



**PLANNING COMMISSION
MEETING AGENDA**

TUESDAY, JANUARY 20, 2026 AT 6:30 PM

**CITY HALL COUNCIL CHAMBERS
1600 WEST BEVERLY BOULEVARD
MONTEBELLO, CALIFORNIA**

PLANNING COMMISSION MEMBERS

**ARMANDO MEDINA, CHAIR
NATALIA LOMELI, VICE CHAIR
VICTOR CUEVAS, PLANNING COMMISSIONER
ALICIA MORALES, PLANNING COMMISSIONER
NOAH LOPEZ, PLANNING COMMISSIONER**

CITY STAFF

**JOSEPH PALOMBI, DIRECTOR OF PLANNING AND COMMUNITY DEVELOPMENT
VIVIANA ESPARZA, PLANNING MANAGER
JILLIAN PICADO, SENIOR ADMINISTRATIVE ASSISTANT**

NOTICES

This Planning Commission Meeting will be held in person and will meet at **City Hall – City Council Chambers, 1600 West Beverly Boulevard, Montebello, California**. The meeting will be live streamed and can be watched on the City's website and YouTube Channel via the following link: <https://www.montebelloca.gov>, and may also be viewed on Spectrum Public Access Channel 3 for all Spectrum cable subscribers.

AMERICANS WITH DISABILITIES ACT: In compliance with the Americans with Disabilities Act (ADA) any person with a disability who requires special accommodations in order to participate in a meeting should contact **Jillian Picado** at (323) 887-1218 Monday-Thursday from 7:30 a.m.-5:30 p.m. Please call 48 hours prior to the meeting to ensure that reasonable arrangements can be made to provide accessibility to this meeting (28 CFR 35.102-35.104 ADA Title II 1203). If you require translation services, please contact us 24 hours before this meeting.

PUBLIC COMMENTS:

In-Person: For those interested in participating during the Public Comment period(s) or public testimony period for Public Hearings of the Planning Commission meetings, you may address the Planning Commission in person the day of the meeting. Speakers will be required to complete a speaker card provided at the door and submit it to **Jillian Picado** prior to each Public Comment announcement period. Staff will number and call each speaker card in the order received.

Via Email: The public may also submit emailed comments via the following email address: pcpubliccomment@montebelloca.gov up until the day of the meeting, **Tuesday, January 20, 2026, by 5:30 p.m.** These comments will be submitted to all members of the Planning Commission and will not be read aloud, but will be entered into the record of the proceedings to the extent they relate to matters listed on the posted agenda or otherwise address matters/issues within the subject matter jurisdiction of the Planning Commission. Any requests to provide public comment which is submitted after the deadlines indicated above will not be submitted to the Planning Commission, with the exception of non-agenda written item comments which will be held over for the next regularly scheduled meeting.

RULES OF DECORUM:

Pursuant to Section 54957.95 of the Government Code, the presiding member of the legislative body conducting a meeting, or their designee, is authorized to remove, or cause the removal of, an individual for disrupting the meeting. Any such removal will be preceded by a warning to the disruptive individual by the presiding member of the legislative body or their designee that the individual's behavior is disrupting the meeting and that the individual's failure to promptly cease their disruptive behavior may result in their removal.

AGENDA MATERIALS: The agenda and agenda packet related to items on this agenda are available for public inspection at City's website at: [Agendas, Minutes, and Videos](#),

IN CONSIDERATION OF OTHERS, PLEASE TURN OFF, OR MUTE, ALL CELL PHONES AND PAGERS
THANK YOU FOR YOUR COOPERATION

CALL TO ORDER

ROLL CALL

PLEDGE OF ALLEGIANCE

CORRECTIONS TO THE AGENDA

PUBLIC COMMENTS (30 MINUTES)

At this time, the general public may address the Commission/Committee on any items listed on the Agenda, including items not listed on the Agenda (Non-Agenda Items) that are within subject matter jurisdiction. Please be aware that the maximum time allotted for members of the public to speak shall not exceed three (3) minutes per person. State Law prohibits the Commission/ Committee from taking action or entertaining extended discussion on a topic not listed on the agenda. Please show courtesy to others and direct all of your comments to the Chairperson.

STAFF COMMUNICATIONS

MINUTES

1. **APPROVAL OF PLANNING COMMISSION MINUTES – DECEMBER 16, 2025.**

PUBLIC HEARING

2. **CONDITIONAL USE PERMIT (“CUP”) NO. PC-2025-0008-CUP, TO ALLOW THE ESTABLISHMENT AND OPERATION OF A PUBLIC UTILITY FACILITY ON A VACANT COMMERCIAL LOT LOCATED AT 716 WASHINGTON BOULEVARD, MONTEBELLO, CALIFORNIA 90640.**

RECOMMENDATION: It is recommended that the Planning Commission conduct a public hearing and take the following action:

1. ADOPT Resolution No. 13-25 approving a Conditional Use Permit (“CUP”) No. PC-2025-0008-CUP, to allow the establishment and operation of a Public Utility facility, consisting of the onsite development of two new potable water wells and a slump stone block building at 716 Washington Boulevard, Montebello, California (the “Project Site”); and
2. ADOPT the Mitigated Negative Declaration (“MND”) prepared in connection with the proposed Conditional Use Permit, in compliance with the requirements of the California Environmental Quality Act (“CEQA”).

PLANNING COMMISSION ORALS

Planning Commission member announcements; requests for future agenda items; conference/meetings reports.

ADJOURNMENT

The City of Montebello Planning Commission will adjourn to the next Regular Meeting on **February 03, 2026, at 6:30 p.m.** at City Hall Council Chambers located at 1600 W. Beverly Boulevard, Montebello, CA 90640.

I, Jillian Picado, Senior Administrative Assistant for the City of Montebello, hereby certify that a copy of this agenda has been posted on or before **Thursday, January 15, 2026 5:30 p.m.**

A handwritten signature in black ink, consisting of a large, stylized 'S' followed by a smaller 'A' and a few loops.

Senior Administrative Assistant



CITY OF MONTEBELLO

PLANNING COMMISSION MEETING AGENDA

MINUTES

TUESDAY, DECEMBER 16, 2025 AT 6:30 PM

**CITY HALL COUNCIL CHAMBERS
1600 WEST BEVERLY BOULEVARD
MONTEBELLO, CALIFORNIA**

CALL TO ORDER – Chair Medina called the meeting to order at 6:31 p.m.

ROLL CALL – Chair Medina, Vice-Chair Lomeli, Commissioner Morales, Commissioner Cuevas, and Commissioner Lopez.

PLEDGE OF ALLEGIANCE – Chair Medina.

CORRECTIONS TO THE AGENDA – None.

PUBLIC COMMENTS (30 MINUTES)

At this time, the general public may address the Commission/Committee on any items listed on the Agenda, including items not listed on the Agenda (Non-Agenda Items) that are within subject matter jurisdiction. Please be aware that the maximum time allotted for members of the public to speak shall not exceed three (3) minutes per person. State Law prohibits the Commission/ Committee from taking action or entertaining extended discussion on a topic not listed on the agenda. Please show courtesy to others and direct all of your comments to the Chairperson.

STAFF COMMUNICATIONS

Director Palombi acknowledged that Montebello was recognized and awarded as the Most Business Friendly City in Los Angeles County by the Los Angeles County Economic Development Corporation ("LAEDC"). Director Palombi noted this accolade is a testament to the Planning and Community Development staff and that they are honored to be recognized. Director Palombi informed the Commission that there would be a news piece airing on ABC 7 on Thursday, December 18th, discussing the Most Business Friendly City award. Director Palombi further wished the Commission happy holidays.

MINUTES

1. APPROVAL OF THE MINUTES FROM THE PLANNING COMMISSION MEETING HELD ON NOVEMBER 04, 2025.

Vice-Chair Lomeli motioned to approve the meeting minutes, and was Seconded by Commissioner Morales. Planning Manager, Viviana Esparza took roll, and the item was approved 5-0.

PUBLIC HEARING

2. SITE PLAN REVIEW (“SPR”), ZONE VARIANCE (“ZV”), CONDITIONAL USE PERMIT (“CUP”), AND PARKING MANAGEMENT PLAN (“PMP”) (CASE NOS. PC-2025-0011-SPR; PC-2025-0012-ZV; PC-2025-0007-CUP; AND PC-2025-0010-PMP), ASSOCIATED WITH THE CONSTRUCTION OF A NEW COMMERCIAL BUILDING CONTAINING SEVEN RETAIL AND OFFICE UNITS, LOCATED AT VACANT LOTS IDENTIFIED AS ASSESSOR PARCEL NUMBERS 6346-003-022 (THE “PROJECT SITE”).

Director Palombi introduced the item, followed by a presentation from Assistant Planner, Ms. Grace Hayashi, regarding the adoption of Resolution No. 11-25, which recommends the Planning Commission approve a Site Plan Review, Zone Variance, Conditional Use Permit, and Parking Management Plan associated with the construction of a new 5,814 square foot, one-story commercial building containing seven (7) retail and office units, on two current vacant parcels. Director Palombi further noted that the City Attorney is not in attendance but is available via telephone if there is a need for questions. During her presentation, Ms. Hayashi pointed out a correction to the staff report since its original drafting. The correction reflects the applicant's addition of landscaping, which reduced the proposed commercial building size from 5,814 square feet to 5,516 square feet. Ms. Hayashi explained that there will be an additional parking space provided beyond the required minimum as a result of this correction. Ms. Hayashi further clarified that the 300 square foot decrease in the proposed building has also been updated in the resolution. Chair Medina requested to hear from the applicant. The applicant, Chuck Lao, who is part of Lou Architects, introduced himself and explained that the project is an infill development, as mentioned previously by staff. Mr. Lao explained they worked closely with staff for the past couple of months to achieve the project being presented. Mr. Lao explained it is a straightforward building that serves the community and is consistent with the goals and objectives of the City's general plan, specifically the land use element. The commissioners posed questions regarding community outreach regarding design process, neighbor concerns, the types of businesses/tenants occupying the spaces, landscaping and landscape buffer, parking circulation, security concerns, privacy and fencing, and the generation of jobs. Both Mr. Lao and Ms. Hayashi fielded the commissioner's questions. The Public Hearing was opened at 7:00 p.m. No members of the public approached the podium for comments or questions. The Public Hearing was closed at 7:00 p.m. Commissioner Morales noted that all questions posed by the commission were successfully answered, and no public comments or emails were received regarding the project, which provides clarity. Chair Medina notes he supports this kind of project and building for the City and believes it supports Montebello's Business Friendly environment. Chair Medina noted he is hopeful that the close proximity of this project to medical facilities will lend itself to generating higher-paying jobs for Montebello residents. Commissioner Cuevas noted that he was initially concerned about the neighbors, their homes, and their concerns regarding the project and potential intrusiveness adjacent to someone's home; however, confirmed he felt more comfortable after reviewing and discussing the design of the project. Commissioner Morales motioned to adopt Resolution No. 11-25 and approve a SPR, ZV, CUP, and PMP associated with the construction of a new 5,516 square foot, one-story commercial building containing seven (7) retail and office units. Commissioner Cuevas seconded the motion. Ms. Esparza conducted a roll call vote, and the item was approved 4-1. Chair Medina, Commissioner Cuevas, Commissioner Morales, and Commissioner Lopez all motioned in favor, while Vice-Chair Lomeli abstained.

PLANNING COMMISSION ORALS – None.

ADJOURNMENT

The meeting was adjourned at 7:07 p.m. to the next regularly scheduled meeting that will be held on January 6, 2026.

Joseph Palombi, Planning Commission Secretary



ITEM # 2

**CITY OF MONTEBELLO
PLANNING COMMISSION AGENDA STAFF REPORT**

TO: Members of the Planning Commission

FROM: Joseph Palombi, Planning & Community Development Director

BY: Grace Hayashi, Assistant Planner

SUBJECT: **CONDITIONAL USE PERMIT (“CUP”) NO. PC-2025-0008-CUP, TO ALLOW THE ESTABLISHMENT AND OPERATION OF A PUBLIC UTILITY FACILITY ON A VACANT COMMERCIAL LOT LOCATED AT 716 WASHINGTON BOULEVARD, MONTEBELLO, CALIFORNIA 90640.**

DATE: January 20, 2026

RECOMMENDATION(S):

It is recommended that the Planning Commission conduct a public hearing and take the following action:

1. ADOPT Resolution No. 13-25 approving a Conditional Use Permit (“CUP”) No. PC-2025-0008-CUP, to allow the establishment and operation of a Public Utility facility, consisting of the onsite development of two new potable water wells and a slump stone block building at 716 Washington Boulevard, Montebello, California (the “Project Site”); and
2. ADOPT the Mitigated Negative Declaration (“MND”) prepared in connection with the proposed Conditional Use Permit, in compliance with the requirements of the California Environmental Quality Act (“CEQA”).

BACKGROUND:

The California Water Service Company (“Cal Water”), East Los Angeles District, has provided water utility services in the East Los Angeles area since 1928. To meet customer demand, Cal Water relies on a combination of local groundwater resources and

imported water purchased from the Metropolitan Water District of Southern California (“MWD”), which is supplied from the Colorado River and the State Water Project in Northern California.

To maximize the use of local groundwater supplies, on October 1, 2025, Marcos Campos, on behalf of California Water Service Company (“the Applicant”), submitted an application for a Conditional Use Permit to allow the establishment of a Public Utility facility on a vacant commercially zoned parcel located at 716 Washington Boulevard. The proposed project includes the development of two new potable water wells and the construction of a slump stone block building to house the associated electrical equipment, an employee restroom, an emergency generator, and chemical storage tanks for water disinfection.

Pursuant to Chapter 17.30.020 and Appendix A of the Montebello Municipal Code (“MMC”), “Public Utilities, Operated by Mutual Agencies” within the C-M (Heavy Commercial – Limited Industrial) zoning district requires approval of a Conditional Use Permit.

On October 1, 2025, staff issued a deemed complete letter to the Applicant.

PROJECT /APPLICANT INFORMATION

Project Location:	716 Washington Boulevard, Montebello, CA 90640
Assessor’s Parcel Number (APN):	6352-028-012
Project Applicant:	Marcos Campos (California Water Service Company)
Property Owner:	Clyde Arucan
General Plan Designation:	Corridor
Zoning:	C-M (Heavy Commercial – Limited Industrial)

SITE CHARACTERISTICS

The proposed project involves the development of two new water wells and a slump stone block building on an existing vacant property located on the Washington Boulevard, measuring approximately 38,500 square feet (.88 acres) and situated within the City’s C-M (Heavy Commercial-Limited Industrial) zoning district. The property is surrounded by a mix of commercial and residential uses.

The surrounding zoning and land uses are listed as follows:

Direction	Zone	General Plan Land Use Designation
North	R-3	Neighborhood
South	C-M	Corridor
East	C-M	Corridor
West	C-M	Corridor

The image below illustrates the existing conditions of the project site located at 716 Washington Boulevard. The Assessor’s Parcel Number (“APN”) for the project is APN

6352-028-012. The site is located at the intersection of Washington Boulevard and Carob Way. The site is currently vacant and unimproved, with no existing structures or permanent improvements. The surrounding area is zoned for a variety of uses including three Heavy Commercial (C-M) parcels, and one multifamily (R-3) parcel.



ENVIRONMENTAL:

An Initial Environmental Study recommending adoption of a Mitigative Negative Declaration has been prepared and posted in accordance with the California Environmental Quality Act. The Initial Study/Mitigative Negative Declaration was circulated for a 30-day public review period (December 9, 2025, to December 30, 2025) in accordance with CEQA procedures. The Initial Study identified potentially significant effects related to the following topics: Geology/Soils, Noise, and Cultural Resources. However, with incorporation of mitigation measures, it was determined that all potentially significant effects would be reduced to a less-than-significant level. No public comments were received during the public review period of the draft IS/MND. Summarized below are the topics identified in the IS/MND where it was determined that mitigation measures were necessary, as well as summaries of the relevant mitigation measures.

Geology/Soils (Less than Significant with Mitigation)

The proposed groundwater well is anticipated to extend to a total depth of between 800 and 1,000 feet and will be constructed using the reverse circulation hydraulic rotary drilling method. While drilling activities will impact potentially fossil-bearing Pleistocene-age old alluvial-fan deposits and other geologic units present in the deeper subsurface, this drilling method produces only fragmentary cuttings that are mixed with drill fluid and generally lack

precise stratigraphic control, making the recovery of scientifically significant fossil remains unlikely.

Ground disturbance is anticipated to be required for construction of the block wall building and any subgrade infrastructure. Site grading and/or excavation for equipment foundations may also be required for other Project components, including the greensand vessels, tanks, transformers, and well equipment. Any site grading, trenching, or miscellaneous excavation at the site that takes place within previously undisturbed and unweathered Pleistocene-age old alluvial-fan deposits has the potential to impact paleontological resources. Mitigation of these potentially significant impacts can be ensured by implementing the following mitigation measure, as required by Action A8.19 of the Montebello General Plan.

The Project applicant shall retain a Qualified Professional Paleontologist to develop and implement a Paleontological Resources Impact Mitigation Plan (PRIMP) that shall be approved by the City of Montebello, to ensure that impacts to paleontological resources resulting from construction of the project are less than significant. The PRIMP shall include measures for a pre-construction survey, a Worker Environmental Awareness Program, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable. Final reporting shall be reviewed and approved by the City of Montebello.

Noise (Less than Significant with Mitigation)

Operation of the proposed water supply well would involve an underground electric pump that would not generate audible offsite noise. Routine maintenance would occur approximately every five to ten years and may include cleaning, swabbing, or full well rehabilitation. Full rehabilitation activities would temporarily generate noise from off-road diesel equipment but would be limited to the City's allowable construction hours under Municipal Code Section 9.08.050(l). A daytime construction noise standard of 90 dBA at nearby residences was applied in the noise analysis. The nearest sensitive receptors are multi-family residences located approximately 8 feet north and 10 feet east of the Project site. Noise levels during well-rehabilitation were evaluated using standard methodologies, with results provided in Table 4-12 of the Noise Report in the IS/MND (Attachment C of the Staff Report).

Construction of the proposed well and water treatment system would generate temporary noise from construction equipment. Noise impacts would depend on equipment type, location, duration, and proximity to sensitive land uses. Construction activities would generally be limited to hours allowed by the Municipal Code; however, certain phases (well drilling, casing, and test pumping) would occur continuously. For daytime construction, a 90 dBA standard was applied, while nighttime activities were evaluated against the City's 60 dBA residential nighttime noise standard. Construction noise levels at the nearest sensitive receptors were analyzed using standard methods, with results summarized in Table 4-10 and detailed in the Noise Report appendices in the IS/MND (Attachment C of the Staff Report).

The Project applicant shall install a temporary sound wall on the entire north side and the northern 165 feet of the east side of the Project site. The temporary sound wall shall be a minimum 24 feet high and be constructed with steel posts, 2x4 framing between the posts and minimum ½" plywood or oriented strand board (OSB) covering both sides of the 2x4 framing, with no cutouts or openings in the sound wall. The sound wall shall be installed in

Phase 1 of construction activities and shall remain in place until the completion of Phase 6 construction activities.

