link fencing, bare/disturbed land, a paved access driveway, and unpaved roadways (see Figure 4 through Figure 7 for photographs of existing site conditions). During construction of the proposed pump station, scenic vistas of the Montebello Hills would be temporarily impaired by the staging and operation of construction equipment. In addition, the project would permanently alter scenic views of the Montebello Hills from Montebello Boulevard by constructing a pump station in the foreground. The pump station would be approximately 252 square feet and approximately 14 feet in height and would consist of a concrete foundation and a pre-fabricated wood structure. The pump station would incrementally block scenic vistas of the hillsides as viewed from Montebello Boulevard. However, the pump station would be a small part of the overall view of the Montebello Hills, which would remain largely visible in the background. Furthermore, the pump station would be built at an elevation of approximately 383 feet above mean sea level (amsl), and the hillside ridgeline rises to an elevation of approximately 487 feet amsl. Therefore, the roofline of the approximately 14-foot-tall pump station would be at approximately 397 feet amsl, and the structure would not block views of the hillside ridgeline. Due to intervening topography and development, the pump station would not be visible from other vantage points of the Montebello Hills throughout the city and would not impact scenic vistas from these vantage points. In addition, construction of the pump station would require minor alterations to the lower portion of the hillside due to grading and building construction; however, the majority of the hillside would remain unchanged. Therefore, the proposed pump station would not have a substantial adverse impact on scenic vistas or scenic resources.

LESS THAN SIGNIFICANT IMPACT

c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a 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?

The project site is located in an urbanized area in the city of Montebello. The proposed pipeline alignment would be located underground within roadway rights-of-way and would not conflict with applicable zoning of surrounding land uses along the alignment. The proposed pump station would

be located on land zoned SP-O (Specific Plan) (Oil and Gas Production Overlay District). The pump station would serve development facilitated by the Montebello Hills Specific Plan and would therefore be consistent with this zoning designation. The pump station would consist of a pre-fabricated wood building that is approximately 252 square feet and approximately 14 feet in height. The appearance of the pump station would be similar to that of other pump stations located in urban areas. Therefore, the project would not conflict with applicable zoning and other regulations governing scenic quality, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Construction would occur during the daytime hours and would generally not require the use of lighting. However, construction lighting may be required during the afternoon hours in the late fall and early winter months. In this case, lights may be visible from surrounding roadways and residential and other land uses. Any necessary lights during construction activities would create a new temporary light source that would otherwise not be present. The lighting would not face toward adjacent uses and would be directed down towards construction activities. Furthermore, during installation of the proposed pipeline, the active construction area and any associated lighting would be continuously moving along the length of the alignment as each segment of pipeline is installed, making construction lighting impacts not only temporary but also short-term. Therefore, the project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the vicinity of the project site.

The proposed pipeline would not create a new source of light or glare once construction is complete because the proposed pipeline would be underground. The pump station may include safety lighting, which would be directed and shielded toward project facilities to ensure light spillage outside the site is minimized or avoided. In addition, the pump station would be constructed of non-reflective material. Therefore, impacts related to light and glare would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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2 Agriculture and Forestry Resources

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

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

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

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

d. Result in the loss of forest land or conversion of forest land to non-forest use?

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

The project site is not zoned for agricultural use and is not located on or near land mapped as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance under the California Department of Conservation's (CDOC) Farmland Mapping and Monitoring Program (CDOC 2016a). Furthermore, the project site is not on land enrolled under the Williamson Act or zoned for agricultural use (CDOC 2016b). Therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use and would not conflict with zoning for agricultural use or a Williamson Act contract. In addition, due to the absence of agricultural land on or near the project site, the project would not involve changes to the existing environment that could result in conversion of Farmland to non-agricultural use. No impact to agricultural resources would occur.

The project site is not zoned for forestland or timberland and is not located on or near forest land. Therefore, the project would not involve changes to the existing environment that could result in the loss of forest land or the conversion of forest land to non-forest use. No impact to forestry resources would occur.

NO IMPACT

3 Air Quality

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

Air Quality Standards and Attainment

The project area is within the South Coast Air Basin (SCAB) which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties, in addition to the San Gorgonio Pass area in Riverside County. The SCAB is under the regulatory jurisdiction of the South Coast Air Quality Management District (SCAQMD). The local air quality management agency is required to monitor air pollutant levels to ensure that National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether the standards are met or exceeded, the SCAB is classified as being in "attainment" or "nonattainment" for air quality. The SCAQMD's 2016 Air Quality Management Plan (AQMP) assesses the attainment status of the SCAB. The NAAQS and CAAQS attainment statuses for the SCAB are listed in Table 2. As shown therein, the SCAB is in nonattainment for the federal standards for ozone and particulate matter 2.5 microns or less in diameter ($PM_{2.5}$) and the State standards for ozone, particulate matter 10 microns or less in diameter (PM_{10}), and $PM_{2.5}$. Areas of the SCAB located in Los Angeles County are also in nonattainment for lead (SCAQMD 2017). The SCAB is designated unclassifiable or in attainment for all other federal and State standards. Thus, the SCAB currently exceeds several State and federal ambient air quality standards and is required to implement strategies that would reduce pollutant levels to recognized acceptable standards. The SCAQMD has adopted an AQMP that provides a strategy for the attainment of State and federal air quality standards.

Table 2 South Coast Air Basin Attainment Status

Pollutant	Standard	Designation
1-Hour Ozone	NAAQS CAAQS	Nonattainment (Extreme) Nonattainment
8-Hour Ozone	NAAQS CAAQS	Nonattainment (Extreme)[1] Nonattainment
CO	NAAQS CAAQS	Attainment (Maintenance) Attainment
NO_2	NAAQS CAAQS	Unclassifiable/Attainment Attainment
SO_2	NAAQS CAAQS	Designations Pending/Unclassifiable/Attainment[2] Attainment
PM_{10}	NAAQS CAAQS	Attainment (Maintenance) Nonattainment
$PM_{2.5}$ (24-hour) $PM_{2.5}$ (Annual)	NAAQS CAAQS	Nonattainment (Serious) Nonattainment
Lead	NAAQS CAAQS	Nonattainment (Partial)[3] Attainment
Hydrogen Sulfide	CAAQS	Unclassified[4]
Sulfates	CAAQS	Attainment

NAAQS: National Ambient Air Quality Standards; CAAQS: California Ambient Air Quality Standards; CO: carbon monoxide; PM_{10}: particulate matter 10 microns or less in size; $PM_{2.5}$: particulate matter 2.5 microns or less in size; NO_2: nitrogen dioxide; SO_2: sulfur dioxide

[1] Designated Nonattainment (Extreme) for the 1997 and 2008 8-Hour Ozone NAAQS. Designation is pending for the 2015 8-Hour Ozone NAAQS, but Nonattainment (Extreme) is expected.

[2] Designated Unclassifiable/Attainment for the Annual SO_2 NAAQS. Designation is pending for the 1-Hour SO_2 NAAQS, but t Unclassifiable/Attainment in expected.

[3] Designated Nonattainment (Partial) for the Los Angeles County portion of the SCAB only for near-source monitors. Los Angeles County is expected to remain in attainment based on current monitoring data, and the attainment re-designation request is pending.

[4] The SCAQMD began monitoring hydrogen sulfide in the southeastern Coachella Valley in November 2013 due to odor events related to the Salton Sea; three full years of data are not yet available for a state designation.

Source: SCAQMD 2017

In an effort to monitor the various concentrations of air pollutants throughout the SCAB, the SCAQMD has divided the region into 38 source receptor areas (SRAs) in which over 30 monitoring stations operate. The project is located within SRA 11, which covers the South San Gabriel Valley.

Air Quality Management

Under State law, the SCAQMD is required to prepare a plan for air quality improvement for pollutants for which the District is in nonattainment. The SCAQMD has adopted an AQMP that provides a strategy for the attainment of State and federal air quality standards. The SCAQMD updates the AQMP every three years. Each iteration of the AQMP is an update of the previous plan and has a 20-year horizon. The latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. The

2016 AQMP incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal 8-hour ozone standard of 0.070 parts per million (ppm) that was finalized in 2015. The 2016 AQMP builds upon the approaches taken in the 2012 AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal Clean Air Act, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. The 2016 AQMP also includes attainment demonstrations of the new federal 8-hour ozone standard and vehicle miles travelled (VMT) emissions offsets, as per recent United States Environmental Protection Agency requirements (SCAQMD 2017).

Air Emission Thresholds

The SCAQMD provides numerical thresholds to analyze the significance of a project's construction and operational emissions impacts on regional air quality. These thresholds, listed in Table 3, are designed such that a project consistent with the thresholds would not have an individually or cumulatively significant impact to the SCAB's air quality.

Table 3 SCAQMD Air Quality Significance Thresholds

	Mass Daily Thresholds	
Pollutant	**Construction Thresholds (pounds/day)**	**Operational Thresholds (pounds/day)**
NO_X	55	100
ROG[1]	55	75
PM_{10}	150	150
$PM_{2.5}$	55	55
SO_X	150	150
CO	550	550
Lead	3	3

NO_X: nitrogen oxides; ROG: reactive organic gases; PM_{10}: particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter; SO_X: sulfur oxides; CO: carbon monoxide

[1] ROGs are formed during combustion and evaporation of organic solvents. ROGs are also referred to as Volatile Organic Compounds (VOCs).

Source: SCAQMD 2015

In addition to the above thresholds, the SCAQMD has developed Localized Significance Thresholds (LSTs) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the CEQA Air Quality Handbook. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities and have been developed for nitrogen oxides (NO_X), carbon monoxide (CO), PM_{10}, and $PM_{2.5}$. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or State ambient air quality standard at the nearest sensitive

receptor, taking into consideration ambient concentrations in each SRA, distance to the sensitive receptor, and project size. LSTs only apply to emissions within a fixed stationary location and are not applicable to mobile sources, such as cars on a roadway (SCAQMD 2008a). According to the SCAQMD (2008) *Final Localized Significant Thresholds Methodology*, the use of LSTs is voluntary, to be implemented at the discretion of local agencies.

The project site is located in SRA 11, South San Gabriel Valley and is approximately 1.6 acres in size (SCAQMD 2008). LSTs have been developed for emissions within construction areas up to five acres in size. The SCAQMD provides lookup tables for sites that measure up to one, two, or five acres. Pursuant to SCAQMD guidance, a regression was conducted to calculate the LSTs for a 1.6-acre site. LSTs are provided for receptors at a distance of 25 to 500 meters (82 to 1,640 feet) from the project site boundary. The closest sensitive receptors to the project site are residences located adjacent to the project site. According to the SCAQMD's LST methodology, projects with boundaries closer than 25 meters (82 feet) to the nearest receptor should use the LSTs for receptors located at 25 meters (SCAQMD 2008). Accordingly, LSTs for construction on a 1.6-acre site in SRA 11 for a receptor at 25 meters are shown in Table 4.

Table 4 SCAQMD LSTs for Construction

Pollutant	Allowable Emissions from a 1.6-acre Site in SRA 11 for a Receptor at 25 Meters, or 82 Feet (pounds/day)
Gradual conversion of NO_x to NO_2	106
CO	888
PM_{10}	6
$PM_{2.5}$	5

SRA: Source Receptor Area; NO_X: nitrogen oxides; NO_2: nitrogen dioxide; CO: carbon monoxide; PM_{10}: particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter

Source: SCAQMD 2009

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

A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP. The proposed project would involve the construction of a recycled water pipeline and pump station. The project does not include new housing or businesses, nor would operation and maintenance of the proposed project require new employees; therefore, the project would not generate population, housing, or employment growth. As a result, the project would not exceed the Southern California Association of Governments' projected growth forecasts, which underlie the emissions forecasts in the 2016 AQMP. Therefore, the project would not conflict with or obstruct implementation of the AQMP. No impact would occur.

NO IMPACT

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

The project would generate short-term emissions associated with project construction and long-term emissions associated with operation and maintenance of the pump station. Construction emissions associated with the recycled water pipeline were estimated using the Roadway Construction Emission Model, version 9.0. The Roadway Construction Emission Model was developed by the Sacramento Metropolitan Air Quality Management District to calculate emissions from linear projects such as roadways, levees, or pipelines. Construction and operational emissions associated with the pump station were estimated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2. CalEEMod was developed by the SCAQMD and is used by jurisdictions throughout the state to quantify criteria pollutant emissions.

For the purposes of modeling, the analysis relied upon the following conservative assumptions:

- Pipeline corridor working area would extend up to 15 feet in width
- Construction activities would comply with SCAQMD Rule 403, an existing regulation that requires construction projects to suppress fugitive dust emissions
- The road surface would be up to 12 inches deep
- Construction equipment would be Tier 3 at a minimum per the requirements of SCAQMD Rule 401 and the California Air Resources Board's In-use Off-road Diesel-Fueled Fleets Regulation
- Maintenance activities would occur approximately 12 times per year and would require two one-way passenger vehicle trips by a staff member(s) and the use of a crane for four days per year for eight hours per day

Construction Emissions

Project construction would generate temporary air pollutant emissions associated with fugitive dust and exhaust emissions from heavy construction vehicles. The site preparation and excavation/shoring phases of the project would involve the largest use of heavy equipment and generation of fugitive dust. Because construction of the pipeline and the pump station would overlap for two months in September and October 2019, this analysis conservatively uses the combined maximum daily construction emissions for the pipeline and pump station to determine whether the project's construction emissions exceed SCAQMD thresholds. Table 5 summarizes maximum daily pollutant emissions during construction of the project.

Table 5 Construction Emissions Compared to SCAQMD Thresholds

	Estimated Maximum Daily Emissions (pounds/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Pipeline Construction	2.5	21.8	16.3	< 0.1	2.8	1.4
Pump Station Construction	0.2	4.6	7.3	< 0.1	0.6	0.5
Total Maximum Daily Emissions	**2.7**	**26.4**	**23.6**	**< 0.1**	**3.4**	**1.9**
SCAQMD Regional Thresholds	55	55	550	150	150	55
Threshold Exceeded?	No	No	No	No	No	No
Pump Station Construction (on-site only)	0.2	4.6	6.5	< 0.1	0.5	0.4
Pipeline Construction[1]	2.5	21.8	16.3	< 0.1	2.8	1.4
Total Maximum Daily On-Site Emissions	**2.7**	**26.4**	**22.8**	**< 0.1**	**3.3**	**1.8**
Local Significance Thresholds (on-site only)	n/a	106	888	n/a	6	5
Threshold Exceeded?	n/a	No	No	n/a	No	No

SCAQMD: South Coast Air Quality Management District; ROG: reactive organic gases; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter

[1] This is a conservative estimate, as it combines the linear pipeline portion of the project site with the pump station site. In addition, pipeline construction emissions shown here include both on- and off-site emissions.

See Appendix A for modeling results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Numbers may not add up due to rounding. Emission data is sourced from "mitigated" results, which include measures that will be implemented during project construction, such as watering of soils during construction required under SCAQMD Rule 403.

As shown in Table 5, project construction emissions would not exceed the SCAQMD's regional thresholds or LSTs. Therefore, impacts to regional air quality and local receptors due to construction emissions would be less than significant.

Operational Emissions

Operation of the proposed pipeline and pump station would require approximately 255,792 kWh of electricity per year for water transport; however, CalEEMod only calculates direct emissions of criteria pollutants from energy sources that combust on-site, such as natural gas used in a building (California Air Pollution Control Officers Association 2017). CalEEMod does not calculate or attribute emissions of criteria pollutants from electricity generation to individual projects because fossil fuel power plants are existing stationary sources permitted by air districts and/or the United States Environmental Protection Agency, and they are subject to local, state and federal control measures. Criteria pollutant emissions from power plants are associated with the power plants themselves, and not individual projects or electricity users.

Therefore, the primary source of operational emissions would be quarterly site visits to the pump station for visual inspection, maintenance activities, and as-needed repairs, which may include the

use of a crane. CalEEMod calculates emissions of criteria pollutants from individual projects based on mobile sources (vehicles) and on-site emissions sources, such as fuel combustion by off-road equipment (i.e., the crane). Table 6 summarizes maximum daily pollutant emissions during operation of the project.

Table 6 Pump Station Operational Emissions Compared to SCAQMD Thresholds

	Estimated Maximum Daily Emissions (pounds/day)					
	ROG	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Mobile	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Offroad	0.4	4.8	2.0	< 0.1	0.2	0.2
Total	**0.4**	**4.8**	**2.0**	**< 0.1**	**0.2**	**0.2**
SCAQMD Thresholds	75	100	550	150	150	55
Threshold Exceeded?	n/a	No	No	n/a	No	No

SCAQMD: South Coast Air Quality Management District; ROG: reactive organic gases; NO_X: nitrogen oxides; CO: carbon monoxide; SO_X: sulfur oxides; PM_{10}: particulate matter 10 microns or less in diameter; $PM_{2.5}$: particulate matter 2.5 microns or less in diameter

See Appendix A for modeling results.

Notes: Emissions presented are the highest of the winter and summer modeled emissions. Numbers may not add up due to rounding.

As shown in Table 6, operational emissions from the proposed project would not exceed the SCAQMD thresholds for any criteria pollutant. Therefore, operational emissions would have a less than significant impact on regional air quality.

Based on the impact analysis provided above, potential impacts of the proposed project related to the violation of an air quality standard or a cumulatively considerable net increase of criteria pollutants would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Certain population groups, such as children, the elderly, and people with health problems, are particularly sensitive to air pollution. Sensitive receptors are defined as land uses that are more likely to be used by these population groups and include health care facilities, retirement homes, school and playground facilities, and residential areas. The project site is located adjacent to a residential neighborhood. As discussed under item (b) above, the project's construction and operational emissions would not exceed the SCAQMD regional thresholds or LSTs, which are designed to be protective of public health.

Traffic-congested roadways and intersections have the potential for the generation of localized CO levels (i.e., CO hotspots). In general, CO hotspots occur in areas with poor circulation or areas with heavy traffic. As discussed above, operation of the proposed project would require quarterly and as-needed maintenance activities. This incremental increase in traffic volumes would not significantly impact congestion on local roadways, as discussed in Section 17, *Transportation*. Therefore, the project would not result in CO hotspots on adjacent roadways. Additionally, these trips would generally not occur during peak travel periods when most congestion occurs. The project would not

expose sensitive receptors to substantial pollutant concentrations, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

During construction, the project would generate oil and diesel fuel odors from use of heavy equipment as well as odors related to asphalt paving. The odors would be limited to the construction period and would be temporary. In addition, because the pipeline would be constructed in segments and would move along the alignment at a rate of approximately 100 to 300 feet per day, the adjacent residential receptors would only be exposed to construction-generated odors for a short period of time. Construction-related odors associated with the pump station would be limited to the five-month construction period. Furthermore, the asphalt paving phase is anticipated to be less than one month in duration. Construction-related odor impacts would be less than significant.

Operation of the project would not generate objectionable odors because the recycled water pipeline would be located entirely below the ground surface and would have a low potential to generate odors, and the pump station would be electrically-powered and enclosed in a structure. As a result, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

4 Biological Resources

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

The analysis presented in this section is based on a review of available technical information on biological resources in the project vicinity and a reconnaissance-level biological survey of the project site. A Rincon biologist conducted the reconnaissance-level biological survey for the proposed project on March 29, 2019. The survey area included a 200-foot buffer around the proposed pump station location and a 50-foot buffer on either side of the pipeline alignment. The purpose of the field survey was to document the existing biological conditions at the project site, including plant and wildlife species, vegetation communities, and jurisdictional waters and wetlands. Rincon evaluated the potential for presence of sensitive species, jurisdictional waters and/or special-status vegetation communities on the project site and assessed the potential for significant impacts to these resources based on the results of the survey and the review of existing information, including the Montebello Hills Specific Plan FEIR (City of Montebello 2015), the California Natural Diversity Database (CNDDB) (CDFW 2019a), the California Native Plant Society (CNPS) online inventory, California Department of Fish and Wildlife's (CDFW) Special Animals List (CDFW 2017) and Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2019b).

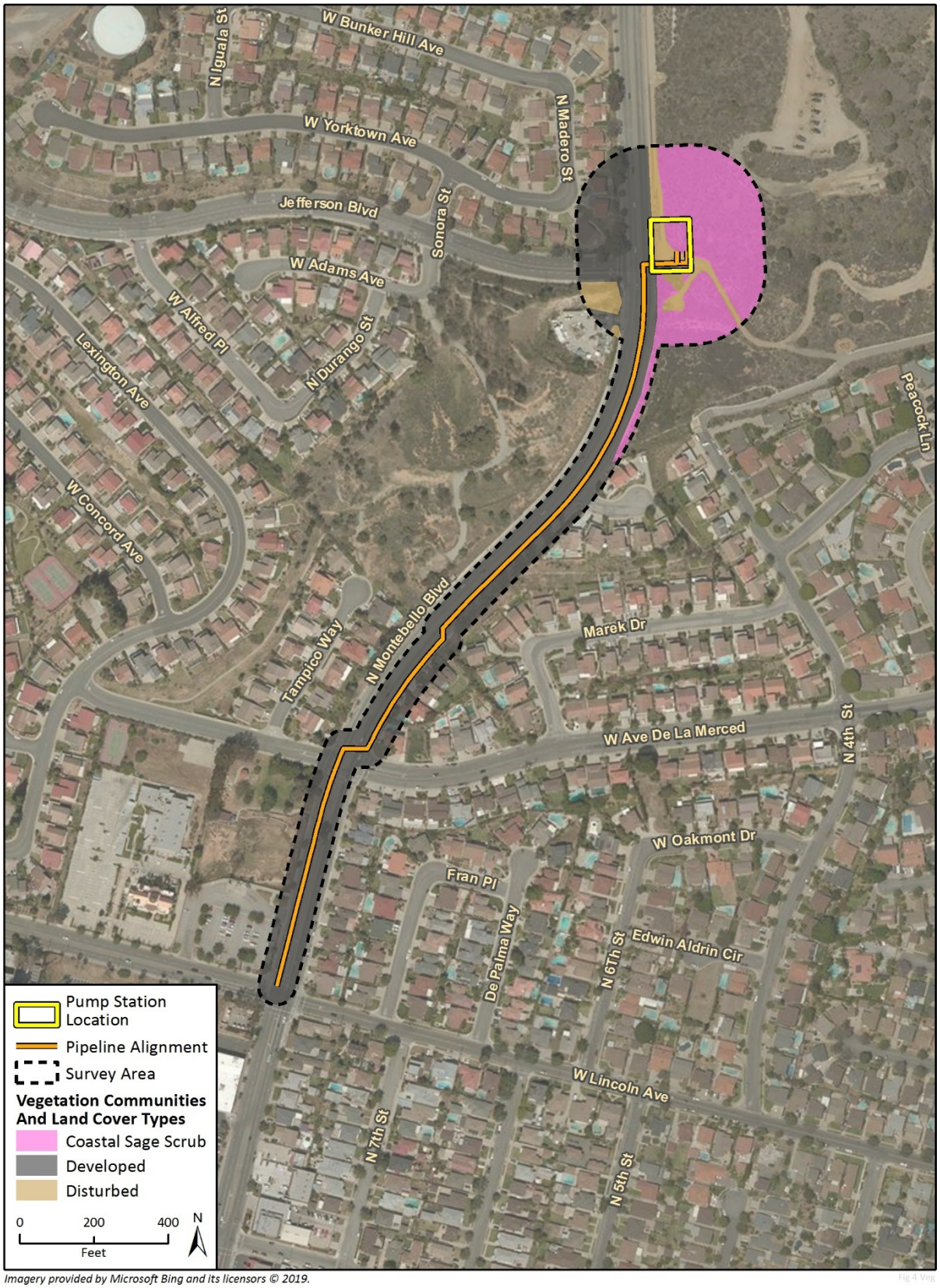
Regional and Project Setting

The project site is located in the city of Montebello, Los Angeles County, California, which is southwest of the intersection of State Route 60 and Interstate 605, as depicted on the United States Geological Survey 7.5-minute *El Monte* quadrangle map. The project region contains mostly dense urban residential and commercial development. The pump station location is approximately 3.5 miles west of an open space area consisting of Puente Hills, Whittier Narrows, and Chino Hills State Park.

The pipeline alignment is entirely within a developed area and surrounded primarily by residential, institutional, and recreational land uses. Residential areas surrounding the pipeline alignment contain ornamental trees and shrubs such as eucalyptus and pepper trees (*Eucalyptus* spp., *Schinus* spp.). The pump station location is bounded by residential land uses to the north and west and the 488-acre Montebello Hills Oil Field to the south, east, and west. The Montebello Hills Oil Field (oil field) area contains dense, mature coastal sage scrub (CSS), and approximately 0.41 acre of CSS is within the survey area surrounding the pump station location (Figure 8). This vegetation community is dominated by California encelia (*Encelia californica*), California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), coyote bush (*Baccharis pilularis*), and mulefat (*Baccharis salicifolia*). CSS on the oil field near the pump station location was created and enhanced in 2007 and 2008 (Natural Resources Consultants 2009). The oil field and proposed pump station location are within Unit 9 of coastal California gnatcatcher Critical Habitat designated by the United States Fish and Wildlife Service (USFWS) on December 19, 2007 (USFWS 2007a).

Topography within the survey area consists of rugged, steep hills within the oil field and rolling hills within residential areas. Elevations within the survey area range from 298 feet above mean sea level (amsl) to 440 feet amsl. Soils on the oil field are mapped by the Natural Resource Conservation Service as mined land, and soils along the pipeline alignment are mapped as Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced and Urban land-Montebello-Xerorthents complex, 0 to 15 percent slopes, terraced (United States Department of Agriculture [USDA] 2017). The Counterfeit soil series is somewhat poorly drained and is derived from human-transported material consisting mostly of colluvium and/or residuum weathered from sedimentary rock. Counterfeit soils are generally used for recreation, commercial and residential development in urban areas. Vegetation consists of ornamental plants, lawns, trees, shrubs, and annual grasses. The Montebello soil series is well-drained and consists of human-transported material consisting mostly of alluvium derived from

Figure 8 Vegetation Map



granite. Montebello soils are generally used for urban residential development and commercial areas. Montebello soils primarily support maintained lawns, ornamental trees and shrubs (USDA 2019a). None of the mapped soils within the survey area are considered hydric or have characteristics that typically support special-status plant species (e.g., dominance of clay, serpentine, alkaline) (USDA 2019b).

Wildlife observed within the survey area included commonly observed urban species such as mourning dove (*Zenaida macroura*), house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*), bushtit (*Psaltriparus minimus*), California scrub-jay (*Aphelocoma californica*), house sparrow (*Passer domesticus*), northern mockingbird (*Mimus polyglottos*), Anna's hummingbird (*Calypte anna*), white-crowned sparrow (*Zonotrichia leucophrys*), American crow (*Corvus brachyrhynchos*), European starling (*Sturnus vulgaris*), American robin (*Turdus migratorius*), and western fence lizard (*Sceloporus occidentalis*). Wildlife habitat along the pipeline alignment consists of ornamental vegetation. Wildlife habitat within the oil field is high quality CSS, and coastal California gnatcatcher (*Polioptila californica californica*) was observed within the survey area around the proposed pump station location.

Regulatory Setting

Regulatory authority over biological resources is shared by federal, state, and local authorities under a variety of statutes and guidelines. Primary authority for general biological resources lies with the land use control and planning authority of local jurisdictions. CDFW is a trustee agency for biological resources throughout the state under CEQA and also has direct jurisdiction under the California Fish and Game Code (CFGC). Under the State and federal Endangered Species Acts, CDFW and USFWS also have direct regulatory authority over species formally listed as Threatened or Endangered. The United States Department of Army Corps of Engineers (USACE) has regulatory authority over specific biological resources, namely wetlands and waters of the United States, under Section 404 of the federal Clean Water Act.

Plants or animals may be considered "special-status" due to declining populations, vulnerability to habitat change, or restricted distributions. Special-status species are classified in a variety of ways, both formally (e.g. State or Federally Threatened and Endangered Species) and informally ("Special Animals"). Species may be formally listed and protected as Threatened or Endangered by CDFW or USFWS or as California Fully Protected (CFP). Informal listings by agencies include California Species of Special Concern (SSC) a broad database category applied to species, roost sites, or nests, or as USFWS Candidate taxa. CDFW and local governmental agencies may also recognize special listings developed by focal groups (i.e., Audubon Society Blue List, CNPS Rare and Endangered Plants, and United States Forest Service regional lists).

While common birds are not designated as special-status species, destruction of their eggs, nests, and nestlings is prohibited by federal and State law. Section 3503.5 of the CFGC specifically protects birds of prey, and their nests and eggs against take, possession, or destruction. Section 3503 of the CFGC also incorporates restrictions imposed by the federal Migratory Bird Treaty Act (MBTA) with respect to migratory birds (which consists of most native bird species).

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

Special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by USFWS under the federal Endangered Species Act (FESA); those considered "Species of Concern" by USFWS; those listed or candidates for listing as Rare, Threatened, or Endangered by CDFW under the California Endangered Species Act (CESA); animals designated as "Fully Protected" by the CFGC; animals listed as "Species of Special Concern" (SSC) by CDFW; and CDFW Special Plants, specifically those with California Rare Plant Ranks (CRPR) of 1B, 2, 3, and 4 in the CNPS Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019). A list of special-status plant and animal species with potential to occur on-site was developed based on a review of a nine-quadrangle search of the CNDDB (CDFW 2019a) and the CNPS online Inventory of Rare and Endangered Vascular Plants of California (CNPS 2019). The potential for each special-status species to occur on the project site was evaluated according to the following criteria.

- **Not Expected.** Habitat on and adjacent to the project site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the project site is unsuitable or of very poor quality. The species is not likely to be found on the project site.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the project site is unsuitable. The species has a moderate probability of being found on the project site.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the project site is highly suitable. The species has a high probability of being found on the project site.
- **Present.** Species is observed or has been recorded (e.g., CNDDB or other reports) on the project site recently (within the last five years).

Special-Status Plants and Wildlife

The CNDDB five-mile radius search and CNPS database nine-quadrangle search yielded 38 special-status plant species and 17 special-status wildlife species. See Appendix B for a full list of special-status plant and wildlife species. Based on the plant communities observed on-site, prior development and disturbances, the prevalence of non-native species, and soil types present on-site, the project site does not provide suitable habitat for special-status plant species. Furthermore, the CSS within the study area has been restored, and no special-status plant species were planted in this location (USFWS 2009). No special-status plant species were observed within the survey area during the field survey. Therefore, no special-status plant species have a moderate or high potential to occur within the survey area, and no impacts to special-status plant species would occur as a result of the proposed project.

One special-status wildlife species, the federally-threatened coastal California gnatcatcher (CAGN), was observed within 200 feet of the pump station location during the field reconnaissance survey and has been documented during prior protocol surveys within the oil field (Environmental

Intelligence 2018). All other special-status wildlife species were excluded based on range, elevation, habitat needs (Appendix B).

Coastal California Gnatcatcher

Coastal California gnatcatcher is known to be present and nesting in the CSS habitat within the Montebello Hills Oil Field. Annual census surveys have been conducted for this species since 2005. In 2005, 66 pairs of CAGN were recorded on the oil field site, and the number of pairs increased each year to a high of over 200 pairs in 2012. In 2018, 92 nesting CAGN pairs were recorded on the oil field, and one pair was observed to have a territory within the pump station study area (Environmental Intelligence 2018). During the March 2019 field survey conducted by Rincon, one male CAGN was observed performing territorial displays on the oil field within 200 feet of the pump station location.

Direct impacts to CAGN from project activities would potentially include harassment, injury to or mortality of individuals that may occur due to destruction of active nests during vegetation trimming or nest failure from noise and other disturbance near a nest. Direct impacts would be considered "take" of a listed species and would be potentially significant. In order to address this potential for direct impacts to CAGN, Mitigation Measure BIO-1 would be implemented to minimize or avoid potential impacts. This mitigation measure would implement avoidance and minimization measures for CAGN during project construction.

The oil field contains high quality CSS nesting and foraging habitat for CAGN. Indirect impacts to this species through loss of habitat include conversion of approximately 0.14 acre of CSS to the proposed pump station. To address indirect impacts to CAGN habitat, Mitigation Measure BIO-2 would be implemented to create, enhance, and/or revegetate CSS at a minimum 1:1 ratio. Therefore, with implementation of Mitigation Measures BIO-1 and BIO-2, direct and indirect impacts to CAGN would be reduced to a less-than-significant level.

It is anticipated impacts to CAGN habitat under the Federal Endangered Species Act will also be addressed as part of the larger USFWS consultation and permitting process currently being undertaken by the developer of the Montebello Hills Specific Plan. The updated Biological Opinion is anticipated to be issued by USFWS in September 2019.

Nesting Birds

While common birds are not designated as special-status species, destruction of their eggs, nests, and nestlings is prohibited by federal and State law. The ornamental trees and shrubs present along the pipeline alignment may provide nesting habitat for common resident birds that were observed during the field survey, such as mourning dove, house finch, and California towhee. Several large ornamental trees are present on properties adjacent to the pipeline alignment that could provide potential habitat for nesting raptors, such as red-tailed hawk (*Buteo jamaicensis*). In addition, nesting habitat for CAGN and other resident birds is present within the CSS on the oil field. Nesting birds are protected under the MBTA and the CFGC. In addition to birds nesting during the normal nesting season (February 1 – August 31), birds found to be nesting outside of the normal nesting window may be directly or indirectly impacted. Therefore, impacts to nesting birds would be potentially significant. In order to address this potential to impact nesting birds, Mitigation Measure BIO-3 would be implemented to minimize or avoid potential impacts. This mitigation measure would implement pre-construction nesting bird surveys and avoidance measures. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

With implementation of the following mitigation measures, potential impacts related to special-status species under CEQA would be reduced to a less-than-significant level.

BIO-1 Coastal California Gnatcatcher Avoidance and Minimization Measures

The following avoidance and minimization measures for CAGN shall be implemented during project construction:

1. A qualified biological monitor shall be retained to conduct activities as specified in the following measures. The biological monitor shall be on-site throughout vegetation removal and grading of the pump station site and shall work with the construction contractor to coordinate construction activities such that impacts to the California gnatcatcher are minimized to the maximum extent feasible. The biological monitor shall be knowledgeable of gnatcatcher biology and CSS ecology. At least seven days prior to initiating project activities, the name(s), any permit numbers, and resumes of all proposed biological monitors shall be submitted to the USFWS in writing. Proposed activities shall not begin until an authorized biologist has been approved by the USFWS. The monitor shall have the authority to halt/suspend all activities that do not adhere to the USFWS's Biological Opinion (BO).
2. Prior to any ground disturbance, the grading limits shall be surveyed, staked, and fenced under the supervision of a biological monitor. No native vegetation removal or grading shall occur outside of the fenced grading limits. Fenced impact limits shall include erosion control measures to minimize erosion and siltation during initial vegetation clearing/removal and project construction through the use of silt fencing, siltation basins, gravel bags, or other controls necessary to stabilize the soil in cleared or graded areas. Erosion control measures shall be installed prior to the onset of vegetation clearing/removal. These measures shall be maintained in good repair until the completion of project construction.
3. The biological monitor shall conduct a contractor education program for all personnel. This program shall emphasize the conservation of CAGN and CSS species diversity during project construction and include: a) the purpose of resource protection, b) a description of CAGN and its habitat, c) the conservation measures that shall be implemented in conjunction with project construction, and d) the general provisions of the Federal Endangered Species Act. Informative pamphlets and signage for fencing between the grading areas and the conserved areas shall be provided.
4. Copies of the USFWS's BO shall be furnished to the Contract Foreman and all contractors as applicable. The Contract Foreman is defined here as the party responsible for ensuring avoidance and minimization measures are implemented for a particular activity in accordance with the BO.
5. Vegetation removal and clearing for the pump station site shall occur between September 1 and February 15, outside the California gnatcatcher breeding season. All clearing of vegetation shall take place in the presence of a biological monitor. Prior to the initial clearing and grubbing of any CSS habitat, or other suitable California gnatcatcher habitat, the biological monitor shall locate any individual California gnatcatchers on-site and direct operators to being in an area away from the birds. In addition, the biological monitor shall walk area of clearing and grubbing equipment to flush birds towards areas of habitat that shall be avoided. During the course of vegetation removal, the biological monitor shall provide a monthly summary detailing the locations of California gnatcatchers within approximately 100 feet of active clearing activities and any observed behavioral response.

6. If CAGN are found to be nesting outside of the breeding season, the following avoidance and minimization measures shall be implemented:
    a. Construction activity shall cease within 500 feet of the nest until such time as the nest is no longer active.
    b. To reduce potential noise impacts to nesting CAGN, a qualified acoustician shall be retained to monitor the pump station site on a weekly basis to determine if any nests are within a distance potentially affected by noise from construction activities. If nesting birds are located adjacent to the pump station site with the potential to be affected by construction activity noise above 60 dB(A) L_{eq}, a noise barrier shall be erected at the edge of the 500-foot buffer.[3] The noise barrier shall consist of a ten-foot-high continuous plywood fence supported by posts or an earthen berm located at the site boundary that abuts potential off-site habitat. If the noise level of 60 dB(A) L_{eq} is exceeded at the location of the nesting birds, the acoustician shall require the construction contractor to make operational and barrier changes to reduce noise levels to 60 dB(A) L_{eq}. Noise monitoring shall occur after implementation of operational changes and installation of barriers, as needed, to ensure effectiveness.
    c. The biological monitor shall be responsible for overseeing compliance with protective measures (e.g., buffers and noise mitigation) for the listed species during construction. The biological monitor shall have the authority to halt all associated project activities that may be in violation of the buffers or activity noise above 60 dB(A) L_{eq}.

BIO-2 Coastal Sage Scrub Habitat Creation/Enhancement/Revegetation

To mitigate for the proposed project's impacts to critical habitat for California gnatcatcher, the developer of the Montebello Hills Specific Plan shall provide land for CSS habitat creation, enhancement, and/or revegetation at a minimum 1:1 mitigation ratio (i.e., for every 1 acre removed, 1 acre shall be created, enhanced, and/or revegetated), or as otherwise indicated by the regulatory agencies during the permitting process, whichever is greater. The developer of the Montebello Hills Specific Plan shall prepare and implement a habitat mitigation and monitoring plan (HMMP; discussed in more detail below) that identifies an approach for implementing a conceptual mitigation plan for impacts to critical habitat for California gnatcatcher resulting from the proposed project. In addition, the developer of the Montebello Hills Specific Plan shall implement the conservation measures included in the BO for Montebello Hills Oil Field Operations and Habitat Restoration Project (FWS-LA-4077.6; USFWS 2007b).

Native plant seeds collected from Montebello Oil Field and the adjacent Puente/Chino Hills shall be the primary source of seeds for revegetation on manufactured slopes and creation areas. Planting stock from other regions shall not be used without prior approval by the USFWS. Planting, seeding, and maintenance of the manufactured slopes may occur year round; however, actions conducted during the breeding season shall be coordinated with the biological monitor and no actions shall occur within 100 feet of an active nest. All planting, seeding (except hydroseeding) and maintenance work shall be conducted with hand tools (i.e., machete, sickle, rake, hoe, or shovel).

The HMMP shall be prepared by a qualified biologist/restoration ecologist that outlines the compensatory mitigation in coordination with the regulatory agencies. Specifically, the HMMP and implementation plan shall include the following:

[3] The 60 dB(A) L_{eq} noise level is the standard typically requested by USFWS.

- Detailed site location for all aspects of the creation, enhancement, and/or revegetation;
- Detailed description and graphics of the mechanics of the creation, enhancement, and/or revegetation;
- Native plant palette, planting plan, time of year planting will occur, and irrigation plan;
- Maintenance program and invasive species control program; and
- Monitoring and reporting program with measurable success criteria that shall include the following:
    - Native vegetation within the enhancement areas shall be greater than 75 percent absolute cover, in the creation areas shall be greater than 65 percent absolute cover, and on manufactured slopes shall be greater than 60 percent absolute cover.

The developer of the Montebello Hills Specific Plan shall be responsible for maintenance and monitoring of the created habitat and re-vegetated habitat on manufactured slopes until the following criteria are met:

- No more than 5 percent absolute cover for non-native plant species as defined in the 2009 BO.
- 75 percent absolute cover of native species.
- The revegetation area should not be irrigated for at least one year prior to determining that the performance criteria have been met.

The quantity (acreage) of CSS and the percent cover of native species shall be determined by Daubenmire plot studies (or equivalent vegetation survey methods). Vegetation surveys shall be conducted between March and June. The developer of the Montebello Hills Specific Plan shall submit a report to the USFWS documenting the annual status of the performance criteria.

The created, enhanced, and/or revegetated CSS habitat shall be managed in accordance with the requirements of the Long-Term Management Plan (LTMP) prepared for the Montebello Hills Reserve, which shall include habitat created, enhanced, and/or revegetated to mitigate the proposed project's impacts to California gnatcatcher habitat. The LTMP shall provide information and guidance about the formation and management of the Montebello Hills Reserve and describes assurances that the area shall be effectively managed in perpetuity. The LTMP shall outline the legal protection, funding, responsibilities and ongoing programs designed to ensure that habitat values for the California gnatcatcher are preserved in perpetuity. The developer of the Montebello Hills Specific Plan shall submit to the USFWS and USACE the final LTMP including separate finalized costs for managing the entire Montebello Hills Reserve for approval. The 2009 BO provides additional details with respect to the nature and timing of funding (see Conservation Measures 14 - 15).

Monitoring and management of the Montebello Hills Reserve, which shall include habitat created, enhanced, and/or revegetated to mitigate the proposed project's impacts to California gnatcatcher habitat, in perpetuity shall be assured by the developer of the Montebello Hills Specific Plan. The developer of the Montebello Hills Specific Plan shall submit to the USFWS and the USACE an instrument demonstrating financial commitment and responsibility to provide the approved non-wasting endowment fund (i.e., a bond or Letter of Credit) as identified in the LTMP. The non-wasting endowment shall be transferred to an independent agency approved by the USFWS and the USACE to fund implementation of the LTMP in perpetuity. The developer of the Montebello Hills Specific Plan shall be responsible for implementing the management actions identified in the LTMP until such time as the endowment is transferred to the approved agent and funds are distributed to the land manager or other appointee and all other applicable pre-conditions have been met.

The developer of the Montebello Hills Specific Plan shall place a conservation easement over the Montebello Hills Reserve, which shall include habitat created, enhanced, and/or revegetated to mitigate the proposed project's impacts to California gnatcatcher habitat. The conservation easement shall include provisions for continued oil field operations as described in USFWS (2007) until the oil field is abandoned. An irrevocable offer of dedication covering the easement area shall be provided to USFWS for review and approval.

BIO-3 Nesting Bird Avoidance

Prior to the start of construction, the following measures shall be implemented:

- To avoid disturbance of nesting and special-status birds, including raptor species protected by the MBTA and CFGC, activities related to the project such as vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through August 31). If construction must begin during the breeding season, then a pre-construction nesting bird survey shall be conducted no more than three days prior to initiation of construction activities. The nesting bird pre-construction survey shall be conducted on foot along the pipeline alignment and at the pump station location and shall include a minimum 100-foot buffer (300-foot buffer for raptors). In inaccessible areas (e.g., private lands), the survey shall be conducted from afar using binoculars to the extent practical. The survey shall be conducted by a qualified biologist familiar with the identification of avian species known to occur in southern California. The survey findings shall be documented in a report provided to CBMWD prior to the commencement of construction activities that have the potential to impact nesting birds. If no nesting birds are found, no further action would be necessary.
- If nests are found, an avoidance buffer shall be demarcated by a qualified biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary. The buffer width shall be determined based on the species and ambient conditions near the nest (e.g., 25 feet for common, urban-adapted species). All construction personnel shall be notified of the existence of the buffer zone and shall be instructed to avoid entering the buffer zone during the nesting season. No parking, storage of materials, or construction activities shall occur within this buffer zone until the qualified biologist has confirmed that breeding/nesting is complete and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences (CDFW 2019c). No sensitive plant communities are located along the pipeline alignment. In addition, no water features are present on-site; therefore, there is no riparian habitat present on the project site. However, the area around the pump station location contains CSS occupied by CAGN. The pump station is also located within USFWS-designated Critical Habitat for CAGN. Construction for the pump station would permanently impact approximately 0.14 acre of CSS. Implementation of Mitigation Measures BIO-1 and BIO-2 listed above would reduce impacts to CSS to a less-than-significant level.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

No state- or federally-protected wetlands or other water features that may be considered jurisdictional by CDFW, USACE, or the Los Angeles Regional Water Quality Control Board occur on the project site (USFWS 2019). Therefore, the project would have no impact to state or federally protected wetlands or other jurisdictional waters.

NO IMPACT

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

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as linking foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Examples of barriers or impediments to movement include urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover.

Much of the land in Montebello has been converted from open space to residential, commercial, and recreational uses, resulting in habitat fragmentation. At the regional scale, neither the proposed pump station location nor the pipeline alignment are in an Essential Connectivity Area or Natural Landscape block as identified in available studies, such as the *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer et al. 2010). Much of the land surrounding the proposed project is of little value for wildlife movement.

The pipeline alignment is located along an existing roadway that does not contain suitable habitat to function as a wildlife corridor. The proposed pump station location is on the Montebello Hills Oil Field, which is a 488-acre "island" of CSS habitat surrounded by urban development. As discussed above, the oil field and pump station location lie at the far western extent of Unit 9 of coastal California gnatcatcher Critical Habitat. According to USFWS (2007),

> Core [CAGN] populations are known from the Montebello Hills, south slopes of the Puente-Chino Hills from Whittier east to Yorba Linda, and the East and West Coyote Hills. The unit also provides the primary connectivity between significant coastal California gnatcatcher populations and sage scrub habitat within the Orange County Central-Coastal NCCP (Unit 6), the Western Riverside County MSHCP (Unit 10) and the Bonelli Regional Park population within East Los Angeles (Unit 12).

Although the proposed project is located within Unit 9, the oil field and pump station location are isolated and have minimal connectivity to other suitable CAGN habitat or CAGN populations. Furthermore, the pump station location is on the far western edge of the oil field, directly adjacent to busy roadways and urban development and not in an area that would fragment existing habitat. Therefore, potential impacts to wildlife movement as a result of the proposed project would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The City of Montebello does not have a local ordinance preserving trees, and the project does not include tree removal. Therefore, the project would not conflict with a tree preservation ordinance.

The pump station location is within the boundaries of the Montebello Hills Specific Plan. The Montebello Hills Specific Plan enables the City of Montebello to implement new land use policies as contained in the Montebello Hills Specific Plan that are intended to achieve the vision for the plan area. Overall, the land use plan included in the Montebello Hills Specific Plan calls for protection of biological resources, including approximately 314.6 acres of open space (including open space dedicated for preservation of CAGN habitat). The proposed pump station would incrementally decrease the amount of open space land within the plan area by approximately 0.14 acre. However, the pump station would serve residential development envisioned by the Montebello Hills Specific Plan and would not conflict with the land use policies contained therein. Mitigation for impacts to CAGN habitat from the construction of the proposed pump station has been integrated into the Montebello Hills Specific Plan. With the implementation of the Mitigation Measures BIO-1 and BIO-2, the proposed project would not conflict with land use policies outlined in the Montebello Hills Specific Plan, specifically the preservation of CAGN habitat.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

The project site and the City of Montebello are not subject to any Habitat Conservation or Natural Community Conservation Plans or approved local, regional, or state habitat conservation plans. Therefore, the project would not conflict with any adopted habitat conservation plans, and no impact would occur.