Cultural Resources (Less than Significant with Mitigation)

No physical or archival evidence of cultural resources was identified within the Project site. Although no surface archaeological resources were observed, visibility was limited by dense vegetation. The site has been previously disturbed, reducing the likelihood of intact surface resources; however, the potential for buried resources remains due to the site's proximity to the Rio Hondo alluvial floodplain. Mitigation Measure CUL-1 would be implemented to ensure that any potential impacts to cultural resources are reduced to less than significant and consistent with City policies.

The Applicant shall retain the services of a Qualified Archaeologist, meeting the Secretary of the Interior Standards, on an on-call basis for the duration of ground disturbing construction activity. The Qualified Archaeologist or cultural resources specialist working under the direction of the Qualified Archaeologist, shall provide training to inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the Project's initial onsite safety meeting and shall explain the applicable protocols, procedures, and legal basis for the protection of significant archaeological resources. In the event of an inadvertent discovery of potential archaeological resources (artifacts or features) during ground-disturbing activities, construction activities within a 50-foot radius of the discovery shall be halted while the Qualified Archaeologist assesses the find. If the resource is determined to be significant or unique through significance evaluation, and avoidance is not possible, appropriate mitigation or treatment shall be established and implemented. These might include an archaeological mitigation and monitoring plan, treatment, or data recovery programs. All monitoring or associated plans would be prepared and implemented under the direction of the qualified archaeologist. All required close-out reporting would be completed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR).

ANALYSIS:

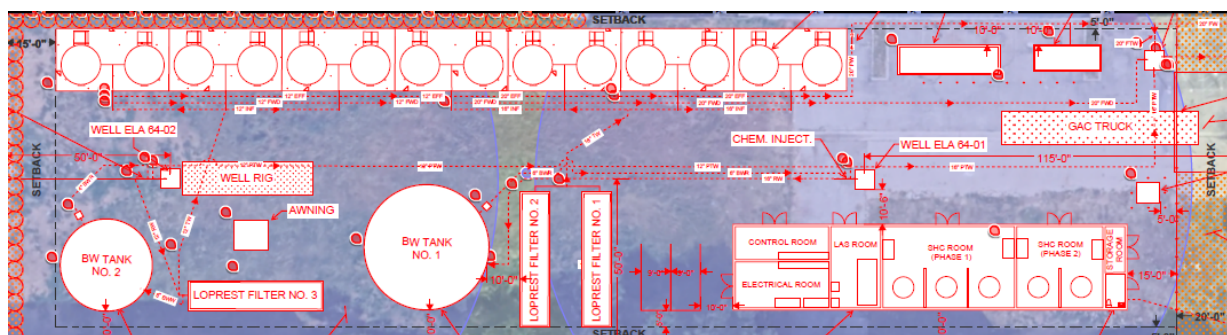
PROJECT DESCRIPTION

Cal Water is requesting approval of a Conditional Use Permit to allow the establishment and operation of a Public Utility facility on a vacant commercially zoned parcel located at 716 Washington Boulevard. The project consists of the development of two new potable water wells and the construction of a slump stone block building to house the associated electrical equipment, an employee restroom, an emergency generator, and chemical storage tanks for water disinfection. As identified in the site plan, the proposal will consist of the following elements:

- (2) water wells with a flow rate of 2,500 to 3,000 gallons per minute (GPM).
- (7) GAC treatment vessel pairs (total of 14 vessels).
- A stone block building measuring approximately 3,120 square feet.
- An approximately 95 square foot awning structure to house electrical equipment.

- A diesel generator.
- (3) Greensand filters.
- A 2000A transformer.
- An eight-foot wrought iron fence will be constructed along the front of the property with a 30-foot wide sliding gate.
- Landscaping along the perimeter of the site.
- Off-site improvements include the installation of transmission pipelines to connect to existing facilities, a storm drain pipeline, and a new driveway approach.

Site Plan Layout:



The purpose of the new water wells is to increase the reliability of supply to the Montebello service area. The proposed wells and treatment system would enable increased utilization of local groundwater resources, thereby reducing reliance on imported water purchased from MWD, the local wholesale supplier. Completing this project and utilizing groundwater would have a lower overall life cycle cost compared to purchasing water. Furthermore, maximizing local groundwater supply will ensure a continued supply, reduce supply variability during dry years, and provide water availability for fire and essential services in the event of a major disaster.

The proposed development complies with the off-street parking requirements of MMC Section 17.52.020 – *New Uses*, which requires that any new building or structure erected provide off-street parking. As previously noted, the applicant is proposing to construct an approximately 3,120 square foot block building to house the associated electrical equipment for the use of an employee restroom. For Public Utility uses, the MMC requires a minimum of two (2) parking spaces; one (1) space for each vehicle kept in connection with use; plus one (1) space for every two (2) employees on the largest shift. The proposed operation will remain unmanned, with the exception of Cal Water personnel who will visit the site daily to ensure that the equipment is operating properly. Therefore, a total of two (2) parking spaces are required and will be provided as part of the project.

As proposed, the subject site will be in compliance with the landscaping requirements pursuant to the MMC, including a landscaping buffer for privacy screening along the property line on the sides of the parcel that are abutting a residential use.

Conditional Use Permit

Through the CUP process, the City may consider special uses which may be essential or desirable to a particular community but are not allowed as a matter of right within a particular zoning district. Section 17.70.010 of the MMC states that the purpose of conditional use permit is to allow proper integration of uses into the community which may only be suitable in specific locations, or only if such uses are designed and constructed in a particular manner on the site, and under certain conditions. In this case, the applicant is proposing to establish and operate a Public Utility facility. Pursuant to Chapter 17.30.020 and Appendix A of the MMC, "Public Utilities, Operated by Mutual Agencies" within the C-M (Heavy Commercial – Limited Industrial) zoning district requires approval of a Conditional Use Permit.

As part of the decision-making process, the Planning Commission will have to consider if CUP findings can be made to allow for the use. Such considerations will have to determine that the use will not be detrimental to surrounding property and that the use will comply with the intent and purpose of the General Plan.

Pursuant to Section 17.70.070 of the MMC, before any CUP shall be granted, all of the following findings must be made:

A. That the site for the proposed use is adequate in shape and size;

The subject site is currently undeveloped and consists of approximately 8,500 square feet, located on Washington Boulevard near the intersection of Carob Way. The site is adequate in both shape and size to accommodate the proposed water wells and associated equipment. The parcel provides sufficient area to allow for the installation, operation, and maintenance of the proposed improvements while meeting applicable development standards and operational requirements. Therefore, the site is suitable to support the proposed use.

B. That the site has sufficient access to streets and highways, and is adequate in width and pavement type to carry the quantity and quality of traffic generated by the proposed use;

The subject site is accessible via Washington Boulevard, which is an improved roadway designed to accommodate existing traffic volumes in the surrounding area. The site's access is adequate in width to safely support the limited vehicular trips associated with the proposed use. The proposed operation will remain unmanned, with only periodic daily visits by Cal Water personnel for inspection and maintenance purposes. Therefore, the proposed use is not expected to generate a measurable increase in traffic or adversely affect the roadway capacity or safety.

C. That the proposed use will not have an adverse effect upon adjacent or abutting properties;

The potential impacts of the proposed project are limited to Geology/Soils, Noise, and Cultural Resources, all of which will be effectively mitigated. Pump motors will be housed within sound-attenuating enclosures, and the diesel-powered emergency generator will be equipped with sound enclosures to reduce noise emissions to levels below the City

requirements. Additionally, development of the currently vacant site will reduce existing dust conditions, and the proposed landscaping will enhance the visual character of the site. The project includes adequate landscaping throughout the site, as well as landscaped buffers along the perimeter, to minimize visual impacts and protect the privacy of adjacent residential uses. In addition, security measures will be implemented to ensure the safe and reliable operation of the facility. With the incorporation of these design features and mitigation measures, the proposed use will not significantly impact the privacy, safety, or environmental quality of neighboring properties.

D. Describe how the proposed use will meet the general purpose and intent of the Zoning Code and how it will be consistent with the General Plan;

The proposed use is consistent with the objectives, policies, land use designations, and programs outlined in the City of Montebello General Plan. Development of the proposed potable water wells and associated equipment directly supports General Plan Policies P1.7, P3.7, and P3.8, which emphasize protecting, conserving, and replenishing existing and future water resources, maintaining high-quality and reliable potable water services, and developing facilities necessary to meet current and future water demands. The project aligns with the intent of the Zoning Code by providing essential public utility infrastructure that supports community health, safety, and welfare, consistent with the overarching objectives of the General Plan.

GENERAL PLAN CONSISTENCY

The City's General Plan Land Use designation for the project site is "Corridor," which is intended to support a mix of transit-oriented, commercial, and infrastructure-related uses that serve the broader community. Furthermore, the "Our Natural Community" chapter of the General Plan emphasizes the City of Montebello's commitment to protecting, conserving, and replenishing existing and future water resources. In addition, Policies P3.7 and P3.8 of the "Our Well-Planned Community" chapter call for maintaining high-quality and reliable potable and non-potable water services, diversifying water supply sources, and maintaining, upgrading, and expanding water pipeline, storage, and pumping infrastructure to meet existing and future domestic, commercial, and fire flow demands throughout the City.

Collectively, these policies support the development of the proposed potable water wells and associated equipment, as the project will enhance water supply reliability, improve infrastructure resilience, and ensure the City's ability to meet current and future water demands in a manner consistent with the General Plan's goals and land use objectives.

The following General Plan Goals and Policies are applicable to the development of the water wells and associated equipment at the Project Site:

General Plan "Our Natural Community" Element policy 1 (P1.7) *"Montebello will protect, conserve, and replenish existing and future water resources."*

General Plan "Our Well-Planned Community" Element policy 3 (P3.7) *"Maintain high-quality reliable potable water and non-potable water services, diversify supply and maintain and create facilities that meet existing and future water demands, including drought conditions."*

General Plan “Our Well-Planned Community” Element policy 3 (P3.8) *“Maintain, upgrade, and expand water pipeline, storage, and pumping infrastructure to meet projected domestic, commercial, and fire flow demands for all land uses within the City.”*

REPORTS RECEIVED

On October 20, 2025, the application materials for Case Number PC-2025-008-CUP were forwarded to the City’s Building Division, Public Works Department, Montebello Fire Department, and the Montebello Police Department for review, comments, and conditions. The department conditions of approval that were provided are included in Resolution No. 13-25 (please see Attachment A).

PUBLIC NOTIFICATION

Pursuant to MMC Section 17.78 (Public Hearings, Notices, and Appeals), the following noticing was performed:

- On December 4, 2025, the Public Hearing Notice was published in the Daily Journal (Montebello News); and
- On December 4, 2025, the Public Hearing Notice was mailed to all property owners within a 300-foot radius from the exterior boundaries of project site.

SUMMARY:

Staff believes that the required findings exist to support approval of Conditional Use Permit No. PC-2025-0008-CUP to establish and operate a public utility facility on a vacant commercially zoned parcel located at 716 Washington Boulevard. The proposed project includes the development of two new potable water wells and construction of a slump stone block building to house associated equipment necessary to support reliable water service within the Montebello service area. An Initial Study was prepared in accordance with the California Environmental Quality Act (CEQA), which identified potentially significant impacts related to Geology/Soils, Noise, and Cultural Resources. With implementation of the identified mitigation measures, all impacts would be reduced to less-than-significant levels.

Based on the analysis contained in this Staff Report, staff finds that the required findings for approval of a Conditional Use Permit can be made and that the project is consistent with the City of Montebello General Plan, Zoning Ordinance, and applicable CEQA requirements. The proposed project will serve an essential public utility function by enhancing local water supply reliability while minimizing potential environmental and neighborhood impacts.

ATTACHMENT(S)

1. Attachment A. Resolution No. 13-25 (PC-2025-0008-CUP)
2. Attachment B. Proposed Plans

3. Attachment C. Initial Study/Mitigated Negative Declaration

**CITY OF MONTEBELLO
PLANNING COMMISSION**

RESOLUTION NO. 13-25

A RESOLUTION OF THE PLANNING COMMISSION OF THE CITY OF MONTEBELLO, CALIFORNIA, APPROVING A CONDITIONAL USE PERMIT (CASE NO. PC-2025-0008-CUP) WITH CONDITIONS TO ALLOW THE ESTABLISHMENT AND OPERATION OF A PUBLIC UTILITY FACILITY ON A VACANT COMMERCIAL LOT LOCATED AT 716 WASHINGTON BOULEVARD, MONTEBELLO, CA 90640 AND ADOPTION OF MITIGATED NEGATIVE DECLARATION.

WHEREAS, on October 1, 2025, Marcos Campos on behalf of California Water Service Company, the (“Applicant”) filed a Conditional Use Permit (“CUP”) application (PC-2025-0008-CUP) to allow the establishment and operation of a Public Utility facility on a vacant commercial lot located at 716 Washington Boulevard, Montebello, California 90640, identified as Los Angeles County Assessor’s Parcel No. 6352-028-012 (the “Project Site”); and

WHEREAS, pursuant to Appendix A - Index of Primary Uses of the Montebello Municipal Code, approval of a Conditional Use Permit is required for public utilities, operated by mutual agencies, within the City’s C-M (Heavy Commercial—Limited Industrial) Zone; and

WHEREAS, the operation of the proposed public utility facility will allow for Montebello to maintain high-quality reliable potable water and protect and replenish existing and future water resources consistent with the City’s General Plan goals, objectives, and policies; and

WHEREAS, an Initial Study and Mitigated Negative Declaration (IS/MND) was prepared for the project, which was available for public comment at the City of Montebello Planning and Community and Development Department and was posted on the City of Montebello website and was recorded at the Los Angeles County Recorder’s Office pursuant to CEQA Guidelines Section 15072(a); and

WHEREAS, the Applicant prepared an Initial Study and Mitigated Negative Declaration (IS/MND) for the proposed project which had a noticed review period of December 9, 2025, to December 30, 2025; and

WHEREAS, pursuant to Section 21067 of the Public Resources Code, and Section 15367 of the State California Environmental Quality Act (“CEQA”) Guidelines (Cal. Code

Regs., tit. 14, § 15000 et seq.), the City of Montebello is the lead agency for the proposed Project; and

WHEREAS, a duly noticed public hearing has been held, at which the Planning Commission received and considered staff presentations, recommendations, public testimony, and all other substantial evidence presented at the public hearing and included in the record for this matter; and

WHEREAS, all other legal prerequisites to the adoption of this Resolution have occurred.

NOW THEREFORE, the Planning Commission of the City of Montebello hereby finds, declares, and resolves as follows:

SECTION 1. RECITALS. Based on staff presentations, testimony, and all other evidence presented to the Planning Commission during the noticed public hearing on this matter, the Planning Commission hereby finds and declares that the foregoing recitals are true and correct and incorporates them herein as substantive findings into this Resolution.

SECTION 2. FINDINGS. Pursuant to Section 17.70.070 of the Montebello Municipal Code, before any CUP is granted, the following findings must be made:

A. That the site for the proposed use is adequate in size and shape;

The subject site is currently undeveloped and consists of approximately 8,500 square feet, located on Washington Boulevard near the intersection of Carob Way. The site is adequate in both shape and size to accommodate the proposed water wells and associated equipment. The parcel provides sufficient area to allow for the installation, operation, and maintenance of the proposed improvements while meeting applicable development standards and operational requirements. Therefore, the site is suitable to support the proposed use.

B. That the site has sufficient access to streets and highways, and is adequate in width and pavement type to carry the quantity and quality of traffic generated by the proposed use;

The subject site is accessible via Washington Boulevard, which is an improved roadway designed to accommodate existing traffic volumes in the surrounding area. The site's access is adequate in width to safely support the limited vehicular trips associated with the proposed use. The proposed operation will remain

unmanned, with only periodic daily visits by Cal Water personnel for inspection and maintenance purposes. Therefore, the proposed use is not expected to generate a measurable increase in traffic or adversely affect the roadway capacity or safety.

C. That the proposed use will not have an adverse effect upon adjacent or abutting properties;

The potential impacts of the proposed project are limited to Geology/Soils, Noise, and Cultural Resources, all of which will be effectively mitigated. Pump motors will be housed within sound-attenuating enclosures, and the diesel-powered emergency generator will be equipped with sound enclosures to reduce noise emissions to levels below the City requirements. Additionally, development of the currently vacant site will reduce existing dust conditions, and the proposed landscaping will enhance the visual character of the site. The project includes adequate landscaping throughout the site, as well as landscaped buffers along the perimeter, to minimize visual impacts and protect the privacy of adjacent residential uses. In addition, security measures will be implemented to ensure the safe and reliable operation of the facility. With the incorporation of these design features and mitigation measures, the proposed use will not significantly impact the privacy, safety, or environmental quality of neighboring properties.

D. That the proposed use is consistent with the objectives of the community redevelopment project area in which the site is located. Put another way, the finding must be made that the proposed use will meet the general purpose and intent of the Zoning Code and will be consistent with the purpose and intent of the General Plan and any applicable specific plan.

The proposed use is consistent with the objectives, policies, land use designations, and programs outlined in the City of Montebello General Plan. Development of the proposed potable water wells and associated equipment directly supports General Plan Policies P1.7, P3.7, and P3.8, which emphasize protecting, conserving, and replenishing existing and future water resources, maintaining high-quality and reliable potable water services, and developing facilities necessary to meet current and future water demands. The project aligns with the intent of the Zoning Code by providing essential public utility infrastructure that supports community health, safety, and welfare, consistent with the overarching objectives of the General Plan.

SECTION 3. CEQA. Pursuant to provisions of the California Environmental

Quality Act ("CEQA") and CEQA Guidelines, Section 15063, and following an Initial Study and environmental assessment of possible adverse impacts, the project will not have a significant effect on the environment because of the inclusion of certain mitigation measures which lessened potential adverse impacts to a level of less than significant. A Mitigated Negative Declaration was prepared as part of this Project's application, which was circulated in accordance with CEQA. The Planning Commission hereby adopts the Mitigated Negative Declaration and find it adequate to assess the environmental impacts of the Project and there is no substantial evidence that the Project will have a significant effect on the environment. This approval of the Mitigated Negative Declaration reflects the independent judgment and analysis of the Planning Commission of the City of Montebello. The full record is available for review in the Planning and Community Development Department.

SECTION 4. The Planning Commission hereby approves Conditional Use Permit No. PC-2025-0008-CUP to allow the establishment and operation of a Public Utility facility on a vacant commercial lot at the Project Site, subject to the conditions set forth in Section 5 of this Resolution.

SECTION 5. CONDITIONS. The Planning Commission finds that the foregoing conditions of approval are necessary and appropriate.