NO IMPACT

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5 Cultural Resources

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

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) and tribal cultural resources (PRC Section 21074 [a][1][A]-[B]). The significance of cultural resources and impacts to those resources is determined by whether or not those resources can increase our collective knowledge of the past. The primary determining factors are site content and degree of preservation. State CEQA Guidelines Section 15064.5 states the term "historical resources" shall include the following:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in, the California Register of Historical Resources PRC Section 5024.1, Title 14 California Code of Regulations [CCR], Section 4850 et. seq.).
2. A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g), shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing in the California Register of Historical Resources [CRHR] (PRC Section 5024.1, Title 14 CCR, Section 4852) as follows:
   - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
   - Is associated with the lives of persons important in our past

- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
- Has yielded, or may be likely to yield, information important in prehistory or history (State CEQA Guidelines Section 15064.5)

Properties listed on the National Register of Historic Properties are automatically listed on the CRHR, along with State Landmarks and Points of Interest. The CRHR can also include properties designated under local ordinances or identified through local historical resource surveys.

Per PRC Section 21084.1, a project that may cause a substantial adverse change in the significance of a historical resource may have a significant impact on the environment. A "substantial adverse change" in the significance of a historical resource is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." State CEQA Guidelines Section 15064.5(b) states the significance of an historical resource is "materially impaired" when a project does any of the following:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the CRHR
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources or its identification in an historical resources survey, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a lead agency for purposes of CEQA

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b]).

PRC Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type
3. Is directly associated with a scientifically-recognized important prehistoric or historic event or person

Rincon Consultants, Inc. prepared a Cultural Resources Study for the project to evaluate project impacts to historical and archaeological resources. The Cultural Resources Study includes a cultural resources records search at the South Central Coastal Information Center, historical imagery review, a Sacred Lands File (SLF) search with the Native American Heritage Commission (NAHC), and a field

survey. The following analysis is based on the Cultural Resources Study, which is provided in full as Appendix C.

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

The results of the cultural resources records search identified one previously recorded historic-period built-environment resource, the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line (P-19-190508), within the project site. The transmission line was installed in 1954 and distributes electricity throughout the San Gabriel Valley, spanning approximately 17 miles (Becker et al. 2010). P-19-190508 contains 75 steel lattice towers composed of tubular steel poles with four legs, averaging 120 feet in tower height. The resource has previously been determined ineligible for listing on the CRHR (Becker et al. 2010).

Rincon conducted a field survey of the project site on March 29, 2019. A visit to P-19-190508 determined the historic period transmission lines traverse the pipeline alignment; however, no poles or features associated with the resource are located within the pipeline alignment or pump station location. No other historic period built-environment resources were observed on the project site during the pedestrian survey. Therefore, the project would have no impacts to historical resources.

NO IMPACT

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

The results of the cultural resources records search identified one previously recorded historic-period archaeological resource, the Montebello Oil Field (P-19-003813/CA-LAN-3813H), within the proposed pump station location. This large archaeological site measures 1.7 miles east to west and 0.7 mile north to south and consists of historic-era debris and features (e.g., well pads, oil wells, pipelines, house pads, and access roads) associated with the Montebello Oil Field. First developed in 1916, portions of the oil field remain in production today. Fulton and Fulton (2008) noted the resource had undergone alterations associated with modernization, including the replacement of wells. Because of these alterations, Fulton and Fulton (2008) determined the resource does not retain the required historical integrity to be considered eligible for the CRHR.

Rincon requested a records search of the SLF from the NAHC to identify the potential for cultural resources within the project site and to obtain contact information for Native Americans groups or individuals who may have knowledge of resources within the project site. The SLF search was returned with positive results, which means the NAHC identified a potentially sensitive tribal cultural resource within the project area. However, it is unknown whether the identified tribal cultural resource is located on the project site. Therefore, Rincon prepared and mailed letters to seven NAHC-listed Native American contacts to request information on potential cultural resources in the project vicinity that may be impacted by project development. Rincon did not receive any comments from Native American contacts regarding the project. In addition, as discussed in Section 18, *Tribal Cultural Resources*, as of May 1, 2019, CBMWD received request for AB 52 consultation from one Tribe, the Gabrieleño Band of Mission Indians - Kizh Nation. At the time of preparation of this Draft IS-MND, CBMWD is actively coordinating with the Tribe, and has scheduled a meeting with the Tribe on May 14, 2019 to answer questions about the project and to request information on the presence of any known tribal cultural resources at the site. Per AB 52, tribal consultations must be complete prior to finalization of the CEQA documentation; with this meeting on May 14, 2019, AB

52 consultation will be complete prior to finalization of this IS-MND, and results of the CBMWD consultation with the Tribe will be included in the Final IS-MND. Because consultation has not yet concluded, there is potential for significant tribal cultural resources to be identified on the project site.

Rincon conducted a field survey of the project site on March 29, 2019. No archaeological remains associated with P-19-003813 were observed during the survey. In addition, no other archaeological resources (prehistoric or historic) were observed in the project site during the pedestrian survey.

Although no archaeological resources were identified by the cultural resources records search, Native American outreach, and field survey, there remains the potential to encounter unanticipated archaeological resources during ground-disturbing activities associated with project construction. Construction activities may result in the destruction, damage, or loss of undiscovered scientifically-important archaeological resources. Therefore, impacts to archaeological resources would be potentially significant. Implementation of Mitigation Measure CR-1 during project construction would reduce potential impacts to archaeological resources to a less-than-significant level by providing direction on how to properly address an unanticipated discovery of archaeological resources should one occur during construction.

Mitigation Measure

With implementation of the following mitigation measure, potential impacts related to cultural resources would be reduced to a less-than-significant level.

CR-1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area shall be halted and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall be contacted immediately to evaluate the find. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate any significant impacts to cultural resources.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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

No known human remains have been documented within the project site or the immediate vicinity. While the project site is unlikely to contain human remains, the potential for the recovery of human remains during ground-disturbing activities is always a possibility. If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric or Native American in origin, the Coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to

the treatment of the remains to the landowner. Therefore, impacts to human remains would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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6 Energy

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

California is one of the lowest per capita energy users in the United States, ranked 48th in the nation, due to its energy efficiency programs and mild climate (United States Energy Information Administration [EIA] 2018). California consumed 292,039 gigawatt-hours (GWh) of electricity and 2,110,829 million cubic feet of natural gas in 2017 (California Energy Commission [CEC] 2019; EIA 2018). In addition, Californians consume approximately 18.9 billion gallons of motor vehicle fuels per year (Federal Highway Administration 2019). The single largest end-use sector for energy consumption in California is transportation (39.8 percent), followed by industry (23.7 percent), commercial (18.9 percent), and residential (17.7 percent) (EIA 2018).

Most of California's electricity is generated in-state with approximately 30 percent imported from the Northwest and Southwest in 2017. In addition, approximately 30 percent of California's electricity supply comes from renewable energy sources, such as wind, solar photovoltaic, geothermal, and biomass (CEC 2018). Adopted on September 10, 2018, SB 100 accelerates the State's Renewables Portfolio Standards Program by requiring electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline, which is sourced almost exclusively from in-state refineries. Gasoline is the most used transportation fuel in California with 15.5 billion gallons sold in 2017 and is used by light-duty cars, pickup trucks, and sport utility vehicles (California Department of Tax and Fee Administration 2018). Diesel is the second most used fuel in California with 4.2 billion gallons sold in 2015 and is used primarily by heavy duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles (CEC 2016). Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including CO_2 and NO_X. The transportation sector is the single largest source of GHG emissions in California, accounting for 41 percent of all inventoried emissions in 2016 (California Air Resources Board [CARB] 2018).

a. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Energy use during project construction would be primarily in the form of fuel consumption to operate heavy equipment, light-duty vehicles, machinery, and generators. Temporary grid power may also be provided to construction trailers or electric construction equipment. Table 7 summarizes the anticipated energy consumption from construction equipment and vehicles, including construction worker trips to and from the project site. As shown therein, project construction would require approximately 984 gallons of gasoline fuel and approximately 11,005 gallons of diesel fuel.

Energy use during construction would be temporary in nature, and construction equipment used would be typical of similar-sized construction projects in the region. Furthermore, in the interest of cost efficiency, construction contractors would not utilize fuel in a manner that is wasteful or unnecessary. Therefore, project construction would not result in a potential impact due to wasteful, inefficient, or unnecessary consumption of energy resources, and no construction-related energy impact would occur.

Table 7 Energy Use during Project Construction

	Fuel Consumption (Gallons)	
Source	**Gasoline**	**Diesel**
Construction Equipment & Hauling Trips	–	11,005
Construction Worker Vehicle Trips	984	–

See Appendix A for Roadway Construction Emissions Model and CalEEMod outputs, and Appendix D for energy calculation sheets.

During operation, the proposed project would require approximately 255,792 kWh of electricity per year to power the pump station and convey up to 446 AFY of recycled water from the intersection of Montebello Boulevard and Lincoln Avenue to the pump station and throughout the Montebello Hills Specific Plan area.

Maintenance of the proposed project would include remote monitoring via the District's SCADA system, meter reading, routine inspections and maintenance of facilities, periodic testing, and emergency repairs. Maintenance activities would occur quarterly and on an as-needed basis and would require approximately six to 12 vehicle trips by maintenance staff per year as well as occasional use of a crane. The operation of the SCADA system as well as vehicle trips by maintenance staff would require the consumption of energy resources in the form of electricity and gasoline fuels. However, electricity and fuel consumption would not be wasteful, inefficient, or unnecessary because maintenance activities would only occur as necessary for pump station operation. In addition, the purpose of the project is to use local recycled water supplies for dust suppression during construction activities and for landscape irrigation for development facilitated by the Montebello Hills Specific Plan. Ultimately, this would reduce the dependence of Montebello Hills Specific Plan development on imported potable water, which would reduce the use of energy associated with treating water to potable standards and transporting imported potable water to the project area. Therefore, no operational energy impacts would occur.

NO IMPACT

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

As mentioned above, SB 100 mandates 100 percent clean electricity for California by 2045. Because the proposed project would be powered by the existing electricity grid, the project would eventually be powered by renewable energy mandated by SB 100 and would not conflict with this statewide plan. CBMWD has not adopted specific renewable energy or energy efficiency plans with which the project could comply. Nonetheless, the project would not conflict with or obstruct the State plan for renewable energy; therefore, no impact would occur.

NO IMPACT

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7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. 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?	☐	☐	■	☐
2. Strong seismic ground shaking?	☐	☐	■	☐
3. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
4. Landslides?	☐	☐	■	☐
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
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 offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☐	■	☐
d. Be located on expansive soil, as defined in Table 1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	■	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐

According to the California Geological Survey (CGS), the project site is not located in an Alquist-Priolo Fault Zone, a liquefaction zone, or an earthquake-induced landslide zone. There are no faults present on the project site, and the closest fault to the project site is the East Montebello Fault located approximately 1.6 miles to the northeast (CGS 2017; United States Geological Survey 2019a). The project site is located below several areas designated earthquake-induced landslide hazard zones (CGS 2017).

Topography along the pipeline alignment exhibits an approximately five percent slope from an elevation of approximately 263 feet amsl at the intersection of Montebello Boulevard and Lincoln Avenue to approximately 383 feet amsl at the intersection of Montebello Boulevard and Jefferson Boulevard. The project site contains three primary mapped soil units: mined land/oil wells, urban land-Montebello-Xerorthents complex soils (0 to 15 percent slopes, terraced), and counterfeit-Urban land complex soils (10 to 35 percent slopes, terraced). Urban land-Montebello-Xerorthents complex soils are composed of sandy loam, sandy clay loam, and loam; are well-drained; do not exhibit frequent flooding or ponding; and correspond to Hydrologic Soil Group (HSG) B. Counterfeit-Urban land complex soils are composed of sandy loam, clay loam, and clay; are somewhat poorly drained; do not exhibit frequent flooding or ponding; and correspond to HSG C (USDA 2017). Soils in HSG B have a moderate infiltration rate, and soils in HSG C have a low infiltration rate (Purdue University n.d.).

Rincon evaluated the paleontological sensitivity of the geologic units that underlie the project site by reviewing existing information in the primary literature concerning known fossils within those geologic units. Rincon examined fossil collections records from the University of California Museum of Paleontology (UCMP) online database, which contains known fossil localities in Los Angeles County. Following the literature review, a paleontological sensitivity classification was assigned to the geologic units within the project site. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically-sensitive geologic units. The Society of Vertebrate Paleontology (SVP) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing scientifically significant nonrenewable paleontological resources (SVP 2010). This system is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present.

a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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?

a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The project site is located in a seismically-active area of southern California; however, the project site is not located in an Alquist-Priolo Earthquake Fault Zone or liquefaction zone (CGS 2017). Therefore, the project would not directly or indirectly cause potential adverse effects related to rupture of a known earthquake fault or liquefaction. Impacts related to fault rupture and liquefaction would be less than significant.

The proposed project would involve the construction of a recycled water pipeline and pump station on the project site. Design and construction of the proposed project would conform to the current seismic design provisions of the California Building Code (CBC). The 2013 CBC incorporates the latest seismic design standards for structural loads and materials, as well as provisions from the National Earthquake Hazards Reduction Program, to mitigate losses from an earthquake and provide for the latest in earthquake safety. While the project would be susceptible to seismic activity given its location within a seismically-active area, the project would be required to minimize this risk, to the extent feasible, through the incorporation of applicable CBC standards. A large seismic event, such as a fault rupture, seismic shaking, or ground failure, could result in breakage of the proposed pipelines, failure of joints, and/or underground leakage from the pipelines. In the event an earthquake compromised any project component during operation, CBMWD would temporarily shut-off the water supply and conduct emergency repairs as soon as possible. Therefore, the project would not expose people or structures to potential substantial adverse effects involving strong seismic ground shaking. Impacts related to seismic ground shaking would be less than significant.

LESS THAN SIGNIFICANT IMPACT

a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including landslides?

The project site is not located in an earthquake-induced landslide hazard zone; however, the project site is located below several areas that are designated as earthquake-induced landslide hazard zones (CGS 2017). The project does not include habitable structures and would therefore not expose people to loss, injury, or death involving landslides. Additionally, implementation of the project would not exacerbate the existing risk of earthquake-induced landslides in the immediate vicinity because the project would not directly result in a seismic event or destabilize soils prone to landslide. In the event an earthquake compromised any project component due to landslides during operation, CBMWD would temporarily shut-off the water supply and conduct emergency repairs as soon as possible. Therefore, because the project site is not located in an earthquake-induced landslide hazard zone and the project would not introduce new infrastructure to the site that would exacerbate landslide hazards, the proposed project would not directly or indirectly cause potential adverse effects involving earthquake-induced landslides. Impacts related to landslides would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Soil erosion or the loss of topsoil may occur when soils are disturbed but not secured or restored, such that wind or rain events may mobilize disturbed soils, resulting in their transport off the project site. Construction of the proposed pipeline would require trenching within existing paved roadways, which have been previously disturbed in conjunction with construction of Montebello Boulevard. No significant erosion or loss of topsoil would occur from pipeline construction and operation because the project would include repaving Montebello Boulevard and restoring disturbed landscaped areas upon completion of pipeline construction.

Furthermore, Part 1.05 of Section 01060 of CBMWD's contractor specifications require contractors to comply with CBMWD's National Pollutant Discharge Elimination System (NPDES) Construction General Permit and to submit a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP is intended to minimize the amount of sediment and other pollutants associated with construction

sites which is discharged in stormwater runoff. The SWPPP would include BMPs for erosion control, such as preventing runoff from unprotected slopes, keeping disturbed areas to a minimum, and installing check berms and desilting basins during construction activities as necessary. With adherence to the contractor specifications and required SWPPP, potential adverse impacts associated with erosion and loss of topsoil would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c. Would the project be located on a geologic unit or soil that is made unstable, or that would become unstable as a result of the project, and potentially result in on or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?

Although the proposed project would be located in a seismically-active area, the project is not anticipated to adversely affect soil stability or increase the potential for local or regional landslides or liquefaction. In addition, Part 1.05 of Section 02242 of CBMWD's contractor specifications requires the proposed pipeline and pump station be designed in accordance with design recommendations contained in the geotechnical investigation to be conducted prior to system design. Compliance with the recommendations of the geotechnical investigation would minimize impacts from geologic hazards such as landslides, lateral spreading, subsidence, liquefaction, and collapse if such hazards are present on the project site. Part 1.04 of Section 02295 also requires the design of excavation support systems to be compatible with geological conditions as described in the geotechnical report. Additionally, as described under *Project Description*, all trenches would be backfilled with native soils, crushed miscellaneous bases, or cement slurry, which would meet proper compaction and shear strength requirements. Based on groundwater levels in the project area, it is not anticipated that pipeline construction activities would encounter groundwater. However, in the event construction occurs in areas with high groundwater, the groundwater would be removed through dewatering wells that have been drilled along the pipeline alignment. Dewatering activities would be temporary and short-term as pipeline construction activities move along the alignment at a rate of approximately 100 to 300 feet per day. Therefore, dewatering during project construction would not require substantial groundwater removal that would result in subsidence. In the event landslides, lateral spreading, subsidence, liquefaction, or collapse compromised any project component during operation, CBMWD would temporarily shut off the water supply and conduct emergency repairs as soon as possible. Operation of the project would not require groundwater pumping because the proposed pipeline and pump station would convey recycled water. Therefore, the project would not result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Based on the USDA Soil Survey, the project site contains soils composed of sandy loam, sandy clay loam, loam, clay loam, and clay with moderate to low infiltration rates (USDA 2017). Due to the clay content of the soils, there is potential for expansive soils to occur on-site. However, Part 1.05 of Section 02242-2 of CBMWD's contractor specifications requires the proposed pipeline and pump station be designed in accordance with design recommendations contained in the geotechnical investigation to be conducted prior to system design. If expansive soils are present on-site, the geotechnical investigation would contain recommendations to minimize potential impacts for expansive soils. Furthermore, Part 1.04 of Section 02295 requires the design of excavation support

systems to be compatible with geological conditions as described in the geotechnical report. Additionally, as described under *Project Description*, all pipeline trenches would be backfilled with native soils, crushed miscellaneous bases, or cement slurry, which would meet proper compaction and shear strength requirements. The use of select bedding material and approved trench spoil material would prevent impacts from expansive soil along the pipeline alignment. The proposed project would also be designed and constructed to meet CBC requirements. As a result, the project would not create substantial direct or indirect risks to life or property as a result of expansive soil, and impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The proposed project would not include the use of septic tanks or alternative wastewater disposal systems. No impact would occur.

NO IMPACT

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

The project site is located in the Los Angeles Basin, a northwest-trending lowland plain at the northern end of the Peninsular Ranges Province, which is one of eleven major geomorphic provinces in California (California Geological Survey 2002). The project site is mapped at a scale of 1:100,000 by Yerkes and Campbell (2005) and 1:24,000 by Dibblee and Ehrenspeck (1999). According to published geologic mapping, the project site is immediately underlain by the Fernando Formation (Tfsc, Tfps) and older Quaternary alluvial fan deposits (Qof). The Fernando Formation is Pliocene to Pleistocene in age and consists of light gray to tan, crudely bedded pebbly conglomerate of mostly granitic detritus in friable sandstone matrix. In the southwest Montebello Hills, exposures of the Fernando Formation consist of light gray, poorly bedded, very fine-grained silty sandstone to siltstone with calcareous concretions (Dibblee and Ehrenspeck 1999). The older alluvial fan deposits are middle to late Pleistocene in age and are composed of unconsolidated to moderately consolidated, poorly-sorted, gravel to coarse-grained sand, with slightly to moderately dissected surfaces (Yerkes and Campbell 2005).

Based on a literature review and in accordance with SVP (2010) guidelines, the geologic units underlying the project site were determined to have high paleontological sensitivity. The Fernando Formation immediately underlies the northern portion of the project site, including the pump station location, and is considered to have a high paleontological sensitivity because numerous localities have been documented in this unit yielding fossil specimens of bird, tapir, camel, and whale (Beyer et al. 2009; UCMP 2019). Quaternary older alluvial deposits underlying the central and southern portions of the project site have a high paleontological sensitivity and a high potential to contain buried intact paleontological resources because they have proven to yield significant Pleistocene vertebrate fossils near the project site and elsewhere in the Los Angeles Basin. Pleistocene alluvial deposits have a well-documented record of abundant and diverse vertebrate fauna throughout California, especially within Los Angeles County. Localities have produced fossil specimens of *Mammuthus columbi* (mammoth), *Equus* (horse), *Camelops* (camel), *Bison*, birds, rodents, and reptiles (Jefferson 1985; Springer et al. 2009; UCMP 2019).

Project ground disturbance would reach a maximum depth of 10 feet below ground surface during trenching for the pipeline. Because the project site is underlain by geologic units with a high paleontological sensitivity, paleontological resources may be encountered during ground-disturbing activities associated with project construction (e.g., grading, excavation, or any other activity that disturbs the surface of the site). Construction activities may result in the destruction, damage, or loss of undiscovered scientifically-important paleontological resources. Therefore, impacts to paleontological resources would be potentially significant. Implementation of Mitigation Measure GEO-1 during project construction would reduce potential impacts related to paleontological resources to a less than significant level by providing for the recovery, identification, and curation of previously unrecovered fossils.

Mitigation Measure

With implementation of the following mitigation measure, potential impacts related to paleontological resources would be reduced to a less-than-significant level.

GEO-1 Paleontological Resources Monitoring

Prior to the commencement of project construction, a Qualified Paleontologist shall be retained to conduct paleontological monitoring during ground-disturbing activities (including, but not limited to site preparation, grading, excavation, and trenching) of previously undisturbed areas. The Qualified Paleontologist shall have at least a Master's Degree or equivalent work experience in paleontology, shall have knowledge of the local paleontology, and shall be familiar with paleontological procedures and techniques.

Ground-disturbing activities of previously undisturbed areas within the project site shall be monitored on a full-time basis. Monitoring shall be supervised by the Qualified Paleontologist and shall be conducted by a qualified paleontological monitor, defined as an individual who meets the minimum qualifications per standards set forth by the SVP (2010), which includes a B.S. or B.A. degree in geology or paleontology with one year of monitoring experience and knowledge of collection and salvage of paleontological resources.

The duration and timing of the monitoring shall be determined by the Qualified Paleontologist. If the Qualified Paleontologist determines that full-time monitoring is no longer warranted, he or she may recommend reducing monitoring to periodic spot-checking or may recommend that monitoring cease entirely. Monitoring shall be reinstated if any new ground disturbances of previously undisturbed areas are required, and reduction or suspension shall be reconsidered by the Qualified Paleontologist at that time.

If a paleontological resource is discovered, the monitor shall have the authority to temporarily divert construction equipment around the find until it is assessed for scientific significance and collected. Once salvaged, significant fossils shall be prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County). Curation fees are the responsibility of the project owner.

A final report shall be prepared describing the results of the paleontological monitoring efforts associated with the project. The report shall include a summary of the field and laboratory methods, an overview of the project geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. The report shall be

submitted to CBMWD. If the monitoring efforts produced fossils, then a copy of the report shall also be submitted to the designated museum repository.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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8 Greenhouse Gas Emissions

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

Climate change is the observed increase in the average temperature of the earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. The rate of change has typically been incremental, with warming or cooling trends occurring over the course of thousands of years. The past 10,000 years have been marked by a period of incremental warming, as glaciers have steadily retreated across the globe. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-twentieth century (IPCC 2007).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases (GHGs). The gases widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), fluorinated gases such as hydrofluorocarbons (HFC) and perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation.

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and SF_6 (United States Environmental Protection Agency 2018). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the

amount of heat absorbed to the amount of gas emitted, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. CO_2 has a 100-year GWP of one. By contrast, CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than CO_2 on a molecule per molecule basis (IPCC 2007).

Project implementation would generate GHG emissions through the burning of fossil fuels and other emission sources, thus potentially contributing to cumulative impacts related to climate change. In response to an increase in man-made GHG concentrations over the past 150 years, California implemented Assembly Bill (AB) 32, the "California Global Warming Solutions Act of 2006." AB 32 codified the statewide goal of reducing emissions to 1990 levels by 2020 (essentially a 15 percent reduction below 2005 emission levels) and adopted regulations to require reporting and verification of statewide GHG emissions.

On September 8, 2016, the governor signed Senate Bill (SB) 32 into law, which requires the State to further reduce GHGs to 40 percent below 1990 levels by 2030. SB 32 extends AB 32, directing CARB to reduce GHGs to 40 percent below 1990 levels by 2030. In response, on December 14, 2017, CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) CO_2e by 2030 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (city, county, subregional, or regional level), but not for specific individual projects because they include all emissions sectors in the state.

The vast majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

Significance Thresholds

The CEQA Guidelines provide regulatory direction for the analysis and mitigation of GHG emissions appearing in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHGs and climate change impacts.

In guidance provided by the SCAQMD's GHG CEQA Significance Threshold Working Group in September 2010, SCAQMD considered a tiered approach to determine the significance of residential, commercial, and mixed-use projects. The draft tiered approach is outlined in meeting minutes dated September 29, 2010 (SCAQMD 2010).

- **Tier 1.** If the project is exempt from further environmental analysis under existing statutory or categorical exemptions, there is a presumption of less than significant impacts with respect to climate change. If not, then the Tier 2 threshold should be considered.
- **Tier 2.** Consists of determining whether or not the project is consistent with a GHG reduction plan that may be part of a local general plan, for example. The concept embodied in this tier is equivalent to the existing concept of consistency in CEQA Guidelines section 15064(h)(3), 15125(d) or 15152(a). Under this Tier, if the proposed project is consistent with the qualifying

local GHG reduction plan, it is not significant for GHG emissions. If there is not an adopted plan, then a Tier 3 approach would be appropriate.

- **Tier 3.** Establishes a screening significance threshold level to determine significance. The Working Group has provided a recommendation of 3,000 MT of CO_2e per year for residential, commercial, and mixed-use projects.
- **Tier 4.** Establishes a service population threshold to determine significance. The Working Group has provided a recommendation of 4.8 MT of CO_2e per year for land use projects.

Under Tier 2, project impacts would be less than significant if a project is consistent with an approved local or regional plan. CBMWD has not adopted a plan for the reduction of GHG emissions; therefore, Tier 2 does not apply, and the GHG analysis of the project cannot be streamlined via CEQA Guidelines Section 15183.5. Because CBMWD does not have a "qualified" GHG reduction plan, this analysis relies on SCAQMD's Tier 3 screening significance threshold of 3,000 MT of CO_2e per year to evaluate the project's GHG emissions.

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

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

Project emissions were estimated using the Roadway Construction Emission Model and CalEEMod. Emission estimates are based on the assumptions outlined in Section 3, *Air Quality*. Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential project effects. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume and are the GHG emissions that the project would emit in the largest quantities (IPCC 2007). Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (2008) *CEQA and Climate Change* white paper and included the use of the California Climate Action Registry (2009) General Reporting Protocol. For mobile sources, CO_2 and CH_4 emissions were quantified in CalEEMod. Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using guidance from CARB (CARB 2013; see Appendix A for calculations). It was assumed that all operational vehicle trips to the site would be gasoline vehicles and that approximately 12 maintenance trips by CBMWD staff would occur per year.

Construction Emissions

Project construction would generate GHG emissions from the operation of heavy equipment, motor vehicles, and worker trips to and from the site. As shown in Table 8, emissions from project construction would be approximately 137 MT of CO_2e total over the entire construction period, or approximately 5 MT of CO_2e per year when amortized over a 30-year period in accordance with SCAQMD recommendations (SCAQMD 2008b).

Table 8 Estimated Construction GHG Emissions

Emission Source	Project Emissions (MT of CO_2e /year)
2019 – Pipeline	86.4
2019 – Pump Station	32.5
2020 – Pump Station	18.0
Total Construction Emissions	**136.9**
Total Amortized over 30 Years	4.6

MT = metric tons, CO_2e = carbon dioxide equivalents
See Appendix A for CalEEMod worksheets.

Operational Emissions

In addition to project construction emissions, operation of the proposed project would generate GHG emissions from electricity usage and maintenance activities. As discussed in Section 6, *Energy*, the pump station would require approximately 255,792 kWh of electricity per year for operation. The pipeline itself would not generate new demand for electricity.

The pump station would be served by existing Southern California Edison (SCE) infrastructure. In 2017, SCE's energy portfolio, including utility-owned generation and purchased power, yielded a GHG emissions factor of 0.25 MT of CO_2e per megawatt-hour (MWh) (SCE 2018). With an annual electricity demand of 255,792 kWh (or 255.79 MWh), operation of the pump station would generate approximately 64 MT of CO_2e emissions per year.

Maintenance activities would occur quarterly and on an as-needed basis, requiring approximately six to 12 vehicle trips by maintenance staff per year. Mobile source emissions of N_2O would be less than 0.001 MT of CO_2e per year.

Combined Annual Emissions

Table 9 summarizes the combined annual emissions of GHGs, including construction and operation of the pump station and recycled water pipeline. Combined construction and operational GHG emissions would be approximately 69 MT of CO_2e per year (see Appendix A for CalEEMod worksheets).

Table 9 Combined Annual Emissions of Greenhouse Gases

Emission Source	Annual Emissions (CO_2e in metric tons)
Amortized Construction	4.6
Operational	64.0
Mobile	< 0.1
CO_2 and CH_4	< 0.1
N_2O	< 0.1
Total	**68.6**

See Appendix A for Roadway Construction Emissions Model and CalEEMod results.

As discussed above, the proposed project would have a significant impact related to GHG emissions if project-related emissions would exceed 3,000 MT of CO_2e per year. The project's combined construction and operational GHG emissions would be approximately 69 MT of CO_2e per year; therefore, the proposed project would not exceed the threshold. In addition, the purpose of the project is to use local recycled water supplies for dust suppression during construction activities and for landscape irrigation for development facilitated by the Montebello Hills Specific Plan. Ultimately, this would reduce the dependence of Montebello Hills Specific Plan development on imported potable water, which would reduce GHG emissions associated with energy used to treat water to potable standards and transport imported potable water to the project area.

As discussed above, CBMWD does not have a GHG reduction plan; therefore, there are no local GHG reduction plans that would apply to the proposed project. The project would be consistent with the 2017 Scoping Plan because it would not exceed the significance threshold established by SCAQMD. Therefore, the project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Given the above analysis, impacts related to GHG emissions would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	■	☐
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	☐	☐	■	☐
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	■	☐
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	■	☐	☐
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	■	☐	☐

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

Construction of the proposed project would temporarily increase the transport and use of hazardous materials in the project area through the operation of vehicles and equipment. Such substances include diesel fuel, oil, solvents, and other similar materials brought onto the construction site for use and storage during the construction period. These materials would be contained within vessels specifically engineered for safe storage and would not be transported, stored, or used in quantities which would pose a significant hazard to the public or construction workers themselves. Furthermore, project construction would require the excavation and transport of paving materials (e.g., asphalt, concrete, road bed fill materials) and soils which could possibly be contaminated by vehicle-related pollution (e.g., oil, gasoline, diesel, and other automotive chemicals). All such paving, road bed materials, and soils removed during construction would be transported and disposed of in accordance with applicable codes and regulations to ensure no significant hazard to construction workers or the surrounding community would occur.

Operation of the proposed project would involve the conveyance of recycled water and would not require the use, storage, or disposal of hazardous materials. Although the proposed project would include a connection for portable diesel standby engines in the event of an electrical service outage or other disruption to the main pumps, the use of such portable engines would be temporary and would not require the storage of diesel fuel on-site. Therefore, the proposed project would not create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

The use, transport, and storage of hazardous materials during construction of the project (e.g., diesel fuel, oil, solvents, and other similar materials) could introduce the potential for an accidental spill or release to occur. As discussed under item (a), operation and maintenance of the project would not involve the routine transport, use, or disposal of hazardous materials. If diesel standby engines are required in the event of an electric service outage or other disruption to the main pumps, the engines would be placed on paved ground adjacent to the pump station building such that any fuel leaks or spills would be contained. Therefore, potential impacts are limited to the construction period.

The presence of hazardous materials during project construction activities, including but not limited to ground-disturbing activities such as grading and excavation, could result in an accidental upset or release of hazardous materials if they are not properly stored and secured. Hazardous materials used during project construction would be disposed of off-site in accordance with all applicable laws and regulations. However, if accident conditions during project construction result in a release of hazardous materials into the environment, impacts would be potentially significant. In order to address this potential for an unanticipated spill or release to occur during project construction, Mitigation Measure HAZ-1 would be implemented to reduce or avoid potential impacts. This mitigation measure would implement a Hazardous Materials Management and Spill Control Plan to address the proper use, handling, and storage of hazardous materials during project construction.

In addition to the use of hazardous materials during project construction, there is a possibility of encountering hazardous materials during ground-disturbance activities due to the following conditions:

1. **The potential presence of aerially deposited lead in soil beneath the project alignment.** The pipeline alignment is currently developed as a roadway; therefore, aerially deposited lead resulting from vehicle exhaust emissions may be present in shallow soil in the project area.
2. **Nearby oil wells.** A review of the Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR) Online Mapping System indicates that active oil wells are located approximately 150 to the west of the pipeline alignment and approximately 330 feet northeast of the pump station location and that one plugged oil well is located approximately 230 feet to the east of the pipeline alignment and 270 feet to the south of the pump station location (DOGGR 2019). Although all identified releases from oil field operations were properly addressed, as discussed above, if an undocumented release has occurred, there is potential for petroleum hydrocarbon-impacted soil to be present on the project site.
3. **Undocumented historical gas station releases.** Although there are no existing gas stations on or near the project site, it is possible that gas stations existed on or near the project site historically given the residential and commercial nature of area. Therefore, although there are no known documented releases associated with gas stations, if an undocumented release has occurred, there is potential for soil and groundwater contamination to be present on the project site.
4. **Undocumented dry cleaner facility releases.** Although there are no existing dry cleaners on or near the project site, it is possible that dry cleaners existed on or near the project site historically given the residential and commercial nature of area. Therefore, although there are no known documented releases associated with dry cleaners, if an undocumented release has occurred, there is potential for soil and groundwater contamination to be present on the project site.

Ground disturbing activities during construction, including trenching of subsurface materials along the proposed pipeline alignment, could result in a potential safety hazard because contaminants discussed above could be spread via dust particulates. Improper handling and disposal of contaminated soils could result in a health risk to workers at the project site. Therefore, impacts related to the release of hazardous materials due to reasonably foreseeable upset or accident conditions during project construction would be potentially significant.

Operation of the proposed project would involve the conveyance of recycled water and would not require the use, storage, or disposal of hazardous materials that could result in upset or accident conditions. Although the proposed project would include a connection for portable diesel standby engines in the event of an electrical service outage or other disruption to the main pumps, the use of such portable engines would be temporary and would not require the storage of diesel fuel on-site. Furthermore, in the event that portable engines are required, they would be staged on paved surfaces outside of the pump station; therefore, any accidental spills of diesel fuels would be contained on paved surfaces. Impacts related to the release of hazardous materials due to reasonably foreseeable upset or accident conditions during project operation would be less than significant.

Ground disturbance would increase the potential for an accidental release of hazardous materials during construction, which could result in exposure of workers and the public to health hazards. Implementation of Mitigation Measures HAZ-2, HAZ-3, and HAZ-4 would reduce the risk associated

with hazardous materials used during construction such that this impact would be less than significant. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation Measures

With implementation of the following mitigation measures, potential impacts related to hazardous materials would be reduced to a less-than-significant level.

HAZ-1 Hazardous Materials Management and Spill Control Plan

Before construction begins, the construction contractor shall develop and implement a Hazardous Materials Management and Spill Control Plan (HMMSCP) that includes a project-specific contingency plan for hazardous materials and waste operations. The HMMSCP shall establish policies and procedures consistent with applicable codes and regulations, including but not limited to the California Building and Fire Codes, as well United States Department of Labor OSHA and California OSHA regulations. The HMMSCP shall articulate hazardous materials handling practices to prevent the accidental spill or release of hazardous materials.

HAZ-2 Soil Sampling and Disposal

Prior to construction, a soil assessment shall be completed under the supervision of a professional geologist or professional engineer. If soil sampling indicates the presence of any contaminant in quantities not in compliance with applicable laws, the Regional Water Quality Control Board or the Department of Toxic Substances Control shall be contacted to determine proper disposal. Prior to the commencement of site construction and based on the results of the soil assessment, an assessment of air resource impacts and health impacts associated with excavation activities, including transportation impacts from the removal activities, shall be performed.

HAZ-3 Contaminated Soil Contingency Plan

The contractor shall develop and implement a Contaminated Soil Contingency Plan to handle treatment and/or disposal of contaminated soils. If contaminated soil is encountered during project construction, work shall halt and an assessment made to determine the extent of contamination. Treatment and/or disposal of contaminated soils shall be conducted in accordance with the Contingency Plan.

HAZ-4 On-site Monitoring

During construction activities in the areas of suspect contamination, monitoring of dust and air quality shall be completed. Fugitive vapor emissions shall be monitored with the use of a PID or equivalent. If necessary, dust will be controlled by periodically spraying the work areas with water or other approved dust-control materials. If required by the permit, a particulate air monitor will be utilized to monitor dust. The meters shall be calibrated in accordance with their respective manufacturer specifications. During the soil excavation and loading activities, fugitive airborne emissions shall be monitored along the property boundary and at the interpreted down-wind perimeter of the site. If fugitive airborne emissions are measured at levels exceeding permit conditions, operations will cease until the dust the emissions reach an acceptable level.

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

The nearest school to the project site is La Merced Elementary School, which is located approximately 0.5 mile east of the project site. As described under item (b), there is potential that an accidental spill or release of hazardous or potentially hazardous materials such as vehicle and equipment fuels could occur during project construction. However, the project site is not within 0.25 mile of an existing or proposed school, and any releases of hazardous materials would be unlikely to migrate 0.5 mile to La Merced Elementary School. Therefore, project construction would therefore not adversely impact schools due to the handling of hazardous materials. The project would not introduce a new stationary source of hazardous emissions., and operation of the project would not require the handling of hazardous materials, substances, or waste. Therefore, the project would not emit hazardous emissions or handle hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. No impact would occur.

NO IMPACT

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

Government Code Section 65962.5 requires the California Environmental Protection Agency (CalEPA) to develop an updated Cortese List. The California Department of Toxic Substance Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List (DTSC 2018). The analysis for this section included a review of the following resources on April 10, 2019 to provide hazardous material release information:

- SWRCB GeoTracker database (SWRCB 2015)
- DTSC EnviroStor database (DTSC 2018)

Based on review of these databases, it was determined the pipeline alignment and pump station location are not included on existing lists of hazardous materials sites compiled pursuant to Government Code Section 65962.5. However, the project site is within the Montebello Hills Specific Plan area, and the Final Environmental Impact Report (FEIR) prepared for the Montebello Hills Specific Plan determined that a number of historical releases of hazardous materials occurred in the Plan area in conjunction with oil field operations. The FEIR concluded all identified releases were properly addressed and do not pose a threat to people during project construction. In addition, there are no active, idle, or abandoned oil wells on the project site (City of Montebello 2014). This analysis extended the desktop search to encompass a 0.25-mile radius around the pipeline alignment and pump station location. No listed sites were identified within 0.25 mile of the project site.

Nevertheless, hazardous materials may be present in the soils that underlie the project area and could be encountered during construction and excavation that could pose a threat to workers, the public, or the environment. However, implementation of Mitigation Measure HAZ-1 would require a Hazardous Materials Management and Spill Control Plan, Mitigation Measures HAZ-2 and HAZ-3 would require a soil assessment and a Contaminated Soil Contingency Plan for proper disposal of contaminated soils, and Mitigation Measure HAZ-4 would require on-site monitoring during construction activities in suspected contaminated areas to protect on-site staff from fugitive

airborne and vapor emissions. Therefore, this impact would be less than significant with implementation of the proposed mitigation measures.

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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?

The closest public or private airport to the project site is the San Gabriel Airport, located approximately 5.3 miles northeast of the project site. The project site is not located within an airport land use plan or within two miles of an airport. As a result, the project would have no impact related to safety hazards for people residing or working in the project area due to proximity to an airport.

NO IMPACT

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

The City of Montebello has an Emergency Operations Plan (EOP) that includes emergency preparedness guidance for emergency service providers, City staff, and elected officials. The EOP focuses on identifying life safety measures, restoring businesses and community services after the occurrence of a disaster, and implementing procedures for cost recovery efforts. In addition, according to the City's General Plan Safety Element, Montebello Boulevard is a designated evacuation route (City of Montebello 2017). The project would implement traffic control plans, where necessary, in coordination with the City of Montebello to detour and delineate the traffic lanes around the work area. Section 01550 of the CBMWD contractor specifications require the contractor to provide fire and police departments serving the project site with the construction schedule showing expected starting date, sequence of work, and timing for each phase of construction completion date, and name and telephone number of two responsible persons who may be contacted at any hour in the event of a condition requiring immediate correction. However, it is unknown at this time whether the traffic control plans would specifically address emergency evacuation routes. Therefore, impacts related to emergency response plans and emergency evacuation plans during project construction would be potentially significant.

Project operation and maintenance would not introduce new activities that could impede or interfere with emergency plans. Maintenance activities of underground facilities within the public right-of-way are not expected unless under emergency conditions. Therefore, impacts related to emergency response plans and emergency evacuation plans during project operation would be less than significant.

In order to address the potential for project construction to interfere with emergency response and emergency evacuation plans, Mitigation Measure HAZ-5 would be implemented to reduce or avoid potential impacts. This mitigation measure would require traffic control plans prepared by the contractor to identify an alternative emergency evacuation route for residences and businesses in the vicinity of the project site and notify affected residents and businesses. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation Measure

With implementation of the following mitigation measure, the potential impacts related to emergency response and emergency evacuation plans during project construction would be reduced to a less-than-significant level.

HAZ-5 Emergency Evacuation

Traffic control plans submitted by the contractor to CBMWD and the City of Montebello prior to the start of construction pursuant to Section 01550 of CBMWD's construction specifications shall:

- Delineate an alternative emergency evacuation route(s) for surrounding residences and businesses that would otherwise use Montebello Boulevard as an emergency evacuation route in the event of a disaster; and
- Require written notification of the alternative emergency evacuation route(s) to all impacted residents and businesses.

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

The project site is located in an urbanized area in Montebello. The California Department of Forestry and Fire Protection (CAL FIRE) has identified the project area as located within the "Non-Very High Fire Hazard Severity Zone" (CAL FIRE 2011). However, the pump station location is adjacent to open space vegetated with native plant communities, which are highly combustible. The wildland-urban interface could pose the potential for incidents of fire during project construction. Potential ignition sources may include sparks from exhaust pipes, discarded cigarette butts, contact of mufflers with dry grass, other sources of sparks or flame, and spills or releases of flammable materials such as gasoline. Therefore, impacts related to wildland fires during project construction would be potentially significant. In order to address the potential for project construction to cause wildland fires, Mitigation Measure HAZ-6 would be implemented to reduce or avoid potential impacts. This mitigation measure would implement fire prevention measures to reduce the potential for wildland fires. Therefore, impacts would be less than significant with mitigation incorporated.

Mitigation Measure

With implementation of the following mitigation measure, the potential impacts related to wildland fires during project construction would be reduced to a less-than-significant level.

HAZ-6 Fire Prevention Measures

The following measures shall be implemented during project construction:

- All equipment maintenance, staging, and dispensing of fuel, oil, coolant, or any other such activities shall be restricted to designated areas within the fenced project impact limits. These designated areas shall be located in previously compacted and disturbed areas to the maximum extent possible in such a manner as to prevent runoff from entering existing native vegetation areas. These areas shall be clearly designated in the construction plans.
- A water truck with adequate hoses for fire control shall be maintained on-site during all habitat clearing and construction activities.

- Smoking shall be allowed only in designated areas equipped with sand boxes for the disposal of cigarette butts.

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10 Hydrology and Water Quality

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

The federal Clean Water Act establishes the framework for regulating discharges to waters of the U.S. in order to protect their beneficial uses. The Porter-Cologne Water Quality Act (Division 7 of the California Water Code) regulates water quality within California and establishes the authority of the SWRCB and the nine Regional Water Quality Control Boards. The Regional and State Boards issue NPDES permits to regulate specific water discharges, including a Construction General Permit for projects that disturb more than one acre.

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

Excavation, grading, and construction activities associated with project construction would result in soil disturbance. As stormwater flows over a construction site, it can pick up sediment, debris, and chemicals, and transport them to receiving water bodies. However, the nearest receiving water body is the Rio Hondo Channel located approximately one mile south of the project site. Therefore, due to intervening development and storm drain systems, it is unlikely that the any potentially-contaminated surface runoff from the project site would reach the Rio Hondo Channel.

Furthermore, Part 1.05 of Section 01060 of CBMWD's contractor specifications require contractors to comply with the CBMWD's NPDES Construction General Permit and submit a SWPPP. The SWPPP would minimize the amount of sediment and other pollutants associated with the construction site discharged in stormwater runoff. The Construction General Permit requires operators to implement pollution prevention controls to minimize the discharge of pollutants from stormwater and spilled or leaked materials. Inspections would be conducted on the project site once every seven calendar days, or once every 14 calendar days and within 24 hours of a 0.25-inch storm event (United States Environmental Protection Agency 2017). As such, the proposed project would be consistent with water quality standards and waste discharge requirements. In addition, consistent with Mitigation Measure HAZ-1, identified above in Section 8, *Hazards and Hazardous Materials,* accidental leaks or accidental spills of hazardous materials that may occur during project construction would be cleaned up and disposed of in accordance with applicable regulations. Therefore, with mitigation incorporated, project construction would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during use of the recycled water.

During operation of the project, the pipeline and pump station would convey recycled water that would be treated in accordance with Title 22 of the California Code of Regulations standards before entering the recycled water distribution system and being used for construction activities, dust control, and landscape irrigation. The proposed project would include a connection for portable diesel standby engines in the event of an electrical service outage or other disruption to the main pumps, the use of such portable engines would be temporary and would not require the storage of diesel fuel on-site. Furthermore, in the event that portable engines are required, they would be staged on paved surfaces outside of the pump station; therefore, any accidental spills of diesel fuels would be contained on paved surfaces and would not adversely impact water quality. Therefore, project operation would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during use of the recycled water. Operational impacts would be less than significant.

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

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

In September of 2014, the California Legislature enacted comprehensive legislation aimed at strengthening local control and management of groundwater basins throughout the state. Known as the Sustainable Groundwater Management Act (SGMA), the legislation provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for State intervention when necessary to protect the resource. The Central Subbasin of the Coastal Plain of the Los Angeles Central Groundwater Basin, which underlies the project site, is designated as a "very low priority" basin and is therefore not required per SGMA to be managed by a Groundwater Sustainability Agency through implementation of a Groundwater Sustainability Plan (California Department of Water Resources 2018).