A. Standard Conditions

1. The Applicant shall defend, indemnify, and hold harmless the City, its elected and appointed officials, agents, officers, and employees from any claim, action, or proceeding brought against the City, its elected and appointed officials, agents, officers, or employees arising out of, or which are related to the Applicant's project or application (collectively referred to as "proceedings"). The indemnification shall include, but not be limited to, damages, fees and/or costs awarded against the City, if any, and cost of suit, attorney's fees, and other costs, liabilities, and expenses incurred or awarded in connection with the proceedings whether incurred by the Applicant, the City and/or the parties initiating or bringing such proceedings. This indemnity provision shall include the Applicant's obligation to indemnify the City for all the City's reasonable and actual costs, fees, and damages that the City incurs in enforcing the indemnification provisions set forth herein. The City shall have the right to choose its own legal counsel to represent the City's interest in the proceedings.
2. The development of the subject site shall be consistent with all provisions of the Montebello Municipal Code ("MMC"), Conditional Use Permit No. PC-2025-

0008-CUP/ENV No. 12-25, approved plans, and the specifications of the City's Planning Division ("Planning Division" or "Planning Department").

3. Within thirty (30) days of the Planning Division transmittal of the Acceptance Form, the Applicant shall sign and return a copy of the Acceptance Form, agreeing to the conditions of approval and acknowledging that failure to comply with such conditions shall constitute grounds for potential revocation of the permit approval. Failure to return the Acceptance Form within thirty (30) days shall constitute grounds for terminating the permit.
4. The Director, at any time, can call for a review of the approved conditions of approval at a duly noticed public hearing before the Planning Commission. These conditions(s) may be modified, or new conditions(s) added for the protection of public health, safety, and welfare. The Planning Commission may revoke CUP No. PC-2025-0008-CUP/ENV No. 12-25 if sufficient cause is given.
5. All area, height and use regulations of the zone classification of the Subject Site shall be complied with, except wherein these conditions explicitly allow otherwise.
6. Compliance with these conditions and the intent of these conditions shall be to the satisfaction of the Planning and Community Development Department and any designated agencies and in accordance with any stated laws or regulations, or any amendments thereto.
7. In the event the Applicant violates or fails to comply with any conditions of approval of the CUP, no further permits, licenses, approvals, or certificate of occupancy shall be issued until such violation(s) has been fully remedied.
8. The Applicant, Owner, Management and/or successor of the use shall bear full cost of all monitoring and inspection activities to be conducted by City staff or its designated consultant representative(s) as necessary to ensure compliance with the conditions of this Resolution.
9. The operation shall always be conducted in a manner not detrimental to surrounding properties or residents by reason of lights, noise, activities, parking, and other actions. Site project management ("Management") shall patrol the business premises and the surrounding vicinity, including the public

- rights-of-way to the property, during all hours of operation. Management shall ensure that no littering or loitering occurs in and around the project site.
10. The site and surrounding area shall be maintained in a litter and graffiti free manner. Any graffiti that occurs on the site shall be removed within 24 hours at Applicant, Site Owner ("Site Owner"), and/or Operator's own expense.
 11. All exterior lighting shall be maintained at an intensity sufficient to provide safe and adequate illumination for on-site operations while minimizing light spillover and glare onto surrounding residential and commercial properties.
 12. No signs shall be installed on the site until a sign permit has been approved by the Planning Department and Building & Safety Division in conformance with the provisions set forth in Chapter 17.62 ("Signs") of the MMC.
 13. The premises shall be kept clean, and the Applicant, Operator, and/or Management of the establishment shall ensure that no trash or litter originating from the site is deposited onto neighboring properties or onto the public right-of-way.
 14. Any outstanding violations of the MMC shall be remedied prior to the issuance of a Certificate of Occupancy, as applicable. The Applicant, Operator, Site Owner, and/or Management shall be responsible for remedying outstanding code enforcement issues. When corrective action requires the issuance of a building permit, the building permit must be issued within 12 months of the effective date of this approval. Corrective action that does not require a building permit shall be remedied within one month of the effective date of this approval. The Director may grant an extension to these time frames, but such extensions shall not extend more than one (1) year from the date of this approval.
 15. All outdoor utilities, machinery and equipment, including roof-mounted equipment, shall be completely screened from public right-of-way, in a manner that is compatible with the structure. The method of screening shall be subject to the review and approval of the Planning Department prior to the issuance of building permits.
 16. The approval of the entitlement shall expire if the rights granted are not exercised within one (1) year from the conditional use permit's effective date. Exercise of right shall mean issuance of a building permit to commence

- construction or similar activities demonstrating the intent to proceed with the project, as determined by the Director.
17. This approval shall not supersede the approval of any other affected agencies. The applicant shall comply with Federal, State, and local requirements.
 18. All diesel equipment utilized during construction shall meet emission standards by incorporating oxidant catalysts with diesel particulate filters to exceed Southern California Air Quality Management District thresholds.
 19. The applicant or successor shall provide a minimum 24-foot-high temporary sound wall that will completely surround both well construction sites during well drilling activities.
 20. The applicant or successor in interest shall meet all of the mitigation measures of the Mitigated Negative Declaration.
 21. Project owner shall demonstrate compliance with conditions of approval in a written report submitted to the Planning Manager and Building Officer prior to issuance of a Building Permit or Certificate of Occupancy, and, as applicable, provide periodic reports regarding compliance with such conditions.
 22. Prior to the issuance of any building permits, a final landscape and irrigation plan, prepared by a licensed Landscape Architect, shall be submitted to the Planning Division for review and approval. The plan shall identify all proposed trees, groundcover, and shrubbery, and shall clearly depict all on-site hardscape features, water features, and planting areas.
 - a. The landscape and irrigation plan shall be compliant with the Model Water Efficient Landscape Ordinance (MWELO).
 - b. The landscape and irrigation plan shall demonstrate the use of a permanent underground automated irrigation system.
 23. A minimum of two on-site parking spaces shall be provided in accordance with a detailed plan to be submitted to and approved by the Planning Manager prior to the issuance of any building permits.
 24. The developer shall prepare a notice subject to the review by the Planning Manager that lists all construction mitigation requirements, permitted hours of construction, and identifies a contact person at City Hall as well as the developer who will respond to complaints related to the proposed construction. The notice shall be mailed to property owners and residents within a 200-foot radius from the subject site at least five days prior to the start of construction.

25. A sign shall be posted on the property, subject to the review of the Planning Manager, which shall identify the address and phone number of the owner and/or applicant for the purpose of responding to questions and complaints during the construction period. Said sign shall also indicate the hours of permissible construction work.
26. A copy of the approved Resolution shall be incorporated onto the construction plans for any improvements prior to the submittal for plan check.
27. During construction, all roadways shall be kept open to traffic.
28. During construction, trucks and equipment that are not in use shall shut off their engines instead of idling.
29. Roads adjacent to the project site shall be swept as needed to reduce fugitive dust from the proposed project site.
30. Storage of materials related to construction activities shall be contained within the project site.
31. Materials transported off-site shall either be sufficiently watered or securely covered to prevent excessive amounts of dust and spillage.
32. During construction, disposal of refuse and other materials should occur in a specified and controlled temporary area on-site physically separated from potential storm runoff, with ultimate disposal in accordance with local, State and Federal requirements.
33. The project site shall be cleared of all debris prior to the issuance of a building department final inspection.
34. The property shall be developed and maintained in a neat, quiet, and orderly condition and operated in a manner so as not to be detrimental to adjacent properties and occupants.
35. Contractors and subcontractors engaged in the construction activities of the project shall obtain a business license and all required permits from the City of Montebello.
36. The Director of Planning and Community Development is authorized to make minor modifications to the approved preliminary plans or any of the conditions

- if such modifications shall achieve substantially the same results as would strict compliance with said plans and conditions.
37. The Applicant is required to install artwork or pay an in-lieu fee subject to the City's Art in Public Places Ordinance. The cost of the artwork or in-lieu fee shall be equal to 1% of the project's valuation.
38. In addition to complying with all applicable standard landscaping requirements, the applicant shall install mature trees along the perimeter of the site where the parcel abuts residential uses. Said trees shall be arranged and maintained to provide an effective landscaping buffer for privacy screening of adjacent residential properties. The species, size, spacing, and location of the trees shall be subject to review and approval by the Planning Division prior to installation.
39. The applicant shall incorporate an educational feature that is visible from the public right-of-way along Washington Boulevard. The feature shall be designed to inform and educate the public about the unique aspects of the water treatment process occurring on the site and shall be oriented to engage pedestrians as they walk along Washington Boulevard. The design, content, and location of the educational feature shall be subject to review and approval by the Planning and Community Development Director prior to installation.
40. The applicant shall provide a public park improvement to Chet Holifield Park that features water as a central design element. The improvement shall be designed to enhance public use and enjoyment and shall be subject to review and approval by the Recreation and Community Services Department/Planning and Community Development Director prior to installation.

B. Building Division Conditions

1. The second sheet of building plans is to list all conditions of approval and to include a copy of the Planning Commission Decision letter. This information shall be incorporated into the plans prior to the first submittal for plan check.
2. The second sheet of building plans is to list all conditions of approval and to include a copy of the Planning Commission Decision letter. This information shall be incorporated into the plans prior to the first submittal for plan check. Please be advised that a new code cycle will take effect on January 1, 2026,

- which may impact design requirements if plans are submitted on or after that date.
3. Fees shall be paid to the County of Los Angeles Sanitation District prior to issuance of the building permit.
 4. The building shall be addressed as 716 Washington Blvd., and an application to assign unit numbers shall be filed with the City prior to plan check submittal.
 5. In accordance with paragraph 5538(b) of the California Business and Professions Code, plans are to be prepared and stamped by a licensed architect.
 6. Structural calculations prepared under the direction of an architect, civil engineer or structural engineer shall be provided.
 7. A geotechnical and soils investigation report is required, the duties of the soils engineer of record, as indicated on the first sheet of the approved plans, shall include the following:
 - a) Observation of cleared areas and benches prepared to receive fill;
 - b) Observation of the removal of all unsuitable soils and other materials;
 - c) The approval of soils to be used as fill material;
 - d) Inspection of compaction and placement of fill;
 - e) The testing of compacted fills; and
 - f) The inspection of review of drainage devices
 8. The owner shall retain the soils engineer preparing the Preliminary Soils and/or Geotechnical Investigation accepted by the City for observation of all grading, site preparation, and compaction testing. Observation and testing shall not be performed by other soils and/or geotechnical engineer unless the subsequent soils and/or geotechnical engineer submits and has accepted by the City, a new Preliminary Soils and/or Geotechnical Investigation.
 9. The owner shall retain the soils engineer preparing the Preliminary Soils and/or Geotechnical Investigation accepted by the City for observation of all grading, site preparation, and compaction testing. Observation and testing shall not be performed by other soils and/or geotechnical engineer unless the subsequent soils and/or geotechnical engineer submits and has accepted by the City, a new Preliminary Soils and/or Geotechnical Investigation.

10. The owner shall retain the soils engineer preparing the Preliminary Soils and/or Geotechnical Investigation accepted by the City for observation of all grading, site preparation, and compaction testing. Observation and testing shall not be performed by other soils and/or geotechnical engineer unless the subsequent soils and/or geotechnical engineer submits and has accepted by the City, a new Preliminary Soils and/or Geotechnical Investigation.
11. The owner shall retain the soils engineer preparing the Preliminary Soils and/or Geotechnical Investigation accepted by the City for observation of all grading, site preparation, and compaction testing. Observation and testing shall not be performed by other soils and/or geotechnical engineer unless the subsequent soils and/or geotechnical engineer submits and has accepted by the City, a new Preliminary Soils and/or Geotechnical Investigation.
12. The owner shall retain the soils engineer preparing the Preliminary Soils and/or Geotechnical Investigation accepted by the City for observation of all grading, site preparation, and compaction testing. Observation and testing shall not be performed by other soils and/or geotechnical engineer unless the subsequent soils and/or geotechnical engineer submits, and has accepted by the City, a new Preliminary Soils and/or Geotechnical Investigation.
13. Separate application and plan review is required for Electrical plans.
14. Separate application and plan review is required for Mechanical plans.
15. Separate application and plan review is required for Plumbing plans.
16. Project shall comply with the CalGreen Non-Residential mandatory requirements.
17. No form work or other construction materials will be permitted to encroach into adjacent property without written approval of the affected property owner.
18. Prior to the issuance of building permit, a written consent shall be obtained from the current easement holder(s) for any proposed development encroaching into existing easement(s).

C. Public Works Department Conditions

1. Applicant must apply for a Public Works encroachment permit for any offsite work or tie-ins during construction of the project.

PASSED AND ADOPTED this 20th day of January, 2026 by the Planning Commission.

Armando Medina, Chair
Montebello Planning Commission

ATTEST:

I, Joseph A. Palombi, Secretary of the City of Montebello Planning Commission, **DO HEREBY CERTIFY** that the foregoing Resolution No. 1325 has been duly signed by the Chair, and attested by the Secretary, all at a meeting of the Montebello Planning Commission, held January 20, 2026, and that same was approved and adopted by the following vote to wit:

Chair Medina:	() AYE () NOE () ABSENT () ABSTAIN
Commissioner: Lomeli:	() AYE () NOE () ABSENT () ABSTAIN
Commissioner Cuevas:	() AYE () NOE () ABSENT () ABSTAIN
Commissioner Morales:	() AYE () NOE () ABSENT () ABSTAIN
Commissioner Lopez:	() AYE () NOE () ABSENT () ABSTAIN

Joseph A. Palombi, Secretary
Montebello Planning Commission

**INITIAL STUDY
MITIGATED NEGATIVE DECLARATION
POTABLE WATER WELL 064-01 & 064-02 PROJECT
716 WASHINGTON BLVD, MONTEBELLO, CA
(LOS ANGELES COUNTY)**

Prepared for:

**CITY OF MONTEBELLO
DEPARTMENT OF PLANNING AND
COMMUNITY DEVELOPMENT
1600 W. Beverly Blvd
Montebello, CA 90640**

Prepared by:



**CHAMBERS GROUP, INC.
3151 Airway Avenue, Suite F208
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September 2025

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SECTION 1.0 – PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

1.1 PROJECT BACKGROUND

The California Water Service Company (Cal Water) East Los Angeles District (District) has provided water utility services in the East Los Angeles area since 1928. To meet customer needs, they use a combination of local groundwater and purchased water from the Metropolitan Water District of Southern California (MWD), which is imported from the Colorado River and the State Water Project in northern California. The East Los Angeles water system currently includes 10 active wells, 26 booster pumps, 16 storage tanks, and three MWD connections.

The purpose of the Potable Water Well 064-01 & 064-02 Project (Project or Proposed Project) is to increase the reliability of supply to Montebello service area. The proposed well(s) and treatment system will allow utilization of groundwater (via unused groundwater rights) to offset water purchased from MWD, the local wholesale supplier. Completing this Project and utilizing groundwater would have a lower overall life cycle cost compared to purchasing water.

As a lower cost option, development of groundwater capacity also enhances local supply reliability and reduces reliance on purchased water sources that are subject to curtailment or interruption. Water purchased from the MWD is imported from Northern California via a canal system. In addition to being subject to cutbacks in response to available snowpack on a year-to-year basis, such a supply may also become completely unavailable should a major disaster compromise the aqueduct system. Maximizing local groundwater supply will ensure a continued supply, reduce supply variability during dry years, and provide water availability for fire and essential services in the event of a major disaster.

1.2 PROJECT LOCATION AND SITE CHARACTERISTICS

1.2.1 Location

The Project is located within the East Los Angeles District at 716 Washington Boulevard, Montebello, California (see Figure 1). The Assessor's Parcel Number (APN) for the Proposed Project is APN 6352-028-012. A conceptual site plan has been provided in Figure 2 delineating the Project area and proposed structures.

1.2.2 General Plan Designation/Zoning

The Project site is zoned as Heavy Commercial – limited industrial zone (C-M) or which water wells require a Conditional Use Permit per City of Montebello (City) Municipal Code Appendix A Index of Primary Uses.

1.2.3 Surrounding Land Uses and Project Setting

The surrounding area is zoned for a variety of uses including One-Family Residential (R-1), Multiple-Family Residential (R-3), General Commercial (C-2), and Heavy Commercial (C-M).

1.3 PROJECT DESCRIPTION

Cal Water is proposing to construct one new groundwater well, and potentially a second well onsite, at 716 Washington Boulevard, Montebello, California. The lot is 0.88 acre (38,500 sq ft) in size, located within the East Los Angeles District.

The new well(s) would have anticipated flow rates of 2,500 to 3,000 gallons per minute and would be drilled to a depth of 800 to 1,000 feet below ground surface. Water quality of a nearby well suggests that Granular Activated Carbon vessels are required for perfluorooctanesulfonate (PFOS) contaminant removal. Greensand Vessels are required to remove potential iron and manganese. In addition, a block wall building will be constructed to house disinfection chemicals including sodium hypochlorite and liquid ammonium sulfate. Other site improvements include electrical generators, pressure surge tanks, electrical transformers, electrical panelboards, water process piping and pumping equipment.

Per the Los Angeles County Local Agency Management Program, the Proposed Project shall have the following horizontal setbacks:

	Septic Tank	Disposal Field	Seepage pit
Public Water Well, Where depth of effluent dispersal system >10 feet	200 feet (61 m)	—	200 feet (61 m)
Public Water Well, Where depth of effluent dispersal system ≤10 feet	150 feet (45.7 m)	150 feet (45.7 m)	—

1.3.1 Construction Methods

The well would be constructed by a contractor licensed in the State of California, utilizing the reverse circulation hydraulic rotary drilling method. Prior to well drilling, Underground Services Alert (USA) would be contacted to identify the location of any existing utilities. Equipment used for well construction would include a reverse rotary drill rig with drilling fluid/mud system, temporary water storage tank (Baker Tank), well test pump/development rig, two support trucks, and a forklift.

During borehole drilling, drill fluid (consisting of water and bentonite, if necessary) and cuttings (consisting of native clay, silt, sand, and gravel) would be contained in a settling tank. A staging area would be located on the Proposed Project site to store the drill-fluid settling tank, drill-cuttings, construction equipment and materials. A baker tank would be utilized to accept water discharged during well development and test pumping to allow settling of solids before discharging to the offsite storm drainage system. The drill cuttings would be tested for hazardous waste and would be properly disposed. Disposal would be at the nearest landfill. Drilling fluids would be released to the storm drain located on Washington Blvd.

The proposed well site is located within a residential area and is surrounded by existing homes. Due to the nature of well drilling activities, which typically occur continuously over a 24-hour period, temporary noise mitigation measures would be implemented. Specifically, a temporary sound wall that is, at minimum, 24 feet in height would be installed between the well site and adjacent residences to minimize construction-related noise impacts. The noise wall will be discussed in more detail in the Noise Section of the Initial Study, and additional discussion can be found in Appendix D – Noise Impact Analysis.

1.3.2 Construction Schedule

Construction of the proposed well is anticipated to commence in Quarter 1 of 2026 and is anticipated to have a duration of approximately six months. The non-well site development work is anticipated to have a duration of approximately three months, which would result in a total construction time period of approximately nine months. Construction will occur between the hours of 7 a.m. and 8 p.m. on weekdays (Monday through Friday), and 9 a.m. to 6 p.m. on Saturdays, Sundays and legal holidays, in accordance with the City's Noise Ordinance.

1.3.3 Construction Phases

The proposed construction activities of the proposed project would occur in seven construction phases. Phase 1 involves the installation of the temporary noise barrier and site improvements. Phase 2 involves the installation of conductor casing. Phase 3 involves drilling of the well. Phase 4 involves construction of the proposed well and Phase 5 involves installation of the well casing. Phase 6 involves test pumping the completed well. Phase 7 involves construction of the treatment system (if needed), buildings, piping, electrical facilities, fencing, security, paving, and landscaping.

1.3.4 Operation and Maintenance

The Project is expected to be operational by 2027-2028 assuming water quality is acceptable. Routine maintenance is on a condition basis and is usually conducted for wells on a 5-10-year interval, which includes physical cleaning and swabbing, or can include full rehabilitation. typical well rehabilitation process can be completed in five days and would occur during the City of Montebello's allowed construction hours. Depending on the water quality, the well may need additional treatment equipment installed. The equipment will not be designed until after the groundwater well is constructed.

Figure 1 - Project Location and Vicinity

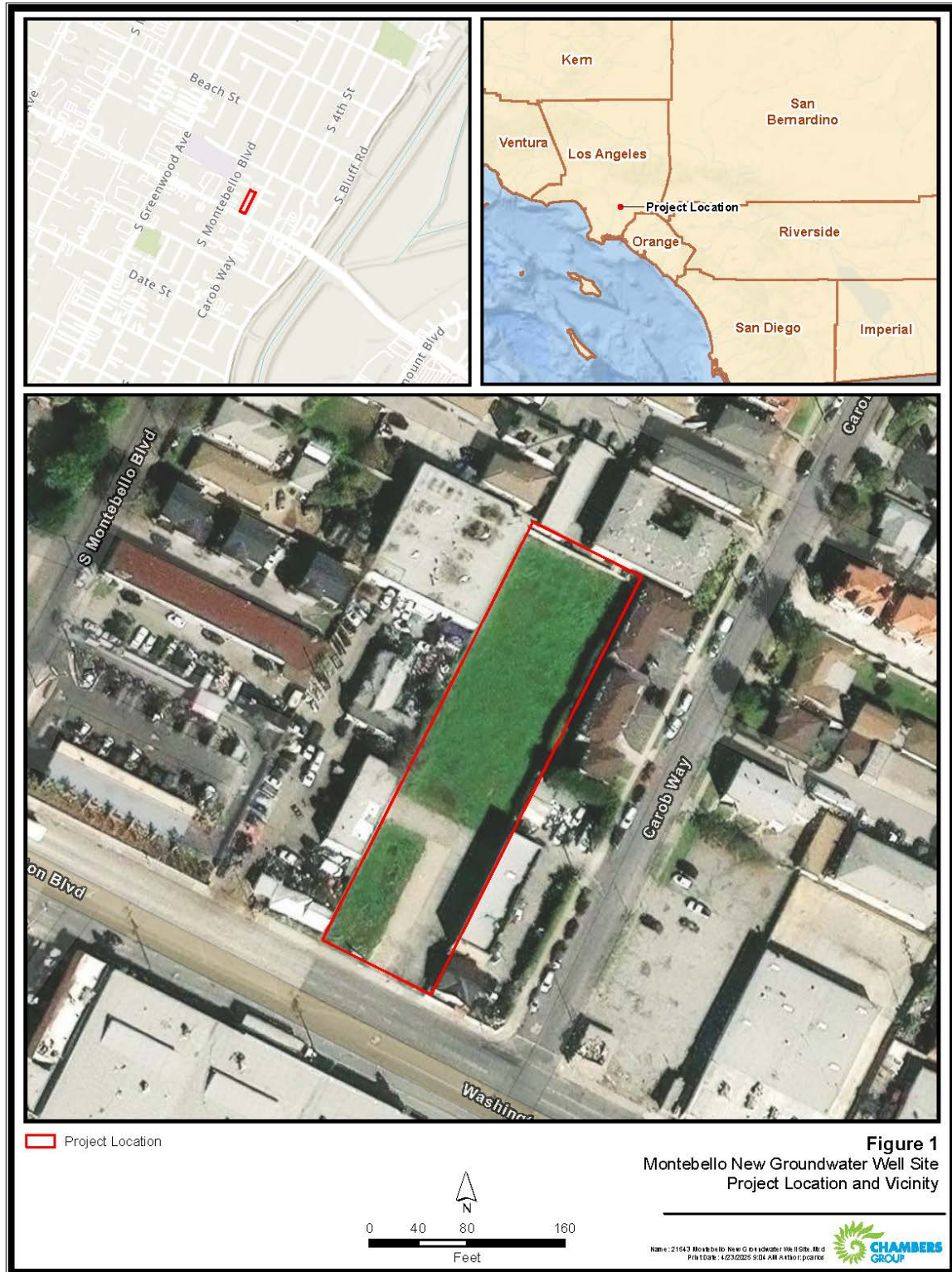
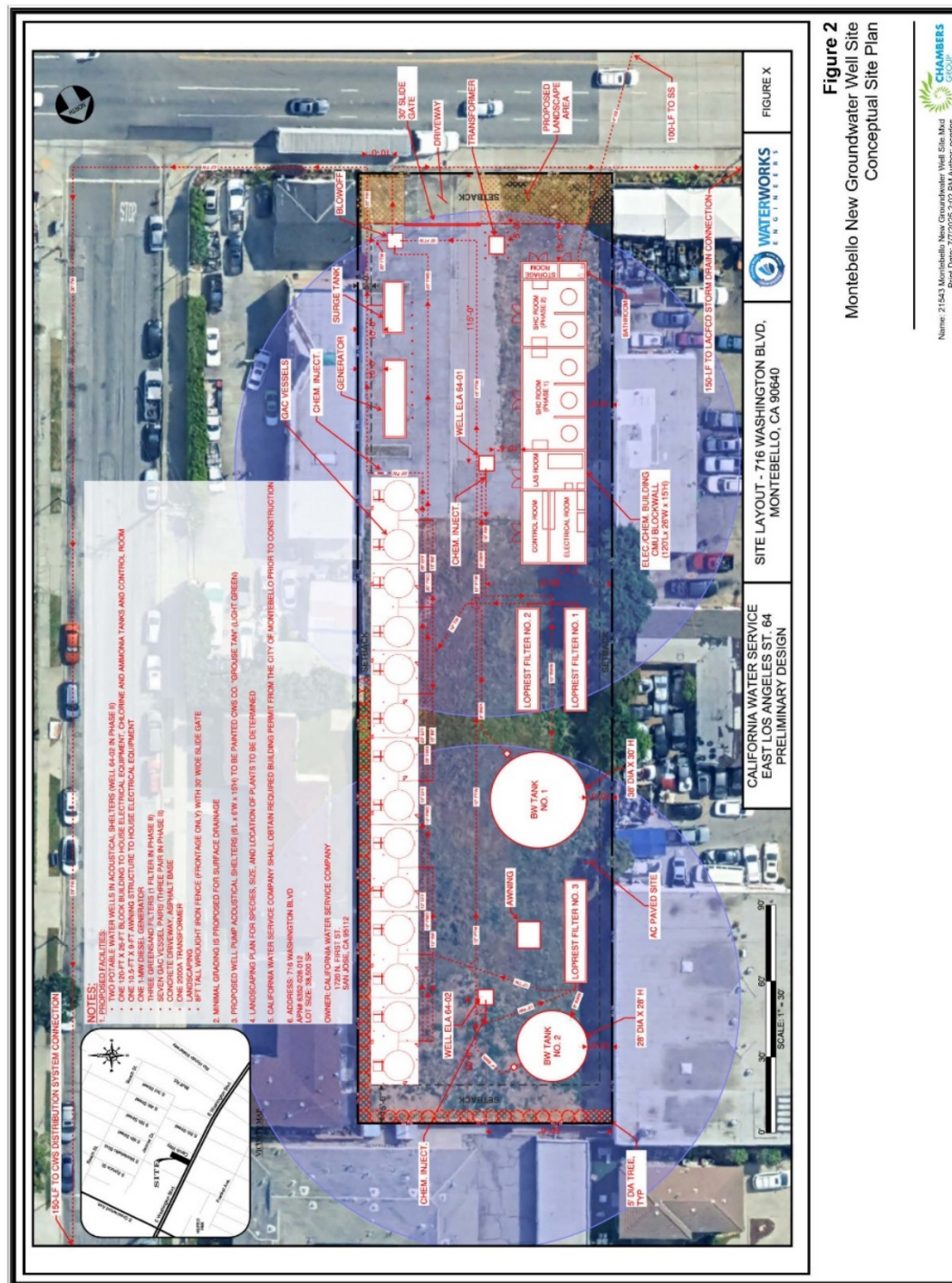


Figure 2 – Conceptual Site Plan



1.4 REQUIRED PERMITS AND APPROVALS

1.4.1 Lead Agency Approval

The City of Montebello will act as the Lead Agency under CEQA for the Project to approve the Project, adopt the CEQA document, and issue a water supply permit.

1.4.2 Reviewing Agencies

State Agencies

- California Department of Water Resources (DWR)
- State Water Resources Control Board (SWRCB)
- California Department of Public Health/Division of Drinking Water (DDW)

Regional Agencies

- Los Angeles Regional Water Quality Control Board
- Water Replenishment District of Southern California (WRD)
- Los Angeles County Department of Public Health

Local Agencies

- City of Montebello – Planning and Public Works Department

1.4.3 Documents Incorporated by Reference

The City of Montebello General Plan Update and Downtown Specific Plan EIR (City 2023) is incorporated by reference into this initial study. The document can be found [here](#).

SECTION 2.0 – ENVIRONMENTAL DETERMINATION

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would potentially be affected by this project, involving at least one impact that is a “Potentially Significant Impact,” as indicated by the checklists on the following pages. For each of the potentially affected factors, mitigation measures are recommended that would reduce the impacts to less than significant levels.

☐ 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

2.2 DETERMINATION

On the basis of this initial evaluation:

1. I find that the project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐
2. I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A **MITIGATED NEGATIVE DECLARATION** will be prepared. ☒
3. I find the proposed project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐
4. I find that the proposed project **may have a “potentially significant impact” or “potentially significant unless mitigated impact”** on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An **ENVIRONMENTAL IMPACT REPORT** is required, but it must analyze only the effects that remain to be addressed. ☐
5. I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or Negative Declaration pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or Negative Declaration, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required. ☐

Signature

Date

Name

Title

SECTION 3.0 – EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if substantial evidence exists that an effect may be significant. If one or more “Potentially Significant Impact” entries are marked when the determination is made, an Environmental Impact Report (EIR) is required.
4. “Negative Declaration: Less Than Significant With Mitigation Incorporated” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration Section 15063(c)(3)(D) of the CEQA Guidelines. In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are “Less than Significant with Mitigation Measures Incorporated,” describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significant.

**Note: Instructions may be omitted from final document.*

SECTION 4.0 – CHECKLIST OF ENVIRONMENTAL ISSUES

4.1 AESTHETICS

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

4.1.1 Environmental Setting

Scenic resources in Montebello include scenic trees and historic buildings. Older mature trees provide a sense of age and permanence (City 2023). There are no adopted scenic vistas in Montebello. Montebello is already developed and in an urban environment of the metropolitan area of Los Angeles County. Projects within the City are subject to the City design review process per Chapter 17.74, *Site Plan Review* of the Montebello Municipal Code on a project-by-project basis, as applicable and as they are proposed, to identify and address any project-specific impacts to scenic vistas.

4.1.2 Impact Analysis

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

No Impact. Based on a review of the City’s General Plan, the Proposed Project site is not located in or near any designated scenic vistas and, therefore, would not have an impact on a scenic vista (City 2024). Furthermore, the Project site is located in a heavily urbanized area, bordered by existing buildings on three sides and a major roadway on the fourth side. No impact would occur.

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

No Impact. The Project site is not located on or within the vicinity of a state scenic highway. The closest eligible state scenic highway is State Route-134 (SR-134) in Pasadena, located 11 miles northwest of the Project site. The closest Federal Byway is the Arroyo Seco Historic Parkway Scenic Byway (along SR 110), located approximately 9 miles northwest of the Project site (CalTrans 2025). Additionally, the Project site is not visible from these scenic routes due to intervening urban development and surrounding structures, nor are those highways visible from the site itself. No impact on scenic resources within a state scenic highway would occur.

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

Less than Significant Impact. The Proposed Project involves adding a new water well, a potential second well on-site, and treatment system to an undeveloped parcel in a heavily urbanized area. The Project site is bordered by existing buildings on three sides and a major roadway on the fourth side.

Construction of the Proposed Project would involve temporary visual disturbance in the site vicinity with the presence of large machinery. All machinery would be placed within the Project boundary. These impacts would be temporary and are not anticipated to substantially alter the existing visual character of the area during construction. Implementation of the Proposed Project would result in a change in the existing visual character of the site from a vacant, undeveloped parcel to a parcel developed with a water well and treatment facilities. These facilities would be consistent with the nearby industrial and commercial development. In addition, there are no existing scenic resources on the Proposed Project site.

The Project would not conflict with applicable zoning and other regulations governing scenic quality. There are no designated scenic streets or scenic vistas in the City. Title 17 of the Montebello Municipal Code, *Zoning* includes the City's zoning regulations and standards regarding the location, use, height, and alterations of buildings, structures, and land for residence, commerce, trade and industry, or other purposes. Such regulations are deemed necessary to encourage the most appropriate use of land and preserve the aesthetic qualities of Montebello (City 2023). With acquisition of a CUP, the Proposed Project will be consistent with the existing zoning designation C-M.

Therefore, the Proposed Project would result in a less than significant impact to the existing visual character or quality of the site and its surroundings.

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

No Impact. The Proposed Project would add security lighting to the site. The new light would be consistent with existing lighting in the area. Ambient lighting and glare in the nearby areas would not significantly increase above existing conditions. No impact would occur.

4.2 AGRICULTURE & FORESTRY RESOURCES

2.	AGRICULTURE & FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural 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 nonagricultural use or the conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Environmental Setting

Most of Montebello is classified as Urban and Built-Up land. Approximately 50 acres of Montebello is categorized as "Unique Farmland" (City 2023). The City does not contain land zoned for agricultural use or under Williamson Act contract (DOC 2025a; City 2023). The City also does not contain forest land, timberland, or land zoned for timberland production (City 2023). The nearest forestland is the Angeles National Forest, approximately 13 miles north of the Project site.

4.2.2 Impact Analysis

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

No Impact. The Proposed Project site is classified as Urban and Built-up Land according to the Farmland Mapping and Monitoring Program, likely due to its location in a highly urbanized region of Los Angeles County (DOC 2025a). The Proposed Project would not convert Prime Farmland, or Farmland of Statewide Importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency. No impact would occur.

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

No Impact. The Proposed Project site is zoned for Heavy Commercial uses and is not in a Williamson Act Contract (City 2023). No impact would occur.

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

No Impact. The Proposed Project site is zoned for Heavy Commercial uses. The City does not contain any parcels that are zoned as forest land, timberland or timberland zoned for Timberland Production timberland for forest resources (City 2023). The Project is surrounded by residential and commercial development. The nearest national forest is the Angeles National Forest located approximately 13 miles north of the Project site. Due to the large distance between the Project site and forest land, there would be no impact associated with existing zoning of forestland, timberland, or timberland zoned as Timberland Production.

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

No Impact. As stated in Section c), the Proposed Project site does not contain forest land, thus would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur.

- 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 nonagricultural use or the conversion of forest land to non-forest use?*

No Impact. Construction and operations of the Proposed Project would be confined to the Project boundaries (see Figure 1). As stated in Sections a) and c), there is no Farmland or forestland within the immediate Project vicinity. Thus, no impact would occur regarding the loss of Farmland or forest land.

4.3 AIR QUALITY

3.	AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
(c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
(d)	Result in other emissions, such as those leading to odors adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Environmental Setting

The Proposed Project site is located within the southeastern portion of Los Angeles County in the City of Montebello. Montebello is situated within the South Coast Air Basin (SCAB), which encompasses all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties. The SCAB is geographically characterized by a coastal plain with connecting valleys and low-lying hills, bordered by the Pacific Ocean to the southwest and mountain ranges, including the San Gabriel and San Bernardino Mountains, to the north and east.

Air quality within the SCAB is regulated by the South Coast Air Quality Management District (SCAQMD). The SCAB is a nonattainment area for several federal and state ambient air quality standards, particularly for ozone (O₃) and fine particulate matter (PM_{2.5}), due to high levels of mobile source emissions and meteorological conditions conducive to photochemical smog formation.

On July 13, 2025, an Air Quality, Energy, and Greenhouse Gas Emissions Analysis (Air Report) was prepared for the Proposed Project and can be found in Appendix A.

4.3.2 Thresholds of Significance

Regional Air Quality

As detailed in Appendix A, many air quality impacts that derive from dispersed mobile sources, which are the dominant pollution generators in the SCAB, often occur hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the SCAB with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes of this air quality

impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table 4-1.

Table 4-1 – SCAQMD Regional Criteria Pollutant Emission Threshold of Significance

	Pollutant Emissions (Pounds/Day)						
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}	Lead
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source : South Coast Air Quality Management District. *South Coast AQMD Air Quality Significance Thresholds*. 2023.
<https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>

Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the SCAB. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the Project-related air emissions in the Project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts (Appendix A). The LST Methodology found that the primary emissions of concern are NO₂, CO, PM₁₀, and PM_{2.5}.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. As detailed in Appendix A, the Project site is located in Air Monitoring Area 5, Southeast Los Angeles County. The Look-Up Tables provided in the LST Methodology include project site acreage sizes of 1-acre, 2-acres and 5-acres. Since the Project site is 0.88 acre, the 1-acre thresholds were utilized. The nearest sensitive receptors to the Project site include the multi-family homes that are as near as 8 feet (2.4 meters) to the north of the Project site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. Table 4-2 below shows the LSTs for NO_x, CO, PM₁₀ and PM_{2.5} for both construction and operational activities.

Table 4-2 – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (Pounds/Day)			
	NO _x	CO	PM ₁₀	PM _{2.5}
Construction	80	571	4	3
Operation	80	571	1	1

Notes:

1 The nearest sensitive receptors to the Project site are the multi-family homes located as near as 8 feet (2.4 meters) north of the Project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for 1-acre in Air Monitoring Area 5, Southeast Los Angeles County.

Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the Proposed Project would result in a Hazard Index increase of 1 or greater.

In order to determine if the Proposed Project may have a significant impact related to toxic air contaminants (TACs), the Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis, (Diesel Analysis) prepared by SCAQMD, August 2003, recommends that if the Proposed Project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the Project site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the hazardous air pollutant (HAP) should be analyzed through a comprehensive facility-wide health risk assessment (HRA) (Appendix A).

Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the Proposed Project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

“A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.”

If the Proposed Project results in a violation of Rule 402 with regards to odor impacts, then the Proposed Project would create a significant odor impact.

4.3.3 Impact Analysis

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

Less than Significant Impact. The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant Projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the SCAQMD Air Quality Management Plan (AQMP) if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

- 1) Whether the Project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
- 2) Whether the Project will exceed the assumptions in the AQMP or increments based on the year of Project buildout and phase.