Based on groundwater levels in the project area, it is not anticipated that pipeline construction activities would encounter groundwater. However, in the event that construction occurs in areas with high groundwater, the groundwater would be removed during through dewatering wells that have been drilled along the pipeline alignment. Dewatering activities would be temporary and short-term as pipeline construction activities move along the alignment at a rate of approximately 100 to 300 feet per day. Therefore, dewatering during project construction would not substantially decrease groundwater supplies.

Construction of the proposed pipeline would not increase the amount of impervious surfaces along the pipeline alignment because it would be installed under existing roadways. Construction of the pump station would incrementally increase the amount of impervious surface at the pump station location by approximately 0.14 acre. Therefore, the project would not substantially interfere with groundwater recharge occurring at the project site.

During operation, the project would deliver recycled water to be used for construction purposes, dust control, and landscaping irrigation. Therefore, the project would have no adverse impacts to groundwater supplies because it would reduce the use of potable water, which may be drawn from groundwater supplies, for these purposes. Because the project would have no adverse impacts related to groundwater supplies or recharge, there would be no adverse impacts related to sustainable groundwater management planning efforts.

NO IMPACT

c.(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?

c.(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

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

Construction of the proposed pipeline would not increase the amount of impervious surfaces along the pipeline alignment because the pipeline would be installed under existing roadways. Therefore, the proposed pipeline would not alter the existing drainage pattern along the pipeline alignment as compared to existing conditions.

Construction of the pump station would incrementally increase the amount of impervious surfaces at the pump station location by approximately 0.14 acre. The area surrounding the pump station location would remain undeveloped open space per the Montebello Hills Specific Plan. Therefore, the project would not substantially alter the existing drainage pattern of the site or area through the addition of impervious surfaces in a manner that would result in substantial erosion, siltation, or flooding. The increase in impervious surfaces on-site would incrementally increase runoff flows in the area; however, the increase in runoff would be directed to the existing stormwater drainage system and would be adequately handled by existing facilities. Therefore, the project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?

The project site is not depicted as being within a floodplain on Federal Emergency Management Agency (FEMA) maps and is classified as zone D (unstudied) (FEMA 2008). The FEIR for the Montebello Hills Specific Plan determined significant flooding, except in the immediate vicinity of minor watercourses, is unlikely in the Montebello Hills area, which includes the project site (City of Montebello 2014). The nearest flood hazard zone (the Whitter Narrows Flood Control Basin) is located approximately 1.5 miles east of the project site and is approximately 160 feet lower in elevation than the project site; therefore, flooding of the project site due to flood flows in this flood hazard zone is unlikely. As a result, although construction of the pump station would incrementally increase impervious surfaces on the project site, the project would not have the potential to redirect or impede flood flows. No impact would occur.

NO IMPACT

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

The project site is located approximately 22.1 miles inland and is not in a tsunami inundation zone (CDOC 2009). As discussed under item (c[iv]), the project site is not depicted as being within a floodplain on FEMA maps, and flooding of the project site is unlikely due to the topography of the surrounding area and the distance to the nearest flood hazard zone. The nearest large surface water body is Legg Lake, located approximately 2.2 miles northeast of the project site; however, intervening topography would direct any flows from a potential seiche away from the project site (United States Geological Survey 2019b). Therefore, the project site would not be subject to potential inundation and would not risk release of pollutants due to inundation. No impact would occur.

NO IMPACT

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11 Land Use and Planning

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

a. Would the project physically divide an established community?

The proposed pipeline would be located entirely below the ground surface and would not have the potential to physically divide an established community. The proposed pump station would be located on undeveloped land immediately east of the intersection of Montebello Boulevard and Jefferson Boulevard within the Montebello Hills Specific Plan area. Development envisioned under the Montebello Hills Specific Plan does not include a connection to this intersection (City of Montebello 2014). Therefore, the pump station would not physically divide an established or planned community. No impact would occur.

NO IMPACT

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

The proposed project would be located within the city of Montebello. Per California Government Code 53091, building and zoning ordinances of a county or city do not apply to the location or construction of facilities for the production, storage, or transmission of water, wastewater, or electrical energy by a local agency. Therefore, the project is only evaluated for consistency with the City of Montebello General Plan and the Montebello Hills Specific Plan.

The proposed pipeline alignment would be constructed below roadway rights-of-way and would not conflict with any land use plan, policy, or regulation of an agency with jurisdiction over the project. The pump station would be constructed on land zoned SP-O (Specific Plan) (Oil and Gas Production Overlay District). On-site recycled water infrastructure is part of development envisioned by Section 5.2.2 of the Montebello Hills Specific Plan. However, the project would be constructed on the portion of the Plan area designated for open space land use and would permanently remove approximately 0.14 acre of California gnatcatcher habitat. With implementation of Mitigation Measures BIO-1 through BIO-3, the proposed project would be consistent with the following goal, policy, and objective of the Montebello Hills Specific Plan (City of Montebello 2009):

- **Goal 9:** Incorporate sustainable features into all aspects of the community.
  - **Objective:** Implement a community plan incorporating the fundamentals of smart growth and sustainability.
  - **Policy:** Maintain natural habitat within open space areas, and reintroduce historical indigenous habitat and plant species into open space areas.

The City of Montebello General Plan identifies goals to encourage sustainable development and promote the use of recycled water (City of Montebello 1973). The proposed project would be consistent with the following City of Montebello General Plan goals and policies:

- **Land Use Element Goal 9:** Incorporate sustainable features into all aspects of the community.
- **Conservation Element Policy 4:** Promote wastewater treatment and utilization for purposes such as irrigation tooling and groundwater recharge where feasible.

As discussed in Section 1, *Aesthetics*, although construction of the pump station would require minor alterations to the lower portion of the hillside due to grading and building construction, the majority of the hillside would remain unchanged. Therefore, the project would be consistent with the following objective from the City's General Plan:

- **Conservation Element Objective 2:** Preserve outstanding land features.

As discussed in Section 6, *Energy*, the project would not result in the wasteful, inefficient, or unnecessary use of energy resources. Therefore, the project would be consistent with the following objective from the City's General Plan:

- **Conservation Element Objective 4:** Encourage conservation of energy through use of environmental impact assessment to propose mitigating measures.

The City of Montebello General Plan also identifies goals, policies, and objectives to protect biological resources (City of Montebello 1973). With implementation of Mitigation Measures BIO-1 through BIO-3, the proposed project would be consistent with the following City of Montebello General Plan goals and policies:

- **Conservation Element Goal 1:** Preserve and protect natural, environmental and man-made resources.
- **Conservation Element Objective 5:** Preserve outstanding and unique plant life in the community.
- **Conservation Element Objective 6:** Preserve habitats for desirable or non-objectionable birds and mammals in the area.
- **Conservation Element Policy 2:** Trees and vegetation should be preserved and provided to serve as animal habitats within parks, schools, cemeteries, and other landscaped open space.
- **Open Space Element Policy 2:** Ecologically important areas should be viewed as areas of critical concern and should be preserved wherever possible.

As discussed in Section 3, *Air Quality*, air pollutant emissions generated by construction and operation of the proposed project would be less than significant. Therefore, the project would be consistent with the following objective from the City's General Plan:

- **Conservation Element Objective 8:** Seek to reduce emissions from stationary and mobile sources within the city of Montebello to the lowest feasible level.

Although the proposed project would not be subject to the City's building and zoning ordinances, as discussed in Section 13, *Noise*, noise impacts resulting from construction and operation of the proposed project were evaluated using the standards contained in the MMC and were found to be less than significant. Overall, with implementation of Mitigation Measures BIO-1 through BIO-3, the project would be consistent with the goals, policies, and objectives of the Montebello Hills Specific Plan, the City of Montebello General Plan, and the MMC.

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12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	■	☐
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?	☐	☐	■	☐

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

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

The project site is located within and adjacent to the Montebello Oil Field, which has been actively used for oil and gas exploration and extraction since 1917. According to the Montebello Hills Specific Plan, the owner of mineral rights on the site will continue to operate oil and gas exploration and extraction activities during and after buildout of the Specific Plan. Plans for future exploration and extraction activities include modernization and utilization of more efficient technologies for abandonment and relocation of existing wells and the potential drilling of new wells (City of Montebello 2009).

The project site is designated as Mineral Resource Zone 3 (MRZ-3), which indicates an area with mineral deposits of undetermined significance (Kohler 1982). The proposed pipeline would be constructed in the existing Montebello Boulevard right-of-way and would have no impact on the availability of mineral resources along the pipeline alignment. The pump station would not be located at the site of an existing well or pipeline (City of Montebello 2009). Construction of the pump station would convert approximately 0.14 acre of the 314 acres of open space (0.06 percent) designated under the Montebello Hills Specific Plan Area where oil extraction would continue during and after buildout of the Montebello Hills Specific Plan. Therefore, construction of the pump station would incrementally reduce the amount of land available for potential new wells. However, construction of the aboveground pump station would not preclude future exploration and extraction of subterranean oil, gas, or other mineral resources. Therefore, although the project would be located on and adjacent to an active oil field, impacts related to the availability of mineral resources would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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13 Noise

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

Noise Overview

The unit of measurement used to describe a noise level is the decibel (dB). However, the human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, a method called "A weighting" is used to filter noise frequencies that are not audible to the human ear. A-weighting approximates the frequency response of the average young ear when listening to most ordinary everyday sounds. When people make relative judgments of the loudness or annoyance of a sound, their judgments correlate well with the "A-weighted" levels of those sounds. Therefore, the A-weighted noise scale is used for measurements and standards involving the human perception of noise. In this analysis, all noise levels are A-weighted, and "dB(A)" is understood to identify the A-weighted decibel.

Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. A 10 dB increase represents a 10-fold increase in sound intensity, a 20 dB change is a 100-fold difference, 30 dB is a 1,000-fold increase, etc. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease.

Human perception of noise has no simple correlation with acoustical energy. The perception of noise is not linear in terms of dB(A) or in terms of acoustical energy. Two equivalent noise sources combined do not sound twice as loud as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dB(A), increase or decrease; that a change of 5 dB(A) is readily

perceptible; and that an increase (decrease) of 10 dB(A) sounds twice (half) as loud (California Department of Transportation [Caltrans] 2013a).

Descriptors

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important. In addition, most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors has been developed. The noise descriptors used for this analysis are the one-hour equivalent noise level (L_{eq}) and the community noise equivalent level (CNEL).

- The L_{eq} is the level of a steady sound that, in a stated time period and at a stated location, has the same A-weighted sound energy as the time-varying sound. For example, $L_{eq(1h)}$ is the equivalent noise level over a 1-hour period and $L_{eq(8h)}$ is the equivalent noise level over an 8-hour period. $L_{eq(1h)}$ is a common metric for limiting nuisance noise whereas $L_{eq(8h)}$ is a common metric for evaluating construction noise.
- The CNEL is a 24-hour equivalent sound level. The CNEL calculation applies an additional 5 dB(A) penalty to noise occurring during evening hours, between 7:00 p.m. and 10:00 p.m., and an additional 10 dB(A) penalty is added to noise occurring during the night, between 10:00 p.m. and 7:00 a.m. These increases for certain times are intended to account for the added sensitivity of humans to noise during the evening and night.

Propagation

Sound from a small, localized source (approximating a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern, known as geometric spreading. The sound level decreases or drops off at a rate of 6 dB(A) for each doubling of the distance. Traffic noise is not a single, stationary point source of sound. Over some time interval, the movement of vehicles makes the source of the sound appear to emanate from a line (line source) rather than a point. The drop-off rate for a line source is 3 dB(A) for each doubling of distance.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dB(A) per doubling of distance.

Vibration Overview

Vibration levels are usually expressed as single-number measure of vibration magnitude, in terms of velocity or acceleration, which describes the severity of the vibration without the frequency variable. The peak particle velocity (ppv) is defined as the maximum instantaneous positive or negative peak of the vibration signal, usually measured in inches per second. Since it is related to the stresses that are experienced by buildings, ppv is often used in monitoring and controlling construction vibration. Although ppv is appropriate for evaluating the potential of building damage, it is not suitable for evaluating human response. It takes some time for the human body to respond to vibrations. In a sense, the human body responds to an average vibration amplitude (Federal Transit Administration [FTA] 2018). Because vibration waves are oscillatory, the net average of a vibration signal is zero. Thus, the root mean square (rms) amplitude is used to describe the "smoothed" vibration amplitude (FTA 2018). The rms of a signal is the square root of the average of the squared amplitude of the signal, usually measured in inches per second. The average is typically

calculated over a one-second period. The rms amplitude is always less than the ppv and is always positive. Decibel notation is used to compress the range of numbers required to describe vibration. The abbreviation VdB is used in this analysis for vibration decibels to reduce the potential for confusion with sound decibels.

Continued vibration of building components can also take the form of an audible low-frequency rumbling noise, which is referred to as groundborne noise. Groundborne noise is usually only a problem when the originating vibration spectrum is dominated by frequencies in the upper end of the range (60 to 200 Hertz), or when foundations or utilities, such as sewer and water pipes, connect the structure and the vibration source.

Significance Thresholds

CBMWD does not have a noise ordinance and does not maintain significance criteria for noise impacts. Per California Government Code 53091, building and zoning ordinances of a county or a city do not apply to the location or construction of facilities for the production, generation, storage, or transmission of water. Therefore, within CBMWD jurisdiction, nuisance noise is prohibited at CBMWD's discretion. However, because CBMWD does not maintain significance criteria for noise impacts, the following standards established by the City of Montebello (the contiguous municipality proximate to the project site) in the Montebello Municipal Code (MMC) and by Caltrans are used to inform the thresholds of significance used in this analysis.

Noise

MMC Section 9.08.050 addresses construction noise within the city. Noise sources associated with construction, demolition, grading, repair, or remodeling of any real property are restricted to the hours between 7:00 a.m. and 6:00 p.m. on weekdays and between 9:00 a.m. and 6:00 p.m. on Saturdays, Sundays, and legal holidays. The MMC does not include quantitative thresholds for construction impacts. Thus, for the purposes of this analysis, a maximum hourly noise level of 75 dB(A) L_{eq} during the allowed hours of construction is used as a significance threshold. This noise level is commonly utilized and accepted by jurisdictions throughout California, including the City of Los Angeles, Imperial County, City of San Diego, and San Diego County, to assess the significance of temporary construction noise impacts. Construction noise in excess of 75 dB(A) L_{eq} between 7:00 a.m. and 6:00 p.m. on weekdays or between 9:00 a.m. and 6:00 p.m. on Saturdays, Sundays, and legal holidays, would be significant. Any construction noise occurring outside the allowed hours would also be significant.

MMC Section 17.22.110 describes development standards for noise levels within the city. Table 10 summarizes the development standards for inherent and recurrently generated noise, measured at the lot line of the lot on which the use is located.

Table 10 City of Montebello Noise Standards by Zone

Adjacent Zone	Time	Applicable Limit One-Hour Average Sound Level (Decibels)
Residential	7 a.m. to 10 p.m. 10 p.m. to 7 a.m.	65 60
Commercial	Anytime	70
Industrial	Anytime	75

Source: City of Montebello Municipal Code Section 17.22.110

It is unlawful for any person or any property to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level when measured on any other property, to exceed:

1. The noise standard for a cumulative period of more than thirty minutes in any hour
2. The noise standard plus five dB(A) for cumulative period of more than fifteen minutes in any hour
3. The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour
4. The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour
5. The noise standard plus twenty dB(A) for any period of time

Vibration

Vibration limits used in this analysis to determine a potential impact to local land uses are based on information contained in Caltrans' (2013b) *Transportation and Construction Vibration Guidance Manual* and the FTA (2018) *Transit Noise and Vibration Impact Assessment Manual*. Maximum recommended vibration limits by the American Association of State Highway and Transportation Officials (AASHTO) are identified in Table 11.

Table 11 AASHTO Maximum Vibration Levels for Preventing Structural Damage

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2 - 0.3
Residential buildings in good repair with gypsum board walls	0.4 - 0.5
Engineered structures, without plaster	1.0 - 1.5

in/sec = inches per second

Source: Caltrans 2013b

Based on AASHTO recommendations, limiting vibration levels to below 0.2 PPV inches per second at residential structures would prevent structural damage regardless of building construction type. These limits are applicable regardless of the frequency of the source. However, as shown in Table 12 and Table 14, potential human annoyance associated with vibration is usually different if it is generated by a steady state or a transient vibration source.

Table 12 Human Response to Steady State Vibration

PPV (in/sec)	Human Response
3.6 (at 2 Hz)–0.4 (at 20 Hz)	Very disturbing
0.7 (at 2 Hz)–0.17 (at 20 Hz)	Disturbing
0.10	Strongly perceptible
0.035	Distinctly perceptible
0.012	Slightly perceptible

ppv = peak particle velocity; Hz = hertz

Source: Caltrans 2013b

Table 13 Human Response to Transient Vibration

PPV (in/sec)	Human Response
2.0	Severe
0.9	Strongly perceptible
0.24	Distinctly perceptible
0.035	Barely perceptible

ppv = peak particle velocity; in/sec = inches per second

Source: Caltrans 2013b

As shown in Table 12, the vibration level threshold at which steady vibration sources are considered to be distinctly perceptible is 0.035 inches per second ppv, which is roughly equivalent to the FTA criterion of 78 VdB for identifying impacts to residential land uses from infrequent events, such as passing trains. However, as shown in Table 14, the vibration level at which transient vibration sources (such as construction equipment) is considered to be distinctly perceptible is 0.24 inches per second ppv, which is roughly equivalent to 94 VdB. Therefore, for the purposes of this analysis, the distinctly perceptible vibration level of 94 VdB is utilized as a significance threshold for assessing vibration impacts. Although groundborne vibration is sometimes noticeable in outdoor environments, groundborne vibration is almost never annoying to people who are outdoors; therefore, vibration impacts are assessed at the occupied structures of affected properties (FTA 2018).

Ambient Noise Levels

The primary noise source in the immediate vicinity of the project site is vehicular traffic on Montebello Boulevard. To determine the average ambient noise levels at nearby sensitive receptors, Rincon Consultants collected two 15-minute noise measurements and one 24-hour noise measurement using an ANSI Type II integrating sound level meter (see Appendix E for sound measurement data). The short-term noise measurements were taken between 8:06 a.m. and 8:46 a.m. (morning peak hour) on March 27, 2019. The 24-hour measurement was taken from March 27, 2019 to March 28, 2019. Figure 9 shows the noise measurement locations, and Table 14 summarizes the results of sound level monitoring on and near the project site. As shown in Table 14, the 15-minute ambient sound level at the project site during peak hour traffic ranges between

Figure 9 Sound Level Measurement and Sensitive Receptor Locations

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approximately 70 and 73 dB(A) L_{eq}. The 24-hour ambient CNEL noise level (NM 3) is approximately 78 CNEL.

Table 14 Sound Level Monitoring Results

Measurement Location		Sample Times/Dates	Primary Noise Source	Approximate Distance to Primary Noise Source (feet)	L_{eq} (dB[A])[1]	L_{min} (dB[A])	L_{max} (dB[A])	CNEL
15-Minute Sound Level Measurements								
NM 1	Southern end of pump station site	8:06 – 8:21 a.m.	Traffic on Montebello Blvd	100[2]	73	55	82	–
NM 2	Montebello Drive/ Ave De La Merced	8:30 – 8:46 a.m.	Traffic on Montebello Blvd	50[2]	70	56	87	–
24-Hour Sound Level Measurement								
NM 3	North of pump station site	March 27 -28, 2019	Traffic on Montebello Blvd	50	–	–	–	78

See Appendix E for noise monitoring data.

[1] The equivalent noise level (L_{eq}) is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level).

[2] Approximate distance to centerline of Montebello Boulevard.

Source: Rincon Consultants, field measurements on March 27, 2019 to March 28, 2019, using ANSI Type II integrating sound level meter

Sensitive Receivers

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. The City's General Plan Noise Element identifies noise-sensitive receivers as residential areas, schools, hospitals, libraries, churches, and convalescent homes (City of Montebello 1973). The nearest noise-sensitive receivers along the pipeline alignment are the existing single-family residences located immediately adjacent to Montebello Boulevard. The nearest noise-sensitive receptors to the pump station location are existing single-family residences across Montebello Boulevard, approximately 100 feet from the boundary of the proposed pump station location.

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

Construction Noise

Temporary noise levels caused by construction activity would be a function of the noise generated by construction equipment, the location and sensitivity of nearby land uses, and the timing and duration of noise-generating activities.

For construction noise assessment, construction equipment can be considered to operate in two modes: stationary and mobile. As a rule, stationary equipment operates in a single location for one or more days at a time, with either fixed-power operation (e.g., pumps, generators, and compressors) or variable-power operation (e.g., pile drivers, rock drills, and pavement breakers). Mobile equipment moves around the construction site with power applied in cyclic fashion, such as bulldozers, graders, and loaders (FTA 2018). Noise impacts from stationary equipment are assessed from the center of the equipment, while noise impacts from mobile construction equipment are assessed from the center of the equipment activity area (e.g., construction site).

Construction noise was estimated using the Federal Highway Administration's (FHWA) Roadway Construction Noise Model (RCNM). Typical construction projects have long-term noise averages that are lower than louder short-term noise events due to equipment moving from one point to another on the site, work breaks, and idle time. Additionally, due to the dynamic nature of a construction site, noise levels are calculated from the center of the activity. Thus, noise generated by pump station construction is evaluated from the center of the construction site. For modeling purposes, the three loudest pieces of equipment (a dozer, a grader, and an excavator) that would be used during the loudest phase of pump station construction (grading and site preparation) were modeled. The hourly noise level at 50 feet from the center of pump station construction area is calculated to be 82 dB(A) L_{eq}, with a maximum noise level of 85 dB(A) L_{max}.

Unlike pump station construction, which would be centered at a single location, pipeline construction activities would be mobile and would be constantly moving in a linear path along the pipeline alignment. Construction equipment used for site preparation and excavation activities would travel throughout the work areas, which would be a minimum of 300 feet in length by approximately 20 feet in width. Therefore, the average distance of sensitive receivers from mobile equipment would be approximately 151 feet. For modeling purposes, the three loudest pieces of equipment (a concrete saw, an excavator, and a loader) that would be used during the loudest phase of pipeline construction (site preparation) were modeled. The average hourly noise level at edge of the pipeline construction area is calculated to reach a maximum hourly noise level equivalent of 75 dB(A) L_{eq}, with a maximum noise level of 80 dB(A) L_{max}.

The nearest residential receivers to the pump station location are located along Madero Street north of Jefferson Boulevard at a distance of approximately 160 feet from the center of pump station construction activities. The loudest phases of pump station construction activities (site preparation and grading) would generate maximum hourly noise levels up to 73 dB(A) L_{eq} at this location, which would not exceed the maximum construction noise threshold of 75 dB(A) L_{eq}.

The nearest residential receivers to the pipeline alignment would be located northeast of the intersection of Montebello Boulevard and Avenida De La Merced. At these residences, the loudest phase of pipeline construction activities (site preparation) would generate maximum hourly noise levels up to 72 dB(A) L_{eq}, which would not exceed the project construction noise threshold of 75 dB(A) L_{eq}. Construction noise impacts at any one residence during pipeline construction would be temporary and short-term because construction would be moving along the pipeline alignment at a rate of approximately 100 to 300 feet per day. According to MMC Section 9.08.050, construction activities in the city are limited to the hours between 7:00 a.m. and 6:00 p.m. on weekdays and 9:00 a.m. to 6:00 p.m. on Saturdays, Sundays, and legal holidays. Therefore, construction noise impacts to nearby residences would be less than significant.

Operational Noise

Operation of the recycled water pumps would generate noise within the pump station building that would be transmitted to the exterior of the building via the ventilation openings (louvers) in the façade of the structure. Noise levels from the proposed pump station were modeled with Sound Plan, version 8.1 (SoundPlan), a three-dimensional acoustical modeling software package. Propagation of modeled stationary noise sources was based on ISO Standard 9613-2, "Attenuation of Sound during Propagation Outdoors, Part 2: General Method of Calculation." The assessment methodology assumes that all receptors would be downwind of stationary sources. This is a worst-case assumption for total noise impact because, in reality, only some receptors would be located downwind at any one time.

The primary on-site noise source would be the recycled water pumps. To obtain a reference noise level for use in modeling operational noise levels, noise level measurements were taken at a similar existing pump station located at the intersection of East Avenida De La Merced and Lincoln Avenue in Montebello. The existing pump station is a concrete structure; therefore, noise transmittal from pump operation is limited to the pump station louvers. Therefore, noise level measurements were taken at a distance of five feet from the pump station louvers. Due to the limited operation of the electric water pumps, a pump was turned on at full power for a five-minute period during the noise level measurement to provide a reference noise level. Based on the noise level measurements, the pump station generates a noise of 55.6 dB(A) Leq at five feet. This sound pressure level (L_p) was converted to a sound power level (L_w) for purposes of modeling noise levels at adjacent properties. The modeled source noise levels are presented in Table 15.

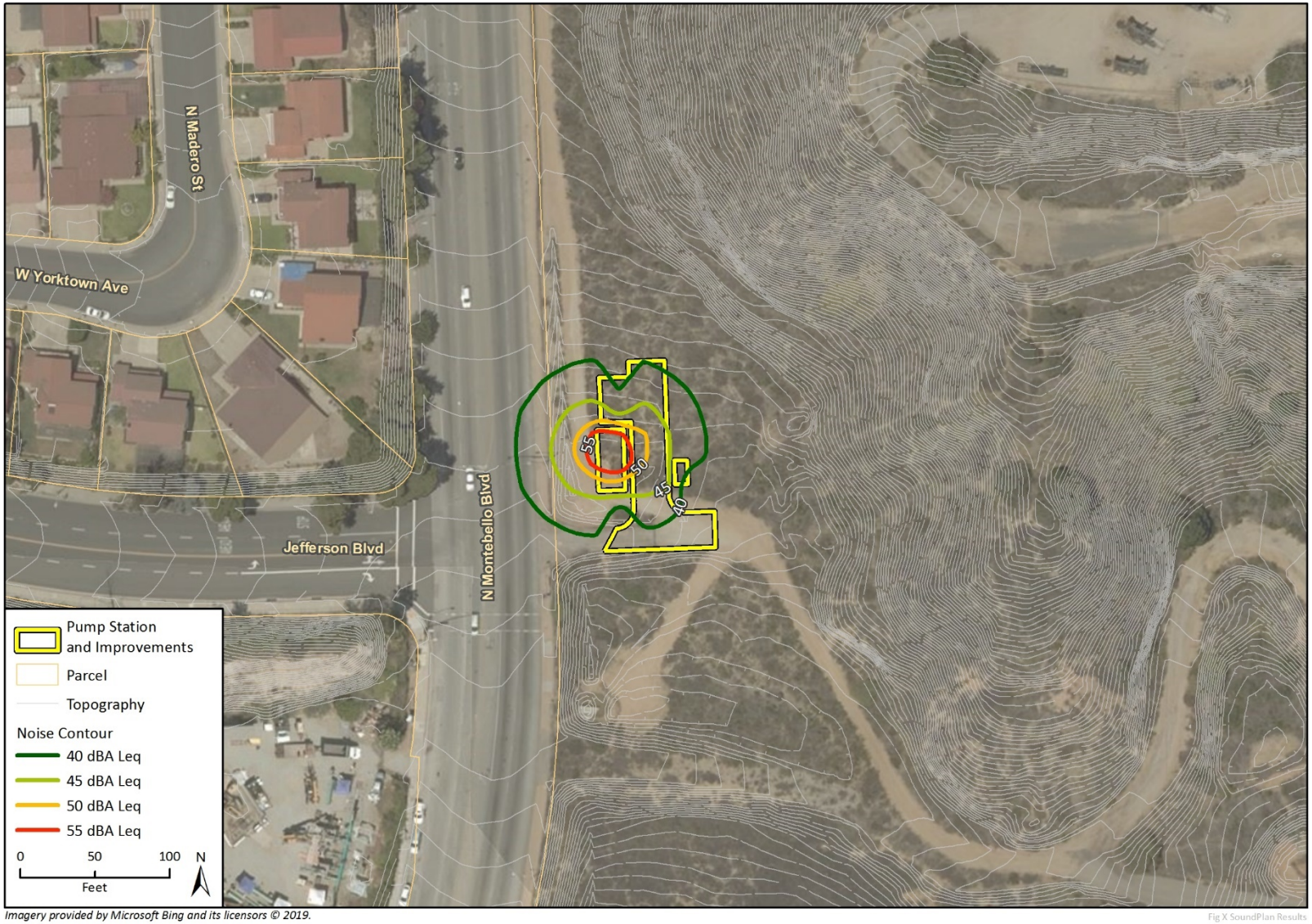
Table 15 Source Noise Levels

Name	Measured Sound Pressure Level (db[A] L_{eq})	Calculated Sound Power Level (db[A] L_w)
Pump Station – Single Pump	55.5	67.2
Pump Station – Two Pumps[1]	–	70.2

[1] Sound power level for two pumps was assumed to be double the energy as a single pump.

The analysis assumes a source height of 2.2 feet for the louvers with an opening dimension of 2 feet by 3 feet. To be conservative, the pumps were modeled as simultaneously active at 100 percent power for a full hour during all hours of the day. This is considered a reasonably conservative assumption because it would be unlikely that the pumps would be active for a full hour at the same time. Figure 10 shows the predicted pump station noise levels and modeled noise level contours resulting from pump station operation. As shown therein, predicted noise levels generated by pump station operation would be less than 40 dB(A) L_{eq} at the nearest residences located to the west across Montebello Boulevard, which would not exceed the ambient noise level of approximately 78 CNEL. Furthermore, the dominant noise source at these receivers is vehicular traffic along Montebello Boulevard, which would act as an intervening noise source between the pump station and nearby receivers and would mask pump station noise. Therefore, pump station operation would not result in an increase in ambient noise levels, and noise impacts related to pump station operation would be less than significant.

Figure 10 Pump Station Noise Contours



Quarterly maintenance activities at the pump station may require the use of a crane. According to the FTA, a crane generates a noise level of 80.6 dB(A) L_{eq} (FHWA 2006). The nearest residential receivers to the pump station are approximately 100 feet to the west of the boundary of the proposed pump station location. However, the nearest distance at which a crane may be staged would be in the parking lot on the east side of the pump station, which would be approximately 150 feet from the nearest residence. At a distance of 150 feet, maintenance activities using the crane would generate a noise level of approximately 63 dB(A) L_{eq}. As shown in Table 10, the noise standard for residential zones is 65 dB(A) L_{eq} during daytime hours (7:00 a.m. to 10:00 p.m.).

According to MMC Section 17.22.110, this standard may not be exceeded for more than thirty minutes in any hour. Therefore, maintenance activities would not exceed the City's noise standard for residential zones, and impacts would be less than significant.

Off-Site Traffic Noise

Quarterly and as-needed maintenance trips by CBMWD staff would incrementally increase existing noise on Montebello Boulevard and surrounding local roadways. Existing daily traffic on Montebello Boulevard was estimated based on the industry standard assumption that peak hour traffic volumes are equal to ten percent of the roadway average daily trips (ADT) (Precision Traffic & Safety Systems 2018). Therefore, the 15-minute traffic count taken during the morning peak hour noise measurement on March 27, 2019 was multiplied by four to obtain hourly traffic for the evening peak hour, and then multiplied by 10 to obtain an estimate of daily traffic. The approximate traffic volume estimate for the 15-minute count period was 325 passenger vehicles and 3 medium-duty trucks; therefore, existing traffic levels along Montebello Boulevard adjacent to the project site equate to approximately 328 trips during the morning peak hour and 3,280 ADT. On the days of quarterly and as-needed maintenance activities, project-related trips would increase ADT on Montebello Boulevard by approximately two one-way vehicle trips and two construction vendor trips to transport the crane, which would incrementally increase traffic by less than 0.1 percent and would not double traffic. Therefore, maintenance activities associated with project operation would not increase ambient noise levels by 3 dB(A), and the increase in roadway noise on the days of maintenance activities would not be perceptible. Impacts related to roadway noise would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

Certain types of construction equipment can generate high levels of groundborne vibration. Construction of the proposed project would potentially utilize loaded trucks and a bulldozer during most construction phases as well as a vibratory roller during the paving phase. Neither blasting nor pile driving would be required for construction of the proposed project. Construction vibration estimates are based on vibration levels reported by Caltrans and the FTA (Caltrans 2013b; FTA 2018).

A quantitative assessment of potential vibration impacts from construction activities, such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation, may be conducted using the equations developed by Caltrans and the FTA (Caltrans 2013b; FTA 2018). Table 16 shows typical vibration levels for various pieces of construction equipment used in the assessment of construction vibration (FTA 2018).

Table 16 Vibration Levels Measured during Construction Activities

Equipment	PPV at 25 feet (in/sec)	Approximate L_v VdB at 25 feet
Large bulldozer	0.089	87
Loaded trucks	0.076	83
Small bulldozer	0.003	58
Vibratory Roller	0.210	94
Jackhammer	0.035	79

ppv = peak particle velocity; in/sec = inches per second; VdB = vibration decibels

Source: FTA 2018

Project construction activities would occur as close as 25 feet from the nearest structures, which are residences along Montebello Boulevard. Therefore, construction vibration impacts are assessed at a distance of 25 feet to estimate maximum vibration impacts to structures in the project area. Vibration levels at structures located at a distance of greater than 25 feet from the project site would be less than those experienced at structures located at 25 feet from the project site; therefore, vibration levels were not quantified at these receivers. As discussed under *Significance Thresholds*, construction vibration impacts would be significant if vibration levels exceed 94 VdB, the level at which transient vibration sources, such as construction equipment, is considered to be distinctly perceptible (Caltrans 2013b). As shown in Table 17, groundborne vibration from construction equipment would not exceed 94 VdB, the identified threshold, at the nearest structures. Therefore, construction vibration impacts would be less than significant.

As a recycled water pipeline and pump station, the proposed project would not generate significant stationary sources of vibration, such as heavy equipment operations. Therefore, operational vibration impacts would be less than significant.

Table 17 Vibration Levels at Sensitive Receptors

	Estimated VdB at Nearest Structures
Equipment	Residences (25 feet)
Large Bulldozer	87
Small Bulldozer	83
Loaded Trucks	58
Vibratory Roller	94
Jackhammer	79
Threshold	**94**
Threshold Exceeded?	No

VdB = vibration decibels

See Appendix E for vibration analysis worksheets.

Source: FTA 2018

LESS THAN SIGNIFICANT IMPACT

c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

As discussed in Section 9, *Hazards and Hazardous Materials*, the closest public or private airport to the project site is the San Gabriel Airport, located approximately 5.3 miles northeast of the project site. The project site is not located within an airport land use plan or within two miles of an airport. Therefore, the project would not expose people working in the project area to excessive noise levels due to proximity to an airport. No impact would occur.

NO IMPACT

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14 Population and Housing

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

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

The project would involve construction of a recycled water pipeline and pump station. No direct growth would occur as a result of the project because it does not propose new homes, businesses, or other land uses which would generate population growth.

The project would indirectly induce population growth by facilitating buildout of the Montebello Hills Specific Plan, which allows for construction of up to 1,200 dwelling units. This population growth is planned, and the environmental impacts of the Montebello Hills Specific Plan (approved by the City of Montebello in 2015) were evaluated in the Montebello Hills Specific Plan Final Environmental Impact Report (FEIR). The FEIR determined buildout of the Specific Plan would result in less than significant impacts with respect to population and housing (City of Montebello 2015). Impacts related to population growth from the proposed pipeline and pump station would be less than significant because the project would not directly induce population growth and indirect population growth facilitated by the project was accounted for in the approved Montebello Hills Specific Plan and certified FEIR.

LESS THAN SIGNIFICANT IMPACT

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

The proposed pipeline would be constructed in the existing public right-of-way along Montebello Boulevard, and the pump station would be constructed on undeveloped land. The project does not propose demolition of existing housing. Therefore, the project would not displace substantial numbers of existing people or housing. No impact would occur.

NO IMPACT

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15 Public Services

		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a.	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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:				
	1 Fire protection?	☐	☐	☐	■
	2 Police protection?	☐	☐	☐	■
	3 Schools?	☐	☐	☐	■
	4 Parks?	☐	☐	☐	■
	5 Other public facilities?	☐	☐	☐	■

a.1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Montebello Fire Department serves the project site from its headquarters at 600 North Montebello Boulevard, approximately 0.1 mile (driving distance) from the project site (City of Montebello 2016). The project would involve construction of an underground recycled water pipeline and a pump station, neither of which would substantially increase demand for fire protection services. As discussed in Section 14, *Population and Housing*, the project would indirectly contribute to population growth by facilitating buildout of the Montebello Hills Specific Plan. Residential uses constructed under the Specific Plan would increase demand for fire protection services; however, the environmental impacts of the Montebello Hills Specific Plan (approved by the City of Montebello in 2015) were evaluated in the Montebello Hills Specific Plan FEIR (City of Montebello 2015). The Montebello Hills Specific Plan FEIR concludes that impacts to fire protection services would be less than significant with mitigation incorporated (City of Montebello 2015). The project would result in no further impact related to the provision of new or physically altered fire protection facilities.

NO IMPACT

a.2. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered police protection facilities, or the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The Montebello Police Department (MPD) serves the project site from its station at 1600 West Beverly Boulevard, approximately 0.9 mile (driving distance) from the project site. The police department consists of 74 sworn officers, 10 reserve officers, and 42 civilian personnel (MPD 2017). The project involves construction of recycled water infrastructure and would not substantially increase demand for police protection services. Residential uses constructed under the Specific Plan would increase demand for police protection services; however, the environmental impacts of the Montebello Hills Specific Plan (approved by the City of Montebello in 2015) were evaluated in the Montebello Hills Specific Plan FEIR (City of Montebello 2015). The Montebello Hills Specific Plan FEIR concludes that impacts to police protection services would be less than significant with mitigation incorporated. The project would result in no further impact associated with the provision of new or physically altered police protection facilities.

NO IMPACT

a.3. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered schools, or the need for new or physically altered schools, the construction of which could cause significant environmental impacts or other performance objectives?

The project site is served by the Montebello Unified School District (MUSD). The project does not contain any elements that would directly increase MUSD enrollment or require new or physically altered schools. Residential uses constructed under the Specific Plan would increase enrollment at MUSD schools; however, the environmental impacts of the Montebello Hills Specific Plan (approved by the City of Montebello in 2015) were evaluated in the Montebello Hills Specific Plan FEIR.As concluded in the Montebello Hills Specific Plan FEIR, payment of applicable school impact fees would reduce impacts to schools to a less-than-significant level (City of Montebello 2015). The project would result in no further impact associated with the provision of new or physically altered schools.

NO IMPACT

a.4. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered parks, or the need for new or physically altered parks, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios or other performance objectives?

The project would not involve any elements that would increase demand for parks or other recreational facilities. The project would facilitate buildout of the Montebello Hills Specific Plan, which would provide 16.4 acres of new public and private park space and a 260-acre habitat reserve, which would offset the increase in park demand associated with construction of residential uses. Therefore, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered parks, and no impact would occur.

NO IMPACT

a.5. Would the project result in substantial adverse physical impacts associated with the provision of other new or physically altered public facilities, or the need for other new or physically altered public facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives?

The project would involve construction of recycled water infrastructure and would not contain elements that would require expansion or physical alteration of governmental facilities. As discussed above, the project would facilitate buildout of the Montebello Hills Specific Plan, which would increase demand on other governmental facilities, such as libraries. The Montebello Hills Specific Plan FEIR concluded that such impacts would be less than significant with mitigation incorporated (City of Montebello 2015). The project would result in no further impact related to the provision of new or physically altered governmental facilities, including libraries.

NO IMPACT

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16 Recreation

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

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?

As discussed in Section 14, *Population and Housing*, the project would not directly induce population growth and would therefore not directly increase the use of existing neighborhood and regional parks or other recreational facilities. The project would facilitate buildout of the Montebello Hills Specific Plan, thereby indirectly increasing the population of Montebello and consequently increasing demand for recreational amenities in the vicinity of the project site. However, buildout of the Montebello Hills Specific Plan would include approximately 16.4 acres of new public and private parkland as well as a 260-acre habitat reserve, which would serve to offset increased demand for recreational amenities. Potential recreational impacts associated with population growth induced by the Montebello Hills Specific Plan were evaluated in the Montebello Hills Specific Plan FEIR, which concluded such impacts would be less than significant (City of Montebello 2015). Therefore, because the recreational impacts of population growth indirectly induced by the project were previously analyzed in the Montebello Hills Specific Plan FEIR, no impact would occur.

NO IMPACT

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

The project would involve construction of recycled water pipeline in the existing public right-of-way along Montebello Boulevard and a pump station on undeveloped land. The project would not involve construction or expansion of recreational facilities. No impact would occur.

NO IMPACT

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17 Transportation

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

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

The Los Angeles County Metropolitan Transportation Authority (Metro) is the designated Congestion Management Agency responsible for the development and implementation of the Congestion Management Program (CMP) in the project area. According to the current (2010) CMP, various regional roadways in the vicinity of the project site operate below the County's level of service (LOS) standard of LOS E, including State Route (SR) 60, Interstate 605, and Interstate 5 (Metro 2010). Additionally, the City of Montebello General Plan Circulation Element includes goals of facilitating traffic movement and alleviating congestion in and around the city, protecting residential areas from through traffic, and developing a circulation system which provides for continuous movement to and from adjacent communities (City of Montebello 1973).

Project construction would result in temporary transportation impacts. Construction staging would occur in the roadway along the pipeline alignment, at parking lots in the project vicinity, or at the pump station location, which would minimize travel between equipment staging areas and work zones. Pipeline construction activities would install approximately 100 to 300 linear feet of pipeline per day before moving to the next segment of pipeline, with no more than 500 linear feet of open trench at a given time. Lane closures during pipeline construction activities would be necessary. As a result, project construction would result in temporary disruption to vehicular, bicycle, and pedestrian circulation. However, pursuant to Section 01550 of CBMWD's construction specifications for the project, the project contractor would be required to provide traffic control implementation plans and schedules, including closure schedules and contact information for parties responsible for maintenance of traffic control devices. Furthermore, the specifications require the contractor to provide fire and police departments serving the project site with the construction schedule showing

expected starting date, sequence of work, and timing for each phase of construction completion date, and name and telephone number of two responsible persons who may be contacted at any hour in the event of a condition requiring immediate correction. Finally, the specifications require the contractor to allow passage of public transportation coaches at all times and to notify transit agencies at least 48 hours prior to conducting construction that would affect bus stop zones. The specifications prohibit construction from starting until traffic control plans have been approved in writing by the appropriate jurisdiction (i.e., City of Montebello).

Construction-related vehicle trips would include construction workers traveling to and from the project work zones and staging areas, haul trucks (including for import and export of excavated materials, as needed), and other trucks associated with equipment and material deliveries. During peak construction months, construction-related vehicle trips would total up to 18 trips per day for pump station construction and 25 trips per day for pipeline installation, according to CalEEMod and Roadway Construction Emissions Model outputs[4] (Appendix A). Such trips would occur on area roadways, such as Montebello Boulevard, which is the primary access route to the project site. According to the Montebello Hills Specific Plan FEIR, the segment of Montebello Boulevard in the vicinity of the project site has a base traffic volume of approximately 40,000 average daily trips (City of Montebello 2015). Therefore, construction trips would account for less than 0.2 percent of existing roadway traffic. Because construction is a short-term activity and trips would account for a relatively small proportion of existing traffic on area roadways, construction-related traffic impacts would not be substantial. Roadways would be repaved and restored in accordance with all applicable City of Montebello Department of Public Works standards once construction is complete. Traffic control measures required pursuant to CBMWD's construction specifications would further reduce temporary transportation impacts associated with project construction. Therefore, construction-related transportation impacts would be less than significant.

The proposed project involves construction and operation of recycled water infrastructure, which would not conflict with adopted policies, plans, or programs addressing the circulation system, including public transit, bicycle, or pedestrian facilities. The proposed pipeline alignment would be placed underground along an existing roadway, while the proposed pump station would be placed immediately east of Montebello Boulevard. Project operation would involve quarterly maintenance trips, which would represent an incremental increase in the base traffic volume of approximately 40,000 average daily trips on Montebello Boulevard on the days during which maintenance activities occur. Given the minimal number of trips generated, operational transportation impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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

CEQA Guidelines Section 15064.3(b) identifies criteria for evaluating transportation impacts. Specifically, the guidelines state VMT exceeding an applicable threshold of significance may indicate a significant impact. According to Section 15064.3(b)(3) of the CEQA Guidelines, a lead agency may include a qualitative analysis of operational and construction traffic. Pursuant to Section 15064.3(c), the provisions of this section do not apply statewide until July 1, 2020, although a lead agency may

[4] Construction trip estimates assume all construction phases for pipeline installation and the maximum worker trips for pump station construction could occur simultaneously, offering a conservative analysis of construction-related traffic impacts.

elect to immediately apply the provisions of the updated guidelines. However, as discussed below, the project is not expected to affect VMT in the project area.

A VMT calculation is typically conducted on a daily or annual basis, for long-range planning purposes. As discussed under item (a), traffic on local roadways may be temporarily increased during project construction due to the presence of construction vehicles and equipment. Increases in VMT from construction would be short-term, minimal and temporary. In addition, maintenance of the proposed project would consist of quarterly and as-needed site visits. However, such visits would occur approximately once every three months and would not substantially contribute to VMT in the project area. In addition, with respect to CEQA Guidelines Section 15064.3(b), as stated above, statewide implementation of this new section of the CEQA Guidelines is not required until July 1, 2020. No impact associated with VMT per CEQA Guidelines Section 15064.3 would occur.

NO IMPACT

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

The project would involve installation of a recycled water pipeline within the existing Montebello Boulevard right-of-way and a pump station. The project would not involve reconfiguration of any roadways or intersections that could result in a substantial increase in traffic hazards. No impact would occur.

NO IMPACT

d. Would the project result in inadequate emergency access?

Lane closures and other potential traffic impacts caused by construction activities in Montebello Boulevard would have the potential to impede emergency response to the project area, or to areas accessed via the roadway. As discussed in Section 9, *Hazards and Hazardous Materials*, and item (a) of this section, the project would implement traffic control plans, where necessary, in coordination with the City of Montebello to detour and delineate the traffic lanes around the work area. CBMWD's construction specifications for the project also require notification of emergency service providers regarding construction plans prior to commencement of construction activities. However, it is unknown at this time whether the traffic control plans would specifically address emergency evacuation routes. Therefore, impacts related to emergency access during project construction would be potentially significant. In order to address the potential for project construction to interfere with emergency access, Mitigation Measure HAZ-5 would be implemented to reduce or avoid potential impacts. This mitigation measure would require traffic control plans submitted pursuant to Section 01550 of CBMWD's construction specifications to designate and notify residents and businesses of alternative emergency evacuation routes. With implementation of Mitigation Measure HAZ-5, impacts related to emergency access during project construction would be less than significant.