Both of these criteria are assessed in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in the Air Report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional and local thresholds of significance discussed above in Section 4.3.2. The ongoing operation of the Proposed Project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance discussed above in Section 4.3.2. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not be Projected to exceed the air quality standards. Tables 4-3 and 4-4 demonstrate that no local or regional thresholds would be exceeded during construction or operation of the Proposed Project. Therefore, a less than significant long-term impact would occur and no mitigation would be required.

Therefore, based on the information provided above, the Proposed Project would be consistent with the first criterion.

Criterion 2 – Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the Proposed Project with the assumptions in the 2022 AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the Proposed Project are based on the same forecasts as the AQMP. The 2022 AQMP was developed through use of the planning forecasts provided in the Connect SoCal and 2019 Federal Transportation Improvement Program (FTIP). The Connect SoCal is a major planning document for the regional transportation and land use network within Southern California. The Connect SoCal is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The 2019 FTIP provides long-range planning for future transportation improvement Projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this Project, the City of Montebello General Plan's Land Use Plan defines the assumptions that are represented in AQMP.

The Project site is currently designated as Corridor District in the General Plan and is zoned Heavy Commercial – Limited Industrial (C-M). The Proposed Project consists of development of a new water supply well and water treatment system, which is an allowed use in the Corridor District and C-M zoning. As such, the Proposed Project is not anticipated to exceed the AQMP assumptions for the Project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the Proposed Project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

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

Less than Significant Impact. The Project site is located in the SCAB, which is currently designated by the Environmental Protection Agency (EPA) for federal standards as a non-attainment area for ozone and PM_{2.5} and by the California Air Resources Board (CARB) for the state standards as a non-attainment area for ozone, PM₁₀, and PM_{2.5}. The SCAQMD has developed both regional and local air emissions thresholds that are detailed respectively above in Sections 4.3.2. In accordance with SCAQMD methodology, projects that do not exceed SCAQMD criteria or can be mitigated to less than criteria levels are not significant and do not add to the overall cumulative impact. The following section calculates the potential air emissions associated with the construction and operations of the Proposed Project and compares the emissions to the SCAQMD standards.

Construction Emissions

The Proposed Project would consist of the construction of a new water supply well and associated improvements to the Proposed Project site. The CalEEMod model has been utilized to calculate the construction-related criteria pollutant emissions from the Proposed Project and the input parameters utilized in this analysis have been detailed in Appendix A of the Air Report. The maximum daily construction emissions by season are shown below in Table 4-3 and the CalEEMod printouts are shown in Appendix A of the Air Report.

Table 4-3 – Construction-Related Criteria Pollutant Emissions

Season and Year of Construction	Pollutant Emissions (pounds/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Winter 2025	0.91	7.40	11.4	0.02	0.42	0.27
Summer 2026	0.50	3.38	5.11	0.01	0.26	0.14
Winter 2026	1.57	13.1	18.2	0.03	0.70	0.45
Maximum Daily Construction Emissions	1.57	13.1	18.2	0.03	0.70	0.45
SCAQMD Regional Thresholds	75	100	550	150	150	55
SCAQMD Local Thresholds	--	80	571	--	4	3
Exceed Thresholds?	No	No	No	No	No	No

Source: CalEEMod Version 2022.1

Table 4-3 shows that none of the analyzed criteria pollutants would exceed either the regional or local emissions thresholds during construction of the Proposed Project. Therefore, less than significant regional and local air quality impacts would occur from construction of the Proposed Project.

Operational Emissions

Operation of the proposed water supply well would consist of the operation of an electrical water pump, that would not create any onsite air emissions. Routine maintenance would be conducted on

the well in five-to-10-year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The routine maintenance activities would create onsite air emissions from offroad diesel equipment exhaust as well as from fugitive dust created from the movement of dirt and debris on the Project site.

The operations-related regional criteria air quality impacts created by the Proposed Project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Appendix A of the Air Report. The worst-case summer or winter VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} daily emissions created from the Proposed Project's long-term operations have been calculated and are summarized below in Table 4-4 and the CalEEMod emissions printouts are shown in Appendix A of the Air Report.

Table 4-4 – Operational Well Rehabilitation Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Well Rehabilitation	0.92	7.19	7.63	0.02	0.41	0.28
SCAQMD Regional Operational Thresholds	55	55	550	150	150	55
SCAQMD Local Thresholds	--	80	571	--	4	3
Exceed Thresholds?	No	No	No	No	No	No

Source: CalEEMod Version 2022.1

The data provided in Table 4-4 shows that none of the criteria pollutants analyzed would exceed either the regional or local emissions thresholds. Therefore, less than significant regional and local air quality impacts would occur from operation of the Proposed Project.

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

Less than Significant Impact. The nearest sensitive receptors to the Project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the Project site. There are also single-family homes located as near as 20 feet to the northwest and 110 feet to the west. Discussion of construction and operational impacts on sensitive receptors are discussed separately below.

Construction-Related Sensitive Receptor Impacts

Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the Proposed Project have been analyzed above in Section b) and found that the construction of the Proposed Project would not exceed the local NO_x, CO, PM₁₀ and PM_{2.5} thresholds of significance discussed in Section 4.3.2. Therefore, construction of the Proposed Project would create a less than significant construction-related impact on local air quality and no mitigation would be required.

Toxic Air Contaminants from Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the Proposed Project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of “individual cancer risk”. “Individual Cancer Risk” is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30-year exposure period for the nearby sensitive receptors (Appendix A).

As discussed in Appendix A, given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the Proposed Project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet’s usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0, Tier 1 or Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. Therefore, due to the limitations in off-road construction equipment DPM emissions from implementation of Section 2448, a less than significant short-term TAC impact would occur during construction of the Proposed Project from DPM emissions.

Operations-Related Sensitive Receptor Impacts

As discussed in Appendix A, the on-going operations of the Proposed Project may expose sensitive receptors to substantial pollutant concentrations from the potential local air quality impacts from onsite operations and from possible toxic air contaminant impacts.

Local Criteria Pollutant Impacts from Onsite Operations

Operation of the proposed water supply well would consist of the operation of an electrical water pump, that would not create any onsite air emissions. Routine maintenance would be conducted on the well in five-to-10-year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The routine maintenance activities would create onsite air emissions from offroad diesel equipment exhaust as well as from fugitive dust created from the movement of dirt and debris on the Project site. The analysis provided above in Section b) found that the operation of the Proposed Project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 4.3.2. Therefore, the on-going operations of the Proposed Project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

The greatest potential for toxic air contaminant emissions would only occur during the well rehabilitation activities that are limited to approximately five days every five to ten years. Given, the infrequent activity schedule, the Proposed Project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Therefore, no significant long-term toxic air contaminant impacts would occur during operation of the Proposed Project. As such, operation of the Proposed Project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Therefore, operation of the Proposed Project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

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

Less than Significant Impact. The Proposed Project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the Project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

As discussed in Appendix A, potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process

would be temporary and would not likely be noticeable for extended periods of time beyond the Project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

As discussed in Appendix A, potential sources that may emit odors during operational activities include the operation of diesel-powered maintenance trucks and equipment as well as from use of chemicals such as chlorine, if a treatment facility is determined to be required to be installed onsite. The objectionable odors that may be produced from diesel-powered maintenance trucks and equipment would be temporary and would not likely be noticeable for extended periods of time beyond the Project site's boundaries. If a treatment facility is required all chemicals such as chlorine would be utilized in closed systems with no exposure to outside air and all stockpiles of chemicals would be kept inside the proposed treatment facility structure within their original packaging until utilized. As such the odor impacts from the proposed treatment facility would be limited to within the Project site boundaries and would not affect a substantial number of people. Therefore, a less than significant odor impact would occur from operation of the Proposed Project and no mitigation would be required.

4.4 BIOLOGICAL RESOURCES

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game 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?	☐	☐	☒	☐

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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?	☐	☐	☐	☒

4.4.1 Environmental Setting

The only major stream that conveys flow in the City is a portion of the Rio Hondo. This waterway, south (downstream) of the Rio Hondo Dam, is a concrete-lined, rectangular channel for flood control that is not conducive to having associated wetland habitat. The Project site is located 0.30 miles west of the Rio Hondo waterway.

Based on a review of the California Department of Fish and Wildlife (CDFW) Natural Diversity Database (CNDDDB) QuickView tool and the California Native Plant Society's (CNPS) Database, several special status species have been found within a 10-mile radius from the Project site. These species include: western spadefoot (*spea hammondi*), western yellow-billed cuckoo, (*coccyzus americanus occidentalis*), great sandhill crane (*Antigone canadensis tabida*), bank swallow (*riparia riparia*), bald eagle (*Haliaeetus leucocephalus*), coastal California gnatcatcher (*Polioptila californica californica*), burrowing owl (*athene cunicularia*), southwestern willow flycatcher (*Empidonax traillii extimus*), least Bells vireo (*Vireo bellii pusillus*), Crotch's bumble bee (*Bombus crotchii*), and California Orcutt grass (*Orcuttia californica*) (CDFW 2025; CNPS 2025).

4.4.2 Impact Analysis

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

Less than Significant Impact. The Proposed Project is located on a vacant parcel in a heavily disturbed, urbanized area. The Project site consists of portions of bare ground, non-native ruderal weeds and ornamental trees and shrubs. The CNDDDB and CNPS searches indicated that listed and/or sensitive plant and wildlife species were documented to occur within 10 miles of the Project site. However, it was determined that due to the lack of suitable habitat, it is highly unlikely that any species identified as candidate, sensitive, or special status species would be located within the Project site vicinity.

Although trees are present on-site, no tree removal is planned for the Proposed Project. In order to comply with the Migratory Bird Treaty Act (MBTA), any vegetation clearing should take place outside the general bird breeding season (February 15 to September 15), to the maximum extent practical. If this is not possible, prior to ground-disturbing activities, a qualified biologist should conduct a nesting bird survey and submit a migratory nesting bird and raptor survey report. The survey should occur no more than three days prior to initiation of Project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the work area should be delineated. Additional follow-up surveys may be required by the resource agencies. To the maximum extent practicable, a minimum buffer zone around occupied nests should be specified by a qualified biologist and maintained during

physical ground-disturbing activities. The buffer zone should be sufficient in size to prevent impacts to the nest. Once nesting has ceased, the buffer may be removed. Thus, compliance with the MBTA would make impacts less than significant.

- 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 Game or U.S. Fish and Wildlife Service?*

No Impact. The only major stream that conveys flow in the City is a portion of the Rio Hondo. This waterway, south (downstream) of the Rio Hondo Dam, is a concrete-lined, rectangular channel for flood control that is not conducive to having associated wetland habitat. Thus, although the Project site is less than a mile west of this waterway, there would be no substantial adverse effect on sensitive riparian habitat.

Additionally, the Rio Hondo Spreading Grounds are also located 0.30 miles east of the Project site. This groundwater recharge facility is strategically placed on soils composed of permeable formations and in hydraulic connection with the underlying aquifer. These basins are typically cleared and maintained, but they still provide intermittent aquatic and riparian habitat, especially when water is present. However, the spreading grounds are not a designated habitat, as they are designed solely for the purposes of enhancing groundwater infiltration.

The Proposed Project site is currently vacant and located in an urbanized area lacking native biological habitat. No riparian habitats or other sensitive natural communities are present on-site or within the vicinity. Furthermore, the surrounding area is developed with commercial and institutional land uses and does not contain riparian habitats or other sensitive natural communities. No impact would occur.

- 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 Impact. The Proposed Project site is currently vacant and located within an urbanized setting. The Project site does not include any wetlands, thus there would be no impacts on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

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

Less than Significant Impact. The City's urbanized setting does not facilitate the movement of wildlife that are not adapted for urban or suburban habitats. The Proposed Project site is currently vacant and located within an urbanized area. The Project site does not provide for any substantial movement of wildlife species through a land-based corridor. Although trees are present on-site, no tree removal is planned for the Proposed Project. In order to comply with the MBTA, any vegetation clearing should take place outside the general bird breeding season (February 15 to September 15), to the maximum extent practical. If this is not possible, prior to ground-disturbing activities, a qualified biologist should conduct a nesting bird survey and submit a migratory nesting bird and raptor survey report. The survey should occur no more than three days prior to initiation of Project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the work area should be delineated. Additional follow-up surveys may be required by the resource agencies. To the maximum extent

practicable, a minimum buffer zone around occupied nests should be specified by a qualified biologist and maintained during physical ground-disturbing activities. The buffer zone should be sufficient in size to prevent impacts to the nest. Once nesting has ceased, the buffer may be removed. These measures ensure that the Proposed Project will not result in significant impacts to nesting birds, in compliance with the MBTA.

Thus, there would be no significant impacts towards nesting bird species, wildlife corridors, or wildlife nursery sites.

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

Less than Significant Impact. The Proposed Project would not remove any trees and will have a 20-foot setback from existing trees located along the Project boundary. Thus, the Project will not conflict with City Municipal Code Chapter 12.08, which regulates Trees and Shrubs. City Municipal Code Section 15.48.430 permits removal of vegetation for the purposes of grading for the Proposed Project. Therefore, the Proposed Project would not conflict with any local policies or ordinances protecting biological resources. A less than significant impact would occur.

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

No Impact. There are no identified Significant Ecological Areas (SEAs) within the vicinity of the Project site, and the site is not subject to a Habitat Conservation Plan, a Natural Community Conservation Plan, or other such plan (County 2022). Thus, no impact would occur.

4.5 CULTURAL RESOURCES

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

4.5.1 Environmental Setting

The entire Project site (northeast of the concrete parking lot) has been disturbed by some previous use, and current vegetation is predominantly characterized by various grasses, weeds and shrubs, and a few trees on the northwestern perimeter.

Regulatory Setting

As the lead California Environmental Quality Act (CEQA) agency for the Project, the SWRCB must determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC] Section 21084.1). In addition to State of California (State), projects in the City are also subject to several local regulations relating to cultural resources. City of Montebello 2040 General Plan Update (2024) pertains specifically to the identification and protection of cultural resources within the City. The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

Under the provisions of CEQA, including the CEQA Statutes (PRC §§ 21083.2 and 21084.1), the CEQA Guidelines (Title 14 California Code of Regulations [CCR] § 15064.5), and PRC § 5024.1 (Title 14 CCR § 4850 et seq.), properties expected to be directly or indirectly affected by a proposed project must be evaluated for eligibility for listing in the California Register of Historical Resources (CRHR).

California Register of Historical Resources

The purpose of the CRHR is to maintain listings of the State's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term *historical resources* includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (CCR § 15064.5[a]). The criteria for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). The California Office of Historic Preservation (OHP; 1995:2) regards "any physical evidence of human activities over 45 years old" as meriting recordation and evaluation.

A cultural resource is considered "historically significant" under CEQA if the resource meets one or more of the criteria for listing in the CRHR. The CRHR was designed to be used by State and local agencies, private groups, and citizens to identify existing cultural resources within the State and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR. A resource is considered significant if it:

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 in 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; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a “unique archeological resource” as defined in PRC § 21083.2, then it should be treated in accordance with the provisions of that section. A *unique archaeological resource* is defined as follows:

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 meets any of the following criteria:

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

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a “unique archaeological resource” under CEQA PRC § 21083.2 are viewed as not significant. Under CEQA, “A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC § 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project:

1. physically destroys or damages all or part of a resource;
2. changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or
3. introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

City of Montebello

In addition to State regulations, projects built in the City are also subject to several goals and policies as outlined in the City of Montebello 2040 General Plan Update (City 2024).

Goal NRC-5: Protect Montebello’s archaeological and paleontological resources.

- Policy NRC-5.1: Identify, evaluate, and protect known archaeological and paleontological resources in accordance with CEQA and other relevant laws and guidelines.
- Policy NRC-5.2: Require the preparation of archaeological and/or paleontological resource assessments for new development projects in areas with known or potential resources.
- Policy NRC-5.3: If archaeological or paleontological resources are discovered during construction, require all ground-disturbing activities in the area of the find to stop until a qualified professional evaluates the discovery and recommends appropriate treatment.

Goal NRC-6: Protect and promote Montebello’s cultural heritage.

- Policy NRC-6.1: Identify and preserve buildings, structures, objects, and sites that have historical, architectural, cultural, or aesthetic significance.
- Policy NRC-6.2: Encourage the adaptive reuse of historic buildings and structures where appropriate to retain their cultural significance and integrity.
- Policy NRC-6.3: Promote community awareness of Montebello's cultural resources through signage, educational materials, and events.

Goal NRC-7: Respect tribal cultural resources and Native American heritage.

- Policy NRC-7.1: Comply with AB 52 and SB 18 by consulting with California Native American tribes early in the planning process for projects that may affect tribal cultural resources.
- Policy NRC-7.2: Encourage the preservation and protection of tribal cultural resources through avoidance and minimization strategies where feasible.
- Policy NRC-7.3: Support the preparation and implementation of Tribal Cultural Resource Treatment Plans where such resources may be present.

4.5.2 Impact Analysis

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

Less than Significant Impact. Chambers Group prepared a Cultural Resources Survey Letter Report for the Montebello New Groundwater Well Site Project (Cultural Report) on June 7, 2025. This Cultural Report can be found in Appendix B.

As described in Appendix B, Chambers Group conducted an in-person records search at the California Historical Resources Information System (CHRIS) South-Central Coastal Information Center (SCCIC) at California State University, Fullerton, on April 17, 2025. A study area consisting of a half-mile radius surrounding the Project site was used to define the scope of the records search and provide contextual information for the Project. The SCCIC records search results provided information on all documented cultural resources and previous archaeological investigations within a half-mile radius of the Project site. Resources consulted included the National Register of Historic Places (NRHP), California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), California Department of Transportation (Caltrans) Historic Highway Bridge Inventory, the California State Historic Resources Inventory, local registries of historic properties, and a review of available Sanborn Fire Insurance maps, historical photographs, maps, and aerial imagery. The task also included a search for potential prehistoric and/or historic burials (human remains) evident in previous site records and/or historical maps.

In addition to the records search review, Chambers Group archaeologists completed background research to determine if any additional historic properties, landmarks, bridges, or other potentially significant or listed properties are located within the Project site or within the half-mile records search radius. This background research included, but was not limited to the California State Historic Property Data Files, California State Historical Landmarks, California Points of Historical Interest, Office of Historic Preservation Archaeological Determinations of Eligibility, historic aerial imagery accessed via

NETR Online, Historic U.S. Geological Survey topographic maps, Sanborn fire maps, Built Environment Resource Directory (BERD) review, and Caltrans, and State and local bridge surveys.

Chambers Group also conducted a field survey to identify and document any historic artifacts or evidence of prehistoric or historic features within the Project site. During this survey, no archaeological deposits, artifactual materials, or historic-period resources were identified within the Project site.

Based on cultural resources records searches, literature review, and a pedestrian survey, documented in Appendix B, Chambers Group concluded that there are no historical resources pursuant to *CEQA Statutes and Guidelines* §15064.5 within the Project site. Thus, there would be no impacts on historical resources.

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

Less than Significant with Mitigation Incorporated. As described in Appendix B, Chambers Group found no physical or archival evidence of cultural resources within the Project site. While no surficial evidence of prehistoric or historic archaeological resources was observed, the ground surface visibility was limited due to dense vegetation in much of the Project site. While the Project site exhibits evidence of past disturbance and the potential for encountering intact resources within the upper sediments is low, the possibility of identifying buried resources below surface disturbances is not diminished. This is due to the Project site's proximity to the Rio Hondo alluvial floodplain, an area known for potential buried deposits. Mitigation Measure (MM) CUL-1 will be implemented to ensure that potential impacts to cultural resources are less than significant and in conformance with the City's goals and policies regarding the protection of archaeological or historic resources.

MM CUL-1 The Applicant shall retain the services of a Qualified Archaeologist, meeting the Secretary of the Interior Standards, on an on-call basis for the duration of ground disturbing construction activity. The Qualified Archaeologist or cultural resources specialist working under the direction of the Qualified Archaeologist, shall provide training to inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the Project's initial on-site safety meeting and shall explain the applicable protocols, procedures, and legal basis for the protection of significant archaeological resources.

In the event of an inadvertent discovery of potential archaeological resources (artifacts or features) during ground-disturbing activities, construction activities within a 50-foot radius of the discovery shall be halted while the Qualified Archaeologist assesses the find. If the resource is determined to be significant or unique through significance evaluation, and avoidance is not possible, appropriate mitigation or treatment shall be established and implemented. These might include an archaeological mitigation and monitoring plan,

treatment, or data recovery programs. All monitoring or associated plans would be prepared and implemented under the direction of the qualified archaeologist. All required close-out reporting would be completed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR).

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

Less than Significant Impact. As discussed in Appendix B, no evidence of prehistoric and/or historic burials (human remains) evident in previous site records and/or historical maps were identified to occur within the Project site. In the event that human remains are discovered during ground-disturbing activities, then the Proposed Project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California PRC Section 5097.98. If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states 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 shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Thus, compliance with existing regulations pertaining to the discovery of human remains would make impacts less than significant.

4.6 ENERGY

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

4.6.1 Environmental Setting

The Proposed Project would involve the consumption of electricity and petroleum-based fuels. No natural gas hook-ups would be required under the Proposed Project.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines

is typically responsive to market demands. In 2022, Los Angeles County consumed 68,485 gigawatt-hours per year of electricity (Appendix A).

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2023, 3,039 million gallons of gasoline and 290 million gallons of diesel were sold in Los Angeles County (Appendix A).

4.6.2 Impact Analysis

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

Less than Significant Impact. The following section calculates the potential energy consumption associated with the construction and operations of the Proposed Project and provides a determination if any energy utilized by the Proposed Project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The Proposed Project would consume energy resources during construction in three general forms:

- 1) Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, as well as delivery and haul truck trips (e.g. hauling of demolition material to off-site reuse and disposal facilities);
- 2) Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
- 3) Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction the Proposed Project would consume electricity to construct the new structures and infrastructure. Electricity would be supplied to the Project site by Southern California Edison (SCE) and would be obtained from the existing electrical lines in the vicinity of the Project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on energy use. Electricity consumed during Project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities

necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the Proposed Project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during Project construction would not be wasteful, inefficient, or unnecessary.

Since SCE already provides power to the Project site, it is anticipated that only nominal improvements would be required to SCE distribution lines and equipment with development of the Proposed Project. Compliance with City's guidelines and requirements would ensure that the Proposed Project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the Project. Construction of the Project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the Project site and on-road automobiles transporting workers to and from the Project site and on-road trucks transporting equipment and supplies to the Project site. The off-road and on-road construction equipment fuel usage was calculated through use of the off-road and on-road equipment assumptions and fuel use assumptions shown in Table P and Table Q of the Air Report (Appendix A), which found that construction of the Proposed Project would consume 942 gallons of gasoline and 5,529 gallons of diesel fuel. This equates to 0.00003 percent of the gasoline and 0.0019 percent of the diesel used annually in Los Angeles County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Construction activities associated with the Proposed Project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the Proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant.

Development of the Proposed Project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the Proposed Project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, thus it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

In general, operation of the water supply well would consist of the operation of an electrical water pump, and implementation of the Proposed Project would result in a net decrease in electricity usage, when compared to the electricity currently utilized to transport water to the Project vicinity from Northern California. Well rehabilitation activities would be conducted on the well in five-to-10-year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well.

The well rehabilitation activities would require the use of petroleum-based fuels for off-road equipment operating on the Project site and on-road automobiles transporting workers to and from the Project site and on-road trucks transporting equipment and supplies to the Project site. The well rehabilitation off-road equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown in Table P and Table Q of the Air Report (Appendix A), which found that well rehabilitation activities would consume 36 gallons of gasoline and 443 gallons of diesel fuel. This equates to 0.000001 percent of the gasoline and 0.0002 percent of the diesel used annually in Los Angeles County. As such, the operation-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates

In conclusion, the Proposed Project would comply with regulatory compliance measures outlined by the State and City related to air quality, energy, and GHGs (see Appendix A). Additionally, the Proposed Project would be constructed in accordance with all applicable City Building and Fire Codes. Therefore, the Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. Impacts would be less than significant.

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

Less than Significant Impact. The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the Proposed Project is the *Montebello 2040 General Plan*, adopted April 10, 2024, where energy demand was analyzed in the 2040 General Plan DEIR (Rincon Consultants, Inc., 2023). The 2040 General Plan DEIR found that construction energy would be less than significant with adherence to the statewide regulatory requirements that include equipment idling restrictions and construction waste diversion requirements. For operations, the 2040 General Plan DEIR found that if projects are consistent with the General Plan policies shown below in Table 4-5, energy demand would be reduced to less than significant levels. Since the General Plan DEIR lists the same policies for GHG emissions, the consistency analysis in Table 4-5 is relevant to both Energy and GHG emissions.

Table 4-5 – Proposed Project Compliance with the General Plan Energy and GHG Emission Policies

General Plan Policy	Proposed Project Implementation Actions
P2.3: Maximize future Light Rail Stop with TOD Planning.	Not Applicable. The policy is only applicable to the City to implement.
P2.7: Encourage urban infill and compact development.	Not Applicable. The policy is only applicable to the City to implement.
P3.2: Direct growth and redevelopment to the Downtown Area.	Not Applicable. The policy is only applicable to the City to implement.
P3.4: New development will create diverse and walkable neighborhoods.	Consistent. The proposed project would improve the existing sidewalk on the project site, adjacent to Washington Boulevard.
P4.1: Support and promote walking, biking, and other nonvehicular modes as an alternative to driving within Montebello.	Consistent. The proposed project would improve the existing sidewalk on the project site, adjacent to Washington Boulevard.
P4.2: Promote the use of public transit through high quality local and regional transit service and facilities.	Not Applicable. The policy is only applicable to the City to implement.

P4.3: Foster multimodal accessibility between transit services and destinations within the city.	Not Applicable. The policy is only applicable to the City to implement.
P4.4: Manage parking and develop curbside regulations to balance the needs for parking, passenger loading, and commercial loading while avoiding negative effects to the walking, biking, and transit experience.	Consistent. The project will provide adequate parking onsite for all employees and will provide an onsite area for unloading of trucks that will not block the sidewalk.
P4.5: Provide a network of complete streets that are safe and accessible for all transportation modes and users, including those with impaired mobility, with a system of multimodal and context-appropriate roadways that support a shift to alternative travel modes and a reduction in VMT.	Not Applicable. The policy is only applicable to the City to implement.
P4.6: Balance local and regional vehicular throughput needs, as well as their effects on other modes of travel.	Not Applicable. The policy is only applicable to the City to implement.
P4.7: Prioritize the safety of all modes and users when designing and developing the citywide transportation network.	Not Applicable. The policy is only applicable to the City to implement.
P4.8: Ensure the City's transportation network and planning efforts incorporate new transportation technologies while also preparing for the needs of potential future technologies and modes.	Not Applicable. The policy is only applicable to the City to implement.
P5.2: Create a multimodal transportation system that encourages active living and healthy lifestyles in all areas of the City across a broad spectrum of ages, interests, and abilities.	Not Applicable. The policy is only applicable to the City to implement.
P7.2: Ensure the maximum distance between residents' homes and the nearest public park is ½ mile.	Not Applicable. The policy is only applicable to the City to implement and the project does not include any residential uses.

Source : City 2024

As shown in Table 4-5, the Proposed Project would be consistent with all applicable energy conservation policies from the General Plan. Therefore, the Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

4.7 GEOLOGY AND SOILS

7.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				

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

4.7.1 Environmental Setting

The City of Montebello is in central Los Angeles County, approximately nine miles southeast of downtown Los Angeles and 19 miles inland from the Pacific Ocean. The Rio Hondo River lies 0.30 miles west of the Project site. The site is relatively flat and underlain by Urban land Azuvina-Montebello complex soils (City 2023). The Project is located in an area with low liquefaction and low landslide potential (DOC 2025b). There are no Alquist-Priolo Earthquake Fault Zones within the Project site and the nearest fault is the Puente Hills blind thrust system, located approximately 1.70 miles south (DOC 2025b; USGS 2025).

4.7.2 Impact Analysis

- a) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:*
- i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.*

Less than Significant Impact. The Project site is within the seismically active Southern California region, which may experience moderate to potentially severe ground shaking from earthquakes.

However, there are no Alquist-Priolo Earthquake Fault Zones within the Project site (DOC 2025b). The nearest Alquist-Priolo Fault from the Project site is the East Montebello Fault, located approximately 4 miles north east. The fault nearest to the Project site is the Puente Hills blind thrust system, located approximately 1.70 miles south (USGS 2025).

The Project would be required to comply with the seismic safety requirements in the latest California Building Code (CBC) and the Montebello Municipal Code. Since there are no known active or potentially active faults passing through the Project site, the potential for onsite ground rupture due to movement of an underlying fault is not considered significant.

- ii) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

Less than Significant. The Project site is within the seismically active Southern California region, which may experience moderate to potentially severe ground shaking from earthquakes. The nearest Alquist-Priolo Fault from the Project site is the East Montebello Fault, located approximately 4 miles north east (DOC 2025b). The fault nearest to the Project site is the Puente Hills blind thrust system, located approximately 1.70 miles south (USGS 2025).

The Project would be required to comply with the seismic safety requirements in the latest California Building Code (CBC) and the Montebello Municipal Code. Since there are no known active or potentially active faults passing through the Project site, the potential for onsite ground rupture due to movement of an underlying fault is not considered significant. Therefore, the Proposed Project would not directly or indirectly cause substantial adverse effects involving strong seismic ground shaking. Therefore, impacts related to strong seismic ground shaking would be less than significant.

- iii) *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?*

No Impact. The Proposed Project site is not located within a liquefaction zone (DOC 2025b). Therefore, the Proposed Project would result in a no impact to the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction.

- iv) *Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

No Impact. The Proposed Project site is not located near or within areas that are susceptible to landslides (DOC 2025b). Landslide potential in the area of the Proposed Project is considered low. Therefore, the Proposed Project would result in no impacts relating to the risk of loss, injury, or death involving landslides.

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

Less than Significant. The Proposed Project would not result in substantial soil erosion or loss of topsoil. Although short-term impacts would normally occur during construction work, the area involved is less than one acre. Construction activities would result in a minor amount of soil disturbance. If soil is not contained and is directly exposed to rain, soil erosion and sediment could flow off-site. However, the Project is required to comply with grading requirements established in Chapter 15.48 of the Montebello Municipal Code. Specifically, Sections 15.48.470 and 15.48.480 of

the Montebello Municipal Code, including erosion control and drainage requirements for construction projects involving grading and excavations. Impacts would be less than significant.

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

No Impact. The Proposed Project site is not located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. The site is not located within liquefaction zone and the landslide potential in the area is considered low (DOC 2025b).

Furthermore, the Project would be designed and constructed in accordance with state and local building codes to reduce the potential for exposure of people or structures to seismic risks. The Project is required to comply with the seismic safety requirements in the latest CBC and the Montebello Municipal Code. Compliance with such requirements would reduce unstable geologic unit or soil impacts to the maximum extent practicable with current engineering practices. Therefore, no impacts related to unstable geologic units or soils would occur.

- d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

No Impact. The soil type that underlies the Project site is Urban land Azuvina-Montebello complex, which is a well-drained, non-expansive soil (City 2023). The Project would have no impact associated with being located on an expansive soil.

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

No Impact. The Proposed Project area relies on sewers for wastewater disposal. The Proposed Project would not result in new or increased demand for the use of septic tanks or alternative wastewater disposal. No impact would occur.

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

Less than Significant Impact with Mitigation Incorporated. On June 25, 2025 a Paleontological Resources Assessment was prepared by the San Diego Natural History Museum in support of the Proposed Project. This assessment is included in Appendix C.

According to Appendix C, record searches from the Natural History Museum of Los Angeles County (NHMLA) and the San Diego Natural History Museum (SDNHM) indicate there are no identified fossil collection localities within the Project site or the immediately surrounding area. The nearest fossil collection localities from the Project site are remains of an extinct horse located five miles northwest and a proboscidean posterior rib located seven miles southeast (Appendix C).

Pleistocene-age nonmarine deposits exposed within Los Angeles County have produced scientifically significant vertebrate fossils, including fossil remains of rabbits, rodents, ancient horse, camel, bison, mammoth, sabertooth cat, tapir, and giant ground sloth (Appendix C). Based on the important fossil

remains recovered from similar deposits in Los Angeles County, old alluvial-fan deposits, which underly the Project site, are assigned a high paleontological potential (Appendix C).

The proposed groundwater well is anticipated to extend to a total depth of between 800 and 1,000 feet, and will be constructed using the reverse circulation hydraulic rotary drilling method. While drilling activities will impact potentially fossil-bearing Pleistocene-age old alluvial-fan deposits and other geologic units present in the deeper subsurface, this drilling method produces only fragmentary cuttings that are mixed with drill fluid and generally lack precise stratigraphic control, making the recovery of scientifically significant fossil remains unlikely.

Ground disturbance is anticipated to be required for construction of the block wall building and any subgrade infrastructure. Site grading and/or excavation for equipment foundations may also be required for other Project components, including the greensand vessels, tanks, transformers, and well equipment. Any site grading, trenching, or miscellaneous excavation at the site that takes place within previously undisturbed and unweathered Pleistocene-age old alluvial-fan deposits has the potential to impact paleontological resources.

The high paleontological potential (or sensitivity) of old alluvial-fan deposits suggests that construction activities (e.g., mass grading, trenching for subsurface infrastructure; but not groundwater well drilling) of the proposed Project has the potential to result in significant impacts to paleontological resources. Mitigation of these potentially significant impacts can be ensured by implementing the following mitigation measure, as required by Action A8.19 of the Montebello General Plan:

MM PALEO-1 The Project applicant shall retain a Qualified Professional Paleontologist to develop and implement a Paleontological Resources Impact Mitigation Plan (PRIMP) that shall be approved by the City of Montebello, to ensure that impacts to paleontological resources resulting from construction of the project are less than significant. The PRIMP shall include measures for a pre-construction survey, a Worker Environmental Awareness Program, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable. Final reporting shall be reviewed and approved by the City of Montebello.

4.8 GREENHOUSE GAS EMISSIONS

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

4.8.1 Environmental Setting

City of Montebello adopted the Montebello 2040 General Plan (adopted April 10, 2024) and associated 2040 General Plan DEIR (Rincon Consultants, Inc., 2023), that found the anticipated projects in the City that would include any project that does not require a General Plan Amendment, would result in a less than significant impact for GHG emissions on the condition that the project adhere to the State GHG emission reduction regulations and the project is consistent with the identified General Plan policies listed below.

2040 General Plan Policies

P2.3: Maximize future Light Rail Stop with TOD Planning.

P2.7: Encourage urban infill and compact development.

P3.2: Direct growth and redevelopment to the Downtown Area.

P3.4: New development will create diverse and walkable neighborhoods.

P4.1: Support and promote walking, biking, and other nonvehicular modes as an alternative to driving within Montebello.

P4.2: Promote the use of public transit through high quality local and regional transit service and facilities.

P4.3: Foster multimodal accessibility between transit services and destinations within the city.

P4.5: Provide a network of complete streets that are safe and accessible for all transportation modes and users, including those with impaired mobility, with a system of multimodal and context-appropriate roadways that support a shift to alternative travel modes and a reduction in VMT.

P4.6: Balance local and regional vehicular throughput needs, as well as their effects on other modes of travel.

As such, the analysis in the Air Report (Appendix A) has quantified GHG emissions for informational purposes only and determination of significance is based on consistency with the applicable General Plan policies.

4.8.2 Impact Analysis

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

Less than Significant Impact. The Project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed in Appendix A. A summary of the results is shown below in Table 4-6 and the CalEEMod model run is provided in Appendix A of the Air Report.

Table 4-6 – Project Related Greenhouse Gas Annual Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction				
Year 2025	11.7	<0.01	<0.01	11.7
Year 2026	80.0	<0.01	<0.01	80.5
Total Construction Emissions	91.7	<0.01	<0.01	92.2
Amortized Construction Emissions (30 years) ¹	3.06	<0.01	<0.01	3.07
Operations				
Well Rehabilitation	28.9	<0.01	<0.01	29.1
Amortized Operational Emissions (5 years) ²	5.78	<0.01	<0.01	5.82
Total GHG Emissions	8.84	<0.01	<0.01	8.98

Notes :

¹ Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.

² Well Rehabilitation amortized over 5 years as that is the worst-case schedule for well rehabilitation.

Source: CalEEMod Version 2022.1.

The data provided in Table 4-6 shows that over a 30-year analysis period, the Proposed Project would create 8.89 MTCO₂e per year. As detailed below in Section b), the Proposed Project would implement the applicable measures in the 2040 General Plan. Therefore, a less than significant generation of GHG emissions would occur from development of the Proposed Project. Impacts would be less than significant.

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

Less than Significant Impact. The Proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The 2040 General Plan is the applicable plan for the Project area for reducing GHG emissions. The 2040 General Plan DEIR (Rincon Consultants, Inc., 2023), analyzed the GHG emissions created from buildout of the Montebello 2040 General Plan, which found, through implementation of General Plan Policies P2.3, P2.7, P3.2, P3.4, P4.1, P4.2, P4.3, P4.5, and P4.6, that implementation of the General Plan would result in a less than significant GHG emissions impact. Consistency with these policies has been provided in Section 4.6.2 in Table 4-5 that found that the Proposed Project would be consistent with the applicable policies of the 2040 General Plan. Therefore, implementation of the Proposed Project would not conflict with any applicable plan that reduces GHG emissions.

4.9 HAZARDS AND HAZARDOUS MATERIALS

9.	HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
(b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
(d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
(e)	For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 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?	☐	☐	☐	☒

4.9.1 Environmental Setting

Water quality of a nearby well suggests that groundwater underlying the Project site contains perfluorooctanesulfonate (PFOS), iron, and manganese contaminants. The Project site is located 0.01 miles southeast of Greenwood Elementary School. The Project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2025; SWRCB 2025). A LUST (Leaking Underground Storage Tank) Cleanup Site is located 0.03 miles northwest of the Project site at 740 Washington Blvd W Montebello, CA 90640 (Case #R- 09758) (SWRCB 2025). The City's Local Hazard Mitigation Plan (LHMP) identifies Washington Blvd, which borders the southern portion of the Project site, as a major roadway for evacuation. The Project is not within a Fire Hazard Severity Zone of Federal, State, or Local responsibility (CalFire 2025).