Project operation and maintenance would not introduce new activities that could result in inadequate emergency access. Therefore, impacts related to emergency access during project operation would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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18 Tribal Cultural Resources

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

On July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted, expanding CEQA by defining a new resource category, "tribal cultural resources." AB 52 states, "A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states the lead agency shall establish measures to avoid impacts altering the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and is:

1. Listed or eligible for listing in the CRHR or in a local register of historical resources as defined in PRC Section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified or adopted. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those having requested notice of projects proposed in the jurisdiction of the lead agency.

On March 25, 2019, CBMWD distributed AB 52 consultation letters for the proposed project, including project information, map, and contact information, to six Native American contacts (see Appendix F for a copy of the letters). The Native American contacts provided with an AB 52 consultation letter via certified mail include the following list of recipients:

- Gabrielino-Tongva Tribe
- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino/Tongva Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrieleño Band of Mission Indians – Kizh Nation
- Soboba Band of Luiseño Indians

Under AB 52, Native American tribes have 30 days to respond and request further project information and formal consultation. All letters except the letter sent to the Gabrielino Tongva Indians of California Tribal Council were received by April 1, 2019. Therefore, the consultation request period for all tribes except the Gabrielino Tongva Indians of California Tribal Council closes on May 1, 2019. The consultation letter to the Gabrielino Tongva Indians of California Tribal Council was received on April 19, 2019. Therefore, the consultation request period for the Gabrielino Tongva Indians of California Tribal Council closes on May 19, 2019.

As of May 1, 2019, CBMWD received request for consultation from one Tribe, the Gabrieleño Band of Mission Indians - Kizh Nation. At the time of preparation of this Draft IS-MND, CBMWD is actively coordinating with the Tribe, and has scheduled a meeting with the Tribe on May 14, 2019 to answer questions about the project and to request information on the presence of any known tribal cultural resources at the site. Per AB 52, tribal consultations must be complete prior to finalization of the CEQA documentation. Results of the CBMWD's AB 52 consultation will be included in the Final IS-MND.

a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*

b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

As discussed in Section 5, *Cultural Resources*, Rincon requested a records search of the SLF from the NAHC to identify the potential for cultural resources within the project site and to obtain contact information for Native Americans groups or individuals who may have knowledge of resources within the project site. The SLF search was returned with positive results, which means the NAHC identified a potentially sensitive tribal cultural resource within the project area. However, it is

unknown whether the identified tribal cultural resource is located on the project site. Therefore, Rincon prepared and mailed letters to seven NAHC-listed Native American contacts to request information on potential cultural resources in the project vicinity that may be impacted by project development. The NAHC reviews the SLF by quadrangle map, which provides a large area to review to determine a positive or negative results response. Given the level of development within and adjacent to the project site, it is likely that the sacred site identified by the NAHC exists in the surrounding area and not on the project site. Furthermore, Rincon did not receive any comments from Native American contacts regarding the project.

As stated above, the Gabrieleño Band of Mission Indians - Kizh Nation, is the only tribe which responded to the AB 52 consultation effort as of May 1, 2019. CBMWD currently has a meeting with the Tribe scheduled for May 14, 2019. The Gabrieleño Band of Mission Indians - Kizh Nation may or may not have any information regarding the positive SLF results because the sacred site may be related to any one of the aforementioned tribes. At the time of this reporting, no known sacred sites or tribal cultural resources have been specifically identified within the project site. Should a tribal cultural resource be identified by the Tribe during the consultation, and confirmed by CBMWD, then there is the potential for a significant impact to occur as a result of the proposed project. If a tribal cultural resource is identified as a result of consultation, then Mitigation Measure TCR-1 would apply.

Mitigation Measure

With implementation of the following mitigation measure, potential impacts related to tribal cultural resources would be reduced to a less-than-significant level.

TCR-1 Retain a Native American Monitor

A Native American monitor who is ancestrally related to the project area shall be retained to be on site to monitor project-related ground-disturbing construction activities (i.e., grading, excavation, trenching, etc.) in the proximity of the identified tribal cultural resource. Native American monitoring of project-related ground-disturbing activities in the proximity of the identified tribal cultural resource shall be performed under the direction of the qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983). At that time, Central Basin Municipal Water District shall begin or continue Native American consultation procedures, which may determine additional measures to avoid or reduce impacts to the resource are required. These additional measures to avoid or reduce impacts shall be determined on a case by case basis and approved by the Central Basin Municipal Water District's General Manager.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

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19 Utilities and Service Systems

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

a. Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Water

The proposed project would involve the installation of a 16-inch recycled water pipeline and construction of a pump station, the environmental effects of which are analyzed in this IS-MND. The project would not expand the potable water system or increase potable water pipeline capacity to serve additional customers. As concluded by this IS-MND, the recycled water facilities included in

the proposed project would not cause unmitigable significant environmental effects. Consequently, no additional impact related to water facilities would occur.

Wastewater Treatment

The Sanitation Districts of Los Angeles County (LACSD), District 2 collects and processes wastewater from the city of Montebello, including the project site. LACSD is a partnership of 24 independent districts serving 5.5 million people across an approximately 824-square mile service area. LACSD operates 11 water reclamation plants and processes approximately 500 million gallons per day (mgd) of wastewater. The project site is served by LACSD's Joint Outfall System, which includes the main Joint Water Pollution Control Plant in Carson and six satellite water reclamation plants (LACSD n.d.).

The proposed project would not generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment. Rather, the proposed project would convey recycled water from the LACSD-operated San Jose Creek Water Reclamation Plant in Whittier and the Los Coyotes Water Reclamation Plant in Cerritos to the Montebello Hills Specific Plan area. The project would not affect treatment capacity at this facility or at other LACSD-operated facilities because recycled water would only be used for non-potable outdoor uses, such as dust control and landscape irrigation. Therefore, the project would not require relocation or construction of new wastewater facilities, and no impact would occur.

Stormwater Drainage

As discussed in Section 10, *Hydrology and Water Quality*, construction of the proposed pipeline would not increase the amount of impervious surfaces along the pipeline alignment because the pipeline would be installed under an existing roadway that would be restored to its original condition upon completion of construction. Therefore, the proposed pipeline would not alter the existing drainage pattern along the pipeline alignment as compared to existing conditions and would not increase stormwater flow such that new or expanded stormwater drainage systems would be necessary.

Construction of the pump station would incrementally increase the amount of impervious surface at the pump station location by approximately 0.14 acre. The area surrounding the pump station location would remain undeveloped open space per the Montebello Hills Specific Plan. The increase in impervious surfaces on-site would incrementally increase runoff flows in the area; however, the increase in runoff would be directed to the existing stormwater drainage system and would be adequately handled by existing facilities. Therefore, the project would not create or contribute runoff water such that new or expanded stormwater drainage systems would be necessary, and impacts would be less than significant.

Electric Power

As discussed in Section 6, *Energy*, the project would require approximately 255,792 kWh of electricity annually to operate the proposed pump station. The pump station would be served by existing Southern California Edison infrastructure, including transmission lines and the Harding Substation located at the southeast corner of Lincoln Avenue and Montebello Boulevard. This increase in energy demand would be supplied by the regional electricity grid which is increasingly powered by renewable energy. Given the project would be served by existing electric power infrastructure in the project vicinity, no new or relocated energy facilities would be required as a result of the proposed project. Impacts related to electric power would be less than significant.

Natural Gas

The project would not involve any components requiring natural gas service and is not anticipated to involve the relocation of existing natural gas facilities. Therefore, no impact related to natural gas facilities would occur.

Telecommunications

The project would require telecommunications to operate the SCADA system. However, the requisite telecommunication infrastructure would be constructed as part of the pump station building and would not involve the relocation of existing telecommunications facilities. The impacts of the SCADA system are analyzed throughout this IS-MND as part of the pump station building. Therefore, no further impact related to telecommunications facilities would occur.

LESS THAN SIGNIFICANT IMPACT

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

The project consists of the construction and operation of recycled water infrastructure. The project is designed to serve anticipated dust control and irrigation demands with recycled water that LACSD has approved for use by CBMWD. At the beginning of project operation, the maximum amount of recycled water delivered would be approximately 446 AFY; however, this amount would decrease over time to a long-term maximum of 240 AFY. The temporary, additional supply of 206 AFY would decrease over time as other projects originally designated this supply are completed and are ready to receive recycled water service. This water would be sourced from the surplus recycled water supply currently available at the San Jose Creek Water Reclamation Plant and the Los Coyotes Water Reclamation Plant and would not cause a decrease in flow in any portion of a watercourse (Sullivan 2019). Therefore, sufficient water supplies are available to serve the demands of the project area. Project construction water requirements will be met via CBMWD's existing supplies and facilities. Moreover, the project would have a beneficial effect on water supplies by providing recycled water to meet non-potable demands that would otherwise be supplied using potable water supplies. Therefore, sufficient water supplies would be available to serve the project, and no impact would occur.

NO IMPACT

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

As discussed under item (a), the project would not generate sanitary wastewater or otherwise contribute to an increase in wastewater treatment requirements. As discussed under item (b), the project would convey recycled water which LACSD has approved for use by CBMWD. At the beginning of project operation, the maximum amount of recycled water delivered would be approximately 446 AFY; however, this amount would decrease over time to a long-term maximum of 240 AFY. The temporary, additional supply of 206 AFY would decrease over time as other projects originally designated this supply are completed and are ready to receive recycled water service. This water would be sourced from the surplus recycled water supply currently available at the San Jose Creek Water Reclamation Plant and the Los Coyotes Water Reclamation Plant and would not cause a decrease in flow in any portion of a watercourse (Sullivan 2019). Therefore, the project would not

result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. No impact would occur.

NO IMPACT

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

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

Construction activities may temporarily generate solid waste, including soil spoils, pavement debris, or other construction waste, which would be disposed of in accordance with all applicable federal, State, and local statutes and regulations. While most soil is expected to be reused as backfill material within the project area, minimal remaining inert construction waste would be disposed of at existing construction waste landfills in the area, such as those located in the nearby cities of Irwindale or Azusa. Due to the temporary nature of construction and minimal amount of construction waste anticipated to require disposal, the project would not generate quantities of solid waste that would account for a substantial percentage of the total daily regional permitted capacity available at landfills accepting such waste. Therefore, waste generated by demolition and construction activities would not exceed the available capacity at the landfills serving the project area that would accept debris generated by the project.

As standard practice, CBMWD complies with all applicable laws and regulations related to solid waste generation, collection, and disposal. The project would result in a short-term and temporary increase in solid waste generation during construction, but would not substantially affect standard solid waste operations of any landfill accepting waste. Recycling and reuse activities during construction would comply with the California Integrated Waste Management Act of 1989 (AB 939). Once operational, the project would include unmanned facilities and would not generate solid waste. Therefore, solid waste impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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20 Wildfire

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

The entire coastal southern California region is prone to large wildfires due to its hot, dry climate and expansive coverage of ignitable vegetation. During the autumn and winter months, strong offshore Santa Ana wind events carry dry, desert air and can fan fast-moving fires that spread rapidly from heavily-vegetated wilderness and mountainous areas into developed communities. The city of Montebello is in a highly urbanized area of Los Angeles County, which limits the spread of large, uncontrolled wildfires. However, the area is prone to regular brush fires, particularly during summer heat waves, which can pose a safety risk. Recent fires in the project site vicinity include a 21-acre brush fire in 2018 near the intersection of Lincoln Avenue and San Gabriel Boulevard (approximately 1.6 miles east of the project site) and a 374-acre fire near Whittier Narrows Recreation Area (approximately 1.7 miles northeast of the project site), which temporarily closed the Pomona Freeway in 2015.

While a natural ecological process in coastal chaparral and forest systems, wildfire return intervals have decreased throughout southern California, resulting in more frequent ecological disturbance, loss of biodiversity, and colonization by non-native grass species (United States Forest Service 2018). Furthermore, post-fire conditions leave exposed mountain slopes and hillsides vulnerable to surface

erosion and runoff. Debris flows during post-fire rainy seasons can pose a risk to life and property and occur with little warning. In southern California, as little as 0.3 inch of rain in 30 minutes can produce debris flows on post-fire landscapes (United States Geological Survey 2018).

The project site is not located in a designated Very High Fire Hazard Severity Zone (VHFHSZ) or a State Responsibility Area (SRA). The nearest SRA and VHFHSZ are located at the western edge of the Puente Hills, approximately 2.9 miles east of the project site (CAL FIRE 2007 and 2011).

a. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

The project site is not located on or near lands classified as an SRA or a VHFHSZ. The nearest SRA and VHFHSZ are located approximately 2.9 miles east of the project site. However, as discussed in Section 9, *Hazards and Hazardous Materials*, the pump station location is adjacent to open space vegetated with native plant communities, which are highly combustible.

As discussed in Section 9, *Hazards and Hazardous Materials*, the City of Montebello has an EOP that includes emergency preparedness guidance for emergency service providers, City staff, and elected officials. The EOP focuses on identifying life safety measures, restoring businesses and community services after the occurrence of a disaster, and implementing procedures for cost recovery efforts. In addition, according to the City's General Plan Safety Element, Montebello Boulevard is a designated evacuation route (City of Montebello 2017). The project would implement traffic control plans, where necessary, in coordination with the City of Montebello to detour and delineate the traffic lanes around the work area. Section 01550 of the CBMWD contractor specifications require the contractor to provide fire and police departments serving the project site with the construction schedule showing expected starting date, sequence of work, and timing for each phase of construction completion date, and name and telephone number of two responsible persons who may be contacted at any hour in the event of a condition requiring immediate correction. However, it is unknown at this time whether the traffic control plans would specifically address emergency evacuation routes. Therefore, impacts related to emergency response plans and emergency evacuation plans during project construction would be potentially significant. In order to address the potential for project construction to interfere with emergency response and emergency evacuation plans, Mitigation Measure HAZ-5 would be implemented to reduce or avoid potential impacts. This mitigation measure would implement a Traffic Control Plan to address coordination with emergency service providers and designation of alternative emergency evacuation routes. With implementation of Mitigation Measure HAZ-5, impacts related to emergency response and emergency evacuation plans during project construction would be less than significant.

LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED

b. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

The project site is not located in or near lands classified as an SRA or a VHFHSZ. The nearest SRA and VHFHSZ are located approximately 2.9 miles east of the project site. However, as discussed in Section 9, *Hazards and Hazardous Materials*, the pump station location is adjacent to open space vegetated with native plant communities, which are highly combustible. The wildland-urban

interface could pose the potential for incidents of fire during project construction. As a result, project construction would potentially exacerbate wildfire risk, and impacts would be potentially significant. In order to address the potential for project construction to exacerbate wildfire risk, Mitigation Measure HAZ-6 would be required to reduce or avoid potential impacts through implementation of fire prevention measures during construction activities. Construction impacts related to wildfire risk would be less than significant with mitigation incorporated.

The pipeline would be located underground, and the pump station would be enclosed by a building, which would minimize potential for ignition of surrounding vegetation in the rare event of an electrical equipment malfunction during operation. Therefore, operational impacts related to wildfire risk would be less than significant.

c. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The project site is not located in or near lands classified as an SRA or a VHFHSZ. The nearest SRA and VHFHSZ are located approximately 2.9 miles east of the project site. The proposed project would include a recycled water pipeline and pump station. The pipeline would be located underground, and the pump station would be enclosed by a building, which would minimize potential for ignition of surrounding vegetation in the rare event of an electrical equipment malfunction during operation. The project would not include fuel breaks, emergency water sources, power lines, or other aboveground utilities that would exacerbate fire risk or result in temporary or ongoing impacts to the environment. Furthermore, the project would not increase exposure of people to wildfire or related risks, such as post-fire debris flows or instability. Therefore, impacts would be less than significant.

LESS THAN SIGNIFICANT IMPACT

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21 Mandatory Findings of Significance

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

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?

The pipeline alignment would be constructed within an existing roadway right-of-way that does not contain suitable habitat for fish and wildlife species. Furthermore, as discussed in Section 4, *Biological Resources*, although pump station construction would require the removal of up to 0.14 acres of CAGN habitat, implementation of Mitigation Measures BIO-1 through BIO-3 would mitigate direct and indirect impacts to the federally-threatened CAGN to a less-than-significant level. Therefore, the project would not substantially reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, eliminate a plant or animal

community, or reduce the number or restrict the range of a rare or endangered plant or animal. In addition, as discussed in Section 5, *Cultural Resources*, the project would not eliminate important examples of the major periods of California history or prehistory because none are known to be present in the project area.

NO IMPACT

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)?

As described in the discussion of environmental checklist Sections 1 through 20, with respect to all environmental issues, the proposed project would not result in significant and unmitigable impacts to the environment; all anticipated impacts associated with project construction and operation would be either less than significant or less than significant with mitigation incorporated. This is largely due to the fact that project construction activities would be temporary, and project operational activities would not significantly alter the environmental baseline condition.

Cumulatively considerable impacts could occur if the construction of other projects occurs at the same time as the proposed project and in the same vicinity, such that the effects of similar impacts of multiple projects combine to expose adjacent sensitive receptors to greater levels of impact than would occur under the proposed project. For example, if the construction of other projects in the area occurs at the same time as construction of the proposed project, potential impacts associated with noise and traffic to residents in the project area may be more substantially affected.

The Montebello Boulevard Bike and Sidewalk Project (Bike and Sidewalk Project), which will be implemented by the City of Montebello along Montebello Boulevard from Lincoln Avenue to Paramount Boulevard, may be constructed in tandem with the proposed project. If both projects are constructed simultaneously, street improvements under the Bike and Sidewalk Project would be constructed following completion of pipeline installation and backfilling such that street restoration under the proposed project includes street improvements under the Bike and Sidewalk Project. Therefore, simultaneous construction of both projects would maximize efficiencies such that temporary construction impacts including construction noise and temporary lane closures would occur for a shorter period of time than if the two projects were constructed sequentially. In addition, per Section 01550 of the CBMWD contractor specifications, the traffic control plans prepared by the contractor would be required to undergo review by the City of Montebello, which would review them in light of the Bike and Sidewalk Project. Therefore, the potential for cumulative traffic impacts to occur during project construction would be further minimized.

In addition to the Bike and Sidewalk project, two other projects are planned in the immediate vicinity – the City of Montebello Cultural Arts Center (located near the intersection of Montebello Boulevard and Victoria Road approximately 650 feet south of the pipeline alignment) and the Montebello Hills Specific Plan (City of Montebello 2015). It is possible these projects would be constructed at the same time as the proposed project. Given the distance of the City of Montebello Cultural Arts Center from the edge of the pipeline alignment, the proposed project combined with the Cultural Arts Center would not result in cumulative impacts during construction or operation. The Montebello Hills Specific Plan FEIR identified three significant and unavoidable cumulative impacts related to visual character and quality; operational air pollutant emissions related to VOC, NO_X, CO, and PM_{10}; and traffic levels at the intersections of Montebello Boulevard and Beverly Boulevard, Paramount Boulevard and State Route 60 Ramps/Neil Armstrong Street, and Paramount

Boulevard and Town Center Drive/State Route 60 Eastbound Off-Ramp. As discussed in Section 1, *Aesthetics*, development in the Plan area would not be visible from the pipeline alignment or pump station location. Therefore, the proposed project would not contribute to the cumulative visual character and quality impact identified for the Montebello Hills Specific Plan. As discussed in Section 3, *Air Quality*, operational air pollutant emissions from the proposed project would not exceed SCAQMD thresholds. Because air quality analyses are cumulative in nature, the proposed project would not have a cumulatively considerable contribution to the cumulative air quality impact identified for the Montebello Hills Specific Plan. As discussed in Section 17, *Transportation*, the proposed project would generate minimal operational traffic due to quarterly maintenance activities. Therefore, the proposed project would not have a cumulatively considerable contribution to the traffic impact identified for the Montebello Hills Specific Plan.

Project impacts are primarily temporary, localized effects that would occur during the construction phase. Once operational, the project would not have significant adverse environmental impacts that could combine with other projects' effects to create cumulatively considerable impacts. Therefore, the proposed project is not anticipated to result in a cumulatively considerable contribution to a significant cumulative impact.

LESS THAN SIGNIFICANT IMPACT

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

In general, impacts to human beings are associated with air quality, hazards and hazardous materials, and noise impacts. As detailed in the preceding sections, the project would not result, either directly or indirectly, in substantial adverse effects related to air quality or noise following the implementation of required mitigation measures. As discussed in Section 9, *Hazards and Hazardous Materials*, compliance with applicable rules and regulations and implementation of Mitigation Measures HAZ-1 through HAZ-4 would reduce potential impacts on human beings related to hazards and hazardous materials to a less than significant level.

POTENTIALLY SIGNIFICANT UNLESS MITIGATION INCORPORATED

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References

Bibliography

Beyer, L.A., McCulloh, T.H., Denison, R.E., Morin, R.W., Enrico, R.J., Barron, J.A., and Fleck, R.J., 2009. Post-Miocene Right Separation on the San Gabriel and Vasquez Creek Faults, with Supporting Chronostratigraphy, Western San Gabriel Mountains, California. U.S. Geological Survey Professional Paper 1759, 44 p. U. S. Department of the Interior, U.S. Geological Survey, Reston, Virginia.

California Air Pollution Control Officers Association. 2008. CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. Sacramento, CA. January 2008.

____. 2017. California Emissions Estimator Model User Guide: Version 2016.3.2. Prepared by BREEZE Software, A Division of Trinity Consultants in collaboration with South Coast Air Quality Management District and the California Air Districts. http://www.aqmd.gov/docs/default-source/caleemod/user's-guide---october-2017.pdf?sfvrsn=6 (accessed April 2019).

California Air Resources Board (CARB). 2013. Mobile Source Emission Inventory – EMFAC2011 Frequently Asked Questions. January. Available at: https://www.arb.ca.gov/msei/emfac2011-faq.htm (accessed March 2019).

____. 2017. California's 2017 Climate Change Scoping Plan. November 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

____. 2018. California Greenhouse Gas Emission Inventory - 2018 Edition. https://www.arb.ca.gov/cc/inventory/data/data.htm (accessed April 2019).

____. 2019. EMFAC 2014 Web Database. https://www.arb.ca.gov/emfac/2014/ (accessed March 2019).

California Climate Action Registry. 2009 General Reporting Protocol. Accessed March 2018, available at https://sfenvironment.org/download/ccar-general-reporting-protocol-version-31-january-2009 (accessed April 2019).

California Department of Conservation (CDOC). 2009. Los Angeles County Tsunami Inundation Maps. https://www.conservation.ca.gov/cgs/tsunami/maps/Los-Angeles (accessed April 2019).

____. 2016a. "California Important Farmland Finder." Last modified: 2016. https://maps.conservation.ca.gov/DLRP/CIFF/

____. 2016b. Los Angeles County Williamson Act FY 2015/2016 [map]. Tabular digital data and vector digital data. 1:100,000. Division of Land Resource Protection. Sacramento, California.

_____. 2017. *California's 2017 Climate Change Scoping Plan*. December 14, 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

California Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR). 2019. "Well Finder." https://maps.conservation.ca.gov/doggr/wellfinder (accessed April 2019).

California Department of Fish and Wildlife (CDFW). 2017. Special Animals List. April 2019.

____. 2019a. Biogeographic Information and Observation (BIOS). http://bios.dfg.ca.gov (accessed March 2019).

____. 2019b. Special Vascular Plants, Bryophytes, and Lichens List. March 2019.

____. 2019c. Natural Communities List. March 2019.

California Department of Forestry and Fire Protection. 2007. Fire Hazard Severity Zones in SRA – Los Angeles County [map]. Tabular digital data and vector digital data. 1:150,000. November 7, 2007.

____. 2011. Very High Fir Hazard Severity Zones in LRA as Recommended by CAL FIRE – Los Angeles County [map]. Tabular digital data and vector digital data. 1:150,000. September 2011.

California Department of Tax and Fee Administration. 2018. "Net Taxable Gasoline Gallons." http://www.cdtfa.ca.gov/taxes-and-fees/MVF_10_Year_Report.pdf (accessed April 2019).

California Department of Toxic Substances Control (DTSC). 2018. *EnviroStor Database*. http://www.envirostor.dtsc.ca.gov/public (accessed April 2019).

California Department of Transportation (Caltrans). 2013a. Technical Noise Supplement to the Traffic Noise Analysis Protocol. (CT-HWANP-RT-13-069.25.2) September. http://www.dot.ca.gov/hq/env/noise/pub/TeNS_Sept_2013B.pdf (accessed March 2019).

_____. 2013b Transportation and Construction Vibration Guidance Manual (CT-HWANP-RT-13-069.25.3). September. http://www.dot.ca.gov/hq/env/noise/pub/TCVGM_Sep13_FINAL.pdf (accessed March 2019).

____. 2018a. "List of eligible and officially designated State Scenic Highways." Last modified: August 2, 2018. http://www.dot.ca.gov/design/lap/livability/scenic-highways/ (accessed April 2019).

____. 2018b. Officially Designated County Scenic Highways. Last modified: August 2, 2018. http://www.dot.ca.gov/design/lap/livability/scenic-highways/ (accessed April 2019).

California Department of Water Resources. 2018. "SGMA Basin Prioritization Dashboard." https://gis.water.ca.gov/app/bp2018-dashboard/p1/ (accessed April 2019).

California Energy Commission (CEC). 2016. Diesel Fuel Data, Facts, and Statistics. https://www.energy.ca.gov/almanac/transportation_data/diesel.html (accessed April 2019).

____.2018. "Renewables Portfolio Standard." Sacramento, CA. http://www.energy.ca.gov/portfolio/ (accessed April 2019).

____. 2019. Total System Electric Generation. https://www.energy.ca.gov/almanac/electricity_data/total_system_power.html (accessed April 2019).

California Department of Forestry and Fire Protection (CALFIRE). 2011. Very High Fire Hazard Severity Zones in LRA as Recommended by CALFIRE – Los Angeles County [map]. Tabular digital data and vector digital data. 1:150,000. September 2011. http://frap.fire.ca.gov/webdata/maps/los_angeles/LosAngelesCounty.pdf (accessed April 2019).

California Geological Survey. 2002. California Geomorphic Provinces, Note 36.

____. 2017. Earthquake Zones of Required Investigation – El Monte Quadrangle [map]. Tabular digital data and vector digital data. 1:24,000. June 15, 2017. http://gmw.conservation.ca.gov/SHP/EZRIM/Maps/EL_MONTE_EZRIM.pdf (accessed April 2019).

California Native Plant Society (CNPS). 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Rare Plant Program. http://www.rareplants.cnps.org (accessed March 2019).

Dibblee, T.W., and Ehrenspeck, H.E., 1999, Geologic map of the El Monte and Baldwin Park quadrangles, Los Angeles County, California: Dibblee Geological Foundation, Dibblee Foundation Map DF-69, scale 1:24,000.

Environmental Intelligence, LLC. 2018. Methods, Results, and Conclusions of the 2018 Coastal California Gnatcatcher Census on the Approximately 488-acre Montebello Oil Field and Southern California Edison Easement Site Located in the City of Montebello, Los Angeles County, California.

Federal Emergency Management Agency (FEMA). 2010. Flood Insurance Rate Map #06037C1663F. September 26, 2008. https://msc.fema.gov/ (accessed April 2019).

Federal Highway Administration (FHWA). 2006. Roadway Construction Noise Model. Version 1.1. https://www.fhwa.dot.gov/environment/noise/construction_noise/rcnm/ (accessed April 2019).

____. 2019. "Motor Fuel Use – 2017 (1)". https://www.fhwa.dot.gov/policyinformation/statistics/2016/mf21.cfm (accessed April 2019).

Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf (accessed March 2019).

Intergovernmental Panel on Climate Change (IPCC). 2007. Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* [Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

Jefferson, G.T. 1985. Review of the Late Pleistocene avifauna from Lake Manix, central Mojave Desert, California. Contributions in Science, Natural History Museum of Los Angeles County, 362, p. 1-13.

Kohler, Susan L. 1982. Mineral Land Classification Map – Aggregate Resources Only [map]. Tabular digital data and vector digital data. 1:24,000. June 1, 1982. https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc (accessed April 2019).

Los Angeles County Metropolitan Transportation Authority (Metro). 2010. 2010 Congestion Management Program. http://media.metro.net/docs/cmp_final_2010.pdf

Montebello, City of. 1973. City of Montebello General Plan. June 26, 1973. http://www.cityofmontebello.com/general-plan.html (accessed April 2019).

____. 2014. Recirculated Draft Environmental Impact Report for the Montebello Hills Specific Plan. September 2014. http://www.cityofmontebello.com/montebello-hills-specific-plan.html (accessed April 2019).

____. 2015. Final Environmental Impact Report for the Montebello Hills Specific Plan. June 10, 2015.

____. 2016. "Fire Department." http://www.cityofmontebello.com/department/fire.html (accessed April 2019).

____. 2017. City of Montebello General Plan Safety Element. http://www.cityofmontebello.com/safety-element.html (accessed April 2019).

Montebello, City of. 2009. Montebello Hills Specific Plan. March 2009. http://www.cityofmontebello.com/montebello-hills-specific-plan.html (accessed April 2019).

Montebello Police Department (MPD). 2017. General Information. https://montebellopd.org/about (accessed April 2019).

Natural Resources Consultants (NRC). 2009. Biological Resources Assessment for the Approximately 488-acre Montebello Hills Specific Plan Located in the City of Montebello, Los Angeles, County, California.

Purdue University. n.d. "Hydrological Soil Groups." https://engineering.purdue.edu/mapserve/LTHIA7/documentation/hsg.html (accessed April 2019).

Sanitation Districts of Los Angeles County (LACSD), n.d. "Wastewater Collection Systems." https://www.lacsd.org/wastewater/wwfacilities/wcs.asp (accessed April 2019).

Society of Vertebrate Paleontology. 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Society of Vertebrate Paleontology Impact Mitigation Guidelines Revision Committee.

South Coast Air Quality Management District (SCAQMD). 2008a. Final Localized Significance Threshold Methodology. July 2008. http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2 (accessed March 2019).

____. 2008b. Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold. October 2008. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgattachmente.pdf (accessed March 2019).

____. 2009. Appendix C – Mass Rate LST Look-up Tables. October 21, 2009.

____. 2010. Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15. September 28, 2010. http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf?sfvrsn=2 (accessed March 2019).

____. 2015. SCAQMD Air Quality Significance Thresholds. March 2015. http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf (accessed March 2019).

____. 2017. *2016 Air Quality Management Plan*. March 2017.

Southern California Edison (SCE). 2018. 2017 Sustainability Report. June 2018. https://www.edison.com/content/dam/eix/documents/sustainability/eix-2017-sustainability-report.pdf (accessed April 2019)

Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration. February.

Springer, K., E. Scott, J.C. Sagebiel, and L.K. Murray. 2009. The Diamond Valley Lake local fauna: Late Pleistocene vertebrates from inland southern California. In Albright, L.B. III (ed.) Papers on Geology, Vertebrate Paleontology, and Biostratigraphy in Honor of Michael O. Woodburne. Museum of Northern Arizona Bulletin, v. 65, p. 217-36.

Sullivan, Mike. 2019. Assistant Department Head of Technical Services, Sanitation Districts of Los Angeles County. Personal communication via letter regarding the availability of recycled water with Kevin Hunt, General Manager, Central Basin Municipal Water District. April 24, 2019.

State Water Resources Control Board (SWRCB). 2015. Geotracker Database. https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=8000+park+lane%2C+bell+gardens%2C+ca (accessed April 2019).

United States Department of Agriculture (USDA). 2017. Web Soil Survey. Last modified: August 21, 2017. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx (accessed April 2019).

____. 2019a. Official Soil Series Descriptions, online database. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/survey/geo/?cid=nrcs142p2_053587. Accessed March 2019.

____. 2019b. Lists of Hydric Soils, online database. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/. Accessed March 2019.

United States Energy Information Administration (EIA). 2018. “California - Profile Overview.” Last modified: November 15, 2018. https://www.eia.gov/state/?sid=CA (accessed April 2019).

United States Environmental Protection Agency. 2017. “2017 Construction General Permit.” https://www.epa.gov/npdes/2017-construction-general-permit-cgp#summary (accessed April 2019).

____. 2018. Greenhouse Gas Equivalencies Calculator. Last modified: May 25, 2018. https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator.

United States Fish and Wildlife Service (USFWS). 2007a. Endangered and Threatened Wildlife and Plants; Revised Designation of Critical Habitat for the Coastal California Gnatcatcher (*Polioptila californica californica*). Federal Register 72(243): 72010-72213.

____. 2007b. Biological Opinion for Creation and Enhancement of Coastal Sage scrub vegetation on portions of the Montebello Hills oilfield, September 7, 2007. Carlsbad Fish and Wildlife Office, Carlsbad, California.

____. 2009. Formal Section 7 Consultation for the Montebello Hills Development and Conservation Project, City of Montebello, Los Angeles County, California.

____. 2019. National Wetlands Inventory. http://www.fws.gov/wetlands/ (accessed March 2019).

United States Forest Service. 2018. "Fire in chaparral ecosystems." Last modified November 30, 2018. https://www.fs.fed.us/psw/topics/fire_science/ecosystems/chaparral.shtml (accessed April 2019).

United States Geological Survey. 2018. "Post-Fire Flooding and Debris Flow." Last modified: October 31, 2018. https://ca.water.usgs.gov/wildfires/wildfires-debris-flow.html (accessed April 2019).

____. 2019a. "U.S. Quaternary Faults." https://earthquake.usgs.gov/hazards/qfaults/ (accessed April 2019).

____. 2019b. "The National Map." https://viewer.nationalmap.gov/advanced-viewer/ (accessed April 2019).

University of California Museum of Paleontology (UCMP) Online Database. 2019. UCMP specimen search portal, http://ucmpdb.berkeley.edu/.

Yerkes, R. F., and R. H. Campbell. 2005. Preliminary geologic map of the Los Angeles 30´ x 60´ quadrangle, southern California. United States Geological Survey, Open-File Report OF-97-254, scale 1:100,000.

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Appendix A

Air Quality and Greenhouse Gas Modeling

Montebello Pump Station Project - Central Basin

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.01	252.00	0
Other Asphalt Surfaces	1.50	1000sqft	0.03	1,500.00	0
Parking Lot	3.00	Space	0.03	1,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Montebello Pump Station Project - Central Basin - Los Angeles-South Coast County, Annual

Project Characteristics -

Land Use - Pump station building to be 252 square feet

Construction Phase - Schedule provided by Central Basin

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment -

Vehicle Trips - Assumed 8 maintenance trips per year (8/261 weekdays in a year = 0.03). 4.2 mile distance between project site and nearest CBMWD office.

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 (suppress fugitive dust) and Rule 401 (Tier 3 construction equipment)

Operational Off-Road Equipment - As per client comment. Max 8 maintenance days per year

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	50.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	20.00
tblGrading	AcresOfGrading	5.00	0.50
tblLandUse	LandUseSquareFeet	0.00	252.00
tblLandUse	LotAcreage	0.00	0.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	8.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	18.00
tblVehicleTrips	CC_TL	8.40	4.20
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0281	0.2794	0.1992	3.6000e-004	0.0101	0.0149	0.0251	4.7900e-003	0.0140	0.0188	0.0000	32.3006	32.3006	7.6000e-003	0.0000	32.4906
2020	0.0141	0.1339	0.1229	2.1000e-004	2.1000e-003	7.4000e-003	9.4900e-003	5.6000e-004	6.8200e-003	7.3800e-003	0.0000	17.8723	17.8723	5.0600e-003	0.0000	17.9987
Maximum	**0.0281**	**0.2794**	**0.1992**	**3.6000e-004**	**0.0101**	**0.0149**	**0.0251**	**4.7900e-003**	**0.0140**	**0.0188**	**0.0000**	**32.3006**	**32.3006**	**7.6000e-003**	**0.0000**	**32.4906**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	4.9800e-003	0.1540	0.2255	3.6000e-004	5.8500e-003	8.9300e-003	0.0148	2.5000e-003	9.2300e-003	0.0117	0.0000	32.3006	32.3006	7.6000e-003	0.0000	32.4906
2020	2.0600e-003	0.0784	0.1274	2.1000e-004	2.1000e-003	4.8000e-003	6.8900e-003	5.6000e-004	4.9700e-003	5.5300e-003	0.0000	17.8723	17.8723	5.0600e-003	0.0000	17.9987
Maximum	**4.9800e-003**	**0.1540**	**0.2255**	**3.6000e-004**	**5.8500e-003**	**8.9300e-003**	**0.0148**	**2.5000e-003**	**9.2300e-003**	**0.0117**	**0.0000**	**32.3006**	**32.3006**	**7.6000e-003**	**0.0000**	**32.4906**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**83.31**	**43.78**	**-9.52**	**0.00**	**35.00**	**38.54**	**37.33**	**42.80**	**31.86**	**34.10**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	10-1-2019	12-31-2019	0.2413	0.1258
2	1-1-2020	3-31-2020	0.1399	0.0760
		Highest	0.2413	0.1258

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2500e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1343
Mobile	1.0000e-005	3.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0202	0.0202	0.0000	0.0000	0.0203
Offroad	1.6500e-003	0.0194	7.9300e-003	2.0000e-005		7.9000e-004	7.9000e-004		7.2000e-004	7.2000e-004	0.0000	2.0275	2.0275	6.6000e-004	0.0000	2.0439
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9100e-003**	**0.0194**	**8.0700e-003**	**2.0000e-005**	**2.0000e-005**	**7.9000e-004**	**8.1000e-004**	**0.0000**	**7.2000e-004**	**7.2000e-004**	**0.0000**	**2.1817**	**2.1817**	**6.7000e-004**	**0.0000**	**2.1986**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.2500e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1343
Mobile	1.0000e-005	3.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0202	0.0202	0.0000	0.0000	0.0203
Offroad	1.6500e-003	0.0194	7.9300e-003	2.0000e-005		7.9000e-004	7.9000e-004		7.2000e-004	7.2000e-004	0.0000	2.0275	2.0275	6.6000e-004	0.0000	2.0439
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**2.9100e-003**	**0.0194**	**8.0700e-003**	**2.0000e-005**	**2.0000e-005**	**7.9000e-004**	**8.1000e-004**	**0.0000**	**7.2000e-004**	**7.2000e-004**	**0.0000**	**2.1817**	**2.1817**	**6.7000e-004**	**0.0000**	**2.1986**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/16/2019	10/11/2019	5	20	
2	Grading	Grading	10/14/2019	11/22/2019	5	30	
3	Building Construction	Building Construction	11/25/2019	1/31/2020	5	50	
4	Paving	Paving	2/3/2020	2/28/2020	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.2000e-003	0.0892	0.0414	1.0000e-004		3.6700e-003	3.6700e-003		3.3800e-003	3.3800e-003	0.0000	8.7559	8.7559	2.7700e-003	0.0000	8.8251
Total	**7.2000e-003**	**0.0892**	**0.0414**	**1.0000e-004**	**2.7000e-004**	**3.6700e-003**	**3.9400e-003**	**3.0000e-005**	**3.3800e-003**	**3.4100e-003**	**0.0000**	**8.7559**	**8.7559**	**2.7700e-003**	**0.0000**	**8.8251**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	2.1000e-004	2.2700e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5267	0.5267	2.0000e-005	0.0000	0.5271
Total	**2.5000e-004**	**2.1000e-004**	**2.2700e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5267**	**0.5267**	**2.0000e-005**	**0.0000**	**0.5271**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6000e-003	0.0457	0.0588	1.0000e-004		2.2300e-003	2.2300e-003		2.3000e-003	2.3000e-003	0.0000	8.7559	8.7559	2.7700e-003	0.0000	8.8251
Total	**1.6000e-003**	**0.0457**	**0.0588**	**1.0000e-004**	**1.2000e-004**	**2.2300e-003**	**2.3500e-003**	**1.0000e-005**	**2.3000e-003**	**2.3100e-003**	**0.0000**	**8.7559**	**8.7559**	**2.7700e-003**	**0.0000**	**8.8251**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5000e-004	2.1000e-004	2.2700e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.5267	0.5267	2.0000e-005	0.0000	0.5271
Total	**2.5000e-004**	**2.1000e-004**	**2.2700e-003**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**5.5000e-004**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**0.5267**	**0.5267**	**2.0000e-005**	**0.0000**	**0.5271**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.5300e-003	0.0000	7.5300e-003	4.1400e-003	0.0000	4.1400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.1028	0.0895	1.4000e-004		6.3000e-003	6.3000e-003		6.0700e-003	6.0700e-003	0.0000	12.6416	12.6416	2.0200e-003	0.0000	12.6920
Total	**0.0117**	**0.1028**	**0.0895**	**1.4000e-004**	**7.5300e-003**	**6.3000e-003**	**0.0138**	**4.1400e-003**	**6.0700e-003**	**0.0102**	**0.0000**	**12.6416**	**12.6416**	**2.0200e-003**	**0.0000**	**12.6920**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	6.3000e-004	6.8100e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5800	1.5800	5.0000e-005	0.0000	1.5814
Total	**7.5000e-004**	**6.3000e-004**	**6.8100e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5800**	**1.5800**	**5.0000e-005**	**0.0000**	**1.5814**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.3900e-003	0.0000	3.3900e-003	1.8600e-003	0.0000	1.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.2400e-003	0.0666	0.0929	1.4000e-004		4.4600e-003	4.4600e-003		4.5300e-003	4.5300e-003	0.0000	12.6416	12.6416	2.0200e-003	0.0000	12.6920
Total	**2.2400e-003**	**0.0666**	**0.0929**	**1.4000e-004**	**3.3900e-003**	**4.4600e-003**	**7.8500e-003**	**1.8600e-003**	**4.5300e-003**	**6.3900e-003**	**0.0000**	**12.6416**	**12.6416**	**2.0200e-003**	**0.0000**	**12.6920**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.5000e-004	6.3000e-004	6.8100e-003	2.0000e-005	1.6400e-003	1.0000e-005	1.6600e-003	4.4000e-004	1.0000e-005	4.5000e-004	0.0000	1.5800	1.5800	5.0000e-005	0.0000	1.5814
Total	**7.5000e-004**	**6.3000e-004**	**6.8100e-003**	**2.0000e-005**	**1.6400e-003**	**1.0000e-005**	**1.6600e-003**	**4.4000e-004**	**1.0000e-005**	**4.5000e-004**	**0.0000**	**1.5800**	**1.5800**	**5.0000e-005**	**0.0000**	**1.5814**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	8.1600e-003	0.0866	0.0587	1.0000e-004		4.9500e-003	4.9500e-003		4.5500e-003	4.5500e-003	0.0000	8.6542	8.6542	2.7400e-003	0.0000	8.7226
Total	**8.1600e-003**	**0.0866**	**0.0587**	**1.0000e-004**		**4.9500e-003**	**4.9500e-003**		**4.5500e-003**	**4.5500e-003**	**0.0000**	**8.6542**	**8.6542**	**2.7400e-003**	**0.0000**	**8.7226**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	6.0000e-005	6.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1422	0.1422	0.0000	0.0000	0.1423
Total	**7.0000e-005**	**6.0000e-005**	**6.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1422**	**0.1422**	**0.0000**	**0.0000**	**0.1423**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.0000e-005	0.0408	0.0641	1.0000e-004		2.2100e-003	2.2100e-003		2.3800e-003	2.3800e-003	0.0000	8.6542	8.6542	2.7400e-003	0.0000	8.7226
Total	**7.0000e-005**	**0.0408**	**0.0641**	**1.0000e-004**		**2.2100e-003**	**2.2100e-003**		**2.3800e-003**	**2.3800e-003**	**0.0000**	**8.6542**	**8.6542**	**2.7400e-003**	**0.0000**	**8.7226**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	6.0000e-005	6.1000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1422	0.1422	0.0000	0.0000	0.1423
Total	**7.0000e-005**	**6.0000e-005**	**6.1000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1422**	**0.1422**	**0.0000**	**0.0000**	**0.1423**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2600e-003	0.0664	0.0486	8.0000e-005		3.6400e-003	3.6400e-003		3.3500e-003	3.3500e-003	0.0000	7.2109	7.2109	2.3300e-003	0.0000	7.2692
Total	**6.2600e-003**	**0.0664**	**0.0486**	**8.0000e-005**		**3.6400e-003**	**3.6400e-003**		**3.3500e-003**	**3.3500e-003**	**0.0000**	**7.2109**	**7.2109**	**2.3300e-003**	**0.0000**	**7.2692**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1175	0.1175	0.0000	0.0000	0.1176
Total	**5.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1175**	**0.1175**	**0.0000**	**0.0000**	**0.1176**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.3000e-004	0.0372	0.0548	8.0000e-005		2.1300e-003	2.1300e-003		2.2600e-003	2.2600e-003	0.0000	7.2109	7.2109	2.3300e-003	0.0000	7.2692
Total	**3.3000e-004**	**0.0372**	**0.0548**	**8.0000e-005**		**2.1300e-003**	**2.1300e-003**		**2.2600e-003**	**2.2600e-003**	**0.0000**	**7.2109**	**7.2109**	**2.3300e-003**	**0.0000**	**7.2692**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.7000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1175	0.1175	0.0000	0.0000	0.1176
Total	**5.0000e-005**	**4.0000e-005**	**4.7000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1175**	**0.1175**	**0.0000**	**0.0000**	**0.1176**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.8300e-003	0.0667	0.0665	1.0000e-004		3.7400e-003	3.7400e-003		3.4500e-003	3.4500e-003	0.0000	8.7055	8.7055	2.6600e-003	0.0000	8.7721
Paving	8.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.9100e-003**	**0.0667**	**0.0665**	**1.0000e-004**		**3.7400e-003**	**3.7400e-003**		**3.4500e-003**	**3.4500e-003**	**0.0000**	**8.7055**	**8.7055**	**2.6600e-003**	**0.0000**	**8.7721**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	6.7000e-004	7.4100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8384	1.8384	6.0000e-005	0.0000	1.8399
Total	**8.3000e-004**	**6.7000e-004**	**7.4100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.8384**	**1.8384**	**6.0000e-005**	**0.0000**	**1.8399**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.7000e-004	0.0404	0.0647	1.0000e-004		2.6400e-003	2.6400e-003		2.6900e-003	2.6900e-003	0.0000	8.7055	8.7055	2.6600e-003	0.0000	8.7721
Paving	8.0000e-005					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.5000e-004**	**0.0404**	**0.0647**	**1.0000e-004**		**2.6400e-003**	**2.6400e-003**		**2.6900e-003**	**2.6900e-003**	**0.0000**	**8.7055**	**8.7055**	**2.6600e-003**	**0.0000**	**8.7721**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	6.7000e-004	7.4100e-003	2.0000e-005	1.9700e-003	2.0000e-005	1.9900e-003	5.2000e-004	2.0000e-005	5.4000e-004	0.0000	1.8384	1.8384	6.0000e-005	0.0000	1.8399
Total	**8.3000e-004**	**6.7000e-004**	**7.4100e-003**	**2.0000e-005**	**1.9700e-003**	**2.0000e-005**	**1.9900e-003**	**5.2000e-004**	**2.0000e-005**	**5.4000e-004**	**0.0000**	**1.8384**	**1.8384**	**6.0000e-005**	**0.0000**	**1.8399**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.0000e-005	3.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0202	0.0202	0.0000	0.0000	0.0203
Unmitigated	1.0000e-005	3.0000e-005	7.0000e-005	0.0000	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0202	0.0202	0.0000	0.0000	0.0203

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Industrial	0.04	0.00	0.00	44	44
Total	0.04	0.00	0.00	44	44

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Industrial	16.60	4.20	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
User Defined Industrial	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1343
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	0.1338	0.1338	1.0000e-005	0.0000	0.1343
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	420	0.1338	1.0000e-005	0.0000	0.1343
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.1338**	**1.0000e-005**	**0.0000**	**0.1343**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	420	0.1338	1.0000e-005	0.0000	0.1343
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.1338**	**1.0000e-005**	**0.0000**	**0.1343**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2500e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Unmitigated	1.2500e-003	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Total	**1.2500e-003**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**0.0000**	**1.5000e-004**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	1.5000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.0900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.0000e-005	0.0000	7.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.4000e-004	1.4000e-004	0.0000	0.0000	1.5000e-004
Total	**1.2500e-003**	**0.0000**	**7.0000e-005**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.4000e-004**	**1.4000e-004**	**0.0000**	**0.0000**	**1.5000e-004**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	1	8.00	8	231	0.29	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Cranes	1.6500e-003	0.0194	7.9300e-003	2.0000e-005		7.9000e-004	7.9000e-004		7.2000e-004	7.2000e-004	0.0000	2.0275	2.0275	6.6000e-004	0.0000	2.0439
Total	**1.6500e-003**	**0.0194**	**7.9300e-003**	**2.0000e-005**		**7.9000e-004**	**7.9000e-004**		**7.2000e-004**	**7.2000e-004**	**0.0000**	**2.0275**	**2.0275**	**6.6000e-004**	**0.0000**	**2.0439**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Montebello Pump Station Project - Central Basin

Los Angeles-South Coast County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.01	252.00	0
Other Asphalt Surfaces	1.50	1000sqft	0.03	1,500.00	0
Parking Lot	3.00	Space	0.03	1,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Montebello Pump Station Project - Central Basin - Los Angeles-South Coast County, Summer

Project Characteristics -

Land Use - Pump station building to be 252 square feet

Construction Phase - Schedule provided by Central Basin

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment -

Vehicle Trips - Assumed 8 maintenance trips per year (8/261 weekdays in a year = 0.03). 4.2 mile distance between project site and nearest CBMWD office.