Regulatory Setting

State

CEQA Guidelines Section 21151.4

CEQA Guidelines Section 21151.4 pertains to construction or alteration of facility within one-fourth of a mile of school; reasonable anticipation of air emission or handling of hazardous or acutely hazardous material; approval of environmental impact report or negative declaration. The section states:

- (a) An environmental impact report shall not be certified or a negative declaration shall not be approved for any project involving the construction or alteration of a facility within one-fourth of a mile of a school that might reasonably be anticipated to emit hazardous air emissions, or that would handle an extremely hazardous substance or a mixture containing extremely hazardous substances in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code, that may pose a health or safety hazard to persons who would attend or would be employed at the school, unless both of the following occur:
 - 1) The lead agency preparing the environmental impact report or negative declaration has consulted with the school district having jurisdiction regarding the potential impact of the project on the school.
 - 2) The school district has been given written notification of the project not less than 30 days prior to the proposed certification of the environmental impact report or approval of the negative declaration
- (b) As used in this section, the following definitions apply
 - 1) “Extremely hazardous substance” means an extremely hazardous substance as defined pursuant to paragraph (2) of subdivision (g) of Section 25532 of the Health and Safety Code.
 - 2) “Hazardous air emissions” means emissions into the ambient air of air contaminants that have been identified as a toxic air contaminant by the State Air Resources Board or by the air pollution control officer for the jurisdiction in which the project is located. As determined by the air pollution control officer, hazardous air emissions also means emissions into the ambient air of a substance identified in subdivisions (a) to (f), inclusive, of Section 44321 of the Health and Safety Code.

Local

Emergency Response

As described in the *Our Safe Community* element of the City’s General Plan, the City’s Emergency Operations Plan (EOP) establishes an Emergency Management Organization (EMO) and assigns functions and tasks consistent with California’s Standardized Emergency Management System (SEMS), and the National Incident Management System (NIMS). It provides for the integration and coordination of

planning efforts through a whole community approach and authorizes the City's personnel to perform their duties and tasks before, during, and after an emergency. The intent of the EOP is to provide direction on how to respond to an emergency from the onset, through an extended response and into the recovery process. The goal of the EOP is to simplify the planning process across all areas of 1) Prevention, 2) Protection, 3) Mitigation, 4) Response and 5) Recovery.

The City has also implemented a LHMP to help mitigate hazards and their impacts to the community. It provides historical data, economic factors, vulnerability assessments, mitigation costs, and estimated losses resulting from the hazards.

4.9.2 Impact Analysis

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

Less than Significant Impact. Material that is to be transported, stored, or disposed of during Project construction and operation has the potential to contain hazardous materials and could present a hazard to construction workers, the public, or the environment if improperly managed. Vehicles and equipment used for construction would contain or require the temporary, short-term use of potentially hazardous substances, such as fuels, lubricating oils, and hydraulic fluid.

Additionally, a chlorination process to be used for water disinfection requires the onsite storage and use of liquid ammonium sulfate and sodium hypochlorite. The chlorination process would be a closed process inside a block wall structure and would not result in exposure of hazardous gases to the outside air.

Cal Water would be required to comply with all environmental regulations, and any applicable rules and regulations, including the California Code of Regulations (CCR) Title 23 Health and Safety Regulations, as managed by the Los Angeles County Department of Public Health and the Los Angeles County Fire Department. Cal Water shall implement its standard operational procedures and protocols, including BMPs and the site-specific Hazardous Materials Business Plan, to reduce potential impacts relative to hazardous materials to less than significant levels.

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

Less than Significant Impact. No significant risk of accidental upset or the release of hazardous substances is anticipated with the Proposed Project with the implementation of the site-specific Hazardous Materials Business Plan. In addition, Cal Water would be required to comply with applicable rules and regulations to reduce potential impacts relative to hazardous materials to less than significant levels.

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

Less than Significant Impact. The Project site is located 0.01 miles southeast of Greenwood Elementary School. The Project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2025; SWRCB 2025).

PRC Section 21151.4 requires that projects located within 0.25 mile of a school that might reasonably be anticipated to emit hazardous air emissions or that would handle an extremely hazardous substance or a mixture containing extremely hazardous substances (in a quantity equal to or greater than the state threshold quantity specified pursuant to subdivision (j) of Section 25532 of the Health and Safety Code), would either need to consult with the school or give written notification to the school.

Although the Proposed Project is within 0.25 miles of a school, the Project is not anticipated to emit hazardous emissions, or handle hazardous substances, equal to or greater than the state threshold quantities. Thus, the Proposed Project will not be required to consult with Greenwood Elementary School. Furthermore, compliance with applicable regulations of CalEPA, CalOSHA, and the DTSC; as well as the provisions of the City's Fire Code, would minimize risks associated with exposure of sensitive receptors to hazardous materials. Impacts would be less than significant.

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

Less than Significant Impact. The Project site is not located on a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (DTSC 2025; SWRCB 2025).

A LUST (Leaking Underground Storage Tank) Cleanup Site is located 0.03 miles northwest of the Project site at 740 Washington Blvd W Montebello, CA 90640 (Case #R- 09758) (SWRCB 2025). A 2014 report written by the Los Angeles Regional Water Quality Control Board (LARWQCB) states that in May 1999, two 8,000-gallon gasoline underground storage tanks (USTs) and three 12,000 gallon USTs were removed from the site. The tanks were made of steel and were used to store gasoline for the fueling of vehicles. The bottoms of tanks were approximately 15-feet below the ground surface (bgs). Based on field observations of the tanks and associated piping during the tank removal evaluation, it is unlikely that the unauthorized release of petroleum occurred from the tanks and associated piping. Discoloration was not observed in the excavated soil. Based on soil samples taken on the site, the maximum concentrations of petroleum constituents in the soil were less than the respective maximum allowable thresholds. As a soil-only case, any hazardous release has not affected groundwater. On March 17, 2015, the LARWQCB sent a Closure/No Further Action Letter to the LUST site property owner, indicating that corrective action carried out at the site is in compliance with applicable requirements of the Health and Safety Code and that no further action related to the petroleum release at the site is required.

Given the absence of hazardous materials on the Project site and the regulatory closure of the nearby LUST site with no evidence of a significant release, the presence of nearby historical USTs does not pose a current or foreseeable risk. Therefore, the Project would not create a significant hazard to the public or the environment. Impacts would be less than significant.

- e) *For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. The Project site is not located within two miles of a public use airport nor is it located within an airport land use plan. Therefore, the Project would not result in a safety hazard or excessive noise for people residing or working in the Project area due to airports. No impact would occur.

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

No Impact. The Project site does not encroach upon or obstruct any designated evacuation routes or critical access points used for emergency response. All staging and construction-related activities would occur entirely within the Project boundaries and would not require street closures or detours that could interfere with emergency services. There would be a temporary increase in traffic during the construction phase, but it would be short-term and minor in scale.

Furthermore, the City's LHMP Plan identifies major arterials and evacuation corridors; Washington Blvd, which borders the Project site, is considered a major roadway, but the Project's footprint would not affect through traffic or emergency accessibility.

The Project would also comply with all applicable safety and construction traffic management requirements imposed by the City's Public Works and Fire Departments to ensure ongoing access for emergency vehicles during construction. No impact would occur.

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

No Impact. The Project is not within a Fire Hazard Severity Zone of Federal, State, or Local responsibility (CalFire 2025). In addition, the site itself is a vacant, previously disturbed parcel with minimal vegetation, consisting primarily of low-lying grasses and non-native, invasive plant species. These types of vegetation do not pose a high risk for ignition or wildfire spread compared to natural chaparral or forested areas. Surrounding land uses are urban and include commercial and residential structures, paved roads, and minimal fuel loads, further reducing the potential for wildland fire exposure.

All construction and operational activities will be conducted in accordance with applicable fire prevention regulations and standard safety protocols, including proper storage and handling of flammable materials such as fuel, lubricants, solvents, and paints. The Project will also adhere to fire code requirements as enforced by the Montebello Fire Department, ensuring that risk is minimized during all phases of development.

The construction of the proposed well(s) will enhance local water infrastructure and could play a beneficial role in supporting emergency fire suppression needs by contributing to the reliability and availability of water resources for firefighting purposes. No impacts are anticipated.

4.10 HYDROLOGY AND WATER QUALITY

10.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
(b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
	ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flood 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?	☐	☐	☒	☐

4.10.1 Environmental Setting

The Project area is part of the Upper Los Angeles River Watershed, which is part of the Central Subbasin of the Coastal Plain of Los Angeles Groundwater Basin (Central Basin) and is regulated by the Water Replenishment District of Southern California (WRD).

Groundwater produced from the Central Basin comprises approximately 65 to 70 percent of the District's water supply portfolio. Cal Water currently has a total of nine active and two inactive wells within the District's service area boundaries. There are 19 surface storage structures, enabling the groundwater wells to pump to storage during non-peak demand periods and provide peak day demand. The District has sufficient production capacity to supply all of the District's current annual average day and maximum day demand (Cal Water 2021).

Supplemental water that cannot be supplied by groundwater is obtained from the Central Basin Municipal Water District (CBMWD). CBMWD is one of the 27 member agencies of the Metropolitan Water District of Southern California (MWD), which imports water through either the Colorado River Aqueduct, which is owned by MWD, or the California Aqueduct, a facility of the State Water Project, which is owned and operated by the California Department of Water Resources (DWR) (Cal Water 2021).

4.10.2 Impact Analysis

- a) *Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?*

Less than Significant Impact. Although short-term impacts would normally occur during construction work, the area involved is less than one acre. During construction, temporary soil disturbance may occur from earth-moving activities such as excavation and trenching, soil compaction and moving, cut and fill activities, and grading. If not managed properly, disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the Project site. Pollutants can attach to sediment and be transported to downstream drainages and ultimately into collecting waterways, contributing to degradation of water quality.

Since the Project site is less than one acre, the Project is not subject to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements. However, City Municipal Code Section 15.48.470 mandates that previously authorized grading work which continues into the rainy season (November 15th through April 15th) shall be protected by the installation of temporary erosion control devices. Plans for erosion control devices shall be submitted to the engineering department and design approval obtained no later than November 1st. The design and construction of desilting basins, which discharge drainage onto the city streets or natural watercourses, shall be under the control of the engineering department. All temporary erosion control devices, including the desilting basins, shall be installed no later than November 15th.

Furthermore, although the Project boundary is 0.88 acres, the amount of soil disturbance will be limited to the area of the well(s) and associated infrastructure. These facilities will cover approximately 0.21 acres, or 24% of the Project area.

Given the limited amount of soil disturbance and compliance with City Municipal Code, impacts on surface and groundwater quality would be less than significant.

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

Less than Significant Impact. The new Montebello well is part of Cal Water's effort to upgrade facilities to make sure the water supply is reliable and high quality. The well(s) would have anticipated flow rates of 2,500 to 3,000 gallons per minute and would be drilled to a depth of 800 to 1,000 feet below ground surface.

The Project would not substantially interfere with groundwater recharge. The installation of the well(s) and associated infrastructure would result in less than 0.25 acre of new impervious surface, which is a negligible area and would not significantly alter infiltration or recharge conditions on the site.

The well(s) would pump groundwater from the Central Basin, which is an adjudicated basin managed under court-ordered pumping rights. Cal Water's groundwater extraction is subject to an Allowed Pumping Allocation (APA) of 11,774 acre-feet per year (AFY) as outlined in its 2020 Urban Water Management Plan (UWMP) (Cal Water 2021). As a result, Cal Water is legally restricted from withdrawing more water than its allocation, resulting in less than significant impacts to groundwater

recharge. Furthermore, Cal Water's engineering team has accounted for local aquifer conditions and existing groundwater use when designing the Project. The proposed well(s) have been designed to avoid negative impacts on nearby production wells or long-term basin stability. Impacts would be less than significant.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

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

Less than Significant Impact. Well drilling would generate drill cuttings, drilling fluids, and mud. A staging area would be located on the Proposed Project site to contain drill cuttings, drilling fluids, and mud (confined to a settling tank), and store construction equipment and materials. A baker tank will be utilized to accept the water discharged during construction, development, and test pumping and allow any solids to settle prior to discharge to the offsite drainage system. Drill cuttings and mud would ultimately be disposed of offsite, in accordance with state laws, at an appropriate disposal facility after being tested for hazardous waste. Drilling fluids, which are non-toxic, would be released to the storm drain located on Washington Blvd, adjacent to the Project site.

Although short-term impacts would normally occur during construction work, the area involved is less than one acre. During construction, temporary soil disturbance may occur from earth-moving activities such as excavation and trenching, soil compaction and moving, cut and fill activities, and grading. If not managed properly, disturbed soils would be susceptible to high rates of erosion from wind and rain, resulting in sediment transport via stormwater runoff from the Project site. Pollutants can attach to sediment and be transported to downstream drainages and ultimately into collecting waterways, contributing to degradation of water quality.

Since the Project site is less than one acre, the Project is not subject to the Construction General Permit requirements. However, City Municipal Code Section 15.48.470 mandates that previously authorized grading work which continues into the rainy season (November 15th through April 15th) shall be protected by the installation of temporary erosion control devices. Plans for erosion control devices shall be submitted to the engineering department and design approval obtained not later than November 1st. The design and construction of desilting basins which discharge drainage onto the city streets or natural water courses shall be under the control of the engineering department. All temporary erosion control devices, including the desilting basins, shall be installed not later than November 15th.

Furthermore, although the Project boundary is 0.88 acres, the amount of soil disturbance will be limited to the area of the well(s) and associated infrastructure. These facilities will cover approximately 0.21 acres, or 24% of the Project area.

Given the limited amount of soil disturbance and compliance with City Municipal Code, impacts regarding erosion or siltation would be less than significant.

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

Less than Significant Impact. The Proposed Project would involve only minor site grading and only a small portion (0.21 acres) of the Proposed Project site would be covered with impervious surfaces. The small increase in impervious surfaces would not result in a significant change in drainage patterns or the amount of surface runoff. The Proposed Project construction will involve minor earthwork to develop the site for the well but would not change runoff characteristics. No significant impacts are expected.

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

Less than Significant Impact. Well drilling would generate drill cuttings, drilling fluids, and mud. A staging area would be located on the Proposed Project site to contain drill cuttings, drilling fluids, and mud (confined to a settling tank), and store construction equipment and materials. A biker tank will be utilized to accept the water discharged during construction, development, and test pumping and allow any solids to settle prior to discharge to the offsite drainage system. Drill cuttings and mud would ultimately be disposed of offsite, in accordance with state laws, at an appropriate disposal facility after being tested for hazardous waste. Non-toxic drilling fluids would be released to the storm drain located on Washington Blvd and would be released in quantities that would exceed the capacity of the existing stormwater drainage system. No significant impacts are expected.

- iv) *Impede or redirect flood flows?*

No Impact. The Proposed Project site is located within Zone X, which is outside the flood hazard zone and is generally an area with minimum flood hazard (FEMA 2008). No impacts are expected.

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

Less than Significant Impact. As discussed in section c) iv), the Proposed Project is not located within a designated flood hazard zone, thus there is a low potential for flood-related inundation. Additionally, as noted in Section 4.7.2, there are no known active or potentially active faults beneath the Project site, and no large, permanent bodies of water are located nearby. As a result, the risk of seiche-related inundation is considered negligible.

The Project site is located approximately 0.30 miles west of the Rio Hondo Spreading Grounds, a managed groundwater recharge facility operated by the County. While the primary purpose of this facility is to promote groundwater infiltration, it also provides the added benefit of reducing flood risk by capturing and temporarily storing stormwater runoff. Due to the site's distance from the spreading grounds, and considering the facility's role in managing, rather than generating, floodwaters, the risk of inundation that could lead to the release of pollutants is considered less than significant.

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

Less than Significant Impact. The Sustainable Groundwater Management Act (SGMA) requires local public agencies and Groundwater Sustainability Agencies in high- and medium-priority basins to develop and implement Groundwater Sustainability Plans to outline how groundwater basins will

reach long-term sustainability. Per the SGMA Dashboard, the Project site is located within the Central Coastal Plain of Los Angeles, which is designated as Very Low Priority, indicating that it is not significantly stressed or at risk of overdraft (DWR 2019).

The Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. The Los Angeles Region Water Quality Control Board (LARWQCB) has adopted the Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties (Basin Plan). The Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan (i) designates beneficial uses for surface and ground waters, (ii) sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy, and (iii) describes implementation programs to protect all waters in the Region.

The Water Replenishment District has developed a 2024-2026 Strategic Plan to define goals and strategies to guide near-term and long-term planning efforts, ensuring a sustainable, clean, and resilient groundwater supply for Southern California's Central and West Coast Basins (WDR 2024). Its primary purpose is to guide WRD's efforts in expanding local water replenishment sources, supporting groundwater extraction capacity, and enhancing climate resiliency.

Water quality testing at a well nearby the Project site indicates that treatment infrastructure, including Granular Activated Carbon vessels for PFOS containment and Greensand Vessels for iron and manganese, will be implemented. A block wall building will also be constructed to safely store disinfection chemicals such as sodium hypochlorite and liquid ammonium sulfate. As discussed in Section b), the proposed well(s) will pump according to the limits of the APA as outlined in the UWMP.

These measures demonstrate the Project's alignment with regional water quality protection goals and groundwater sustainability efforts, confirming that it would not obstruct but rather support the objectives of the Basin Plan and applicable groundwater management plans. A less than significant impact will occur.

4.11 LAND USE AND PLANNING

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

4.11.1 Environmental Setting

The Project site is situated within a transition zone between residential and commercial land uses. The surrounding area is zoned for a variety of uses including One-Family Residential (R-1), Multiple-Family Residential (R-3), General Commercial (C-2), and Heavy Commercial (C-M).

4.11.2 Impact Analysis

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

No Impact. The Proposed Project is located on a currently vacant lot bordered by a mix of residential uses to the north and northeast, and commercial/industrial businesses - including auto body shops, a smog check station, a glass repair service, and a transmission repair shop - to the south, west, and southeast. The Project site is situated within a transition zone between residential and commercial land uses and is consistent with existing zoning and land use designations.

The Project would not introduce any new infrastructure, barriers, or circulation changes that would separate or isolate residential areas from surrounding neighborhoods. It is infill development on a previously unused parcel and would integrate into the existing urban fabric. As such, the Proposed Project would not divide an established community, and no impact would occur.

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

No Impact. The Proposed Project involves the addition of a water well, and a potential second well, on a parcel located within an urbanized area. The water well will be constructed within the 0.88-acre parcel, and there would be no effects on zoning or general plan land use of the area. The Project site is zoned as Heavy Commercial – limited industrial zone (C-M) for which water wells require a CUP per City Municipal Code Appendix A *Index of Primary Uses*. With the acquisition of a CUP, the Proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigation an environmental effect. No impact would occur.