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 (suppress fugitive dust) and Rule 401 (Tier 3 construction equipment)

Operational Off-Road Equipment - As per client comment. Max 8 maintenance days per year

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	50.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	20.00
tblGrading	AcresOfGrading	5.00	0.50
tblLandUse	LandUseSquareFeet	0.00	252.00
tblLandUse	LotAcreage	0.00	0.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	8.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	18.00
tblVehicleTrips	CC_TL	8.40	4.20
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.8284	8.9353	6.4469	0.0109	0.6136	0.4210	1.0346	0.3055	0.4057	0.7112	0.0000	1,050.2959	1,050.2959	0.3075	0.0000	1,054.1033
2020	0.7741	6.7332	7.4382	0.0123	0.2012	0.3753	0.5765	0.0534	0.3470	0.4003	0.0000	1,171.3185	1,171.3185	0.3004	0.0000	1,178.8283
Maximum	**0.8284**	**8.9353**	**7.4382**	**0.0123**	**0.6136**	**0.4210**	**1.0346**	**0.3055**	**0.4057**	**0.7112**	**0.0000**	**1,171.3185**	**1,171.3185**	**0.3075**	**0.0000**	**1,178.8283**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.1994	4.5884	6.6784	0.0109	0.3376	0.2986	0.6362	0.1538	0.3032	0.4570	0.0000	1,050.2959	1,050.2959	0.3075	0.0000	1,054.1033
2020	0.1680	4.1024	7.2555	0.0123	0.2012	0.2659	0.4671	0.0534	0.2705	0.3238	0.0000	1,171.3185	1,171.3185	0.3004	0.0000	1,178.8283
Maximum	**0.1994**	**4.5884**	**7.2555**	**0.0123**	**0.3376**	**0.2986**	**0.6362**	**0.1538**	**0.3032**	**0.4570**	**0.0000**	**1,171.3185**	**1,171.3185**	**0.3075**	**0.0000**	**1,178.8283**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**77.07**	**44.53**	**-0.35**	**0.00**	**33.87**	**29.11**	**31.52**	**42.28**	**23.78**	**29.76**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.0000e-005	2.4000e-004	5.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1780	0.1780	1.0000e-005		0.1782
Offroad	0.4129	4.8493	1.9829	5.7700e-003		0.1969	0.1969		0.1811	0.1811		558.7388	558.7388	0.1807		563.2565
Total	**0.4198**	**4.8496**	**1.9840**	**5.7700e-003**	**1.3000e-004**	**0.1969**	**0.1970**	**3.0000e-005**	**0.1811**	**0.1812**		**558.9179**	**558.9179**	**0.1807**	**0.0000**	**563.4359**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.0000e-005	2.4000e-004	5.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1780	0.1780	1.0000e-005		0.1782
Offroad	0.4129	4.8493	1.9829	5.7700e-003		0.1969	0.1969		0.1811	0.1811		558.7388	558.7388	0.1807		563.2565
Total	**0.4198**	**4.8496**	**1.9840**	**5.7700e-003**	**1.3000e-004**	**0.1969**	**0.1970**	**3.0000e-005**	**0.1811**	**0.1812**		**558.9179**	**558.9179**	**0.1807**	**0.0000**	**563.4359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/16/2019	10/11/2019	5	20	
2	Grading	Grading	10/14/2019	11/22/2019	5	30	
3	Building Construction	Building Construction	11/25/2019	1/31/2020	5	50	
4	Paving	Paving	2/3/2020	2/28/2020	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0265	0.0000	0.0265	2.8600e-003	0.0000	2.8600e-003			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.0265**	**0.3672**	**0.3937**	**2.8600e-003**	**0.3378**	**0.3407**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0250	0.0184	0.2411	6.1000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		60.6476	60.6476	2.0800e-003		60.6997
Total	**0.0250**	**0.0184**	**0.2411**	**6.1000e-004**	**0.0559**	**4.8000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**60.6476**	**60.6476**	**2.0800e-003**		**60.6997**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0119	0.0000	0.0119	1.2900e-003	0.0000	1.2900e-003			0.0000			0.0000
Off-Road	0.1598	4.5701	5.8776	9.7500e-003		0.2233	0.2233		0.2295	0.2295	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.1598**	**4.5701**	**5.8776**	**9.7500e-003**	**0.0119**	**0.2233**	**0.2352**	**1.2900e-003**	**0.2295**	**0.2308**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0250	0.0184	0.2411	6.1000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		60.6476	60.6476	2.0800e-003		60.6997
Total	**0.0250**	**0.0184**	**0.2411**	**6.1000e-004**	**0.0559**	**4.8000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**60.6476**	**60.6476**	**2.0800e-003**		**60.6997**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5018	0.0000	0.5018	0.2759	0.0000	0.2759			0.0000			0.0000
Off-Road	0.7784	6.8509	5.9647	9.6500e-003		0.4201	0.4201		0.4048	0.4048		929.0006	929.0006	0.1481		932.7038
Total	**0.7784**	**6.8509**	**5.9647**	**9.6500e-003**	**0.5018**	**0.4201**	**0.9219**	**0.2759**	**0.4048**	**0.6807**		**929.0006**	**929.0006**	**0.1481**		**932.7038**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0367	0.4822	1.2200e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		121.2953	121.2953	4.1700e-003		121.3995
Total	**0.0500**	**0.0367**	**0.4822**	**1.2200e-003**	**0.1118**	**9.6000e-004**	**0.1127**	**0.0296**	**8.9000e-004**	**0.0305**		**121.2953**	**121.2953**	**4.1700e-003**		**121.3995**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2258	0.0000	0.2258	0.1241	0.0000	0.1241			0.0000			0.0000
Off-Road	0.1494	4.4375	6.1963	9.6500e-003		0.2976	0.2976		0.3023	0.3023	0.0000	929.0006	929.0006	0.1481		932.7038
Total	**0.1494**	**4.4375**	**6.1963**	**9.6500e-003**	**0.2258**	**0.2976**	**0.5234**	**0.1241**	**0.3023**	**0.4264**	**0.0000**	**929.0006**	**929.0006**	**0.1481**		**932.7038**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0500	0.0367	0.4822	1.2200e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		121.2953	121.2953	4.1700e-003		121.3995
Total	**0.0500**	**0.0367**	**0.4822**	**1.2200e-003**	**0.1118**	**9.6000e-004**	**0.1127**	**0.0296**	**8.9000e-004**	**0.0305**		**121.2953**	**121.2953**	**4.1700e-003**		**121.3995**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6048	6.4121	4.3448	7.1300e-003		0.3663	0.3663		0.3370	0.3370		706.6375	706.6375	0.2236		712.2268
Total	**0.6048**	**6.4121**	**4.3448**	**7.1300e-003**		**0.3663**	**0.3663**		**0.3370**	**0.3370**		**706.6375**	**706.6375**	**0.2236**		**712.2268**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.0000e-003	3.6700e-003	0.0482	1.2000e-004	0.0112	1.0000e-004	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		12.1295	12.1295	4.2000e-004		12.1399
Total	**5.0000e-003**	**3.6700e-003**	**0.0482**	**1.2000e-004**	**0.0112**	**1.0000e-004**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**12.1295**	**12.1295**	**4.2000e-004**		**12.1399**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.9700e-003	3.0225	4.7444	7.1300e-003		0.1637	0.1637		0.1766	0.1766	0.0000	706.6375	706.6375	0.2236		712.2268
Total	**4.9700e-003**	**3.0225**	**4.7444**	**7.1300e-003**		**0.1637**	**0.1637**		**0.1766**	**0.1766**	**0.0000**	**706.6375**	**706.6375**	**0.2236**		**712.2268**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.0000e-003	3.6700e-003	0.0482	1.2000e-004	0.0112	1.0000e-004	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		12.1295	12.1295	4.2000e-004		12.1399
Total	**5.0000e-003**	**3.6700e-003**	**0.0482**	**1.2000e-004**	**0.0112**	**1.0000e-004**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**12.1295**	**12.1295**	**4.2000e-004**		**12.1399**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5442	5.7740	4.2226	7.1300e-003		0.3168	0.3168		0.2914	0.2914		691.1865	691.1865	0.2235		696.7750
Total	**0.5442**	**5.7740**	**4.2226**	**7.1300e-003**		**0.3168**	**0.3168**		**0.2914**	**0.2914**		**691.1865**	**691.1865**	**0.2235**		**696.7750**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.6000e-003	3.2700e-003	0.0438	1.2000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		11.7611	11.7611	3.7000e-004		11.7704
Total	**4.6000e-003**	**3.2700e-003**	**0.0438**	**1.2000e-004**	**0.0112**	**9.0000e-005**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**11.7611**	**11.7611**	**3.7000e-004**		**11.7704**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0286	3.2367	4.7664	7.1300e-003		0.1856	0.1856		0.1968	0.1968	0.0000	691.1865	691.1865	0.2235		696.7750
Total	**0.0286**	**3.2367**	**4.7664**	**7.1300e-003**		**0.1856**	**0.1856**		**0.1968**	**0.1968**	**0.0000**	**691.1865**	**691.1865**	**0.2235**		**696.7750**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	4.6000e-003	3.2700e-003	0.0438	1.2000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		11.7611	11.7611	3.7000e-004		11.7704
Total	**4.6000e-003**	**3.2700e-003**	**0.0438**	**1.2000e-004**	**0.0112**	**9.0000e-005**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**11.7611**	**11.7611**	**3.7000e-004**		**11.7704**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6834	6.6743	6.6501	0.0102		0.3736	0.3736		0.3454	0.3454		959.6181	959.6181	0.2937		966.9611
Paving	7.8600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6913**	**6.6743**	**6.6501**	**0.0102**		**0.3736**	**0.3736**		**0.3454**	**0.3454**		**959.6181**	**959.6181**	**0.2937**		**966.9611**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0828**	**0.0589**	**0.7881**	**2.1300e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**211.7003**	**211.7003**	**6.6700e-003**		**211.8672**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0773	4.0434	6.4674	0.0102		0.2643	0.2643		0.2689	0.2689	0.0000	959.6181	959.6181	0.2937		966.9611
Paving	7.8600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0852**	**4.0434**	**6.4674**	**0.0102**		**0.2643**	**0.2643**		**0.2689**	**0.2689**	**0.0000**	**959.6181**	**959.6181**	**0.2937**		**966.9611**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0828	0.0589	0.7881	2.1300e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		211.7003	211.7003	6.6700e-003		211.8672
Total	**0.0828**	**0.0589**	**0.7881**	**2.1300e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**211.7003**	**211.7003**	**6.6700e-003**		**211.8672**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0000e-005	2.4000e-004	5.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1780	0.1780	1.0000e-005		0.1782
Unmitigated	6.0000e-005	2.4000e-004	5.6000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1780	0.1780	1.0000e-005		0.1782

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Industrial	0.04	0.00	0.00	44	44
Total	0.04	0.00	0.00	44	44

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Industrial	16.60	4.20	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
User Defined Industrial	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Unmitigated	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Total	**6.8500e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.2000e-003**	**1.2000e-003**	**0.0000**		**1.2800e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Total	**6.8500e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.2000e-003**	**1.2000e-003**	**0.0000**		**1.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	1	8.00	8	231	0.29	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Cranes	0.4129	4.8493	1.9829	5.7700e-003		0.1969	0.1969		0.1811	0.1811		558.7388	558.7388	0.1807		563.2565
Total	**0.4129**	**4.8493**	**1.9829**	**5.7700e-003**		**0.1969**	**0.1969**		**0.1811**	**0.1811**		**558.7388**	**558.7388**	**0.1807**		**563.2565**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Montebello Pump Station Project - Central Basin

Los Angeles-South Coast County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.01	252.00	0
Other Asphalt Surfaces	1.50	1000sqft	0.03	1,500.00	0
Parking Lot	3.00	Space	0.03	1,200.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	33
Climate Zone	9			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Montebello Pump Station Project - Central Basin - Los Angeles-South Coast County, Winter

Project Characteristics -

Land Use - Pump station building to be 252 square feet

Construction Phase - Schedule provided by Central Basin

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment - Reduced construction equipment to reflect realistic conditions on small site

Off-road Equipment -

Vehicle Trips - Assumed 8 maintenance trips per year (8/261 weekdays in a year = 0.03). 4.2 mile distance between project site and nearest CBMWD office.

Construction Off-road Equipment Mitigation - Assumed compliance with SCAQMD Rule 403 (suppress fugitive dust) and Rule 401 (Tier 3 construction equipment)

Operational Off-Road Equipment - As per client comment. Max 8 maintenance days per year

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	1.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	6.00
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3

tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstEquipMitigation	Tier	No Change	Tier 3
tblConstructionPhase	NumDays	100.00	50.00
tblConstructionPhase	NumDays	2.00	30.00
tblConstructionPhase	NumDays	5.00	20.00
tblConstructionPhase	NumDays	1.00	20.00
tblGrading	AcresOfGrading	5.00	0.50
tblLandUse	LandUseSquareFeet	0.00	252.00
tblLandUse	LotAcreage	0.00	0.01
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	8.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	8.00	10.00
tblTripsAndVMT	WorkerTripNumber	13.00	18.00
tblVehicleTrips	CC_TL	8.40	4.20
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	WD_TR	0.00	0.04

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.8338	8.9373	6.4072	0.0108	0.6136	0.4210	1.0346	0.3055	0.4057	0.7112	0.0000	1,043.2137	1,043.2137	0.3073	0.0000	1,047.0151
2020	0.7833	6.7395	7.3719	0.0122	0.2012	0.3753	0.5765	0.0534	0.3470	0.4003	0.0000	1,158.9538	1,158.9538	0.3000	0.0000	1,166.4539
Maximum	**0.8338**	**8.9373**	**7.3719**	**0.0122**	**0.6136**	**0.4210**	**1.0346**	**0.3055**	**0.4057**	**0.7112**	**0.0000**	**1,158.9538**	**1,158.9538**	**0.3073**	**0.0000**	**1,166.4539**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2019	0.2048	4.5904	6.6388	0.0108	0.3376	0.2986	0.6362	0.1538	0.3032	0.4570	0.0000	1,043.2137	1,043.2137	0.3073	0.0000	1,047.0151
2020	0.1772	4.1087	7.1892	0.0122	0.2012	0.2659	0.4671	0.0534	0.2705	0.3238	0.0000	1,158.9538	1,158.9538	0.3000	0.0000	1,166.4539
Maximum	**0.2048**	**4.5904**	**7.1892**	**0.0122**	**0.3376**	**0.2986**	**0.6362**	**0.1538**	**0.3032**	**0.4570**	**0.0000**	**1,158.9538**	**1,158.9538**	**0.3073**	**0.0000**	**1,166.4539**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**76.38**	**44.51**	**-0.35**	**0.00**	**33.87**	**29.11**	**31.52**	**42.28**	**23.78**	**29.76**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.0000e-005	2.5000e-004	5.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1689	0.1689	1.0000e-005		0.1691
Offroad	0.4129	4.8493	1.9829	5.7700e-003		0.1969	0.1969		0.1811	0.1811		558.7388	558.7388	0.1807		563.2565
Total	**0.4198**	**4.8496**	**1.9840**	**5.7700e-003**	**1.3000e-004**	**0.1969**	**0.1970**	**3.0000e-005**	**0.1811**	**0.1812**		**558.9088**	**558.9088**	**0.1807**	**0.0000**	**563.4269**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.0000e-005	2.5000e-004	5.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1689	0.1689	1.0000e-005		0.1691
Offroad	0.4129	4.8493	1.9829	5.7700e-003		0.1969	0.1969		0.1811	0.1811		558.7388	558.7388	0.1807		563.2565
Total	**0.4198**	**4.8496**	**1.9840**	**5.7700e-003**	**1.3000e-004**	**0.1969**	**0.1970**	**3.0000e-005**	**0.1811**	**0.1812**		**558.9088**	**558.9088**	**0.1807**	**0.0000**	**563.4269**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/16/2019	10/11/2019	5	20	
2	Grading	Grading	10/14/2019	11/22/2019	5	30	
3	Building Construction	Building Construction	11/25/2019	1/31/2020	5	50	
4	Paving	Paving	2/3/2020	2/28/2020	5	20	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0.06

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Concrete/Industrial Saws	1	8.00	81	0.73
Grading	Rubber Tired Dozers	1	1.00	247	0.40
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	7.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	2	5.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	10.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	3	1.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	18.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

Water Exposed Area

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0265	0.0000	0.0265	2.8600e-003	0.0000	2.8600e-003			0.0000			0.0000
Off-Road	0.7195	8.9170	4.1407	9.7500e-003		0.3672	0.3672		0.3378	0.3378		965.1690	965.1690	0.3054		972.8032
Total	**0.7195**	**8.9170**	**4.1407**	**9.7500e-003**	**0.0265**	**0.3672**	**0.3937**	**2.8600e-003**	**0.3378**	**0.3407**		**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0277	0.0203	0.2212	5.7000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		57.1065	57.1065	1.9600e-003		57.1557
Total	**0.0277**	**0.0203**	**0.2212**	**5.7000e-004**	**0.0559**	**4.8000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**57.1065**	**57.1065**	**1.9600e-003**		**57.1557**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0119	0.0000	0.0119	1.2900e-003	0.0000	1.2900e-003			0.0000			0.0000
Off-Road	0.1598	4.5701	5.8776	9.7500e-003		0.2233	0.2233		0.2295	0.2295	0.0000	965.1690	965.1690	0.3054		972.8032
Total	**0.1598**	**4.5701**	**5.8776**	**9.7500e-003**	**0.0119**	**0.2233**	**0.2352**	**1.2900e-003**	**0.2295**	**0.2308**	**0.0000**	**965.1690**	**965.1690**	**0.3054**		**972.8032**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0277	0.0203	0.2212	5.7000e-004	0.0559	4.8000e-004	0.0564	0.0148	4.4000e-004	0.0153		57.1065	57.1065	1.9600e-003		57.1557
Total	**0.0277**	**0.0203**	**0.2212**	**5.7000e-004**	**0.0559**	**4.8000e-004**	**0.0564**	**0.0148**	**4.4000e-004**	**0.0153**		**57.1065**	**57.1065**	**1.9600e-003**		**57.1557**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.5018	0.0000	0.5018	0.2759	0.0000	0.2759			0.0000			0.0000
Off-Road	0.7784	6.8509	5.9647	9.6500e-003		0.4201	0.4201		0.4048	0.4048		929.0006	929.0006	0.1481		932.7038
Total	**0.7784**	**6.8509**	**5.9647**	**9.6500e-003**	**0.5018**	**0.4201**	**0.9219**	**0.2759**	**0.4048**	**0.6807**		**929.0006**	**929.0006**	**0.1481**		**932.7038**

3.3 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
Total	**0.0554**	**0.0407**	**0.4425**	**1.1500e-003**	**0.1118**	**9.6000e-004**	**0.1127**	**0.0296**	**8.9000e-004**	**0.0305**		**114.2131**	**114.2131**	**3.9300e-003**		**114.3113**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.2258	0.0000	0.2258	0.1241	0.0000	0.1241			0.0000			0.0000
Off-Road	0.1494	4.4375	6.1963	9.6500e-003		0.2976	0.2976		0.3023	0.3023	0.0000	929.0006	929.0006	0.1481		932.7038
Total	**0.1494**	**4.4375**	**6.1963**	**9.6500e-003**	**0.2258**	**0.2976**	**0.5234**	**0.1241**	**0.3023**	**0.4264**	**0.0000**	**929.0006**	**929.0006**	**0.1481**		**932.7038**

3.3 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0554	0.0407	0.4425	1.1500e-003	0.1118	9.6000e-004	0.1127	0.0296	8.9000e-004	0.0305		114.2131	114.2131	3.9300e-003		114.3113
Total	**0.0554**	**0.0407**	**0.4425**	**1.1500e-003**	**0.1118**	**9.6000e-004**	**0.1127**	**0.0296**	**8.9000e-004**	**0.0305**		**114.2131**	**114.2131**	**3.9300e-003**		**114.3113**

3.4 Building Construction - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6048	6.4121	4.3448	7.1300e-003		0.3663	0.3663		0.3370	0.3370		706.6375	706.6375	0.2236		712.2268
Total	**0.6048**	**6.4121**	**4.3448**	**7.1300e-003**		**0.3663**	**0.3663**		**0.3370**	**0.3370**		**706.6375**	**706.6375**	**0.2236**		**712.2268**

3.4 Building Construction - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.5400e-003	4.0700e-003	0.0443	1.1000e-004	0.0112	1.0000e-004	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		11.4213	11.4213	3.9000e-004		11.4311
Total	**5.5400e-003**	**4.0700e-003**	**0.0443**	**1.1000e-004**	**0.0112**	**1.0000e-004**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**11.4213**	**11.4213**	**3.9000e-004**		**11.4311**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.9700e-003	3.0225	4.7444	7.1300e-003		0.1637	0.1637		0.1766	0.1766	0.0000	706.6375	706.6375	0.2236		712.2268
Total	**4.9700e-003**	**3.0225**	**4.7444**	**7.1300e-003**		**0.1637**	**0.1637**		**0.1766**	**0.1766**	**0.0000**	**706.6375**	**706.6375**	**0.2236**		**712.2268**

3.4 Building Construction - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.5400e-003	4.0700e-003	0.0443	1.1000e-004	0.0112	1.0000e-004	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		11.4213	11.4213	3.9000e-004		11.4311
Total	**5.5400e-003**	**4.0700e-003**	**0.0443**	**1.1000e-004**	**0.0112**	**1.0000e-004**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**11.4213**	**11.4213**	**3.9000e-004**		**11.4311**

3.4 Building Construction - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.5442	5.7740	4.2226	7.1300e-003		0.3168	0.3168		0.2914	0.2914		691.1865	691.1865	0.2235		696.7750
Total	**0.5442**	**5.7740**	**4.2226**	**7.1300e-003**		**0.3168**	**0.3168**		**0.2914**	**0.2914**		**691.1865**	**691.1865**	**0.2235**		**696.7750**

3.4 Building Construction - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.1100e-003	3.6200e-003	0.0401	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		11.0742	11.0742	3.5000e-004		11.0829
Total	**5.1100e-003**	**3.6200e-003**	**0.0401**	**1.1000e-004**	**0.0112**	**9.0000e-005**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**11.0742**	**11.0742**	**3.5000e-004**		**11.0829**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0286	3.2367	4.7664	7.1300e-003		0.1856	0.1856		0.1968	0.1968	0.0000	691.1865	691.1865	0.2235		696.7750
Total	**0.0286**	**3.2367**	**4.7664**	**7.1300e-003**		**0.1856**	**0.1856**		**0.1968**	**0.1968**	**0.0000**	**691.1865**	**691.1865**	**0.2235**		**696.7750**

3.4 Building Construction - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	5.1100e-003	3.6200e-003	0.0401	1.1000e-004	0.0112	9.0000e-005	0.0113	2.9600e-003	9.0000e-005	3.0500e-003		11.0742	11.0742	3.5000e-004		11.0829
Total	**5.1100e-003**	**3.6200e-003**	**0.0401**	**1.1000e-004**	**0.0112**	**9.0000e-005**	**0.0113**	**2.9600e-003**	**9.0000e-005**	**3.0500e-003**		**11.0742**	**11.0742**	**3.5000e-004**		**11.0829**

3.5 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6834	6.6743	6.6501	0.0102		0.3736	0.3736		0.3454	0.3454		959.6181	959.6181	0.2937		966.9611
Paving	7.8600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6913**	**6.6743**	**6.6501**	**0.0102**		**0.3736**	**0.3736**		**0.3454**	**0.3454**		**959.6181**	**959.6181**	**0.2937**		**966.9611**

3.5 Paving - 2020

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0920**	**0.0652**	**0.7218**	**2.0000e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**199.3357**	**199.3357**	**6.2800e-003**		**199.4927**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.0773	4.0434	6.4674	0.0102		0.2643	0.2643		0.2689	0.2689	0.0000	959.6181	959.6181	0.2937		966.9611
Paving	7.8600e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.0852**	**4.0434**	**6.4674**	**0.0102**		**0.2643**	**0.2643**		**0.2689**	**0.2689**	**0.0000**	**959.6181**	**959.6181**	**0.2937**		**966.9611**

3.5 Paving - 2020

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0920	0.0652	0.7218	2.0000e-003	0.2012	1.6800e-003	0.2029	0.0534	1.5500e-003	0.0549		199.3357	199.3357	6.2800e-003		199.4927
Total	**0.0920**	**0.0652**	**0.7218**	**2.0000e-003**	**0.2012**	**1.6800e-003**	**0.2029**	**0.0534**	**1.5500e-003**	**0.0549**		**199.3357**	**199.3357**	**6.2800e-003**		**199.4927**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.0000e-005	2.5000e-004	5.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1689	0.1689	1.0000e-005		0.1691
Unmitigated	6.0000e-005	2.5000e-004	5.5000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005		0.1689	0.1689	1.0000e-005		0.1691

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
User Defined Industrial	0.04	0.00	0.00	44	44
Total	0.04	0.00	0.00	44	44

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Parking Lot	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
User Defined Industrial	16.60	4.20	6.90	0.00	100.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
Parking Lot	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891
User Defined Industrial	0.547192	0.045177	0.202743	0.121510	0.016147	0.006143	0.019743	0.029945	0.002479	0.002270	0.005078	0.000682	0.000891

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Unmitigated	6.8400e-003	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Total	**6.8500e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.2000e-003**	**1.2000e-003**	**0.0000**		**1.2800e-003**

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	8.5000e-004					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	5.9500e-003					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.0000e-005	1.0000e-005	5.6000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		1.2000e-003	1.2000e-003	0.0000		1.2800e-003
Total	**6.8500e-003**	**1.0000e-005**	**5.6000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**1.2000e-003**	**1.2000e-003**	**0.0000**		**1.2800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Cranes	1	8.00	8	231	0.29	Diesel

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Cranes	0.4129	4.8493	1.9829	5.7700e-003		0.1969	0.1969		0.1811	0.1811		558.7388	558.7388	0.1807		563.2565
Total	**0.4129**	**4.8493**	**1.9829**	**5.7700e-003**		**0.1969**	**0.1969**		**0.1811**	**0.1811**		**558.7388**	**558.7388**	**0.1807**		**563.2565**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Greenhouse Gas Calculations

Central Basin Municipal Water District Recycled Water Pump Station

Equipment Type	Annual Kilowatt Hours (kWh)	Annual Megawatt Hours (MWh)	SCE Emission Factor (MT CO_2e/MWh)[1]
Water Pump	255,792.00	255.79	0.25

Equation:

*Annual MWh * SCE Emission Factor = Annual GHG Emissions*

Annual Operational GHG Emissions	Units
63.95	**MT CO_2e/year**

Footnotes:

SCE: Southern California Edison; MT: metric tons

1. Source: https://www.edison.com/content/dam/eix/documents/sustainability/eix-2017-sustainability-report.pdf

Road Construction Emissions Model, Version 9.0

Daily Emission Estimates for -> Montebello Recycled Water Pipeline

Project Phases (Pounds)	ROG (lbs/day)	CO (lbs/day)	NOx (lbs/day)	Total PM10 (lbs/day)	Exhaust PM10 (lbs/day)	Fugitive Dust PM10 (lbs/day)	Total PM2.5 (lbs/day)	Exhaust PM2.5 (lbs/day)	Fugitive Dust PM2.5 (lbs/day)	SOx (lbs/day)	CO2 (lbs/day)	CH4 (lbs/day)	N2O (lbs/day)	CO2e (lbs/day)
Site Preparation	1.36	9.09	11.26	2.33	0.61	1.72	0.93	0.58	0.36	0.02	1,892.00	0.28	0.02	1,904.18
Excavation and Shoring	1.37	11.03	13.07	2.34	0.62	1.72	0.90	0.54	0.36	0.03	2,801.27	0.69	0.04	2,828.97
Pipe Installation/Backfilling	2.51	16.32	21.76	2.79	1.07	1.72	1.35	0.99	0.36	0.04	3,428.89	0.88	0.03	3,460.34
Street Restoration	1.37	10.05	13.11	0.62	0.62	0.00	0.55	0.55	0.00	0.03	2,538.31	0.65	0.03	2,563.34
Maximum (pounds/day)	2.51	16.32	21.76	2.79	1.07	1.72	1.35	0.99	0.36	0.04	3,428.89	0.88	0.04	3,460.34
Total (tons/construction project)	0.06	0.41	0.51	0.07	0.02	0.05	0.03	0.02	0.01	0.00	94.35	0.02	0.00	95.24

Notes:

Project Start Year ->	2019
Project Length (months) ->	3
Total Project Area (acres) ->	1
Maximum Area Disturbed/Day (acres) ->	0
Water Truck Used? ->	Yes

	Total Material Imported/Exported Volume (yd^3/day)		Daily VMT (miles/day)			
Phase	Soil	Asphalt	Soil Hauling	Asphalt Hauling	Worker Commute	Water Truck
Grubbing/Land Clearing	0	0	0	0	300	2
Grading/Excavation	20	80	20	80	300	2
Drainage/Utilities/Sub-Grade	0	0	0	0	300	0
Paving	0	50	0	60	300	2

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

Total Emission Estimates by Phase for -> Montebello Recycled Water Pipeline

Project Phases (Tons for all except CO2e. Metric tonnes for CO2e)	ROG (tons/phase)	CO (tons/phase)	NOx (tons/phase)	Total PM10 (tons/phase)	Exhaust PM10 (tons/phase)	Fugitive Dust PM10 (tons/phase)	Total PM2.5 (tons/phase)	Exhaust PM2.5 (tons/phase)	Fugitive Dust PM2.5 (tons/phase)	SOx (tons/phase)	CO2 (tons/phase)	CH4 (tons/phase)	N2O (tons/phase)	CO2e (MT/phase)
Site Preparation	0.00	0.03	0.04	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.24	0.00	0.00	5.70
Excavation and Shoring	0.02	0.16	0.19	0.03	0.01	0.03	0.01	0.01	0.01	0.00	41.60	0.01	0.00	38.11
Pipe Installation/Backfilling	0.02	0.16	0.22	0.03	0.01	0.02	0.01	0.01	0.00	0.00	33.95	0.01	0.00	31.08
Street Restoration	0.01	0.05	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.56	0.00	0.00	11.51
Maximum (tons/phase)	0.02	0.16	0.22	0.03	0.01	0.03	0.01	0.01	0.01	0.00	41.60	0.01	0.00	38.11
Total (tons/construction project)	0.06	0.41	0.51	0.07	0.02	0.05	0.03	0.02	0.01	0.00	94.35	0.02	0.00	86.40

PM10 and PM2.5 estimates assume 50% control of fugitive dust from watering and associated dust control measures if a minimum number of water trucks are specified.

Total PM10 emissions shown in column F are the sum of exhaust and fugitive dust emissions shown in columns G and H. Total PM2.5 emissions shown in Column I are the sum of exhaust and fugitive dust emissions shown in columns J and K.

CO2e emissions are estimated by multiplying mass emissions for each GHG by its global warming potential (GWP), 1 , 25 and 298 for CO2, CH4 and N2O, respectively. Total CO2e is then estimated by summing CO2e estimates over all GHGs.

The CO2e emissions are reported as metric tons per phase.

N2O Operational GHG Emission Mobile Calculations - Proposed

Project Code & Title: 19-07244 CBMWD Montebello Hills Recycled Water Pipeline

Vehicle Population Breakdown*	
	Gasoline vehicles
	Diesel vehicles
100.0%	Gasoline vehicle %
0.0%	Diesel vehicle %

VMT per Vehicle Type	
44	Project VMT (CalEEMod output)
44	Gasoline vehicle VMT
0	Diesel vehicle VMT

Gasoline Vehicles	
100.0%	Gasoline vehicle %
0.00002	Tons per year mobile NOX emissions (annual output in CalEEMod)
0.0000	Gasoline vehicle tons per year NOX emissions
4.16%	Percentage to convert NOX emissions to N2O **
0.00000	Tons per year N2O emissions for gasoline vehicles
0.00000	Metric tons per year N2O emissions for gasoline vehicles

Diesel Vehicles	
0.3316	grams N2O per gallon of fuel for diesel vehicles**
24.46	Diesel average miles per gallon*
0.01356	grams per mile N2O for diesel vehicles
0.0	grams per year N2O for diesel vehicles
0.0000000	Metric tons per year N2O emissions for diesel vehicles

CO2E Emissions from N2O	
0.00000	Metric tons per year from gasoline + diesel vehicles
298	GWP of N2O***
0.000	**CO2E emissions per year from N2O emissions from gasoline + diesel vehicles**

Sources
***Vehicle population source:** Assumed 100% gasoline ****Methodology source:** EMFAC2011 Frequently Asked Questions https://www.arb.ca.gov/msei/emfac2011-faq.htm *****GWP source:** Intergovernmental Panel on Climate Change (IPCC). 2007. AR4 Climate Change 2007: The Physical Science Basis. Contrbution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.

Appendix B

Special-Status Wildlife and Plant Species Table

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Plants and Lichens			
Arctostaphylos glandulosa ssp. gabrielensis San Gabriel manzanita	None/None G5T3/S3 1B.2	Chaparral. Rocky outcrops; can be dominant shrub where it occurs. 960-2015 m. perennial evergreen shrub. Blooms Mar	**Not Expected** Suitable habitat (chaparral) not present. This species was not planted during the restoration of the area (USFWS 2009).
Astragalus brauntonii Braunton's milk-vetch	Endangered/ None G2/S2 1B.1	Chaparral, coastal scrub, valley and foothill grassland. Recent burns or disturbed areas; usually on sandstone with carbonate layers. Soil specialist; requires shallow soils to defeat pocket gophers and open areas, preferably on hilltops, saddles or bowls between hills. 3-640 m. perennial herb. Blooms Jan-Aug	**Not Expected** Suitable habitat (open areas, carbonate soils) not present. This species was not observed during the field survey. This species was not planted during the restoration of the area (USFWS 2009).
Atriplex serenana var. davidsonii Davidson's saltscale	None/None G5T1/S1 1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 0-460 m. annual herb. Blooms Apr-Oct	**Not Expected** Suitable soils not present. This species was not planted during the restoration of the area (USFWS 2009).
Berberis nevinii Nevin's barberry	Endangered/ Endangered G1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub, riparian scrub. On steep, N-facing slopes or in low grade sandy washes. 290-1575 m. perennial evergreen shrub. Blooms (Feb)Mar-Jun	**Not Expected** Suitable habitat (steep north facing slopes, sandy washes) not present. This species was not planted during the restoration of the area (USFWS 2009).
Calochortus clavatus var. gracilis slender mariposa-lily	None/None G4T2T3/S2S3 1B.2	Chaparral, coastal scrub, valley and foothill grassland. Shaded foothill canyons; often on grassy slopes within other habitat. 210-1815 m. perennial bulbiferous herb. Blooms Mar-Jun(Nov)	**Not Expected** Suitable habitat (open areas) not present. This species was not observed during the field survey. This species was not planted during the restoration of the area (USFWS 2009).
Calochortus plummerae Plummer's mariposa-lily	None/None G4/S4 4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m. perennial bulbiferous herb. Blooms May-Jul	**Not Expected** Suitable soils not present. This species was not planted during the restoration of the area (USFWS 2009).

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Calochortus weedii var. intermedius intermediate mariposa-lily	None/None G3G4T2/S2 1B.2	Coastal scrub, chaparral, valley and foothill grassland. Dry, rocky open slopes and rock outcrops. 60-1575 m. perennial bulbiferous herb. Blooms May-Jul	**Not Expected** Suitable habitat (rock outcrops) not present. This species was not planted during the restoration of the area (USFWS 2009).
Calystegia felix lucky morning-glory	None/None G1Q/S1 1B.1	Meadows and seeps, riparian scrub. Sometimes alkaline, alluvial. 30-215 m. annual rhizomatous herb. Blooms Mar-Sep	**Not Expected** Suitable habitat (riparian areas) not present. This species was not planted during the restoration of the area (USFWS 2009).
Centromadia parryi ssp. australis southern tarplant	None/None G3T2/S2 1B.1	Marshes and swamps (margins), valley and foothill grassland, vernal pools. Often in disturbed sites near the coast at marsh edges; also in alkaline soils sometimes with saltgrass. Sometimes on vernal pool margins. 0-975 m. annual herb. Blooms May-Nov	**Not Expected** Suitable habitat (marsh edges) not present. This species was not planted during the restoration of the area (USFWS 2009).
Centromadia pungens ssp. laevis smooth tarplant	None/None G3G4T2/S2 1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m. annual herb. Blooms Apr-Sep	**Not Expected** Suitable habitat (grasslands, riparian areas) not present. This species was not planted during the restoration of the area (USFWS 2009).
Chorizanthe parryi var. fernandina San Fernando Valley spineflower	Proposed Threatened/ Endangered G2T1/S1 1B.1	Coastal scrub, valley and foothill grassland. Sandy soils. 15-1015 m. annual herb. Blooms Apr-Jul	**Not Expected** Suitable habitat (grasslands) not present. This species was not planted during the restoration of the area (USFWS 2009).
Chorizanthe parryi var. parryi Parry's spineflower	None/None G3T2/S2 1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m. annual herb. Blooms Apr-Jun	**Not Expected** Marginal habitat is present, but this species was not observed during the field survey. This species was not planted during the restoration of the area (USFWS 2009).

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Cladium californicum California saw-grass	None/None G4/S2 2B.2	Meadows and seeps, marshes and swamps (alkaline or freshwater). Freshwater or alkaline moist habitats. -20-2135 m. perennial rhizomatous herb. Blooms Jun-Sep	**Not Expected** Suitable habitat (moist habitats) not present. This species was not planted during the restoration of the area (USFWS 2009).
Cuscuta obtusiflora var. glandulosa Peruvian dodder	None/None G5T4?/SH 2B.2	Marshes and swamps (freshwater). Freshwater marsh. 15-280 m. annual vine (parasitic). Blooms Jul-Oct	**Not Expected** Suitable habitat (moist habitats) not present. This species was not planted during the restoration of the area (USFWS 2009).
Dodecahema leptoceras slender-horned spineflower	Endangered/ Endangered G1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m. annual herb. Blooms Apr-Jun	**Not Expected** Site is outside the elevation range for this species. This species was not planted during the restoration of the area (USFWS 2009).
Dudleya cymosa ssp. crebrifolia San Gabriel River dudleya	None/None G5T2/S2 1B.2	Chaparral. On granite cliffs and outcrops, surrounded by scrub. 365-1250 m. perennial herb. Blooms Apr-Jul	**Not Expected** Site is outside the elevation range for this species and suitable habitat. This species was not planted during the restoration of the area (USFWS 2009).
Dudleya densiflora San Gabriel Mountains dudleya	None/None G2/S2 1B.1	Chaparral, coastal scrub, cismontane woodland, lower montane coniferous forest, riparian forest. In crevices and on decomposed granite on cliffs and canyon walls. 270-1100 m. perennial herb. Blooms Mar-Jun	**Not Expected** Site is outside the elevation range for this species. This species was not planted during the restoration of the area (USFWS 2009).
Dudleya multicaulis many-stemmed dudleya	None/None G2/S2 1B.2	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 15-790 m. perennial herb. Blooms Apr-Jul	**Not Expected** Suitable soils not present. This species was not planted during the restoration of the area (USFWS 2009).

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Galium grande San Gabriel bedstraw	None/None G1/S1 1B.2	Cismontane woodland, chaparral, broadleafed upland forest, lower montane coniferous forest. Open chaparral and low, open oak forest; on rocky slopes; probably undercollected due to inaccessible habitat. 425-1450 m. perennial deciduous shrub. Blooms Jan-Jul	**Not Expected** Site is outside the elevation range for this species. This species was not planted during the restoration of the area (USFWS 2009).
Helianthus nuttallii ssp. parishii Los Angeles sunflower	None/None G5TH/SH 1A	Marshes and swamps (coastal salt and freshwater). 35-1525 m. perennial rhizomatous herb. Blooms Aug-Oct	**Not Expected** Suitable habitat (marshes and swamps) not present. This species was not planted during the restoration of the area (USFWS 2009).
Hordeum intercedens vernal barley	None/None G3G4/S3S4 3.2	Valley and foothill grassland, vernal pools, coastal dunes, coastal scrub. Vernal pools, dry, saline streambeds, alkaline flats. 5-1000 m. annual herb. Blooms Mar-Jun	**Not Expected** Suitable habitat (vernal pools, alkaline flats) not present. This species was not planted during the restoration of the area (USFWS 2009).
Horkelia cuneata var. puberula mesa horkelia	None/None G4T1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m. perennial herb. Blooms Feb-Jul(Sep)	**Not Expected** Marginal habitat is present, but this species was not observed during the field survey. This species was not planted during the restoration of the area (USFWS 2009).
Imperata brevifolia California satintail	None/None G4/S3 2B.1	Coastal scrub, chaparral, riparian scrub, Mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Mesic sites, alkali seeps, riparian areas. 3-1495 m. perennial rhizomatous herb. Blooms Sep-May	**Not Expected** Suitable habitat (riparian areas) not present. This species was not planted during the restoration of the area (USFWS 2009).
Lasthenia glabrata ssp. coulteri Coulter's goldfields	None/None G4T2/S2 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m. annual herb. Blooms Feb-Jun	**Not Expected** Suitable habitat (vernal pools, alkaline flats) not present. This species was not planted during the restoration of the area (USFWS 2009).

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Linanthus concinnus San Gabriel linanthus	None/None G2/S2 1B.2	Lower montane coniferous forest, upper montane coniferous forest, chaparral. Dry rocky slopes, often in Jeffrey pine/canyon oak forest. 1310-2560 m. annual herb. Blooms Apr-Jul	**Not Expected** Site is outside the elevation range for this species and no suitable plant communities exist on site. This species was not planted during the restoration of the area (USFWS 2009).
Linanthus orcuttii Orcutt's linanthus	None/None G3/S2 1B.3	Chaparral, lower montane coniferous forest, pinyon and juniper woodland. Sometimes in disturbed areas; often in gravelly clearings. 915-2145 m. annual herb. Blooms May-Jun	**Not Expected** Site is outside the elevation range for this species and no suitable plant communities exist on site. This species was not planted during the restoration of the area (USFWS 2009).
Navarretia prostrata prostrate vernal pool navarretia	None/None G2/S2 1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m. annual herb. Blooms Apr-Jul	**Not Expected** Suitable habitat (vernal pools, alkaline soils) not present. This species was not planted during the restoration of the area (USFWS 2009).
Orcuttia californica California Orcutt grass	Endangered/ Endangered G1/S1 1B.1	Vernal pools. 10-660 m. annual herb. Blooms Apr-Aug	**Not Expected** Suitable habitat (vernal pools) not present. This species was not planted during the restoration of the area (USFWS 2009).
Orobanche valida ssp. valida Rock Creek broomrape	None/None G4T2/S2 1B.2	Chaparral, pinyon-juniper woodland. On slopes of loose decomposed granite; parasitic on various chaparral shrubs. 1250-2000 m. perennial herb (parasitic). Blooms May-Sep	**Not Expected** Site is outside the elevation range for this species and no suitable plant communities exist on site. This species was not planted during the restoration of the area (USFWS 2009).
Phacelia ramosissima var. austrolitoralis south coast branching phacelia	None/None G5?T3Q/S3 3.2	Chaparral, coastal scrub, coastal dunes, coastal salt marsh. Sandy, sometimes rocky sites. 5-300 m. perennial herb. Blooms Mar-Aug	**Not Expected** Suitable habitat (coastal marshes) not present. This species was not planted during the restoration of the area (USFWS 2009).

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Phacelia stellaris Brand's star phacelia	None/None G1/S1 1B.1	Coastal scrub, coastal dunes. Open areas. 3-370 m. annual herb. Blooms Mar-Jun	**Not Expected** Suitable habitat (open areas) not present. This species was not planted during the restoration of the area (USFWS 2009).
Pseudognaphalium leucocephalum white rabbit-tobacco	None/None G4/S2 2B.2	Riparian woodland, cismontane woodland, coastal scrub, chaparral. Sandy, gravelly sites. 35-515 m. perennial herb. Blooms (Jul)Aug-Nov(Dec)	**Not Expected** Marginal habitat is present, but this species was not observed during the field survey. This species was not planted during the restoration of the area (USFWS 2009).
Ribes divaricatum var. parishii Parish's gooseberry	None/None G5TX/SX 1A	Riparian woodland. Salix swales in riparian habitats. 65-300 m. perennial deciduous shrub. Blooms Feb-Apr	**Not Expected** Suitable habitat (riparian areas) not present. This species was not planted during the restoration of the area (USFWS 2009).
Scutellaria bolanderi ssp. austromontana southern mountains skullcap	None/None G4T3/S3 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest. In gravelly soils on streambanks or in mesic sites in oak or pine woodland. 425-2000 m. perennial rhizomatous herb. Blooms Jun-Aug	**Not Expected** Site is outside the elevation range for this species and suitable plant communities are not present. This species was not planted during the restoration of the area (USFWS 2009).
Sidalcea neomexicana salt spring checkerbloom	None/None G4/S2 2B.2	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Alkali springs and marshes. 3-2380 m. perennial herb. Blooms Mar-Jun	**Not Expected** Suitable habitat (alkali springs and marshes) not present. This species was not planted during the restoration of the area (USFWS 2009).
Symphyotrichum defoliatum San Bernardino aster	None/None G2/S2 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040 m. perennial rhizomatous herb. Blooms Jul-Nov	**Not Expected** Suitable habitat (moist habitats) not present. This species was not planted during the restoration of the area (USFWS 2009).

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Symphyotrichum greatae Greata's aster	None/None G2/S2 1B.3	Chaparral, cismontane woodland, broadleafed upland forest, lower montane coniferous forest, riparian woodland. Mesic canyons. 335-2015 m. perennial rhizomatous herb. Blooms Jun-Oct	**Not Expected** Site is outside the elevation range for this species and suitable plant communities are not present. This species was not planted during the restoration of the area (USFWS 2009).
Thelypteris puberula var. sonorensis Sonoran maiden fern	None/None G5T3/S2 2B.2	Meadows and seeps. Along streams, seepage areas. 60-930 m. perennial rhizomatous herb. Blooms Jan-Sep	**Not Expected** Suitable habitat (moist habitats) not present. This species was not observed during the field survey. This species was not planted during the restoration of the area (USFWS 2009).
Invertebrates			
Bombus crotchii Crotch bumble bee	None/None G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	**Not Expected** Suitable food species not present.
Reptiles			
Anniella stebbinsi southern California legless lizard	None/None G3/S3 SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	**Not Expected** Suitable habitat (loose soil, sparse vegetation) not present. Soils on site are compact and dry.
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	**Not Expected** Suitable habitat (loose soils) not present in large areas.
Aspidoscelis tigris stejnegeri coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	**Low Potential** Suitable habitat (open areas) present in small amounts near the pump station but the soils in this area are frequently disturbed.

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	**Not Expected** Suitable habitat (water) not present.
Phrynosoma blainvillii coast horned lizard	None/None G3G4/S3S4 SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Not Expected** Suitable habitat (open areas, sandy washes) not present. Soils in the vicinity of the pump station are compacted and not suitable.
Birds			
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Not Expected** Suitable habitat (open areas, grasslands) not present.
Buteo swainsoni Swainson's hawk	None/ Threatened G5/S3	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Not Expected** Suitable nesting and foraging habitat is not present on site.
Coccyzus americanus occidentalis western yellow-billed cuckoo	Threatened/ Endangered G5T2T3/S1	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	**Not Expected** Suitable habitat (riparian areas) not present.
Empidonax traillii extimus southwestern willow flycatcher	Endangered/ Endangered G5T2/S1	Riparian woodlands in Southern California.	**Not Expected** Suitable habitat (riparian areas) not present.
Polioptila californica californica coastal California gnatcatcher	Threatened/ None G4G5T2Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**Present** This species has been observed nesting on the oil field within 200 feet of the pump station location. (Environmental Intelligence 2018, NRC 2009). This species was observed within 200 feet of the pump station during the field survey.

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination
Riparia riparia bank swallow	None/ Threatened G5/S2	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	**Not Expected** Suitable habitat (riparian areas) not present.
Vireo bellii pusillus least Bell's vireo	Endangered/ Endangered G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	**Not Expected** Suitable habitat (riparian areas) not present.
Mammals			
Antrozous pallidus pallid bat	None/None G5/S3 SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	**Low Potential** Marginal foraging areas are present, but this species is highly sensitive to disturbance and this site is frequently disturbed.
Eumops perotis californicus western mastiff bat	None/None G5T4/S3S4 SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Low Potential** Marginal roosting areas are present in the general project vicinity, but this species generally roosts in taller structures than are adjacent to the project site.
Lasiurus cinereus hoary bat	None/None G5/S4	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths. Requires water.	**Not Expected** Suitable habitat (water) not present.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Not Expected** This species has not been observed on the oil field (NRC 2009). The oil field is entirely fenced and does not allow for large mammal movement.

Scientific Name Common Name	Status Fed/State ESA CRPR, CDFW G-Rank/S-Rank	Habitat Requirements	Potential for Occurrence/Basis for Determination

BCC = USFWS Bird of Conservation Concern

FC = Federal Candidate Species

FE = Federally Endangered

FP = CDFW Fully Protected

FT = Federally Threatened

SE = State Endangered

ST = State Threatened

SR = State Rare

SSC = CDFW Species of Special Concern

G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind 5

CRPR (CNPS California Rare Plant Rank)

1A=Presumed Extinct in California

1B=Rare, Threatened, or Endangered in California and elsewhere

2=Rare, Threatened, or Endangered in California, but more common elsewhere

3=Need more information (a Review List)

4=Plants of Limited Distribution (a Watch List)

CRPR Threat Code Extension

.1=Seriously endangered in California (> 80% of occurrences threatened/high degree and immediacy of threat)

.2=Fairly endangered in California (20-80% occurrences threatened)

.3=Not very endangered in California (<20% of occurrences threatened)

Appendix C

Cultural Resources Study

Montebello Hills Recycled Water Pipeline and Pump Station Project

Cultural Resources Study

prepared for

Central Basin Municipal Water District 6252
Telegraph Road
Commerce, California 90040
Contact: Kevin P. Hunt, P.E., General Manager

prepared by

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April 2019

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Executive Summary

The Central Basin Municipal Water District (District) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) in the city of Montebello, Los Angeles County, California. The project consists of the construction of a recycled water pipeline alignment extending 2,600 linear feet along Montebello Boulevard, and an approximately 252-square foot pump station. The purpose of this report is to document the tasks Rincon conducted; specifically, a cultural resources records search, Native American outreach, historical imagery review, and a field survey. The study has been completed in accordance with the requirements of the California Environmental Quality Act (CEQA); the District is acting as the lead CEQA agency for the project.

The results of the study indicate two historic-period cultural resources are located on the project site. These include the archaeological remains of the Montebello Oil Field (P-19-003813/CA-LAN-3813H) and the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line (P-19-190508). Both resources have previously been recommended for or determined ineligible for listing on the California Register of Historical Resources. No other cultural resources were identified on the project site or in the immediate vicinity.

Rincon recommends a finding of ***no impact to historical resources*** under CEQA. Rincon recommends the following measure as a standard best management practice in the event of an unanticipated discovery of cultural resources during project construction. The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work, such as data recovery excavation, Native American consultation, and archaeological monitoring, may be warranted to mitigate any significant impacts.

Unanticipated Discovery of Human Remains

If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resource Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

1 Introduction

The Central Basin Municipal Water District (District) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources assessment for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) in the city of Montebello, Los Angeles County, California. This report documents the tasks Rincon conducted as part of the cultural resource assessment: a records search, Native American scoping, historical imagery review, and a pedestrian field survey. The technical report was prepared in accordance with the requirements of the California Environmental Quality Act (CEQA); the District is acting as the lead CEQA agency for the project.

1.1 Project Location and Description

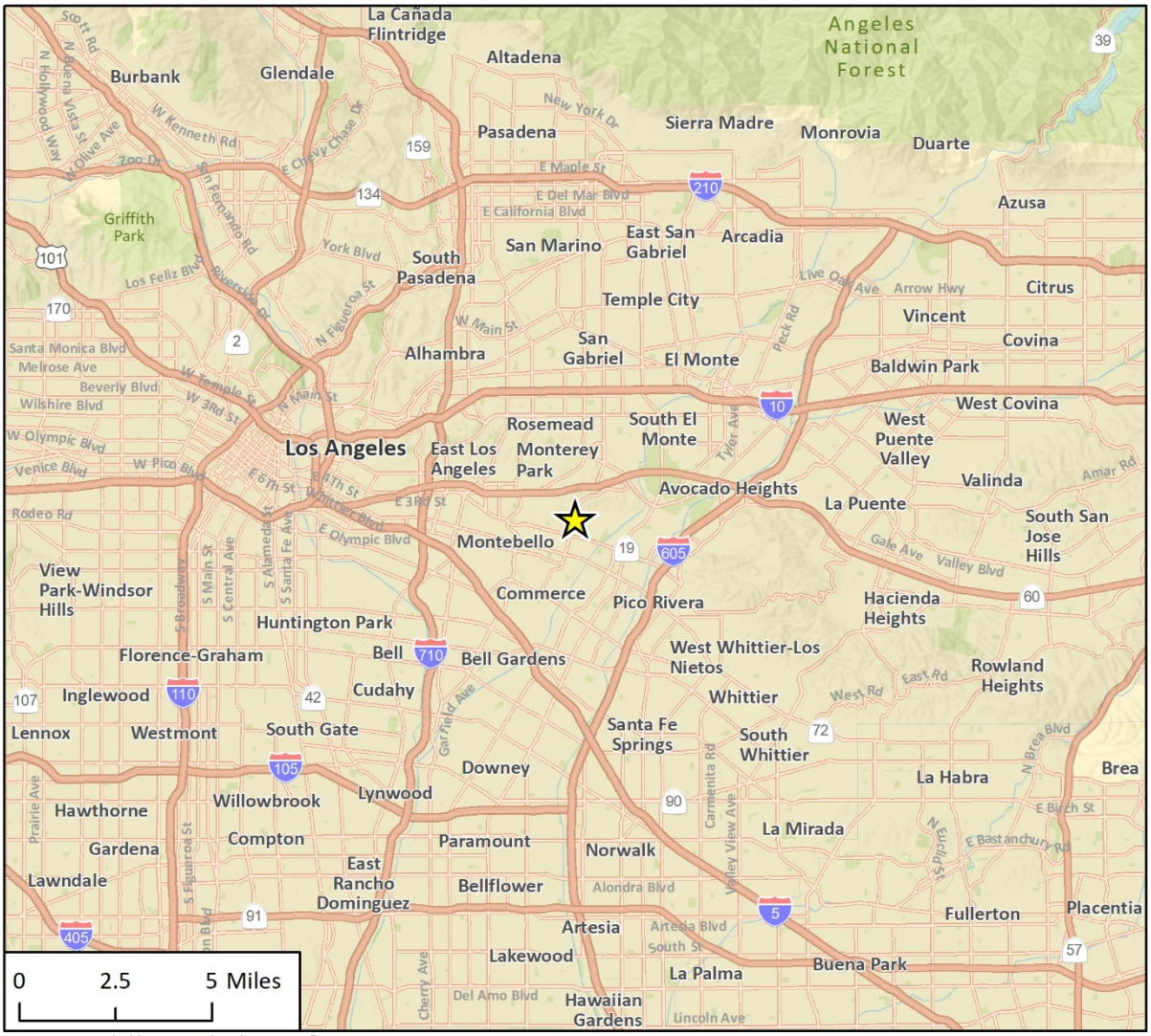
The project site is located in the northern portion of Montebello in the greater Los Angeles metropolitan area (Figure 1). The project site consists of a pipeline alignment extending along Montebello Boulevard from Lincoln Avenue to Jefferson Boulevard and an associated pump station located immediately east of the intersection of Montebello Boulevard and Jefferson Boulevard (Figure 2). The pipeline alignment is bounded by residential neighborhoods on the west, south, and east; the northern extent of the pipeline and pump station lie within the Montebello Hills Specific Plan Area.

The project would involve construction and operation of approximately 2,600 linear feet of a 16-inch recycled water pipeline and an associated pump station with a peak demand capacity of 1,825 gallons per minute. The proposed pipeline would connect to the District's existing Southeast Water Reliability Project pipeline at the intersection of Lincoln Avenue and Montebello Boulevard. The pump station would consist of a concrete foundation and a pre-fabricated wood building that would enclose steel or cast iron pumps and steel pipeline. The pump station building would be approximately 252 square feet and would be approximately 14 feet in height. The pump station would include an approximately 15-foot wide, 100-foot long, gated access driveway off Montebello Boulevard and three parking spaces. Recycled water conveyed by the proposed pipeline and pump station would be supplied by the Sanitation Districts of Los Angeles County and would be delivered to the Montebello Hills Specific Plan area to be used for construction purposes, dust control, and landscaping irrigation.

1.2 Personnel

Rincon Senior Archaeologist and Project Manager Tiffany C. Clark, PhD, a Registered Professional Archaeologist (RPA), managed this cultural resources study. Dr. Clark meets the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology (National Park Service 1983). Archaeologist and Project Manager Tricia Dodds, MA, RPA performed the cultural resources records search, Archaeologist Sun Min Choi conducted the field survey, and Archaeologist Lindsay Porras, MA, RPA, completed the Native American scoping and is the primary author of this report. Geographic Information Systems Analyst Erik Holtz prepared the figures in this report. Rincon Senior Technical Editor, April Durham, PhD, and Principal Environmental Scientist Jennifer Haddow, PhD, reviewed this report for quality control.

Figure 1 Project Location



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Project Location

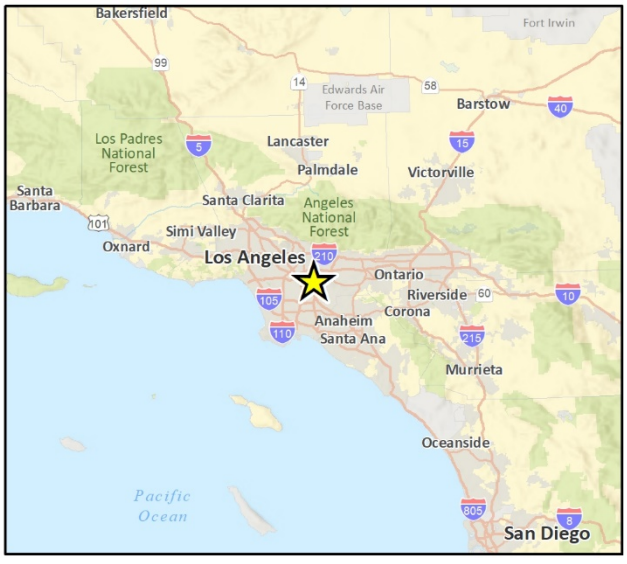

Figure 2 Project Site

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Fig 2 Project Location

2 Regulatory Setting

This section discusses state and local laws, ordinances, regulations, and standards governing cultural resources to which the project should adhere before and during implementation.

2.1 State Regulations

California Environmental Quality Act

CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1) or tribal cultural resources (PRC Section 21074[a][1][A]-[B]). A historical resource is one listed or determined to be eligible for listing in the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or an object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be *historically significant* (State CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered *historically significant* if it meets any of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage
2) Is associated with the lives of persons important to our past
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4) Has yielded, or may be likely to yield, information important in prehistory or history

If it can be demonstrated that a project will cause damage to a *unique archaeological resource*, the lead agency may require reasonable efforts be made to allow any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2[a], [b]).

PRC Section 21083.2(g) defines a *unique archaeological resource* as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information
2) Has a special and particular quality such as being the oldest of its type or the best available example of its type
3) Is directly associated with a scientifically recognized important prehistoric or historic event or person

Assembly Bill 52

As of July 1, 2015, California Assembly Bill 52 (AB 52) was enacted and expands CEQA by defining a new resource category called tribal cultural resources (TCR). AB 52 establishes that "a project with

an effect that may cause a substantial adverse change in the significance of a TCR is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a TCR, when feasible (PRC Section 21084.3).

PRC Section 21074(a)(1)(A) and (B) defines TCRs as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and requires that they meet either of the following criteria:

1) Listed or eligible for listing in the CRHR, or in a local register of historical resources, as defined in PRC Section 5020.1(k)
2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe

AB 52 also establishes a formal consultation process for California tribes regarding TCRs that must be completed before a CEQA document can be certified. Under AB 52, lead agencies are required to "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

2.2 Local

Montebello Hills General Plan

The Conservation Element of the Montebello Hills General Plan discusses the importance of conserving the environment. The purpose of the Conservation Element "is to comply with California law (Government Code, Section 65302(d)) by adopting goals and policies relating to conservation, identifying resources to be conserved and formulating an action program for implementation of the conservation plan" (City of Montebello 1975: 1). One of the objectives of the Conservation Element is to "preserve and display the history and cultural background of the community in order to foster community identity, pride and an appreciation of its cultural heritage" (City of Montebello 1975: 2).

The Montebello General Plan Elements identify one conservation policy related to cultural resources:

> **Policy 8:** The Juan Matías Sanchez Adobe, the Rio Hondo monument, the Viejo Mission, Taylor Ranch, and El Camino Real should be preserved and restored as necessary.

3 Natural and Cultural Setting

3.1 Natural Setting

The project site is situated in Los Angeles County approximately eight miles east of downtown Los Angeles, where the climate is characterized by long, hot, dry summers and short, relatively wet winters. Topography in the vicinity is comprised of gently sloped hills associated with the western portion of the Montebello Hills (Shepard and Mason 2000; Fulton and Fulton 2008). Geologically, the majority of the Montebello Hills area is within the Fernando Formation, the upper portion of which consists of sandstone, pebbly sandstone and conglomerate (Fulton and Fulton 2008). Elevations within the project site range between 265 feet and 400 feet above mean sea level.

The pipeline alignment is located within an urbanized environment characterized by a mix of residential, institutional, and recreational land uses. The Holy Cross Armenian Apostolic Church and Taylor Ranch Park are located west of the pipeline alignment near the intersection of Montebello Boulevard and Lincoln Avenue. The pump station location is adjacent to single-family residences and undeveloped land, the latter of which is part of the Montebello Hills Specific Plan area.

3.2 Cultural Setting

The cultural setting for the project vicinity is presented broadly in what follows under three overviews: Prehistoric, Ethnographic, and Historic. The Prehistoric and Historic overviews describe human occupation before and after European contact; the Ethnographic Overview provides a synchronic "snapshot" of traditional Native American lifeways as described by European observers prior to assimilative actions.

Prehistoric Context

Numerous chronological sequences have been devised to aid in understanding cultural changes in southern California. Building on early studies and focusing on data synthesis, Wallace (1955, 1978) developed a prehistoric chronology for the southern California coastal region that is still widely used today and is applicable to near-coastal and many inland areas, including the current project site. Four periods are presented in Wallace's prehistoric sequence: Early Man, Milling Stone, Intermediate, and Late Prehistoric. Although Wallace's (1955) synthesis initially lacked chronological precision due to a paucity of absolute dates (Moratto 1984:159), this situation has been alleviated in recent years by the compilation of thousands of radiocarbon dates obtained by southern California researchers (Byrd and Raab 2007:217). Several revisions have been made to Wallace's (1955) synthesis using radiocarbon dates and projectile point assemblages (e.g., Koerper and Drover 1983; Mason and Peterson 1994; Koerper et al. 2002).

Horizon I- Early Man (ca. 10,000 – 6000 BCE)

When Wallace defined the Horizon I (Early Man) period in the mid-1950s, there was little evidence of human presence on the southern California coast prior to 6000 BCE. Archaeological work in the intervening years has identified numerous pre-8000 BCE sites, both on the mainland coast and the

Channel Islands (e.g., Erlandson 1991; Johnson et al. 2002; Moratto 1984; Rick et al. 2001:609). The earliest accepted dates for occupation in the region are from two of the northern Channel Islands, located off the coast of Santa Barbara. On San Miguel Island, Daisy Cave clearly establishes the presence of people in this area about 10,000 years ago (Erlandson 1991:105). On Santa Rosa Island, human remains have been dated from the Arlington Springs site to approximately 13,000 years ago (Johnson et al. 2002).

Recent data from Horizon I sites indicate the economy was a diverse mixture of hunting and gathering, with a major emphasis on aquatic resources in many coastal areas (e.g., Jones et al. 2002) and on Pleistocene lakeshores in eastern San Diego County (see Moratto 1984:90–92). Although few Clovis-like or Folsom-like fluted points have been found in southern California (e.g., Dillon 2002; Erlandson et al. 1987), it is generally thought the emphasis on hunting may have been greater during Horizon I than in later periods. Common elements in many sites from this period, for example, include leaf-shaped bifacial projectile points and knives, stemmed or shouldered projectile points, scrapers, engraving tools, and crescents (Wallace 1978:26–27). Subsistence patterns shifted around 6000 BCE coincident with the gradual desiccation associated with the onset of the Altithermal climatic regime, a warm and dry period that lasted for about 3,000 years. After 6000 BCE, a greater emphasis was placed on plant foods and small animals

Horizon II Milling Stone (6000–3000 BCE)

The Milling Stone Horizon of Wallace (1955, 1978) and Encinitas Tradition of Warren (1968) (6000 to 3000 BCE) are characterized by subsistence strategies centered on collecting plant foods and small animals. Food procurement activities included hunting small and large terrestrial mammals, sea mammals, and birds; collecting shellfish and other shore species; near-shore fishing with barbs or gorges; the processing of yucca and agave; and the extensive use of seed and plant products (Kowta 1969). The importance of the seed processing is apparent in the dominance of stone grinding implements in contemporary archaeological assemblages, namely milling stones (metates and slabs) and handstones (manos and mullers). Milling stones occur in large numbers for the first time during this period and are more numerous still near the end of this period. Recent research indicates Milling Stone Horizon food procurement strategies varied in both time and space, reflecting divergent responses to variable coastal and inland environmental conditions (Byrd and Raab 2007:220).

Milling Stone Horizon sites are common in the southern California coastal region between Santa Barbara and San Diego, and at many inland locations (e.g., Herring 1968; Langenwalter and Brock 1985; Sawyer and Brock 1999; Sutton 1993; True 1958). Wallace (1955, 1978) and Warren (1968) relied on several key coastal sites to characterize the Milling Stone period and Encinitas Tradition, respectively. These include the Oak Grove Complex in the Santa Barbara region, Little Sycamore in southwestern Ventura County, Topanga Canyon in the Santa Monica Mountains, and La Jolla in San Diego County. The well-known Irvine site (CA-ORA-64) has occupation levels dating between ca. 6000 and 4000 BCE (Drover et al. 1983; Macko 1998).

Stone chopping, scraping, and cutting tools made from locally available raw material are abundant in Milling Stone/Encinitas deposits. Less common are projectile points, which are typically large and leaf-shaped, and bone tools such as awls. Items made from shell, including beads, pendants, and abalone dishes, are generally rare. Evidence of weaving or basketry is present at a few sites. Kowta (1969) attributes the presence of numerous scraper-planes in Milling Stone sites to the preparation of agave or yucca for food or fiber. The mortar and pestle, associated with pounding foods such as acorns, were first used during the Milling Stone Horizon (Wallace 1955, 1978; Warren 1968).

Cogged stones and discoidals are diagnostic Milling Stone period artifacts, and most specimens have been found at sites dating between 4000 and 1000 BCE (Moratto 1984:149). The cogged stone is a ground stone object with gear-like teeth on its perimeter. Discoidals are similar to cogged stones, differing primarily in their lack of edge modification. Discoidals are found in the archaeological record subsequent to the introduction of the cogged stone. Cogged stones and discoidals are often purposefully buried and are found mainly in sites along the coastal drainages from southern Ventura County southward, with a few specimens inland at Cajon Pass, and heavily in Orange County (Dixon 1968:63; Moratto 1984:149). These artifacts are often interpreted as ritual objects (Eberhart 1961:367; Dixon 1968:64–65), although alternative interpretations (such as gaming stones) have also been put forward (e.g., Moriarty and Broms 1971).

Characteristic mortuary practices of the Milling Stone period or Encinitas Tradition include extended and loosely flexed burials, some with red ochre, and few grave goods such as shell beads and milling stones interred beneath cobble or milling stone cairns. “Killed” milling stones, exhibiting holes, may occur in the cairns. Reburials are common in the Los Angeles County area, with north-oriented flexed burials common in Orange and San Diego counties (Wallace 1955, 1978; Warren 1968).

Koerper and Drover (1983) suggest Milling Stone period sites represent evidence of migratory hunters and gatherers who used marine resources in the winter and inland resources for the remainder of the year. Subsequent research indicates greater sedentism than previously recognized. Evidence of wattle-and-daub structures and walls has been identified at several sites in the San Joaquin Hills and Newport Coast area (Mason et al. 1991, 1992, 1993; Koerper 1995; Strudwick 2005; Sawyer 2006), while numerous early house pits have been discovered on San Clemente Island (Byrd and Raab 2007:221–222). This architectural evidence and seasonality studies suggest semi-permanent residential base camps were relocated seasonally (de Barros 1996; Koerper et al. 2002; Mason et al. 1997) or permanent villages from which a portion of the population left at certain times of the year to exploit available resources (Cottrell and Del Chario 1981).

Horizon III- Intermediate (3000 BCE – CE 500)

Following the Milling Stone Horizon, Wallace’s Intermediate Horizon and Warren’s Campbell Tradition in Santa Barbara, Ventura, and parts of Los Angeles counties, date from approximately 3000 BCE to CE 500 and are characterized by a shift toward a hunting and maritime subsistence strategy, along with a wider use of plant foods. The Campbell Tradition (Warren 1968) incorporates David B. Rogers’ (1929) Hunting Culture and related expressions along the Santa Barbara coast. In the San Diego region, the Encinitas Tradition (Warren 1968) and the La Jolla Culture (Moriarty 1966; Rogers 1939, 1945) persist with little change during this time.

During the Intermediate Horizon and Campbell Tradition, there was a pronounced trend toward greater adaptation to regional or local resources. For example, an increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites along the California coast during this period. Related chipped stone tools suitable for hunting are more abundant and diversified, and shell fishhooks become part of the tool kit during this period. Larger knives, a variety of flake scrapers, and drill-like implements are common during this period. Projectile points include large side-notched, stemmed, and lanceolate or leaf-shaped forms. Koerper and Drover (1983) consider Gypsum Cave and Elko series points, which have a wide distribution in the Great Basin and Mojave deserts between ca. 2000 BCE and CE 500, to be diagnostic of this period. Bone tools, including awls, were more numerous than in the preceding period, and the use of asphaltum adhesive was common.

Mortars and pestles became more common during this period, gradually replacing manos and metates as the dominant milling equipment. Hopper mortars and stone bowls, including steatite vessels, appeared in the tool kit at this time as well. This shift appears to correlate with the diversification in subsistence resources. Many archaeologists believe this change in milling stones signals a shift away from the processing and consuming of hard seed resources to the increasing importance of the acorn (e.g., Glassow et al. 1988; True 1993). It has been argued that mortars and pestles may have been used initially to process roots (e.g., tubers, bulbs, and corms associated with marshland plants), with acorn processing beginning at a later point in prehistory (Glassow 1997:86) and continuing to European contact.

Characteristic mortuary practices during the Intermediate Horizon and Campbell Tradition included fully face-down or face-up flexed burials, oriented toward the north or west (Warren 1968:2–3). Red ochre was used commonly, and abalone shell dishes were found infrequently. Interments sometimes occurred beneath cairns or broken artifacts. Shell, bone, and stone ornaments, including charmstones, were more common than in the preceding Encinitas Tradition. Some later sites include Olivella shell and steatite beads, mortars with flat bases and flaring sides, and a few small points. The broad distribution of steatite from the Channel Islands and obsidian from distant inland regions, among other items, attest to the growth of trade, particularly during the latter part of this period. Recently, Byrd and Raab 2007 (220–221) have suggested the distribution of Olivella grooved rectangle beads marks "a discrete sphere of trade and interaction between the Mojave Desert and the southern Channel Islands."

Horizon IV- Late Prehistoric Horizon (CE 500–Historic Contact)

In the Late Prehistoric Horizon (Wallace 1955; 1978), which lasted from the end of the Intermediate (ca. CE 500) until European contact, there was an increase in the use of plant food resources in addition to an increase in land and sea mammal hunting. There was a concomitant increase in the diversity and complexity of material culture during the Late Prehistoric, demonstrated by more classes of artifacts. The recovery of a greater number of small, finely worked projectile points, usually stemless with convex or concave bases, suggests an increased usage of the bow and arrow rather than the atlatl (spear thrower) and dart for hunting. Other items include steatite cooking vessels and containers, the increased presence of smaller bone and shell circular fishhooks, perforated stones, arrow shaft straighteners made of steatite, a variety of bone tools, and personal ornaments made from shell, bone, and stone. There is also an increased use of asphalt for waterproofing and as an adhesive.

Many Late Prehistoric sites contain beautiful and complex objects of utility, art, and decoration. Ornaments include drilled whole Venus clam (*Chione* spp.) and drilled abalone (*Haliotis* spp.). Steatite effigies become more common, with scallop (*Pecten* spp. and *Argopecten* spp.) shell rattles common in middens. Mortuary customs are elaborate and include cremation and interment with abundant grave goods. By CE 1000, fired clay smoking pipes and ceramic vessels began to appear at some sites (Drover 1971, 1975; Meighan 1954). The scarcity of pottery in coastal and near-coastal sites implies ceramic technology was not well developed in the area, or that ceramics were obtained by trade with neighboring groups to the south and east. The lack of widespread pottery manufacture is usually attributed to the high quality of tightly woven and watertight basketry which functioned in the same capacity as ceramic vessels.

During this period, there was an increase in population size accompanied by the advent of larger, more permanent villages (Wallace 1955:223). Large populations and, in places, high population densities are characteristic, with some coastal and near-coastal settlements containing as many as

1,500 people. Many of the larger settlements were permanent villages in which people resided year-round. The populations of these villages may have also increased seasonally.

In Warren's (1968) cultural ecological scheme, the period between CE 500 and European contact is divided into three regional patterns. The Chumash Tradition is present mainly in the region of Santa Barbara and Ventura counties; the Takic or Numic Tradition is present in the Los Angeles, Orange, and western Riverside counties region; and the Yuman Tradition is present in the San Diego region. The seemingly abrupt changes in material culture, burial practices, and subsistence focus at the beginning of the Late Prehistoric period are thought to be the result of a migration to the coast of peoples from inland desert regions to the east. In addition to the small triangular and triangular side-notched points similar to those found in the desert regions in the Great Basin and Lower Colorado River, Colorado River pottery and the introduction of cremation in the archaeological record are diagnostic of the Yuman Tradition in the San Diego region. This combination suggests a strong influence from the Colorado Desert region.

In Los Angeles, Orange, and western Riverside counties, similar changes (introduction of cremation, pottery, and small triangular arrow points) are thought to be the result of a Takic migration to the coast from inland desert regions. This Takic or Numic Tradition was referred to formerly as the "Shoshonean wedge" or "Shoshonean intrusion" (Warren 1968). This terminology, used originally to describe a Uto-Aztecan language group, is generally no longer used to avoid confusion with ethnohistoric and modern Shoshonean groups who spoke Numic languages (Heizer 1978:5; Shipley 1978:88, 90). Modern Gabrieliño/Tongva in this region are considered the descendants of the prehistoric Uto-Aztecan, Takic-speaking populations who settled along the California coast during this period or perhaps somewhat earlier.

Ethnographic Context

The project site is in an area historically occupied by the Gabrieliño. The archaeological record indicates that the Gabrieliño arrived in the Los Angeles Basin around 500 BCE. Many contemporary Gabrieliño identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and use the native term Tongva (King 1994). This term is used in the remainder of this section to refer to the pre-contact inhabitants of the Los Angeles Basin and their descendants. Surrounding native groups included the Chumash and Tataviam to the northwest, the Serrano and Cahuilla to the northeast, and the Juaneño and Luiseño to the southeast.

The name "Gabrieliño" denotes those people who were administered by the Spanish from the San Gabriel Mission, which included people from the Gabrieliño area proper and other social groups (Bean and Smith 1978:538; Kroeber 1925: Plate 57). Therefore, in the post-Contact period, the name does not necessarily identify a specific ethnic or tribal group. The names by which Native Americans in southern California identified themselves have been lost for the most part.

Tongva lands encompassed the greater Los Angeles Basin and three Channel Islands, San Clemente, San Nicolas, and Santa Catalina. The Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. A total tribal population has been estimated of at least 5,000 (Bean and Smith 1978:540), but recent ethnohistoric work suggests a number approaching 10,000 (O'Neil 2002). Houses constructed by the Tongva were large, circular, domed structures made of willow poles thatched with tule holding up to 50 people (Bean and Smith 1978). Other structures served as sweathouses, menstrual huts, ceremonial enclosures, and probably communal granaries. Cleared fields for races and games, such as lacrosse and pole

throwing, were created adjacent to Tongva villages (McCawley 1996:27). Archaeological sites composed of villages with various sized structures have been identified.

The Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, deserts, riparian, estuarine, and open and rocky coastal eco-niches. Like that of most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate Period). Acorns were supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora (e.g., islay, cactus, yucca, sages, and agave). Fresh water and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

A wide variety of tools and implements were used by the Tongva to gather and collect food resources. These included the bow and arrow, traps, nets, blinds, throwing sticks and slings, spears, harpoons, and hooks. Groups residing near the ocean used oceangoing plank canoes and tule balsa canoes for fishing, travel, and trade between the mainland and the Channel Islands (McCawley 1996:7). Tongva people processed food with a variety of tools, including hammerstones and anvils, mortars and pestles, manos and metates, strainers, leaching baskets and bowls, knives, bone saws, and wooden drying racks. Food was consumed from a variety of vessels. Catalina Island steatite was used to make ollas and cooking vessels (Blackburn 1963; Kroeber 1925:629; McCawley 1996:129–138).

At the time of Spanish contact, the basis of Tongva religious life was the Chinigchinich cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions, and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber 1925:637–638). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the Southern Takic groups even as Christian missions were being built and may represent a mixture of native and Christian belief and practices (McCawley 1996:143–144).

Deceased Tongva were either buried or cremated, with inhumation more common on the Channel Islands and the neighboring mainland coast and cremation predominating on the remainder of the coast and in the interior (Harrington 1942; McCawley 1996:157). Cremation ashes have been found in archaeological contexts buried in stone bowls and shell dishes (Ashby and Winterbourne 1966:27), as well as scattered among broken ground stone implements. Archaeological data such as these correspond with ethnographic descriptions of an elaborate mourning ceremony including a wide variety of offerings, including seeds, stone grinding tools, otter skins, baskets, wood tools, shell beads, bone and shell ornaments, and projectile points and knives. Offerings varied with the sex and status of the deceased (Johnston 1962:52–54; McCawley 1996:155–165; Reid 1926:24–25). At the behest of the Spanish missionaries, cremation essentially ceased during the post-Contact period (McCawley 1996:157).

History

Post-Contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), Mexican Period (1822–1848), and American Period (1848–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing

of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican-American War, signals the beginning of the American Period when California became a territory of the United States.

Spanish Period (1769–1822)

Spanish explorers made sailing expeditions along the coast of southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríquez Cabríllo stopped in 1542 at present-day San Diego Bay. With his crew, Cabríllo explored the shorelines of present Catalina Island as well as San Pedro and Santa Monica Bays. Spanish naval officer Sebastián Vizcaíno mapped and recorded much of the present California and Oregon coastline in the next half-century. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabríllo and Vizcaíno (Bancroft 1885:96–99; Gumprecht 1999:35).

More than 200 years passed before Spain began the colonization and inland exploration of Alta California. The 1769 overland expedition by Captain Gaspar de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolá established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring southern California, Franciscan Friar Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823. Mission San Fernando Rey de España was founded in 1979 and is located approximately 30 miles northwest of the project site.

The Portolá expedition first reached the present-day boundaries of Los Angeles in August 1769, thereby becoming the first Europeans to visit the area. Father Crespi named "the campsite by the river Nuestra Señora la Reina de los Angeles de la Porciúncula" or "Our Lady the Queen of the Angels of the Porciúncula." Two years later, Friar Junípero Serra returned to the valley to establish a Catholic mission, the Mission San Gabriel Arcángel, on September 8, 1771 (Kyle 2002:151). Mission Vieja, the founding site of Mission San Gabriel, is located approximately 1.5 miles east of the project site near the Rio Hondo River (Shephard and Mason 2000). The mission was destroyed by flood and was re-established in 1776 as San Gabriel Arcángel. In 1774 Juan Bautista de Anza arrived at the Mission Vieja with an exploring party after completing the first land link with Sonora, Mexico. De Anza later returned to the Mission in 1776 with 240 colonists bound for San Francisco, during which time the mission had moved to its present location approximately five miles north of the current project site (San Gabriel Mission Catholic Community 2014). Mission San Gabriel Arcángel was the fourth of the 21 California Missions and was known for its thriving agriculture industry leading to its reputation as the "Pride of the Missions" (California Missions Foundation 2019; City of San Gabriel 2019).

In 1781, a group of 11 Mexican families traveled from Mission San Gabriel Arcángel to establish a new pueblo called El Pueblo de la Reyna de Los Angeles (The Pueblo of the Queen of the Angels). This settlement consisted of a small group of adobe-brick houses and streets and would eventually be known as the Ciudad de Los Angeles (City of Angels).

Mexican Period (1822–1848)

A major emphasis during the Spanish Period in California was the construction of missions and associated presidios to integrate the Native American population into Christianity and communal

enterprise. Incentives were also provided to bring settlers to pueblos or towns, but just three pueblos were established during the Spanish Period, only two of which were successful and remain as California cities (San José and Los Angeles). Several factors kept growth within Alta California to a minimum, including the threat of foreign invasion, political dissatisfaction, and unrest among the indigenous population. After more than a decade of intermittent rebellion and warfare, New Spain (Mexico and the California territory) won independence from Spain in 1821. In 1822, the Mexican legislative body in California ended isolationist policies designed to protect the Spanish monopoly on trade, and decreed California ports open to foreign merchants (Dallas 1955:14).

Extensive land grants were established in the interior during the Mexican Period, in part to increase the population inland from the more settled coastal areas where the Spanish had first concentrated their colonization efforts. Approximately fifty-five land grants were made in the Los Angeles area (Banham 2009). The secularization of the missions following Mexico's independence from Spain resulted in the subdivision of former mission lands and establishment of many additional ranchos. The project site is located within Rancho La Merced, a 2,364 acre land grant made in 1844 to Casilda Soto by Manual Micheltorrena, a Mexican governor of Alta California (Shepard and Mason 2000). In 1851 Rancho Merced was gifted to Juan Matias Sanchez by businessman William Workman (Shepard and Mason 2000). The Juan Matias Sanchez Adobe house dates to this period and is situated on the west bank of the Rio Hondo River, approximately one mile east of the project site.

During the supremacy of the ranchos (1834–1848), landowners focused their efforts largely on the cattle industry and devoted large tracts to grazing. Cattle hides became a primary southern California export, providing a commodity to trade for goods from the east and other areas in the United States and Mexico. The number of nonnative inhabitants increased during this period from the influx of explorers, trappers, and ranchers associated with the land grants. The rising California population contributed to the introduction and rise of diseases foreign to the Native American population and to which they had no immunity.

American Period (1848–Present)

War in 1846 between Mexico and the United States precipitated the Battle of Chino, a clash between resident Californios and Americans in the San Bernardino area. The Mexican-American War ended with the Treaty of Guadalupe Hidalgo in 1848, ushering California into its American Period.

California became a state officially with the Compromise of 1850, which also designated Utah and New Mexico (with present-day Arizona) as United States Territories (Waugh 2003). Horticulture and livestock, primarily cattle, which had served as the currency and staple of the rancho system, continued to dominate the southern California economy through the 1850s. The Gold Rush began in 1848, and with the influx of people seeking gold, cattle were desired not only for their hides but also as a source of meat and tallow. During the 1850s cattle boom, rancho vaqueros drove large herds from southern to northern California to feed the region's burgeoning mining and commercial industries. Cattle were at first driven along major trails or roads, such as the Gila Trail or Southern Overland Trail, and were then transported by trains when that mode of transport became available. The cattle boom ended for southern California as neighbor states and territories drove herds to northern California at reduced prices. By the 1890s, operation of the huge ranchos became increasingly difficult, and droughts reduced their productivity severely (Cleland 2005:102–103).

City of Montebello

The land encompassing the current city of Montebello was originally part of the Mexican land grants of Rancho San Antonio, Rancho La Merced, and Rancho Paso de Bartolo. In the late 1800s, Los

Angeles businessmen Harris Newmark and Kaspar Cohn purchased large shares of land in the area. In 1899, a town site, originally named Newmark, was established on approximately 40 acres within the 1,200-acre land purchase. The remaining land was divided into five-acre plots and named Montebello ("beautiful hills" in Italian) (City of Montebello 2019).

William Mulholland developed the town's water system, which was incorporated as the Montebello Land and Water Company in 1900. Montebello had early success as an agricultural community and was known for cultivating flowers and agricultural produce through the 1920s (City of Montebello 2016). In 1917, the Standard Oil Company discovered oil on the Anita Baldwin property. The discovery transformed Montebello into one of the major oil producers in southern California. Montebello was incorporated in 1920.

4 Background Research

4.1 Cultural Resources Records Search

On April 2, 2019, Rincon conducted a records search of the California Historical Resources Information System at the South Central Coastal Information Center at California State University, Fullerton. The search was conducted to identify all previously recorded cultural resources and previously conducted cultural resources studies within a 0.5-mile radius of the project site. The records search also included a review by Rincon personnel of the National Register of Historic Places, the CRHR, the Archaeological Determination of Eligibility list, and the California State Historic Resources Inventory list.

Rincon's cultural resources records search identified eight previously conducted cultural resources studies within the 0.5-mile radius of the project site. Three of these prior studies (LA-6307, LA-10433, and LA-10843) included portions of the project site resulting in 100 percent survey coverage (Appendix A). Study LA-6307 included a cultural resources records search report for the Southern California Gas Montebello Natural Gas Storage Facility; the study identified no cultural resources in its project area (Shepard and Mason 2000). LA-10433 involved a cultural resources assessment for the Montebello Hills Specific Plan Project, which resulted in the documentation and evaluation of the historic-era Montebello Oil Field (P-19-003813) (Fulton and Fulton 2008). Study LA-10843 included a Phase I archaeological survey for a proposed housing development in Montebello Hills; this study identified no cultural resources at the current project site (Victorino 2007) Table 1 provides a summary of the previously recorded reports located within the records search area.

Table 1 Previous Cultural Resource Studies within 0.5-mile Radius of the Project Site

Report Number	Author(s)	Year	Title	Relationship to Project Site[1]
LA-01013	Schroth, Adella	1981	*Historical Assessment of the Southeast Economic Project, Monterey Park, California*	Outside
LA-03408	Stickel, Gary	1994	*Draft Report: A Cultural Resources Literature Search for the Rio Hondo Water Reclamation Program*	Outside
LA-06307	Shepard, Richard and Roger Mason	2000	*Cultural Resources Records Search Report for the Southern California Gas Montebello Natural Gas Storage Facility Project Area, Montebello and Monterey Park, Los Angeles County, California*	**Within**
LA-06320	Duke, Curt	2002	*Cultural Resource Assessment Cingular Wireless Facility No. SM 143-02 Los Angeles County, California*	Outside
LA-06810	Wesson, Alex	2003	*Historic Property Survey Report: Beverly Boulevard Phase III Widening and Replacement of Beverly Boulevard Bridge Over Rio Hondo Channel*	Outside
LA-07307	Stone, David	2005	*Montebello Hills Oil Field Development Project*	Adjacent
LA-10433	Fulton, Phil and Terri Fulton	2008	*Cultural Resources Assessment for the Montebello Hills Specific Plan Project*	**Within**
LA-10843	Victorino, Ken	2007	*Phase I Archaeological Survey, Proposed Housing Development, Montebello Hills Project Area, Los Angeles County, California*	**Within**

[1] Adjacent studies are located within 500 feet of the current project site.

Source: South Central Coastal Information Center 2019

The cultural resources records search identified 16 previously recorded cultural resources in the 0.5-mile search radius of the project site (Table 2). All of these resources date to the historic period and include 13 buildings, a transmission line, and two archaeological sites. Portions of two cultural resources lie within the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (Southern California Edison [SCE] Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line).

The mapped boundary of P-19-003813 encompasses the proposed pump station location, east of North Montebello Boulevard. This large archaeological sites measures 1.7 miles east-west and 0.7 mile north-south and consists of historic-era debris and features (well pads, oil wells, pipelines, house pads, and access roads) associated with the Montebello Oil Field. First developed in 1916, portions of the oil field remain in production today. LSA Associates, Inc. originally documented the archaeological site (LA-10433) for the Montebello Hills Specific Plan Project (Fulton and Fulton 2008). P-19-003813 was previously determined ineligible for listing on the National Register of Historic Places. Fulton and Fulton (2008) noted this resource had undergone alterations associated with modernization, including the replacement of wells, and because of this, they suggest the resource does not retain the required historical integrity to be considered eligible for the CRHR.

P-19-190508 consists of a historic SCE transmission line running along Lincoln Street at the southern end of the project site. The transmission line was installed in 1954 and distributes electricity throughout the San Gabriel Valley spanning approximately 17 miles (Becker et al. 2010). P-19-190508 contains 75 steel lattice towers composed of tubular steel poles with four legs, averaging

120 feet in tower height. The resource was previously found ineligible for listing on the NRHP, CRHR, or local designation (Becker et al. 2010).

Table 2 Previously Recorded Resources within 0.5-Mile Radius of the Project Site

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/ CRHR Status[1]	Relationship to Project Site[2]
P-19-003551	CA-LAN-003551H	Historic Site	Gas Well	Sanka, J., 2006	Not evaluated	Adjacent
P-19-003813	CA-LAN-003813H	Historic Site	Montebello Oil Field	Fulton, T. and P. Fulton, 2008	Determined ineligible for the NRHP; recommended ineligible for CRHR	***Within***
P-19-178618	N/A	Historic Building	Taylor Residence	Unknown	Not evaluated	Adjacent
P-19-187376	N/A	Historic Building	Odou Medical Clinic	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187377	N/A	Historic Building	Multi-family property	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187378	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187379	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187380	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187381	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187382	N/A	Historic Building	Commercial building	Erickson, K., 2003	Not evaluated	Outside
P-19-187383	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187384	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside

Primary Number	Trinomial	Resource Type	Description	Recorder(s) and Year(s)	NRHP/ CRHR Status[1]	Relationship to Project Site[2]
P-19-187385	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-187386	N/A	Historic Building	Commercial building	Erickson, K., 2003	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-188945	N/A	Historic Building	Single-family property	Ewing, K., 2002	Recommended ineligible for NRHP, CRHR, or local listing	Outside
P-19-190508	N/A	Historic	SCE Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line	Becker, W., H. Crane, and M. Bassett, 2010	Ineligible for NRHP, CRHR, or local designation	***Within***

[1] NRHP = National Register of Historic Places, CRHR = California Register of Historical Resources

[2] Adjacent resources are located within 500 feet of the current project site.

Source: South Central Coastal Information Center 2019

4.2 Native American Scoping

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission (NAHC) and requested a Sacred Lands File search of the project site and vicinity (Appendix B). As part of this request, Rincon asked the NAHC to provide a list of Native American groups and/or individuals, culturally affiliated with the area, who may have knowledge of cultural resources within the project site. The NAHC responded on April 15, 2019, stating positive results and included a list of five Native American contacts who may have knowledge of cultural resources in the project vicinity. On April 11, 2019 and April 15, 2019 Rincon prepared and mailed letters to the Native American contacts affiliated with the area, requesting they contact Rincon if they knew of any Native American cultural resources on or immediately adjacent to the project site.

Brandy Salas of the Gabrieleno Band of Mission Indians – Kizh Nation responded stating the Tribal Government is requesting government to government consultation. At the time of preparation of this report, the Central Basin Municipal Water District is actively coordinating with the Tribe, and has scheduled a meeting with the Tribe to answer questions about the project and to request information on the presence of any known tribal cultural resources at the site.

As of April 25, 2019, Rincon has not received any additional responses from Native American contacts. Rincon assumes the lead agency, Central Basin Municipal Water District, will conduct AB 52 consultation with interested Native Americans as a separate effort, if applicable.

4.3 Historical Imagery Review

A review was conducted of historical aerial photographs and topographic maps of the project vicinity on March 28, 2019 (NETRonline 2019; United States Geologic Survey Historical Topographic Map Explorer [USGS] 2019). The earliest map of the area dates to 1894 and depicts the project site and vicinity as undeveloped lands. By 1924, an area labeled "*Standard Oil Co and Oil Wells*" is shown adjacent to the northern portion of the project site (USGS 2019). Highways 101 and 19 first appear on the 1949 Los Angeles topographic map. A portion of Montebello Avenue spanning Lincoln Avenue north to Avenida de la Merced is apparent by 1948 and by 1972 continues north beyond Jefferson Boulevard (NETRonline 2019). By 1953, the map depicts locations of "*oil wells*" and a series of dirt roads immediately east and north of the project site (USGS 2019). Residential development on the east side of Montebello Boulevard is apparent by 1972 (NETRonline 2019). By 1980, residential development has expanded to cover much of the project vicinity.

5 Field Survey

5.1 Methods

On March 29, 2019, Rincon Archaeologist Sun Min Choi conducted a pedestrian field survey of the project site (Figure 2). The survey was conducted by walking a series of east-west transects at approximately 10-meter intervals where terrain permitted. During the survey, Mr. Choi examined all exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discolorations indicative of the presence of cultural midden, soil depressions, and features indicative of the former presence of structures of buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances, such as burrows and road cuts, were inspected visually. Field notes of survey conditions and observations were recorded using Rincon field forms and a digital camera. Copies of the original field notes and photographs are maintained at the Rincon Los Angeles office.

5.2 Results

The project site consists of the paved roadway along North Montebello Boulevard between Lincoln Boulevard and Jefferson Boulevard and an undeveloped pump station location at the northeast intersection of Jefferson Boulevard and North Montebello Boulevard. The survey area associated with the pump station location is characterized by rolling hills covered with dense native and non-native vegetation communities, annual grasses, and shrub land (Figure 3). The survey area associated with the roadway along North Montebello Boulevard is paved and bordered by concrete curbing and sidewalk, gravel walkways, and ornamental plantings (Figure 4). Ground visibility ranged from poor (less than 20 percent) to excellent (75 to 100 percent) in the pump station location with heavy vegetation obscuring portions of the survey area (Figure 5). Poor ground visibility (less than 20 percent visibility) was also noted along North Montebello Boulevard as the ground surface was covered by pavement and landscaping. Exposed soils consisted of semi-compact and dry, light brown, clayey silt with pebbles and granitic rock inclusion.

Disturbances in the project site include graded access roads near the pump station location and the paved roadways and residential development along North Montebello Boulevard. A concrete drainage feature and miscellaneous modern refuse was observed west of the pump station (Figure 6). As no evidence was found to suggest the concrete drainage was historic in age, the archaeologist did not record the feature as a cultural resource.

No archaeological remains associated with P-19-003813 were observed during the survey within the project site. In addition, an examination of P-19-190508 determined the historic transmission lines span the pipeline alignment; no poles or features associated with the resource are located within the project site. No other cultural resources were observed in the project site during the pedestrian survey.

Figure 3 Western Portion of Pump Station Location, View North

Figure 4 Project Site Alignment on North Montebello Boulevard, View South

Figure 5 Overview of Pump Station Location, View North

Figure 6 Concrete Drainage and Modern Refuse West of Pump Station, View South

6 Findings and Recommendations

The cultural resources assessment identified two previously recorded historic-era cultural resources in the project site: the Montebello Oil Field (P-19-003813), and SCE Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line (P-19-190508). Both resources have previously been recommended or determined ineligible for listing on the CRHR. No other cultural resources were identified on the project site or in the immediate vicinity.

Based on the results of the study, Rincon recommends a finding of ***no impact to historical resources*** under CEQA. Rincon recommends the following measure as a standard best management practice in the event of an unanticipated discovery of cultural resources during project construction. The project is also required to adhere to regulations regarding the unanticipated discovery of human remains, detailed below.

6.1 Unanticipated Discovery of Cultural Resources

If cultural resources are encountered during ground-disturbing activities, work in the immediate area must halt and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (National Park Service 1983) should be contacted immediately to evaluate the find. If the discovery proves to be significant under CEQA, additional work such as data recovery excavation and Native American consultation and archaeological monitoring may be warranted to mitigate any significant impacts.

6.2 Unanticipated Discovery of Human Remains

If human remains are found, existing regulations outlined in the State of California Health and Safety Code Section 7050.5 state that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the Coroner will notify the NAHC, which will determine and notify an MLD. The MLD shall complete the inspection of the site within 48 hours of being granted access and provide recommendations as to the treatment of the remains to the landowner.

7 References

Ashby, G. E., and J. W. Winterbourne

1966 A Study of Primitive Man in Orange County and Some of its Coastal Areas. *Pacific Coast Archaeological Society Quarterly* 2(1):3-52.

Bancroft, Hubert Howe

1885 History of California, Volume III: 1825-1840. A.L. Bancroft & Co., San Francisco.

Banham, Reyner

2009 *Los Angeles: The Architecture of Four Ecologies*. University of California Press, Berkeley and Los Angeles.

Bean, Lowell J., and Charles R. Smith

1978 Gabrielino. In *California,* edited by Robert F. Heizer, pp. 538–549. Handbook of North American Indians, Vol. 8, William G. Sturtevant, general editor, Smithsonian Institution, Washington, D.C.

Becker, Wendy, Heather Crane, and Malia Bassett

2010 State of California – The Resources Agency Department of Parks and Recreation Primary Record for Archaeological Structure P-19-190508 Southern California Edison Company (SCE) Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line.

Blackburn, Thomas

1963 *Ethnohistoric Descriptions of Gabrielino Material Culture*. Annual Report, Archaeological Survey. University of California, Los Angeles.

Byrd, Brian F., and L. Mark Raab

2007 Prehistory of the Southern Bight: Models for a New Millennium. In *California Prehistory*, edited by Terry L. Jones and Kathryn A. Klar, pp. 215-228. Altimira Press, New York.

California Mission Foundation

2019 San Gabriel Arcangel. History of Mission San Gabriel Arcangel. Accessed online April 8, 2019 . http://californiamissionsfoundation.org/mission-san-gabriel/

Caughey, John, and LaRee Caughey

1977 *Los Angeles: Biography of a City.* University of California Press, Berkeley.

Cleland, Robert Glass

2005 *The Cattle on a Thousand Hills: Southern California, 1850-80*, second ed., sixth printing. The Huntington Library, San Marino, California.

Cook, Sherburne A., and Robert F. Heizer

1965 The Quantitative Approach to the Relations between Population and Settlement Size. University of California Archaeological Survey Reports 64. Berkeley.

Cottrell, Marie, and Kathleen Del Chario

1981 *Archaeological Investigations of the Tomato Springs Sites.* Report on file, South Central Coastal Information Center, California State University, Fullerton.

Dallas, S. F.

1955 *The Hide and Tallow Trade in Alta California 1822–1848*. Ph.D. dissertation, Indiana University, Bloomington.

de Barros, Philip

1996 *San Joaquin Hills Transportation Corridor: Results of Testing and Data Recovery at CA-ORA-1357.* Report on file, South Central Coastal Information Center, California State University, Fullerton.

Dillon, Brian D.

2002 California Paleo-Indians: Lack of Evidence, or Evidence of a Lack? In *Essays in California Archaeology: A Memorial to Franklin Fenenga*, edited by William J. Wallace and Francis A. Riddell, pp. 110–128. Contributions of the University of California Archaeological Research Facility, No. 60, Berkeley.

Dixon, E. James

1968 Cogged Stones and Other Ceremonial Cache Artifacts in Stratigraphic Context at ORA-58, a Site in the Lower Santa Ana River Drainage, Orange County. *Pacific Coast Archaeological Society Quarterly* 4(3):57–68.

Drover, Christopher E.

1971 Three Fired-Clay Figurines from 4-Ora-64, Orange County, California. *Pacific Coast Archaeological Society Quarterly* 7(4):73–86.

1975 Early Ceramics from Southern California. *The Journal of California Anthropology* 2(1):101–107.

Drover, Christopher E., Henry C. Koerper, and Paul E. Langenwalter II

1983 Early Holocene Adaptation on the Southern California Coast: A Summary Report of Investigations at the Irvine Site (CA-ORA-64), Newport Bay, Orange County, California. *Pacific Coast Archaeological Society Quarterly* 19(2, 3):1–84.

Eberhart, Hal

1961 The Cogged Stones of Southern California. *American Antiquity* 26:361–370.

Erlandson, Jon M.

1991 Early Maritime Adaptations on the Northern Channel Islands. In *Hunter-Gatherers of Early Holocene Coastal California*, edited by J. M. Erlandson and R. Colten. Perspectives in California Archaeology, Vol. 1. Institute of Archaeology, University of California, Los Angeles.

Erlandson, Jon M., Theodore Cooley, and Richard Carrico

1987 A Fluted Projectile Point Fragment from the Southern California Coast: Chronology and Context at CA-SBA-1951. *Journal of California and Great Basin Anthropology* 9:120–128.

Fulton, Phil, and Terri Fulton

2008 Cultural Resources Assessment for the Montebello Hills Specific Plan Project City of Montebello, Los Angeles County, California.

Fulton, Phil, and Terri Fulton

2008 State of California- The Resources Agency Department of Parks and Recreation Primary Record for Archaeological Site P-19-003813 Montebello Oil Field. LSA Associates, Inc., Irvine, California.

Glassow, Michael A.

1997 Middle Holocene Cultural Development in the Central Santa Barbara Channel Region. In *Archaeology of the California Coast during the Middle Holocene*, edited by J. M. Erlandson and M. A. Glassow, pp.73–90. Perspectives in California Archaeology, Vol. 4. Institute of Archaeology, University of California, Los Angeles.

Glassow, Michael A., L. Wilcoxen, and J. M. Erlandson

1988 Cultural and Environmental Change during the Early Period of Santa Barbara Channel Prehistory. In *The Archaeology of Prehistoric Coastlines*, edited by G. Bailey and J. Parkington pp. 64–77. Cambridge University Press, Cambridge.

Google Earth Pro

2018 Search Lincoln Avenue and North Montebello Boulevard.

Grant, C.

1978a Chumash: Introduction. In *California*, edited by R.F. Heizer, pp. 505-508. Handbook of North American Indians, Vol. 8, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.

1978b Eastern Coastal Chumash. In *California*, edited by R.F. Heizer, pp. 509-523. Handbook of North American Indians, Vol. 8, W.C. Sturtevant, general editor. Smithsonian Institution, Washington D.C.

Gumprecht, Blake

1999 *The Los Angeles River: Its Life, Death, and Possible Rebirth*. The Johns Hopkins University Press, Baltimore, Maryland.

Harrington, John P.

1942 Culture Element Distributions: XIX, Central California Coast. *Anthropological Records* 7:1. University of California Press: Berkeley.

Heizer, Robert F.

1978 Introduction. In *California*, edited by Robert F. Heizer, pp. 1–6. Handbook of North American Indians, Vol. 8, William G. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Herring, Alika

1968 Surface Collections from ORA-83, A Cogged Stone Site at Bolsa Chica, Orange County, California. *Pacific Coast Archaeological Society Quarterly* 4(3):3–37.

Hudson, Travis

1982 The Alliklik-Tataviam Problem. Journal of California and Great Basin Anthropology 4(2): 222-232.

Hudson, T.D., and T.C. Blackburn

1979 The Material Culture of the Chumash Interaction Sphere. Volume I: Food Procurement and Transportation. Ballena Press Anthropological Papers 25.

Industry, City of

2018 Workman and Temple Family Homestead Museum. Rancho La Puente. Website. http://www.homesteadmuseum.org/about-us/rancho-la-puente. Accessed November 18, 2018.

Johnson, J. R., T. W. Stafford, Jr., H. O. Ajie, and D. P. Morris

2002 Arlington Springs Revisited. In *Proceedings of the Fifth California Islands Symposium*, edited by D. Browne, K. Mitchell, and H. Chaney, pp. 541–545. USDI Minerals Management Service and The Santa Barbara Museum of Natural History, Santa Barbara, California.

Johnston, Bernice E.

1962 *California's Gabrielino Indians.* Frederick Webb Hodge Anniversary Publication Fund 8, Southwest Museum, Los Angeles.

King, Chester D.

1994 Native American Placenames in the Santa Monica Mountains National Recreation Area, Agoura Hills. Topanga Anthropological Consultants, California.

King, Chester D. and Thomas C. Blackburn

1978 Tataviam. In *Handbook of North American Indians, Vol. 8*, California, R. F. Heizer, ed., pp. 535-537. Washington: Smithsonian Institution.

Koerper, Henry C.

1995 *The Christ College Project: Archaeological Investigations at CA-ORA-378, Turtle Rock, Irvine, California,* Volume II. Report on file, South Central Coastal Information Center, California State University, Fullerton.

Koerper, Henry C., and Christopher E. Drover

1983 Chronology Building for Coastal Orange County: The Case from CA-ORA-119-A. *Pacific Coast Archaeological Society Quarterly* 19(2):1–34.

Koerper, Henry C., Roger D. Mason, and Mark L. Peterson

2002 Complexity, Demography, and Change in Late Holocene Orange County. In *Catalysts to Complexity: Late Holocene Societies of the California Coast*, edited by Jon M. Erlandson and Terry L. Jones, pp. 63–81. Perspectives in California Archaeology, Vol. 6, Costen Institute of Archaeology, University of California, Los Angeles.

Kowta, Makoto

1969 The Sayles Complex, A Late Milling Stone Assemblage from the Cajon Pass and the Ecological Implications of its Scraper Planes. *University of California Publications in Anthropology* 6:35–69. Berkeley, California.

Kroeber, Alfred J.

1925 *Handbook of the Indians of California.* Bureau of American Ethnology Bulletin 78. Dover Publications, Inc., New York.

Kyle, Douglas E.

2002 *Historic Spots in California*. 5th ed. Stanford University Press, Stanford, California.

Langenwalter, Paul E., II, and James Brock

1985 Phase II Archaeological Studies of the Prado Basin and the Lower Santa Ana River. Report on file, U.S. Army Corps of Engineers, Los Angeles District.

Macko, Michael E.

1998 Neolithic Newport. In Executive Summary: Results of Implementing Mitigation Measures Specified in the Operation Plan and Research Design for the Proposed Newporter North Residential Development at ORA-64. Report on file, South Central Coastal Information Center, California State University, Fullerton.

Mason, Roger E., Brant A. Brechbiel, Mark L. Peterson, Clay A. Singer, Paul E. Langenwalter II, and Robert O. Gibson

1991 Newport Coast Archaeological Project: Results of Data Recovery at the Late Small Rockshelters, CA-ORA-674, CA-ORA-677, CA-ORA-678, CA-ORA-1206, CA-ORA-1210, CA-ORA-676, CA-ORA-682, CA-ORA-679, and CA-ORA-1204. Report on file, South Central Coastal Information Center, California State University, Fullerton.

Mason, Roger D., Brant A. Brechbiel, Clay A. Singer, Patricia A. Singer, Wayne H. Bonner, Robert O. Gibson, Mark L. Peterson, and Lisa Panet Klug

1992 Newport Coast Archaeological Project: Results of Data Recovery at the French Flat Complex Sites, CA-ORA-232, CA-ORA-233, CA-ORA-671, CA-ORA-672, and CA-ORA-1205. Report on file, South Central Coastal Information Center, California State University, Fullerton.

Mason, Roger D., Brant A. Brechbiel, Clay A. Singer, Mark L. Peterson, Linda Panet Klug, Wayne H. Bonner, Robert O. Gibson, and Patricia A. Singer

1993 Newport Coast Archaeological Project: Results of Data Recovery at the Pelican Hills Sites, CA-ORA-662, CA-ORA-677, CA-ORA-678, CA-ORA-1206, CA-ORA-1210, CA-ORA-676 and CA-ORA-1203, Volume 1. Report on file, South Central Coastal Information Center, California State University, Fullerton.

Mason, Roger D., and Mark L. Peterson

1994 *Newport Coast Archaeological Project: Newport Coast Settlement Systems–Analysis and Discussion*, Volume 1, part 1 of 2. Prepared by The Keith Companies. On file, South Central Coastal Information Center, California State University, Fullerton.

Mason, Roger D., Henry C. Koerper, and Paul E. Lagenwalter II

1997 Middle Holocene adaptations on the Newport Coast of Orange County. In *Archaeology of the California Coast during the Middle Holocene*, edited by Jon M. Erlandson and Michael A. Glassow, pp. 35–60. UCLA Institute of Archaeology, Los Angeles, California.

McCawley, W.

1996 *The First Angelinos: The Gabrielino Indians of Los Angeles*. Malki Museum Press, Banning California and Ballena Press, Novato, California.

Meighan, Clement W.

1954 A Late Complex in Southern California Prehistory. *Southwestern Journal of Anthropology* 10(2):215–227.

Montebello, City of.

1975 City of Montebello Conservation Element. Accessed online March 28, 2019. http://www.cityofmontebello.com/images/Planning%20%20and%20Community%20Development/General%20Plan/Conservation%20Element.pdf

Montebello, City of.

2016 The History of Montebello. Accessed online April 9, 2019. http://www.cityofmontebello.com/about-montebello/montebello-history.html

Moratto, Michael J.

1984 *California Archaeology*. Academic Press, New York.

Moriarty, James R., III

1966 Cultural Phase Divisions Suggested by Typological Change Coordinated with Stratigraphically Controlled Radiocarbon Dating in San Diego. *The Anthropological Journal of Canada* 4(4):20–30.

Moriarty, James R., III, and Robert S.D. Broms

1971 The Antiquity and Inferred Use of Stone Discoidals in the Southwest. *The Anthropological Journal of Canada* 9(1):16–36.

NETRonline

2019 Historic Aerials. Search Jefferson Boulevard and North Montebello Avenue, Montebello, California. Accessed online March 28, 2019. http://historicalmaps.arcgis.com/usgs/.

National Park Service (NPS)

1983 *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines*. Electronic document accessed December 6, 2011. Online at http://www.nps.gov/history/local-law/Arch_Standards.htm.

O'Neil, Stephen

2002 The Acjachemen in the Franciscan Mission System: Demographic Collapse and Social Change. Masters thesis, Department of Anthropology, California State University, Fullerton.

Reid, Hugo

1926 *The Indians of Los Angeles County.* Privately printed, Los Angeles.

Rick, Torben C., Jon M. Erlandson, and René Vellanoweth

2001 Paleocoastal Marine Fishing on the Pacific Coast of the Americas: Perspectives from Daisy Cave, California. American *Antiquity* 66:595–613.

Rincon Consultants, Inc.

2018 Jurisdictional Delineation within the Hsi Lai Monastery Project Site, Hacienda Heights, Los Angeles County, California.

Rogers, David B.

1929 *Prehistoric Man of the Santa Barbara Coast*. Santa Barbara Museum of Natural History, Santa Barbara, California. Edited by Richard F. Pourade. Union Tribune Publishing Company, San Diego, California.

Rogers, Malcom J.

1939 Early Lithic Industries of the Lower Basin of the Colorado River and Adjacent Desert Areas. *San Diego Museum of Man Papers* 3.

1945 An Outline of Yuman Prehistory. *Southwestern Journal of Anthropology* 1(2):167–198.

San Gabriel, City of

2019 History of San Gabriel. Accessed online April 8, 2019 https://www.sangabrielcity.com/78/History-of-San-Gabriel

San Gabriel Mission Catholic Community.

2014 History of the San Gabriel Mission. Accessed online April 8, 2019 https://parish.sangabrielmissionchurch.org/apps/pages/index.jsp?uREC_ID=170484&type=d&pREC_ID=351312.

Sawyer, William A.

2006 Report of Testing and Data Recovery at Sites within the Muddy Canyon Archaeological District, San Joaquin Hills, Orange County, California (provisional title). LSA Associates, Inc., Irvine, California.

Shepard, Richard S., and Roger D. Mason

2000 Cultural Resources Records Search Report for the Southern California Gas Montebello Natural Gas Storage Facility Project Area, Montebello and Monterey Park, Los Angeles County, California.

Shipley, William F.

1978 Native Languages of California. In *California*, edited by Robert F. Heizer, pp. 80–90. Handbook of North American Indians, Vol. 8, William G. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Strudwick, Ivan H.

2005 The Use of Fired Clay Daub from CA-ORA-269 in the Identification of Prehistoric Dwelling Construction Methods, San Joaquin Hills, Orange County, California. *Proceedings of the Society for California Archaeology* 18:219-237.

Sutton, Mark Q.

1993 On the Subsistence Ecology of the "Late Inland Millingstone Horizon" in Southern California. *Journal of California and Great Basin Anthropology* 15(1):134–140.

True, Delbert L.

1958 An Early Complex in San Diego County, California. *American Antiquity* 23:255–263.

1993 Bedrock Milling Elements as Indicators of Subsistence and Settlement Patterns in Northern San Diego County, California. *Pacific Coast Archaeological Society Quarterly* 29(2):1–26.

U.S. Geological Survey (USGS) Historical Topographic Map Explorer. Accessed online March 28, 2019. Search Jefferson Boulevard and North Montebello, Montebello, California. http://historicalmaps.arcgis.com/usgs/.

1894 Los Angeles 1:62500, Topographic Quadrangle Map. Reston, Virginia, 1894.

1924 Alhambra 1:24000 Topographic Quadrangle Map. Reston, Virginia, 1924.

1926 Alhambra 1:24000 Topographic Quadrangle Map. Reston, Virginia, 1926.

1949 Los Angeles 1:250000 Topographic Quadrangle Map. Reston, Virginia, 1949.

1953 El Monte 1:24000 Topographic Quadrangle Map. Reston, Virginia, 1953.

Victorino, Ken

2007 Final Phase I Archaeological Survey Proposed Housing Development Montebello Hills Project Area Los Angeles, California. Prepared for: Mr. John Peirson, Prepared by: Science Applications International Corporation, Carpinteria, California.

Wallace, William

1955 Suggested Chronology for Southern California Coastal Archaeology. *Southwestern Journal of Anthropology* 11:214–230.

1978 Post-Pleistocene Archaeology, 9000 to 2000 B.C. In *California*, edited by Robert F. Heizer, pp. 25–36. Handbook of North American Indians, Vol. 8, William G. Sturtevant, general editor, Smithsonian Institution, Washington D.C.

Warren, Claude N.

1968 Cultural Tradition and Ecological Adaptation on the Southern California Coast. In *Archaic Prehistory in the Western United States*, edited by Cynthia Irwin-Williams, pp. 1–14. Eastern New Mexico University Contributions in Anthropology No. 1. Portales.

Waugh, John C.

2003 On the Brink of Civil War: The Compromise of 1850 and How It Changed the Course of American History. Scholarly Resources Inc., Wilmington, Delaware.

Appendix A

Records Search Summary

Report List

Montebello Hills, 19-07244

Report No.	Other IDs	Year	Author(s)	Title	Affiliation	Resources
LA-01013		1981	Schroth, Adella	Historical Assessment of the Southeast Economic Project, Monterey Park, California	Archaeological Resource Management Corp.	
LA-03408		1994	Stickel, Gary E.	Draft Report: a Cultural Resources Literature Search for the Rio Hondo Water Reclamation Program	Environmental Research Archaeologists	
LA-06307		2000	Shepard, Richard S. and Mason, Roger D.	Cultural Resources Records Search Report for the Southern California Gas Montebello Natural Gas Storage Facility Project Ares, Montebello and Monterey Park, Los Angeles County, California	Chambers Group, Inc.	
LA-06320		2002	Duke, Curt	Cultural Resource Assessment Cingular Wireless Facility No. Sm 143-02 Los Angeles County, California	LSA Associates, Inc.	
LA-06810		2003	Wesson, Alex	Beverly Boulevard Phase III Widening and Replacement of Beverly Boulevard Bridge Over Rio Hondo Channel Historic Proerty Survey Report (hpsr)	URS Corporation	19-003126, 19-003127, 19-003128, 19-187374, 19-187375, 19-187376, 19-187377, 19-187378, 19-187379, 19-187380, 19-187381, 19-187382, 19-187383, 19-187384, 19-187385, 19-187386, 19-187387, 19-187388, 19-187389, 19-187390, 19-187391, 19-187392, 19-187393, 19-187394, 19-189945
LA-07307		2005	Stone, David	Montebello Hills Oil Field Development Project	Stone Archaeological Consultants	
LA-10433		2008	Fulton, Phil and Terri Fulton	Cultural Resources Assessment for the Montebello Hills Specific Plan Project	LSA Associates, Inc.	19-001311, 19-003813
LA-10843		2007	Victorino, Ken	Phase I Archaeological Survey, Proposed housing development, montebello Hills Project Area, Los Angeles County, California	Science Applications International Corporation	19-001311

Resource List

Montebello Hills, 19-07244

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-003551	CA-LAN-003551H	Resource Name - MBA-JMS-004	Site	Historic	AH05 (Wells/cisterns)	2006 (J. Sanka, Michael Brandman Associates)	LA-11989
P-19-003813	CA-LAN-003813H	Resource Name - Montebello Oil Field; Other - LSA-NGK0801-1	Site	Historic	AH02 (Foundations/structure pads) - Structure Pads; AH04 (Privies/dumps/trash scatters); AH05 (Wells/cisterns) - Wells; AH06 (Water conveyance system); AH07 (Roads/trails/railroad grades) - Roads; AH16 (Other)	2008 (Fulton, Terri and Phil Fulton, LSA Associates, Inc.)	LA-10363, LA-10433, LA-11157, LA-11988, LA-11989, LA-11991, LA-12552, LA-12928
P-19-187376			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810
P-19-187377			Building	Historic	HP03 (Multiple family property)	2003 (K. Erickson, URS)	LA-06810
P-19-187378		Other - 605 W Beverly Blvd	Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810
P-19-187379		Other - 609 W Beverly Blvd	Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810
P-19-187380		Other - 616 W Beverly Blvd	Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810
P-19-187381			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810
P-19-187382			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810
P-19-187383			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810, LA-09234
P-19-187384			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810, LA-09234
P-19-187385			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810, LA-09234
P-19-187386			Building	Historic	HP06 (1-3 story commercial building)	2003 (K. Erickson, URS)	LA-06810, LA-09234
P-19-188945		OHP Property Number - 168188; Resource Name - 117 N Ellen Dr	Building	Historic	HP02 (Single family property)	2002 (Kelly F. Ewing, Caltrans)	LA-10190

Resource List

Montebello Hills, 19-07244

Primary No.	Trinomial	Other IDs	Type	Age	Attribute codes	Recorded by	Reports
P-19-190508		Resource Name - SCE Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line	Object	Historic	HP11 (Engineering structure)	2010 (Wendy L. Tinsley Becker, Urbana Preservation & Planning)	LA-12552, LA-12808

Appendix B

Native American Scoping

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
Sacramento, CA 95814
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Montebello Hills Recycled Water Pipeline and Pump Station Project #19-07244

County: Los Angeles County

USGS Quadrangle Name: El Monte, California Quadrangle

Township: 01S 02S Range: 12W Section(s): 01, 02, 11, 12, 35, 36

Company/Firm/Agency: Rincon Consultants, Inc.

Contact Person: Lindsay Porras

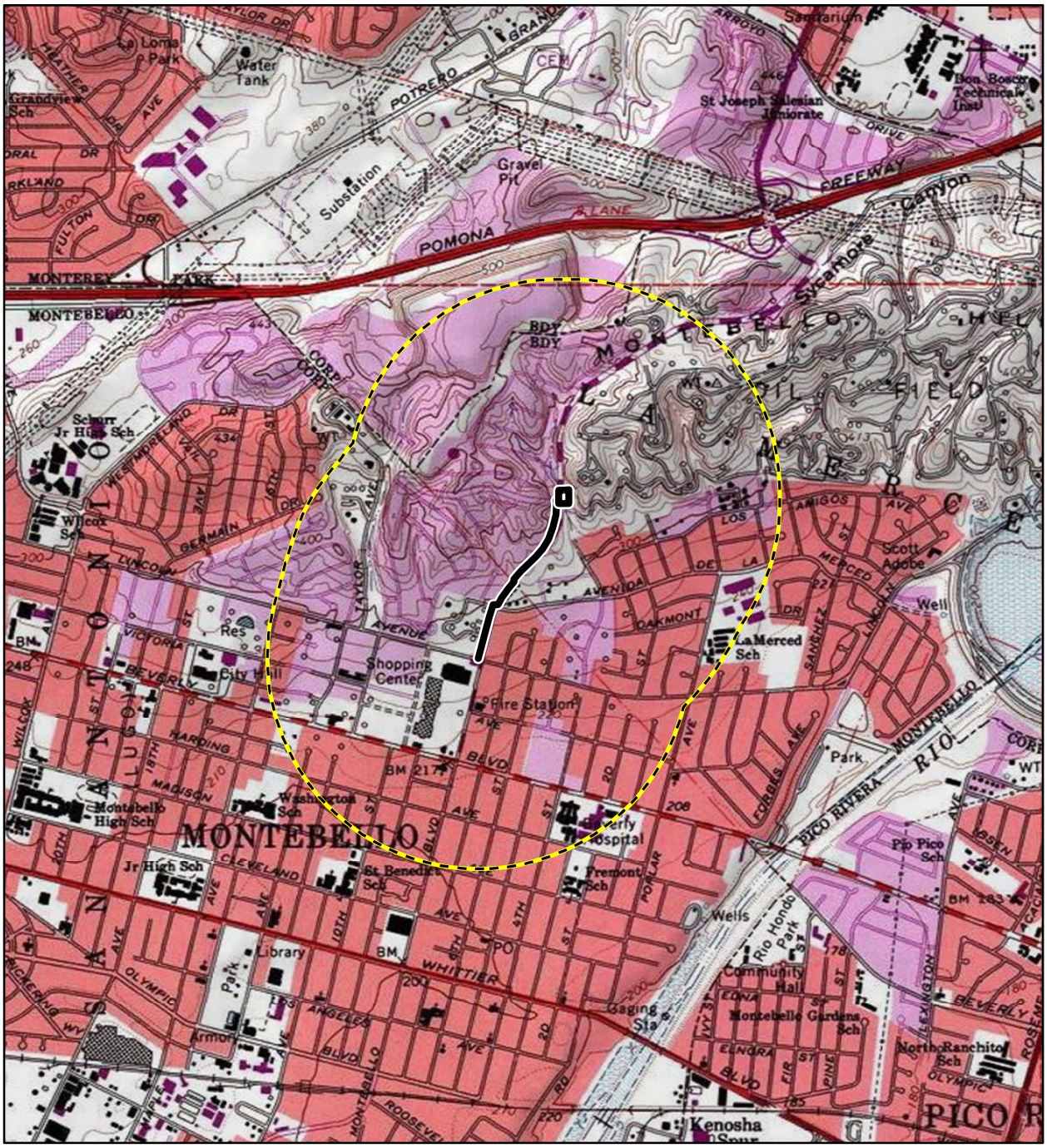
Street Address: 301 Ninth Street, Suite 109

City: Redlands, CA Zip: 92374

Phone: (909) 435-0978 extension 9981

Email: lporras@rinconconsultants.com

Project Description: The proposed project involves the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Rincon has been contracted to conduct a cultural resource study for the project in compliance with the California Environmental Quality Act (CEQA). The project will result in ground disturbance.



Imagery provided by National Geographic Society, Esri and its licensors © 2019. El Monte Quadrangle. T01S R12W S35,36 & T02S R12W S01,02,11,12. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Records Search Map

NATIVE AMERICAN HERITAGE COMMISSION
Cultural and Environmental Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691 Phone: (916) 373-3710
Email: nahc@nahc.ca.gov
Website: http://www.nahc.ca.gov

April 15, 2019

Lindsay Porras
Rincon Consultants

VIA Email to: lporras@rinconconsultants.com

RE: Native American Tribal Consultation, Pursuant to the Assembly Bill 52 (AB 52), Amendments to the California Environmental Quality Act (CEQA) (Chapter 532, Statutes of 2014), Public Resources Code Sections 5097.94 (m), 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2 and 21084.3, Montebello Hills Recycled Water Pipeline and Pump Station Project, Los Angeles County

Dear Ms. Porras:

Pursuant to Public Resources Code section 21080.3.1 (c), attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Please note that the intent of the AB 52 amendments to CEQA is to avoid and/or mitigate impacts to tribal cultural resources, (Pub. Resources Code §21084.3 (a)) ("Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource.")

Public Resources Code sections 21080.3.1 and 21084.3(c) require CEQA lead agencies to consult with California Native American tribes that have requested notice from such agencies of proposed projects in the geographic area that are traditionally and culturally affiliated with the tribes on projects for which a Notice of Preparation or Notice of Negative Declaration or Mitigated Negative Declaration has been filed on or after July 1, 2015. Specifically, Public Resources Code section 21080.3.1 (d) provides:

> Within 14 days of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section.

The AB 52 amendments to CEQA law does not preclude initiating consultation with the tribes that are culturally and traditionally affiliated within your jurisdiction prior to receiving requests for notification of projects in the tribe's areas of traditional and cultural affiliation. The Native American Heritage Commission (NAHC) recommends, but does not require, early consultation as a best practice to ensure that lead agencies receive sufficient information about cultural resources in a project area to avoid damaging effects to tribal cultural resources.

The NAHC also recommends, but does not require that agencies should also include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;

   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;

   - Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and

   - If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measures.

     All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of any Sacred Lands File (SLF) check conducted through the NAHC was positive. Please contact the Gabrieleno Band of Mission Indians – Kizh Nation and the Gabrieleno/Tongva San Gabriel Band of Mission Indians on the attached list for more information.
4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the event that they do, having the information beforehand will help to facilitate the consultation process.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions, please contact me at my email address: steven.quinn@nahc.ca.gov.

Sincerely,

Steven Quinn

Steven Quinn
Associate Governmental Program Analyst

Attachment

Native American Heritage Commission
Tribal Consultation List
Los Angeles County
4/15/2019

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
admin@gabrielenoindians.org

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 6097.98 of the Public Resources Code and section 5097.98 of the Public Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project, Los Angeles County.

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 FAX

June 27, 2016

Diana Dyste, M.A., RPA
Aspen Environmental

Sent by E-mail: ddyste@aspeneg.com
Number of Pages: 3

RE: Proposed La Mirada Recycled Water Expansion Project, City of La Mirada; Whittier and La Habra USGS Quadrangles, Los Angeles County, California

Dear Ms. Dyste:

Attached is a Contact List of tribes with traditional lands or cultural places located within the boundaries of the above referenced counties. A search of the SFL was completed for the USGS quadrangle information provided with negative results.

Our records indicate that the lead agency for this project has not requested a Native American Consultation List for the purposes of formal consultation. Contact Lists for cultural resource assessments are different than Consultation Lists. Please note that the intent of the referenced codes below is to mitigate impacts to tribal cultural resources, as defined, for California Environmental Quality Act (CEQA) projects under AB-52.

As of July 1, 2015, Public Resources Code Sections 21080.3.1 and 21080.3.2 **require public agencies** to consult with California Native American tribes identified by the Native American Heritage Commission (NAHC) for the purpose mitigating impacts to tribal cultural resources:

> **Within 14 days** of determining that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency shall provide formal notification to the designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, which shall be accomplished by means of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation pursuant to this section. (Public Resources Code Section 21080.3.1(d))

The law does not preclude agencies from initiating consultation with the tribes that are culturally and traditionally affiliated with their jurisdictions. The NAHC believes that in fact that this is the best practice to ensure that tribes are consulted commensurate with the intent of the law.

In accordance with Public Resources Code Section 21080.3.1(d), formal notification must include a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American tribe has 30 days to request consultation. The NAHC believes that agencies should also include with their notification letters information regarding any cultural resources assessment that has been completed on the APE, such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

   - A listing of any and all known cultural resources have already been recorded on or adjacent to the APE;
   - Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
   - If the probability is low, moderate, or high that cultural resources are located in the APE.

- Whether the records search indicates a low, moderate or high probability that unrecorded cultural resources are located in the potential APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

   - Any report that may contain site forms, site significance, and suggested mitigation measurers.
   - All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure in accordance with Government Code Section 6254.10.

3. The results of any Sacred Lands File (SFL) check conducted through Native American Heritage Commission.

4. Any ethnographic studies conducted for any area including all or part of the potential APE; and

5. Any geotechnical reports regarding all or part of the potential APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS is not exhaustive, and a negative response to these searches does not preclude the existence of a cultural place. A tribe may be the only source of information regarding the existence of a tribal cultural resource.

This information will aid tribes in determining whether to request formal consultation. In the case that they do, having the information beforehand well help to facilitate the consultation process.

The results of these searches and surveys should be included in the "Tribal Cultural Resources" subsection of the Cultural Resources section of the environmental document submitted for review.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance we are able to assure that our consultation list contains current information.

If you have any questions, please contact me at my email address: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Contact List
Los Angeles County
June 24, 2016

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

(626) 286-1262 Fax

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100 Gabrielino
Los Angeles , CA 90067
(626) 676-1184 Cell

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Luiseno
San Jacinto , CA 92581 Cahuilla
jontiveros@soboba-nsn.gov
(951) 663-5279
(951) 654-5544, ext 4137
(951) 654-4198 Fax

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.com
(626) 926-4131

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person or agency of statutory responsibility as defined in Public Resources Code Sections 21080.3.1 Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed La Mirada Recycled Water Expansion Project; Communities of La Mirada and Santa Fe Springs; Whittier and La Habra USGS Quadrangles, Los Angeles County, California.

Rincon Consultants, Inc.

250 East 1st Street, Suite 301
Los Angeles, California 90012

213 788 4842
FAX 908 2200

info@rinconconsultants.com
www.rinconconsultants.com

April 10, 2019

Gabrieleno Band of Mission Indians – Kizh Nation
Attn: Andrew Salas, Chairperson
P.O. Box 393
Covina, CA 91723

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Chairperson Salas:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission on March 22, 2019 and requested a Sacred Lands File (SLF) search of the project vicinity. Although the results of the NAHC search are pending, this anticipatory letter is being sent to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon conducted a records search of the California historical Resources Information System which identified two previously-recorded historic-era resources that transect the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line). No cultural resources of Native American origin were identified within the project site during the record search or the pedestrian survey of the project site.

The proposed project is subject to the California Environmental Quality Act (CEQA). The lead agency under CEQA is the CBMWD, which will be conducting separate consultation under Assembly Bill 52 of 2014. This letter does not constitute notification under Assembly Bill 52 of 2014 (AB 52). Any AB 52 consultation will be carried out separately by the lead agency, CBMWD. A project location map depicting the project area is enclosed with this letter for your reference.

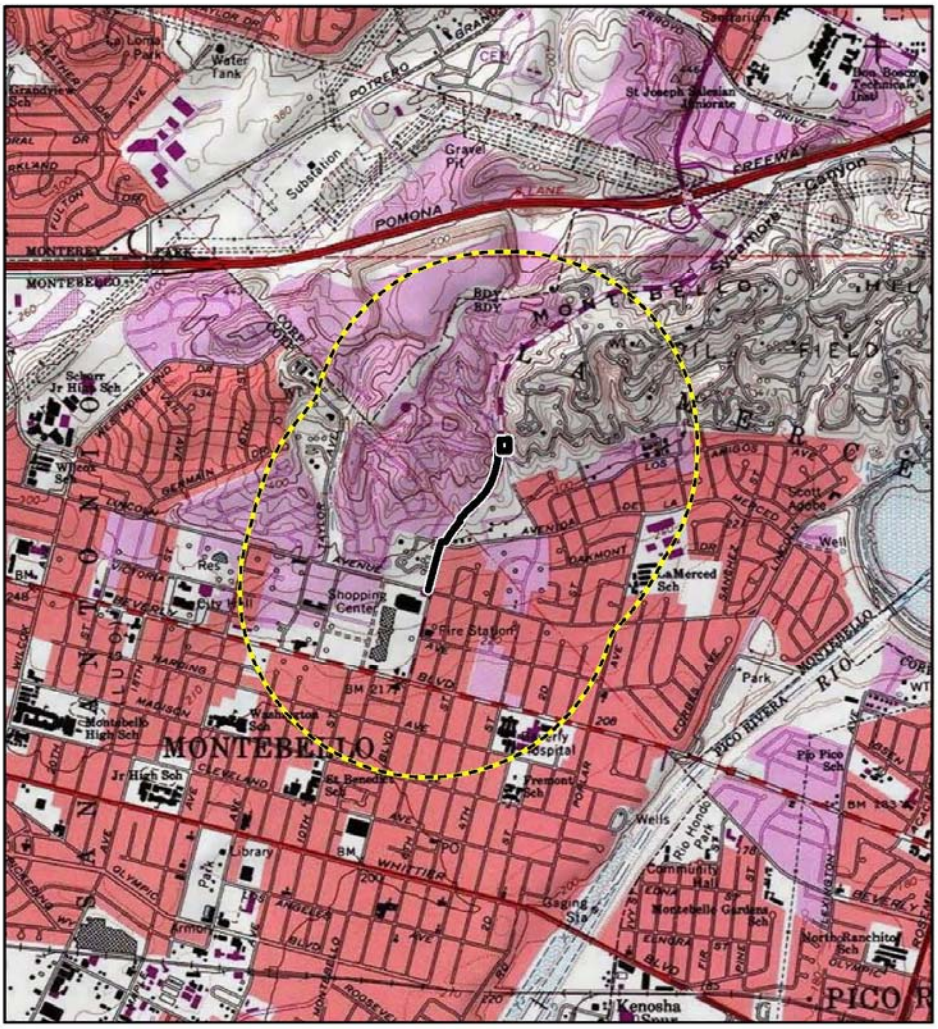
If you or your organization has knowledge of cultural resources that may exist within or near the project site, please contact me at (909) 435-0978 extension 9981, or by email at lporras@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

Lindsay A. Porras, MA, RPA
Associate Archaeologist

Attached: Figure 1 Project Location Map

Figure 1 Project Location Map



Imagery provided by National Geographic Society, Esri and its licensors © 2019. El Monte Quadrangle. T01S R12W S35,36 & T02S R12W S01,02,11,12. The topographic representation depicted in this map may not portray all of the features currently found in the vicinity today and/or features depicted in this map may have changed since the original topographic map was assembled.

Records Search Map

Rincon Consultants, Inc.

Rincon Consultants, Inc.

250 East 1st Street, Suite 301
Los Angeles, California 90012

213 788 4842
FAX 908 2200

info@rinconconsultants.com
www.rinconconsultants.com

April 10, 2019

Gabrielino /Tongva Nation
Attn: Sandonne Goad, Chairperson
106 ½ Judge John Aiso St., #231
Los Angeles, CA 90012

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Chairperson Goad:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission on March 22, 2019 and requested a Sacred Lands File (SLF) search of the project vicinity. Although the results of the NAHC search are pending, this anticipatory letter is being sent to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon conducted a records search of the California historical Resources Information System which identified two previously-recorded historic-era resources that transect the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line). No cultural resources of Native American origin were identified within the project site during the record search or the pedestrian survey of the project site.

The proposed project is subject to the California Environmental Quality Act (CEQA). The lead agency under CEQA is the CBMWD, which will be conducting separate consultation under Assembly Bill 52 of 2014. This letter does not constitute notification under Assembly Bill 52 of 2014 (AB 52). Any AB 52 consultation will be carried out separately by the lead agency, CBMWD. A project location map depicting the project area is enclosed with this letter for your reference.

If you or your organization has knowledge of cultural resources that may exist within or near the project site, please contact me at (909) 435-0978 extension 9981, or by email at lporras@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

Lindsay A. Porras, MA, RPA
Associate Archaeologist

Attached: Figure 1 Project Location Map

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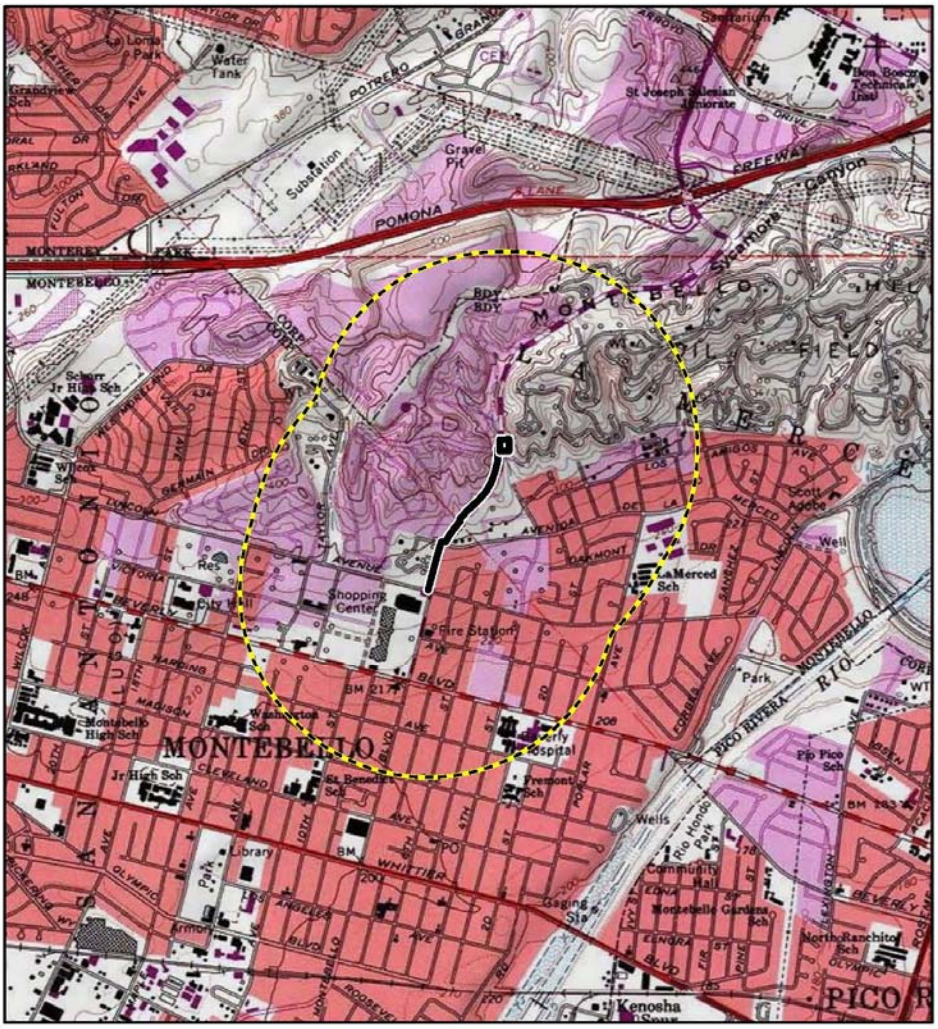

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Records Search Map

Rincon Consultants, Inc.

Rincon Consultants, Inc.

250 East 1st Street, Suite 301
Los Angeles, California 90012

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info@rinconconsultants.com
www.rinconconsultants.com

April 10, 2019

Gabrielino Tongva Indians of California Tribal Council
Attn: Robert Dorame, Chairperson
P.O. Box 490
Bellflower, CA 90707

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Chairperson Dorame:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission on March 22, 2019 and requested a Sacred Lands File (SLF) search of the project vicinity. Although the results of the NAHC search are pending, this anticipatory letter is being sent to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon conducted a records search of the California historical Resources Information System which identified two previously-recorded historic-era resources that transect the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line). No cultural resources of Native American origin were identified within the project site during the record search or the pedestrian survey of the project site.

The proposed project is subject to the California Environmental Quality Act (CEQA). The lead agency under CEQA is the CBMWD, which will be conducting separate consultation under Assembly Bill 52 of 2014. This letter does not constitute notification under Assembly Bill 52 of 2014 (AB 52). Any AB 52 consultation will be carried out separately by the lead agency, CBMWD. A project location map depicting the project area is enclosed with this letter for your reference.

If you or your organization has knowledge of cultural resources that may exist within or near the project site, please contact me at (909) 435-0978 extension 9981, or by email at lporras@rinconconsultants.com.

Sincerely,
Rincon Consultants, Inc.

Lindsay A. Porras, MA, RPA
Associate Archaeologist

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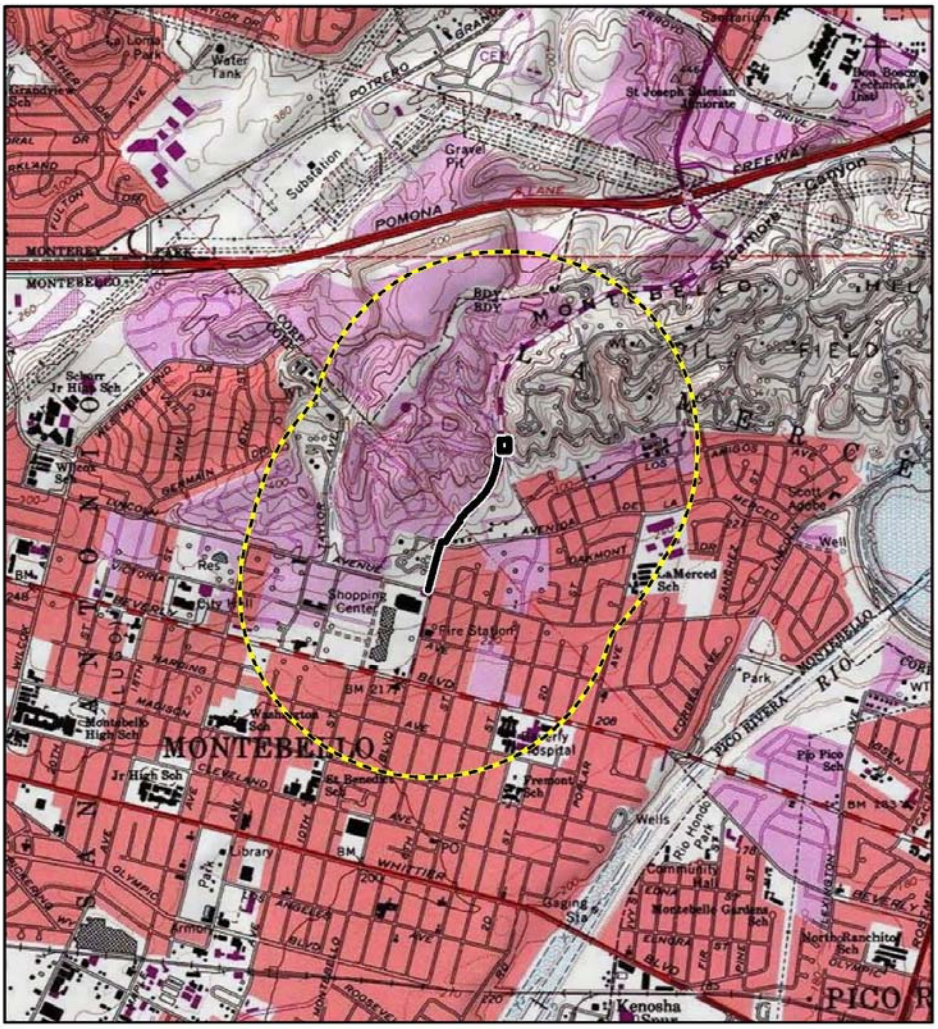

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info@rinconconsultants.com
www.rinconconsultants.com

April 10, 2019

Gabrielino-Tongva Tribe
Attn: Linda Candelaria, Chairperson
80839 Camino Santa Juliana
Indio, CA 92203

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Chairperson Candelaria:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission on March 22, 2019 and requested a Sacred Lands File (SLF) search of the project vicinity. Although the results of the NAHC search are pending, this anticipatory letter is being sent to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon conducted a records search of the California historical Resources Information System which identified two previously-recorded historic-era resources that transect the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line). No cultural resources of Native American origin were identified within the project site during the record search or the pedestrian survey of the project site.

The proposed project is subject to the California Environmental Quality Act (CEQA). The lead agency under CEQA is the CBMWD, which will be conducting separate consultation under Assembly Bill 52 of 2014. This letter does not constitute notification under Assembly Bill 52 of 2014 (AB 52). Any AB 52 consultation will be carried out separately by the lead agency, CBMWD. A project location map depicting the project area is enclosed with this letter for your reference.

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Sincerely,
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Associate Archaeologist

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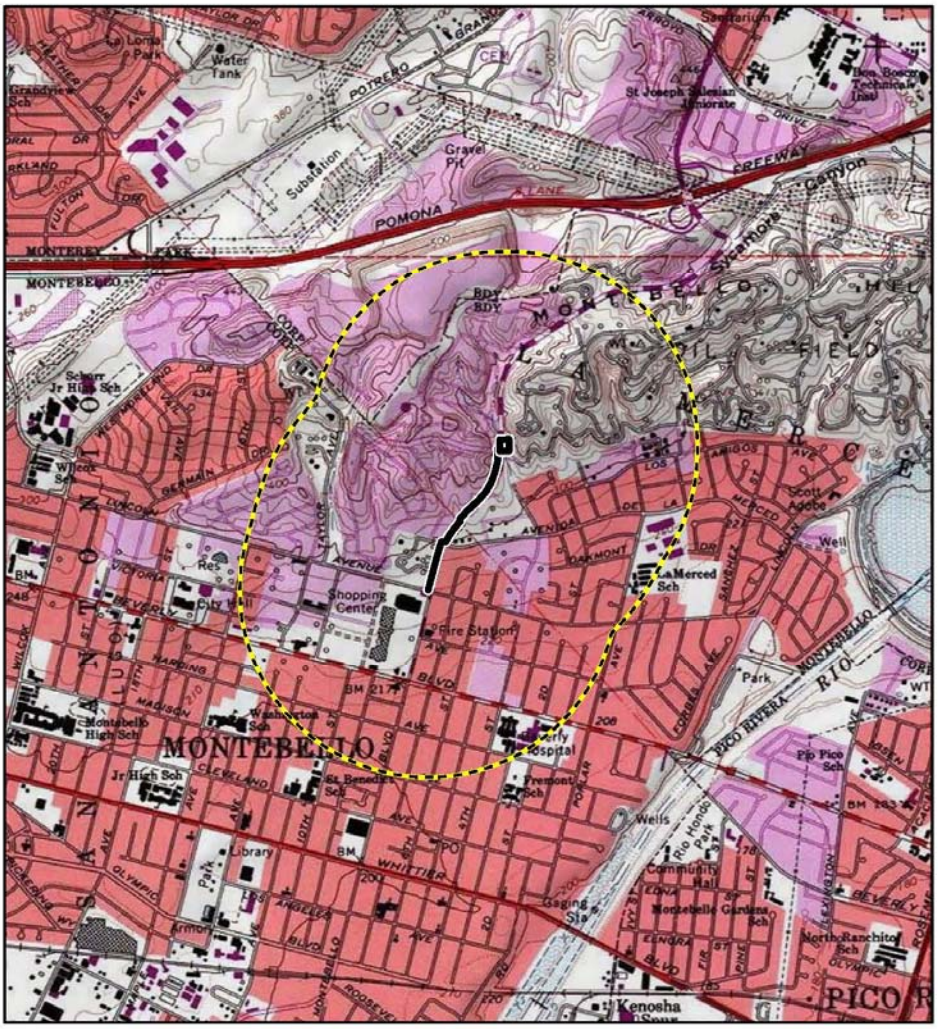

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www.rinconconsultants.com

April 10, 2019

Soboba Band of Luiseño Indians
Attn: Joseph Ontiveros, Cultural Resource Department
P.O. Box 487
San Jacinto, CA 92581

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Mr. Ontiveros:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission on March 22, 2019 and requested a Sacred Lands File (SLF) search of the project vicinity. Although the results of the NAHC search are pending, this anticipatory letter is being sent to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon conducted a records search of the California historical Resources Information System which identified two previously-recorded historic-era resources that transect the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line). No cultural resources of Native American origin were identified within the project site during the record search or the pedestrian survey of the project site.

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Lindsay A. Porras, MA, RPA
Associate Archaeologist

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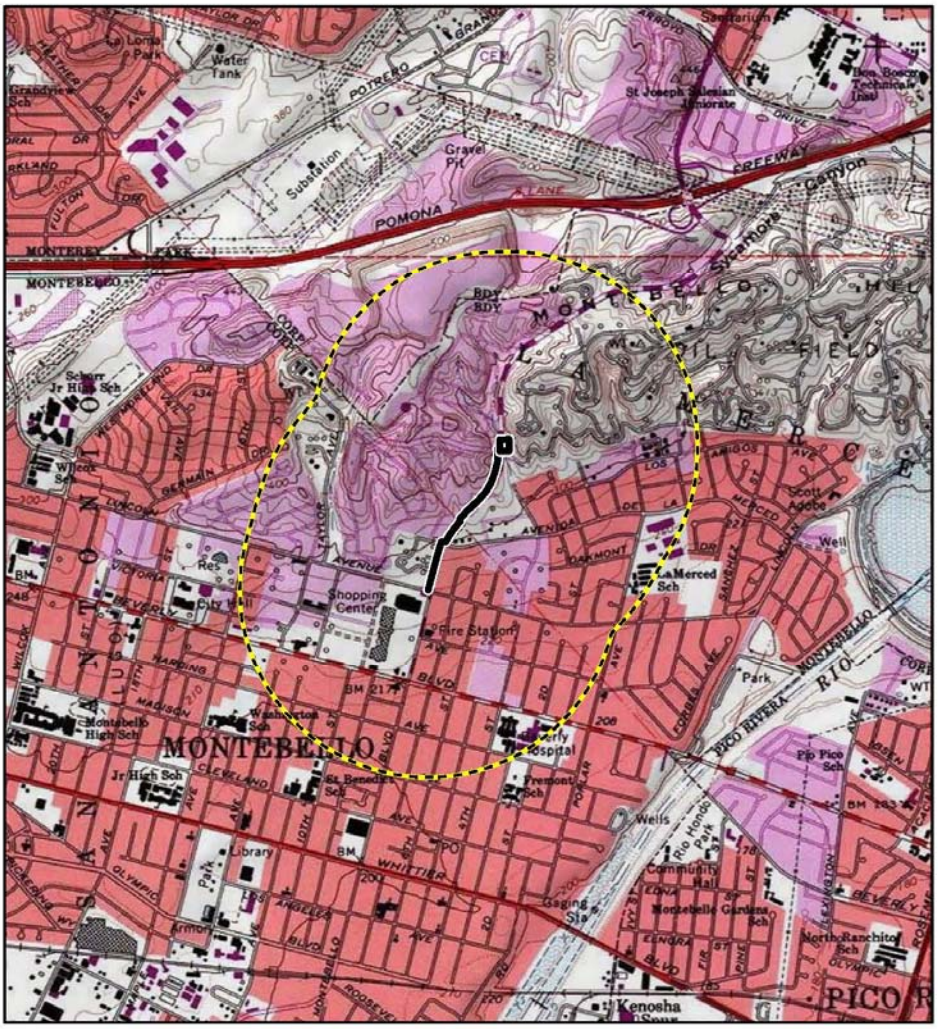

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April 10, 2019

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Attn: Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Chairperson Morales:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

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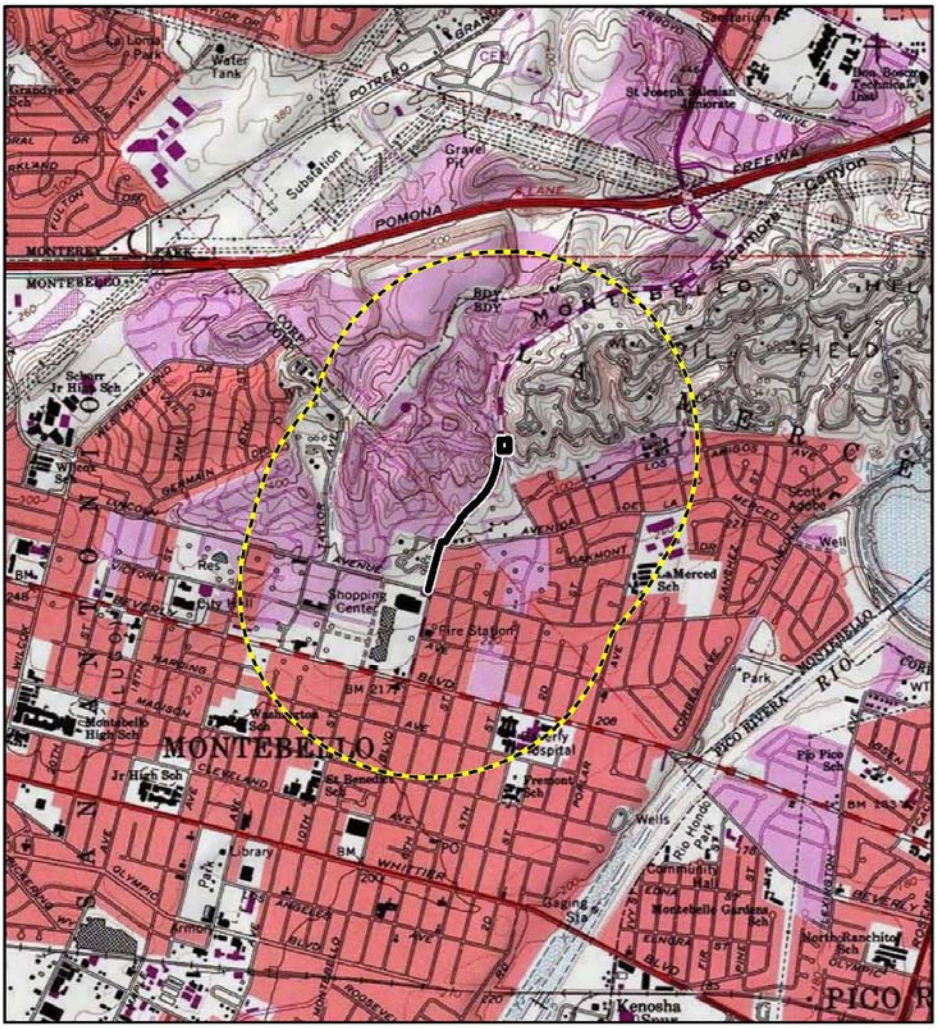

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Los Angeles, California 90012

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FAX 908 2200

info@rinconconsultants.com
www.rinconconsultants.com

April 15, 2019

Gabrielino- Tongva Tribe
Attn: Charles Alvarez
23454 Vanowen Street
West Hills, CA 91307

RE: **Cultural Resources Study for Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California**

Dear Mr. Alvarez:

The Central Basin Municipal Water District (CBMWD) retained Rincon Consultants, Inc. (Rincon) to conduct a cultural resources study for the Montebello Hills Recycled Water Pipeline and Pump Station Project (project) located in the City of Montebello (Figure 1). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 acre-feet per year. The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 16 inch recycled water pipelines within the existing paved roadway right-of-way, and placement of new asphalt concrete over aggregate base.

As part of the process of identifying cultural resources for this project, Rincon contacted the Native American Heritage Commission (NAHC) on March 22, 2019 and requested a Sacred Lands File (SLF) search of the project vicinity. The NAHC responded on April 15, 2019 stating positive results. This letter is being sent to inquire about your knowledge of potential cultural resources within the vicinity that may be impacted by the project. Rincon conducted a records search of the California historical Resources Information System which identified two previously-recorded historic-era resources that transect the project site: P-19-003813 (the Montebello Oil Field) and P-19-190508 (the Southern California Edison Company Walnut-Hillgen-Industry-Mesa-Reno 66kV Transmission Line). No cultural resources of Native American origin were identified within the project site during the record search or the pedestrian survey of the project site.

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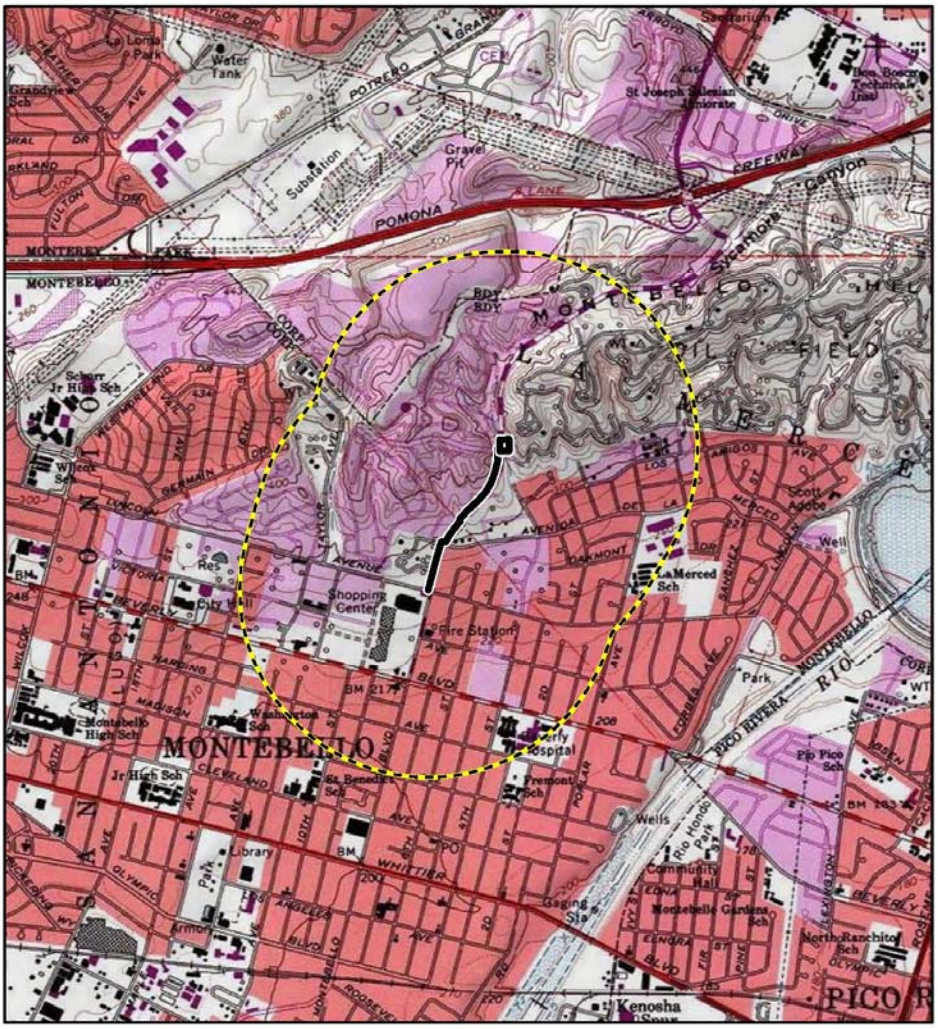

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Records Search Map

Rincon Consultants, Inc.

Appendix D

Energy Worksheets

CBMWD Montebello Hills Pipeline Construction

Last Updated: April 17, 2019

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Air Compressor	1	8	78	0.48	Site Prep	105.61
Concrete/Industrial Saw	1	8	81	0.73	Site Prep	166.79
Tractors/Loaders/Backhoes	1	8	98	0.37	Site Prep	102.28
Excavator	1	8	163	0.38	Excavation	707.20
Off Highway Truck	1	8	400	0.38	Excavation	1,744.14
Rubber Tired Loader	1	8	200	0.37	Excavation	844.90
Air Compressor	1	8	78	0.48	Installation and Backfilling	316.82
Crane	1	8	226	0.29	Installation and Backfilling	498.87
Excavator	1	8	163	0.38	Installation and Backfilling	471.47
Forklift	1	8	89	0.20	Installation and Backfilling	150.62
Off Highway Truck	1	8	400	0.38	Installation and Backfilling	1,156.98
Welder	1	8	46	0.45	Installation and Backfilling	175.16
Off Highway Truck	1	8	400	0.38	Street Restoration	581.38
Paver	1	8	126	0.42	Street Restoration	201.41
Roller	1	8	81	0.38	Street Restoration	130.23
					Total Fuel Used	**7,353.86 (Gallons)**

Construction Phase	Days of Operation
Site Preparation	6
Excavation and Shoring	27
Installation and Backfilling	18
Paving	9

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.0	30	10.0	75.00
Grading	24.0	30	10.0	337.50
Building Construction Phase	24.0	30	10.0	225.00
Paving Phase	24.0	30	10.0	112.50
			Total	**750.00**

VENDOR TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	7.4	2	2.0	3.24
Grading	7.4	2	2.0	14.59
Building Construction Phase	7.4	-	2.0	-
Paving Phase	7.4	2	2.0	4.86
			Total	**22.70**

HAULING TRIPS

Trip Class	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Soil Hauling	7.4	14	20.0	36.49
Asphalt Hauling	7.4	68	20.0	182.43
			Total	**218.92**

Total Gasoline Consumption (gallons)	**750.00**
Total Diesel Consumption (gallons)	**7,595.48**

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b* . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2018. *National Transportation Statistics 2018* . Available at: https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/national-transportation-statistics/223001/ntsentire2018q4.pdf.

CBMWD Montebello Hills Pump Station Construction

Last Updated: April 17, 2019

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.0588	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phase	Fuel Used (gallons)
Graders	1	8	187	0.41	Site Prep	324.22
Tractors/Loaders/Backhoes	1	8	97	0.37	Site Prep	168.72
Concrete/Industrial Saw	1	8	81	0.73	Grading	555.96
Rubber Tired Dozers	1	1	247	0.40	Grading	104.45
Tractors/Loaders/Backhoes	1	6	97	0.37	Grading	253.09
Cranes	1	4	231	0.29	Building Construction	566.56
Forklifts	1	6	89	0.20	Building Construction	251.04
Tractors/Loaders/Backhoes	1	8	97	0.37	Building Construction	674.90
Cement and Mortar Mixers	2	6	9	0.56	Paving	35.54
Pavers	1	7	130	0.42	Paving	202.03
Paving Equipment	1	7	80	0.38	Paving	125.05
Tractors/Loaders/Backhoes	1	7	97	0.37	Paving	147.63
					Total Fuel Used	**3,409.18 (Gallons)**

Construction Phase	Days of Operation
Site Preparation Phase	10
Grading	20
Building Construction Phase	40
Paving Phase	10

WORKER TRIPS

Constuction Phase	MPG [2]	Trips	Trip Length (miles)	Fuel Used (gallons)
Site Preparation Phase	24.0	5	10.8	22.50
Grading	24.0	10	12.8	106.67
Building Construction Phase	24.0	1	13.8	23.00
Paving Phase	24.0	18	10.8	81.00
			Total	**233.17**

Total Gasoline Consumption (gallons)	**233.17**
Total Diesel Consumption (gallons)	**3,409.18**

Sources:

[1] United States Environmental Protection Agency. 2018. *Exhaust and Crankcase Emission Factors for Nonroad Compression-Ignition Engines in MOVES2014b* . July 2018. Available at: https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100UXEN.pdf.

[2] United States Department of Transportation, Bureau of Transportation Statistics. 2018. *National Transportation Statistics 2018* . Available at: https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and-data/national-transportation-statistics/223001/ntsentire2018q4.pdf.

Appendix E

Noise Data and Analyses

Noise Measurement 1

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 82.2 - 2019/03/27 08:16:23
- Level Range : 40-100
- SEL : 102.5
- Leq : 73.0
-

No.s	Date Time	(dB)
1	2019/03/27 08:05:17	74.4
2	2019/03/27 08:05:20	75.4
3	2019/03/27 08:05:23	75.9
4	2019/03/27 08:05:26	79.6
5	2019/03/27 08:05:29	77.2
6	2019/03/27 08:05:32	77.8
7	2019/03/27 08:05:35	78.4
8	2019/03/27 08:05:38	75.2
9	2019/03/27 08:05:41	72.8
10	2019/03/27 08:05:44	71.1
11	2019/03/27 08:05:47	68.8
12	2019/03/27 08:05:50	67.1
13	2019/03/27 08:05:53	65.1
14	2019/03/27 08:05:56	62.7
15	2019/03/27 08:05:59	61.4
16	2019/03/27 08:06:02	64.0
17	2019/03/27 08:06:05	67.2
18	2019/03/27 08:06:08	68.8
19	2019/03/27 08:06:11	70.6
20	2019/03/27 08:06:14	67.2
21	2019/03/27 08:06:17	80.1
22	2019/03/27 08:06:20	74.7
23	2019/03/27 08:06:23	70.4
24	2019/03/27 08:06:26	71.6
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Noise Measurement 2

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 87.1 - 2019/03/27 08:36:04
- Level Range : 40-100
- SEL : 99.5
- Leq : 70.0
-

No.s	Date Time	(dB)
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3	2019/03/27 08:30:50	70.0
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5	2019/03/27 08:30:56	64.8
6	2019/03/27 08:30:59	59.9
7	2019/03/27 08:31:02	57.7
8	2019/03/27 08:31:05	59.5
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154	2019/03/27	08:38:23	65.0
155	2019/03/27	08:38:26	65.5
156	2019/03/27	08:38:29	72.5
157	2019/03/27	08:38:32	73.9
158	2019/03/27	08:38:35	72.2
159	2019/03/27	08:38:38	71.3
160	2019/03/27	08:38:41	72.9
161	2019/03/27	08:38:44	72.9
162	2019/03/27	08:38:47	71.6
163	2019/03/27	08:38:50	70.3
164	2019/03/27	08:38:53	66.4
165	2019/03/27	08:38:56	60.8
166	2019/03/27	08:38:59	58.0
167	2019/03/27	08:39:02	67.0
168	2019/03/27	08:39:05	71.4
169	2019/03/27	08:39:08	63.4
170	2019/03/27	08:39:11	58.7
171	2019/03/27	08:39:14	69.1
172	2019/03/27	08:39:17	67.7
173	2019/03/27	08:39:20	68.9
174	2019/03/27	08:39:23	69.6
175	2019/03/27	08:39:26	66.3
176	2019/03/27	08:39:29	76.5
177	2019/03/27	08:39:32	74.8
178	2019/03/27	08:39:35	74.0
179	2019/03/27	08:39:38	71.1
180	2019/03/27	08:39:41	66.2
181	2019/03/27	08:39:44	73.6
182	2019/03/27	08:39:47	75.5
183	2019/03/27	08:39:50	72.4
184	2019/03/27	08:39:53	72.6

185	2019/03/27	08:39:56	72.9
186	2019/03/27	08:39:59	80.2
187	2019/03/27	08:40:02	71.9
188	2019/03/27	08:40:05	66.7
189	2019/03/27	08:40:08	63.1
190	2019/03/27	08:40:11	62.2
191	2019/03/27	08:40:14	63.4
192	2019/03/27	08:40:17	71.3
193	2019/03/27	08:40:20	72.9
194	2019/03/27	08:40:23	74.9
195	2019/03/27	08:40:26	72.3
196	2019/03/27	08:40:29	69.8
197	2019/03/27	08:40:32	66.2
198	2019/03/27	08:40:35	61.6
199	2019/03/27	08:40:38	62.4
200	2019/03/27	08:40:41	64.8
201	2019/03/27	08:40:44	63.4
202	2019/03/27	08:40:47	64.3
203	2019/03/27	08:40:50	70.9
204	2019/03/27	08:40:53	70.4
205	2019/03/27	08:40:56	71.4
206	2019/03/27	08:40:59	68.2
207	2019/03/27	08:41:02	70.8
208	2019/03/27	08:41:05	73.7
209	2019/03/27	08:41:08	71.0
210	2019/03/27	08:41:11	68.6
211	2019/03/27	08:41:14	76.2
212	2019/03/27	08:41:17	75.3
213	2019/03/27	08:41:20	69.3
214	2019/03/27	08:41:23	76.5
215	2019/03/27	08:41:26	72.7
216	2019/03/27	08:41:29	72.8
217	2019/03/27	08:41:32	75.7
218	2019/03/27	08:41:35	75.0
219	2019/03/27	08:41:38	69.6
220	2019/03/27	08:41:41	73.9
221	2019/03/27	08:41:44	68.0
222	2019/03/27	08:41:47	62.6
223	2019/03/27	08:41:50	59.4
224	2019/03/27	08:41:53	67.8
225	2019/03/27	08:41:56	62.9
226	2019/03/27	08:41:59	62.5
227	2019/03/27	08:42:02	71.6
228	2019/03/27	08:42:05	70.7
229	2019/03/27	08:42:08	67.3
230	2019/03/27	08:42:11	60.5
231	2019/03/27	08:42:14	61.3
232	2019/03/27	08:42:17	56.6
233	2019/03/27	08:42:20	61.6
234	2019/03/27	08:42:23	72.5
235	2019/03/27	08:42:26	71.8
236	2019/03/27	08:42:29	67.1
237	2019/03/27	08:42:32	62.5
238	2019/03/27	08:42:35	71.7
239	2019/03/27	08:42:38	71.2
240	2019/03/27	08:42:41	64.2
241	2019/03/27	08:42:44	66.7
242	2019/03/27	08:42:47	64.7
243	2019/03/27	08:42:50	65.6
244	2019/03/27	08:42:53	72.3
245	2019/03/27	08:42:56	74.3
246	2019/03/27	08:42:59	67.2
247	2019/03/27	08:43:02	75.3
248	2019/03/27	08:43:05	72.7
249	2019/03/27	08:43:08	74.9
250	2019/03/27	08:43:11	72.4
251	2019/03/27	08:43:14	66.8
252	2019/03/27	08:43:17	65.0
253	2019/03/27	08:43:20	67.3
254	2019/03/27	08:43:23	67.8
255	2019/03/27	08:43:26	66.4
256	2019/03/27	08:43:29	66.6
257	2019/03/27	08:43:32	64.4
258	2019/03/27	08:43:35	66.8
259	2019/03/27	08:43:38	60.1
260	2019/03/27	08:43:41	57.2
261	2019/03/27	08:43:44	59.3
262	2019/03/27	08:43:47	60.2
263	2019/03/27	08:43:50	60.8
264	2019/03/27	08:43:53	68.7
265	2019/03/27	08:43:56	71.2
266	2019/03/27	08:43:59	73.6
267	2019/03/27	08:44:02	68.9
268	2019/03/27	08:44:05	72.4
269	2019/03/27	08:44:08	74.1
270	2019/03/27	08:44:11	74.0
271	2019/03/27	08:44:14	72.4
272	2019/03/27	08:44:17	72.4
273	2019/03/27	08:44:20	76.0
274	2019/03/27	08:44:23	69.8
275	2019/03/27	08:44:26	64.9
276	2019/03/27	08:44:29	60.3
277	2019/03/27	08:44:32	60.0
278	2019/03/27	08:44:35	57.3
279	2019/03/27	08:44:38	67.7
280	2019/03/27	08:44:41	67.7
281	2019/03/27	08:44:44	66.4
282	2019/03/27	08:44:47	66.0
283	2019/03/27	08:44:50	74.6

284	2019/03/27	08:44:53	80.4
285	2019/03/27	08:44:56	78.2
286	2019/03/27	08:44:59	77.3
287	2019/03/27	08:45:02	74.1
288	2019/03/27	08:45:05	74.2
289	2019/03/27	08:45:08	72.8
290	2019/03/27	08:45:11	72.1
291	2019/03/27	08:45:14	75.4
292	2019/03/27	08:45:17	72.8
293	2019/03/27	08:45:20	73.9
294	2019/03/27	08:45:23	70.4
295	2019/03/27	08:45:26	67.3
296	2019/03/27	08:45:29	65.5
297	2019/03/27	08:45:32	65.2
298	2019/03/27	08:45:35	70.4
299	2019/03/27	08:45:38	71.3
300	2019/03/27	08:45:41	64.7

Noise Measurement 3

Data Logger	
Duration (Seconds)	240
Weighting	A
Response	SLOW
Range	40-100
L05	78.7
L10	77.4
L50	70.3
L90	49.7
L95	42.3
Lmax	104.8
Time	3/27/2019 19:13
SEL	122.3
Leq	73

Date	Time	
3/27/2019	10:00	74
3/27/2019	11:00	74
3/27/2019	12:00	73
3/27/2019	13:00	76
3/27/2019	14:00	75
3/27/2019	15:00	73
3/27/2019	16:00	76
3/27/2019	17:00	75
3/27/2019	18:00	77
3/27/2019	19:00	73
3/27/2019	20:00	75
3/27/2019	21:00	71
3/27/2019	22:00	70
3/27/2019	23:00	70
3/28/2019	0:00	67
3/28/2019	1:00	66
3/28/2019	2:00	68
3/28/2019	3:00	55
3/28/2019	4:00	66
3/28/2019	5:00	71
3/28/2019	6:00	74
3/28/2019	7:00	77
3/28/2019	8:00	78
3/28/2019	9:00	76

24-Hr. Leq	**74**
CNEL	**78**
Max Hour	**78**

5-Minute Reference Noise Measurement
(Pump Station)

- Freq Weight : A
- Time Weight : SLOW
- Level Range : 40-100
- Max dB : 63.2 - 2019/03/27 09:22:43
- Level Range : 40-100
- SEL : 80.2
- Leq : 55.5
-

No.s	Date Time	(dB)
1	2019/03/27 09:21:38	54.9
2	2019/03/27 09:21:41	54.6
3	2019/03/27 09:21:44	54.7
4	2019/03/27 09:21:47	54.7
5	2019/03/27 09:21:50	54.6
6	2019/03/27 09:21:53	54.5
7	2019/03/27 09:21:56	54.4
8	2019/03/27 09:21:59	54.6
9	2019/03/27 09:22:02	54.6
10	2019/03/27 09:22:05	54.6
11	2019/03/27 09:22:08	54.5
12	2019/03/27 09:22:11	54.7
13	2019/03/27 09:22:14	54.5
14	2019/03/27 09:22:17	54.8
15	2019/03/27 09:22:20	55.1
16	2019/03/27 09:22:23	55.0
17	2019/03/27 09:22:26	55.5
18	2019/03/27 09:22:29	55.4
19	2019/03/27 09:22:32	55.2
20	2019/03/27 09:22:35	56.2
21	2019/03/27 09:22:38	58.1
22	2019/03/27 09:22:41	63.2
23	2019/03/27 09:22:44	61.0
24	2019/03/27 09:22:47	60.1
25	2019/03/27 09:22:50	62.0
26	2019/03/27 09:22:53	59.7
27	2019/03/27 09:22:56	58.6
28	2019/03/27 09:22:59	57.0
29	2019/03/27 09:23:02	57.9
30	2019/03/27 09:23:05	56.7
31	2019/03/27 09:23:08	55.6
32	2019/03/27 09:23:11	55.6
33	2019/03/27 09:23:14	55.5
34	2019/03/27 09:23:17	55.5
35	2019/03/27 09:23:20	55.2
36	2019/03/27 09:23:23	55.3
37	2019/03/27 09:23:26	55.3
38	2019/03/27 09:23:29	55.0
39	2019/03/27 09:23:32	54.9
40	2019/03/27 09:23:35	54.9
41	2019/03/27 09:23:38	54.8
42	2019/03/27 09:23:41	54.7
43	2019/03/27 09:23:44	54.7
44	2019/03/27 09:23:47	54.8
45	2019/03/27 09:23:50	54.9
46	2019/03/27 09:23:53	55.0
47	2019/03/27 09:23:56	54.7
48	2019/03/27 09:23:59	54.7
49	2019/03/27 09:24:02	54.7
50	2019/03/27 09:24:05	54.6
51	2019/03/27 09:24:08	54.7
52	2019/03/27 09:24:11	54.6
53	2019/03/27 09:24:14	54.5
54	2019/03/27 09:24:17	54.6
55	2019/03/27 09:24:20	54.5
56	2019/03/27 09:24:23	54.4
57	2019/03/27 09:24:26	54.2
58	2019/03/27 09:24:29	54.4
59	2019/03/27 09:24:32	54.1
60	2019/03/27 09:24:35	54.2
61	2019/03/27 09:24:38	54.2
62	2019/03/27 09:24:41	54.1
63	2019/03/27 09:24:44	54.1
64	2019/03/27 09:24:47	54.2
65	2019/03/27 09:24:50	54.1
66	2019/03/27 09:24:53	53.9
67	2019/03/27 09:24:56	54.0
68	2019/03/27 09:24:59	54.0
69	2019/03/27 09:25:02	54.0
70	2019/03/27 09:25:05	54.1
71	2019/03/27 09:25:08	54.1
72	2019/03/27 09:25:11	54.1
73	2019/03/27 09:25:14	54.2
74	2019/03/27 09:25:17	54.4
75	2019/03/27 09:25:20	54.5
76	2019/03/27 09:25:23	54.7
77	2019/03/27 09:25:26	54.8
78	2019/03/27 09:25:29	54.6
79	2019/03/27 09:25:32	54.5
80	2019/03/27 09:25:35	54.7
81	2019/03/27 09:25:38	54.4
82	2019/03/27 09:25:41	54.7
83	2019/03/27 09:25:44	54.4
84	2019/03/27 09:25:47	54.6
85	2019/03/27 09:25:50	54.7

86	2019/03/27	09:25:53	54.6
87	2019/03/27	09:25:56	56.6
88	2019/03/27	09:25:59	56.2
89	2019/03/27	09:26:02	54.6
90	2019/03/27	09:26:05	54.7
91	2019/03/27	09:26:08	54.2
92	2019/03/27	09:26:11	54.3
93	2019/03/27	09:26:14	54.3
94	2019/03/27	09:26:17	54.6
95	2019/03/27	09:26:20	54.6
96	2019/03/27	09:26:23	54.5
97	2019/03/27	09:26:26	54.5
98	2019/03/27	09:26:29	54.4
99	2019/03/27	09:26:32	54.4
100	2019/03/27	09:26:35	54.1

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/19/2019
Case Description: Central Basin Montebello - Pipeline Construction

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	60.0	50.0	40.0

Equipment

Description	Impact Device	Spec Usage (%)	Actual Lmax (dBA)	Receptor Lmax (dBA)	Estimated Distance (feet)	Shielding (dBA)
Dozer	No	40	81.7	151.0	0.0	
Front End Loader	No	40	79.1	151.0	0.0	
Excavator	No	40	80.7	151.0	0.0	

Results

	Calculated (dBA)		Noise Limits (dBA)				Noise Limit Exceedance (dBA)					
			Day		Evening		Night		Day		Evening		Night	
Equipment	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq	Lmax	Leq
Dozer	72.1	68.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.5	65.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Excavator	71.1	67.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	72.1	71.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 04/19/2019
Case Description: Central Basin Montebello - Pump Station Construction

**** Receptor #1 ****

Baselines (dBA)

Description	Land Use	Daytime	Evening	Night
Residential	Residential	60.0	50.0	40.0

Equipment

Description	Impact Device	Usage (%)	Spec Lmax (dBA)	Actual Lmax (dBA)	Receptor Distance (feet)	Estimated Shielding (dBA)
Dozer	No	40		81.7	160.0	0.0
Front End Loader	No	40		79.1	160.0	0.0
Grader	No	40		85.0	160.0	0.0

Results

Equipment	Calculated (dBA) Lmax	Calculated (dBA) Leq	Day Lmax	Day Leq	Evening Lmax	Evening Leq	Night Lmax	Night Leq	Noise Limit Exceedance (dBA) Day Lmax	Noise Limit Exceedance (dBA) Day Leq	Noise Limit Exceedance (dBA) Evening Lmax	Noise Limit Exceedance (dBA) Evening Leq	Noise Limit Exceedance (dBA) Night Lmax	Noise Limit Exceedance (dBA) Night Leq
Dozer	71.6	67.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Front End Loader	69.0	65.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grader	74.9	70.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	74.9	73.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Groundborne Noise and Vibration Modeling

Notes
The reference distance is measured from the nearest anticipated point of construction equipment to the nearest structure.

	Reference Level Inputs			
Equipment	**PPV_{ref} (in/sec)**	**Lv_{ref} (VdB)**	**RMS_{ref} (in/sec)**	**Reference Distance**
Vibratory Roller	0.21	94	0.050	25
Large bulldozer	0.089	87	0.022	25
Loaded trucks	0.076	83	0.014	25
Jack hammer	0.035	79	0.009	25
Small bulldozer	0.003	58	0.001	25

	Vibration Level at Receiver			
Equipment	**Distance (feet)**	**PPV_x (in/sec)**	**Lv_x (VdB)**	**RMS_x (in/sec)**
Vibratory Roller	25	0.2100	94	0.050
Large bulldozer	25	0.0890	87	0.022
Loaded trucks	25	0.0760	83	0.014
Jack hammer	25	0.0350	79	0.009
Small bulldozer	25	0.0030	58	0.001

Source
California Department of Transportation (Caltrans). 2013. Transportation and Construction Last Updated: 4/11/2019

Appendix F

AB 52 Letters

Central Basin
Municipal Water District

6252 Telegraph Road
Commerce, CA 90040-2512

Phone: 323.201.5500
Fax: 323.201.5550
www.centralbasin.org

March 25, 2019

Gabrieleno Band of Mission Indians – Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393
Covina, CA 91723

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Chairperson Salas:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

The proposed project is subject to the California Environmental Quality Act (CEQA) and is being prepared in compliance with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014). AB52 requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Gabrieleno Band of Mission Indians – Kizh Nation is important to the Central Basin Municipal Water District's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact Roman C. Gonzalez at (323) 201-5541 or via e-mail at romang@centralbasin.org. Thank you for your assistance.

Sincerely,

Kevin P. Hunt P.E.
General Manager
Central Basin Municipal Water District

Enclosure: Project Location Map

Central Basin
Municipal Water District

6252 Telegraph Road
Commerce, CA 90040-2512

Phone: 323.201.5500
Fax: 323.201.5550
www.centralbasin.org

March 25, 2019

Soboba Band of Luiseño Indians
Joseph Ontiveros, Cultural Resource Department
P.O. Box 487
San Jacinto, CA 92581

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Mr. Ontiveros:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

The proposed project is subject to the California Environmental Quality Act (CEQA) and is being prepared in compliance with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014). AB52 requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Soboba Band of Luiseño Indians is important to the Central Basin Municipal Water District's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact Roman C. Gonzalez at (323) 201-5541 or via e-mail at romang@centralbasin.org. Thank you for your assistance.

Sincerely,

Kevin P. Hunt P.E.
General Manager
Central Basin Municipal Water District

Enclosure: Project Location Map

Central Basin
Municipal Water District

6252 Telegraph Road
Commerce, CA 90040-2512

Phone: 323.201.5500
Fax: 323.201.5550
www.centralbasin.org

March 25, 2019

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Chairperson Morales:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

The proposed project is subject to the California Environmental Quality Act (CEQA) and is being prepared in compliance with California Public Resources Code § 21080.3.1 (Assembly Bill [AB] 52 of 2014). AB52 requires local governments to conduct meaningful consultation with California Native American tribes that have requested to be notified by lead agencies of proposed projects in the geographic area with which the tribe is traditionally and culturally affiliated.

The input of the Gabrieleno/Tongva San Gabriel Band of Mission Indians is important to the Central Basin Municipal Water District's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact Roman C. Gonzalez at (323)- 201-5541 or via e-mail at romang@centralbasin.org. Thank you for your assistance.

Sincerely,

Kevin P. Hunt P.E.
General Manager
Central Basin Municipal Water District

Enclosure: Project Location Map

Central Basin
Municipal Water District

6252 Telegraph Road
Commerce, CA 90040-2512

Phone: 323.201.5500
Fax: 323.201.5550
www.centralbasin.org

March 25, 2019

Gabrielino-Tongva Tribe
Linda Candelaria, Chairperson
80839, Camino Santa Juliana
Indio, CA 92203

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Chairperson Candelaria:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

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The input of the Gabrielino-Tongva Tribe is important to the Central Basin Municipal Water District's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact Roman C. Gonzalez at (323) 201-5541 or via e-mail at romang@centralbasin.org. Thank you for your assistance.

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Kevin P. Hunt P.E.

General Manager
Central Basin Municipal Water District

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March 25, 2019

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Chairperson
P.O. Box 490
Los Angeles, CA 90012

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Chairperson Dorame:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

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The input of the Gabrielino Tongva Indians of California Tribal Council is important to the Central Basin Municipal Water District's planning process. Under AB 52, you have 30 days from receipt of this letter to respond in writing if you wish you consult on the proposed project. If you require any additional information or have any questions, please contact Roman C. Gonzalez at (323) 201-5541 or via e-mail at romang@centralbasin.org. Thank you for your assistance.

Sincerely,

Kevin P. Hunt P.E.
General Manager
Central Basin Municipal Water District

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March 25, 2019

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 ½ Judge John Aiso St., #231
Los Angeles, CA 90012

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Chairperson Goad:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

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Kevin P. Hunt P.E.
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Central Basin Municipal Water District

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April 10, 2019

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Chairperson
P.O. Box 490
Bellflower, CA 90707

RE: AB 52 Consultation, Montebello Hills Recycled Water Pipeline and Pump Station Project, City of Montebello, Los Angeles County, California

Dear Chairperson Dorame:

The Central Basin Municipal Water District is preparing an Initial Study and Mitigated Negative Declaration (IS-MND) for the proposed Montebello Hills Recycled Water Pipeline and Pump Station Project (project). The proposed project consists of the installation of approximately 2,600 linear feet of new recycled water pipeline and a permanent pump station with a capacity of approximately 240 – 450 acre-feet per year. (A temporary pump station may be implemented until the permanent pump station can be completed). The proposed pipeline would be located below existing public roadways, and the proposed pump station would be located east of the intersection of Montebello Boulevard and West Jefferson Boulevard on the Montebello Hills Specific Plan site. Installation of the pipeline may include removal of existing asphalt concrete surfacing, excavation of the roadway, placement of new subterranean 12" - 16" recycled water pipelines within the existing paved roadway right-of-way, and street restoration. Recycled water conveyed by the proposed pipeline and pump station will be delivered to the Montebello Hills Specific Plan area. Recycled water will be used for construction purposes, dust control, and landscaping irrigation. Regular and routine maintenance activities would not include any ground-disturbing activities.

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