4.12 MINERAL RESOURCES

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

4.12.1 Environmental Setting

The Project is within an urbanized area surrounded by commercial, industrial, and residential development. The Project site is located on a vacant lot with existing low-lying, non-native vegetation. The City of Montebello does not contain any active mine operations, land designated for portland cement concrete-grade (PCC) aggregate, or land classified as Mineral Resource Zone (MRZ)-2 (CGS 2010).

4.12.2 Impact Analysis

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

No Impact. According to the California Geological Survey, the City of Montebello does not contain any active mine operations, land designated for PCC-Grade aggregate, or land classified as MRZ-2 (CGS 2010). Furthermore, the Project area is highly urbanized, thus it is unlikely to contain or support the extraction of valuable mineral resources. No impact would occur.

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

No Impact. The City's General Plan EIR states that the City does not have active mines, PCC-grade aggregate, nor MRZ-2 land, which indicates that significant, known, accessible mineral resources are not present (City 2023). The City is highly urbanized. Access to mineral resources in this area is therefore constrained to the point where, even if present, mineral resources would be effectively unavailable. Thus, the Proposed Project would not result in the loss of availability of a locally-important mineral resource recovery site. No impact would occur.

4.13 NOISE

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

4.13.1 Environmental Setting

On July 13, 2025, a Noise Impact Analysis (Noise Report) was prepared for the Proposed Project and is included in Appendix D. The noise standards that apply to the Proposed Project are addressed through the efforts of various federal, state, and local government agencies. Each is described in the following sections:

Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the FTA, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual), prepared by the FTA, September 2018, is a guidance document from a government agency that has defined what constitutes significant noise and vibration impacts from implementing a project. The FTA recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relates to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the noise impacts of a construction project. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land uses. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings for a general construction noise assessment are provided in Table 4-7.

Table 4-7 – FTA General Assessment Noise Criteria

Land Use	Day (dBA Leq _(1-hour))	Night (dBA Leq _(1-hour))
Residential	90	80
Commercial	100	100
Industrial	100	100

Source: Federal Transit Administration, 2018

The FTA also provides guidance on analyzing vibration impacts that details architectural damage to nonengineered timber and masonry buildings would occur when vibration exceeds 0.2 inch per second peak particle velocity (PPV).

State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regulatory tools to control and abate noise for use by local agencies. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix,” which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise. The Land Use/Noise Compatibility Matrix that was adopted by the City is shown in Figure 3 of the Noise Report (Appendix D).

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise).

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs

Local Regulations

The Montebello 2040 General Plan adopted April 10, 2024, and City Municipal Code establishes the following applicable policies related to noise and vibration.

City of Montebello General Plan

Policies (P) and Actions (A)

P5.4 Minimize noise impacts to ensure that noise does not detract from Montebello's quality of life.

A5.4b Require development projects to implement mitigation measures, where necessary, to reduce exterior and interior noise levels to meet adopted standards and criteria. Require mixed-use structures to minimize the transfer of noise from commercial uses to residential uses.

A5.4d Minimize stationary noise impacts on sensitive receptors, and require control of noise from construction activities, private developments/ residences, landscaping activities, and special events.

P5.5 Minimize excessive construction-related noise and vibrations.

A5.5a Adopt and implement measures that reduce construction noise and vibrations.

A5.5b Construction plans submitted to the City shall include construction noise analysis (and vibration analysis where applicable) and identify measures to mitigate excessive noise and vibrations associated with demolition, grading, and construction plans.

The noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds.

City of Montebello Municipal Code

The City of Montebello Municipal Code establishes the following applicable standards related to noise.

9.08.050 – Loud and Raucous Noise

The following acts, among others, are declared to be loud or raucous noises but the enumeration shall not be deemed to be exclusive:

- i. Construction or Repairing of Real Property. Noise sources associated with construction, demolition, grading, repair or remodeling of any real property other than between the hours of seven a.m. and eight p.m. on weekdays (Monday through Friday), and nine a.m. to six p.m. on

Saturdays, Sundays and legal holidays, except in the case of an emergency where such action is immediately required to prevent injuries to persons or damage to property as determined by the director of building and safety or his designated representative.

- ii. Pile Drivers, Hammers, Etc. Any pile driver, pneumatic hammer, bulldozers or other construction vehicles, motorized hoists or other devices operated between the hours of eight p.m. and seven a.m.

17.22.110 – Commercial Zone - Development Standards – Noise

- A) 1. Every use shall be so operated that the noise inherent and recurrently generated does not exceed the following levels at the lot line of the lot on which the use is located:

Table 4-8 – City of Montebello Municipal Code Noise Standards

Adjacent Zone	Maximum Noise Level 7 a.m. – 10 p.m.	Maximum Noise Level 10 p.m. – 7 a.m.
Residential	65 dBA	60 dBA
Commercial	70 dBA	70 dBA
Industrial	75 dBA	75 dBA

Source : City of Montebello Municipal Code Chapter 17.22.110(A)(1)

- A) 2. Every use in the C-R and C-1 zones shall be so operated that the noise inherently and recurrently generated does not exceed sixty dBA between seven a.m. and nine p.m. and fifty-five dBA between ten p.m. and seven a.m. when adjacent to a residential zone
- B) 1. 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; or
 - 2) The noise standard plus five dBA for cumulative period of more than fifteen minutes in any hour; or
 - 3) The noise standard plus ten dBA for a cumulative period of more than five minutes in any hour; or
 - 4) The noise standard plus fifteen dBA for a cumulative period of more than one minute in any hour; or
 - 5) The noise standard plus twenty dBA for any period of time.
- C) For the purpose hereof, the peak decibel reading for a noise with a fluctuating noise level (such as live or recorded music) shall be considered as noise level for the entire cumulative period of the noise. Likewise, the time between repetitive intermittent noises (such as banging, pounding, or hammering) shall be included in the cumulative period of the noise.

Existing Noise Measurements

The results of the noise level measurements on the Project site, conducted in preparation of the Noise Report (Appendix D), are presented in Table 4-9 and the noise monitoring data printouts are included in Appendix B of the Noise Report.

Table 4-9 – Existing (Ambient) Noise Measurement Results

Site No.	Description	Primary Noise Source	Start Time of Measurement	Measured Noise Level	
				dBA Leq	dBA Lmax
1	Located east of the project site in front of apartment at 933 Carob Way, approximately 30 feet west of Carob Way centerline	Vehicles on Carob Way	4:39 p.m.	55.1	77.6
2	Located on the southern portion of the project site, approximately 44 feet north of Washington Boulevard centerline	Vehicles on Washington Blvd	4:59 p.m.	71.4	86.9
3	Located west of the project site in front of single-family home at 940c Montebello Boulevard, approximately 190 feet east of Montebello Boulevard centerline	Industrial fan on building to south	5.19 p.m.	61.3	67.9

Notes : Noise measurements taken with a Larson-Davis Model 831 Type 1 precision sound level meter on Tuesday May 13, 2025

4.13.2 Impact Analysis

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

Less than Significant with Mitigation Incorporated. The Proposed Project may generate 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. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the Proposed Project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the Proposed Project are anticipated to include construction of a new water supply well and water treatment system. Noise impacts from construction activities associated with the Proposed Project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Section 9.08.050(I) of the City's Municipal Code limits construction activities to between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, between 6:00 p.m. and 9:00 a.m. on Saturdays, or anytime on Sundays or federal holidays. Under the City's General Plan Noise Policies, Action A5.5b states that noise analyses should be prepared based on the FTA standards described in Section 14.13.1. As such,

for construction activities that occur during the allowable hours as detailed in Section 9.08.050(I), the FTA construction noise level standard of 90 dBA during the daytime at the nearby homes have been utilized in the analysis contained in the Noise Report (Appendix D).

The following phases would require construction activities to occur 24 hours per day: Phase 3 – Well Drilling, Phase 4 – Well Casing, and Phase 6 – Test Pumping. For construction activities that occur outside of the allowable hours of construction, the applicable noise standard is provided in Section 17.22.110 of the Municipal Code that details the nighttime noise standard for residential uses adjacent to Commercial land uses is 60 dBA.

The nearest sensitive receptors to the Project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the Project site. Construction noise levels to the nearby sensitive receptors have been calculated based on the methodology detailed in the Noise Report. The results are shown below in Table 4-10 and the noise calculation printouts are provided in Appendix D of the Noise Report.

Table 4-10 – Construction Noise Levels at the Nearby Homes Prior to Mitigation

Construction Phase	Construction Noise Level (dBA Leq) at:		City Noise Standard ¹	Exceed Standard?
	Homes to North	Homes to East		
Phase 1: Temporary Noise Barrier & Site Preparation	80.4	80.4	90	No
Phase 2: Conductor Casing Installation	79.6	78.1	90	No
Phase 3: Well Drilling	78.2	74.2	60	Yes
Phase 4: Well Casing	78.0	76.4	60	Yes
Phase 5: Well Development	87.0	83.6	90	No
Phase 6: Test Pumping	71.2	70.0	60	Yes
Phase 7: Site Improvements	71.7	75.6	90	No

Notes

¹ For construction phases that occur during the allowable construction times as detailed in 9.08.050(I) of the City's Municipal Code, the applicable noise standard is the FTA Construction daytime noise standard of 90 dBA as detailed above in Table 4-7. For construction phases that occur 24 hours per day, the construction noise standard is based on the nighttime noise standard from Section 17.22.110 of 60 dBA for residential uses next to commercial land uses.

Table 4-10 shows that construction Phases 1, 2, 5, and 7 that would occur during the allowable construction times, as detailed in Section 9.08.050(I) of the City's Municipal Code, would be within the FTA daytime construction noise standard of 90 dBA. However, construction Phases 3, 4, and 6 that would require construction activities to occur 24 hours per day, would exceed the nighttime noise standard of 60 dBA, from Section 17.22.110 of the Municipal Code, for residential uses adjacent to commercial land uses. This would have a significant noise impact.

MM N-1 is provided below that would require the Project applicant to install a temporary sound wall on the entire north side and the northern 165 feet of the east side of the Project site. The temporary sound wall shall be a minimum 24 feet high and be constructed with steel posts with two-by-four framing between the posts and minimum half-inch plywood or oriented strand board (OSB) board covering both sides of the two-by-four framing, with no cutouts or openings in the sound wall. The

sound wall shall be installed in Phase 1 of construction activities and shall remain in place until the completion of Phase 6 construction activities.

The construction noise levels at the nearby homes were re-calculated with implementation of MM N-1 and the results are shown in Table 4-11. Table 4-11 shows that with implementation of MM N-1, the construction noise level for all phases of construction would be reduced to below the applicable construction noise standards. Therefore, with implementation of MM N-1, a less than significant noise impact is anticipated from construction of the Proposed Project.

Table 4-11 – Mitigated Construction Noise Levels at the Nearby Homes

Construction Phase	Construction Noise Level (dBA Leq) at:		City Noise Standard ¹	Exceed Standard?
	Homes to North	Homes to East		
Phase 1: Temporary Noise Barrier & Site Preparation	80.4	80.4	90	No
Phase 2: Conductor Casing Installation	60.4	59.0	90	No
Phase 3: Well Drilling	59.1	55.1	60	No
Phase 4: Well Casing	59.3	57.9	60	No
Phase 5: Well Development	67.8	64.5	90	No
Phase 6: Test Pumping	52.0	50.8	60	No
Phase 7: Site Improvements	71.7	76.8	90	No

Notes

¹ For construction phases that occur during the allowable construction times as detailed in 9.08.050(I) of the City's Municipal Code, the applicable noise standard is the FTA Construction daytime noise standard of 90 dBA as detailed above in Table 4-7. For construction phases that occur 24 hours per day, the construction noise standard is based on the nighttime noise standard from Section 17.22.110 of 60 dBA for residential uses next to commercial land uses.

Operational-Related Noise

Operation of the proposed water supply well would consist of the operation of an underground electrical water pump, that would not create any noise that is audible offsite. Routine maintenance would be conducted on the well in five-to-10-year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The routine maintenance activities from a full rehabilitation of the well would create noise from the operation of off-road diesel equipment on the Project site. The well rehabilitation activities would be limited to the allowable times for construction as detailed in Section 9.08.050(I) of the City's Municipal Code. As such, the FTA construction noise level standard of 90 dBA during the daytime at the nearby homes have been utilized in the analysis contained in the Noise Report for the operational well rehabilitation activities.

The nearest sensitive receptors to the Project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the Project site. Operational well rehabilitation activities noise levels at the nearby sensitive receptors have been calculated based on the methodology detailed above in the Noise Report (Appendix D). The results are shown below in Table 4-12 and the operational noise calculation printouts are provided in Appendix E of the Noise Report.

Table 4-12 – Operational Well Rehabilitation Noise Levels at the Nearby Homes

Activity	Construction Noise Level (dBA Leq) at:		City Noise Standard ¹	Exceed Standard?
	Homes to North	Homes to East		
Well Rehabilitation	81.8	77.1	90	No

Notes

¹ Well Rehabilitation will be limited to the allowable construction times as detailed in 9.08.050(l) of the City's Municipal Code. As such, the applicable noise standard is the FTA Construction daytime noise standard of 90 dBA as detailed above in Table 4-7.

Table 4-12 shows that operational well rehabilitation activities that would occur during the allowable construction times as detailed in Section in 9.08.050(l) of the City's Municipal Code would be within the FTA daytime construction noise standard of 90 dBA. Therefore, a less than significant noise impact is anticipated from operation of the Proposed Project.

- MM N-1** The Project applicant shall install a temporary sound wall on the entire north side and the northern 165 feet of the east side of the Project site. The temporary sound wall shall be a minimum 24 feet high and be constructed with steel posts, 2x4 framing between the posts and minimum ½" plywood or oriented strand board (OSB) covering both sides of the 2x4 framing, with no cutouts or openings in the sound wall. The sound wall shall be installed in Phase 1 of construction activities and shall remain in place until the completion of Phase 6 construction activities.

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

Less than Significant. The Proposed Project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the Proposed Project.

Construction-Related Vibration Impacts

The construction activities for the Proposed Project are anticipated to include construction of a new water supply well and water treatment system. Vibration impacts from construction activities associated with the Proposed Project would typically be created from the operation of heavy off-road equipment. The nearest vibration sensitive receptors to the Project site include the multi-family homes that are as near as 8 feet to the north of the Project site.

Under the City's General Plan Noise Policies, Action A5.5b states that vibration levels shall not exceed the FTA architectural damage thresholds. For the nearby multi-family homes that would most closely fit the building structure category of non-engineered timber and masonry buildings, the damage threshold is 0.2 inch per second PPV.

A list of known vibration producing construction equipment is provided below in Table 4-13. As shown in Table 4-13, a caisson drill would create the highest vibration level of the listed construction

equipment that would likely be used during construction of the Proposed Project and would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest offsite structure (30 feet away from the proposed well location) would be 0.073 inch per second PPV, which would be below the 0.2 inch per second PPV threshold detailed above. Construction-related vibration impacts would be less than significant.

Table 4-13 – Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L _v) at 25 feet
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	59
Source: FTA 2018		

As shown in Table 4-13 above, a caisson drill would create the highest vibration level of the listed construction equipment that would likely be used during construction of the Proposed Project and would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest offsite structure (30 feet away from the proposed well location) would be 0.073 inch per second PPV, which would be below the 0.2 inch per second PPV threshold detailed above. Construction-related vibration impacts would be less than significant.

Operation-Related Vibration Impacts

The operation of the Proposed Project may require scheduled deliveries of disinfection chemicals, as well as replacement parts that would be delivered on trucks. It is anticipated that truck deliveries may occur as near as 30 feet from the homes to the east.

Caltrans has done extensive research on vibration level created along freeways and State Routes and their vibration measurements of roads have never exceeded 0.08 inches per second PPV at 15 feet from the center of the nearest lane, with the worst combinations of heavy trucks. Based on typical propagation rates, the vibration level at the nearest offsite residential structure (30 feet away) would be 0.04 inch per second PPV, which is well below the FTA's 0.2 inch per second PPV architectural damage threshold detailed above. Therefore, a less than significant vibration impact is anticipated from operation of the Proposed Project.

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

Less than Significant Impact. The Proposed Project would not expose people residing or working in the Project area to excessive noise levels from aircraft. The nearest airport is San Gabriel Valley Airport that is located approximately 7.5 miles northeast of the Project site. The Project site is located outside of the 60 dBA CNEL noise contours of San Gabriel Airport. A less than significant impact would occur from aircraft noise.

4.14 POPULATION AND HOUSING

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

4.14.1 Environmental Setting

The City of Montebello is a developed, urbanized community located in Los Angeles County, approximately 8 miles southeast of downtown Los Angeles. As of the most recent U.S. Census data, Montebello has a population of approximately 60,000 residents and is characterized by a mix of residential, commercial, and industrial land uses. The city is largely built out, with limited available land for new residential development (Census Bureau 2024).

The Proposed Project site is located on a parcel within an area designated for Heavy Commercial uses. The site is currently vacant and does not contain any existing housing or support residential land uses. The site also does not support permanent or temporary housing, nor is it identified in any regional housing plan as a location for future residential development.

4.14.2 Impact Analysis

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

No Impact. The Proposed Project does not provide housing. The Proposed Project includes the construction of a new water supply well and water treatment system but does not involve the expansion of service. The water well(s) will service the existing population in the City. The Proposed Project will improve existing system reliability by providing a new well and a water treatment system. No impact would occur.

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

No Impact. The Proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. The new water well(s) would serve the existing population in the City. No impact is expected.

4.15 PUBLIC SERVICES

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, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	i) Fire Protection?	☐	☐	☐	☒
	ii) Police Protection?	☐	☐	☐	☒
	iii) Schools?	☐	☐	☐	☒
	iv) Parks?	☐	☐	☐	☒
	v) Other public facilities?	☐	☐	☐	☒

4.15.1 Environmental Setting

The Project site is not located in a Fire Hazard Severity Zone (CalFire 2025). The Project site is located 0.40 miles northeast of the City of Montebello Fire Station No. 56.

The Project site is 1.75 miles south of the Montebello Police Station and 0.01 miles southeast of Greenwood Elementary School.

4.15.2 Impact Analysis

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

No Impact. The Proposed Project includes the construction of a new water well and water treatment system but does not involve the expansion of service. In addition, the new well and water treatment system will provide a reliable water supply to assist in firefighting efforts. The Proposed Project would not induce population growth that would increase the demand for fire protection. The Project site is not located in a Fire Hazard Severity Zone (CalFire 2025). The Project site is located 0.40 miles northeast of the City of Montebello Fire Station No. 56. No impacts are expected

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

No Impact. The Proposed Project includes the construction of a new water well and water treatment system but does not involve the expansion of service. The Project site is 1.75 miles south of the Montebello Police Station. The Proposed Project would not induce population growth requiring the extension of existing services or creation of new services. The Proposed Project would not increase the demand for police protection. No impact would occur.

- iii) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?*

No Impact. The Proposed Project includes the construction of a new water well and water treatment system but does not involve the expansion of services. The Project site is located 0.01 miles southeast of Greenwood Elementary School. The Proposed Project would not induce population growth requiring the extension of existing services or creation of new services. The Proposed Project would not increase the demand for schools in the City. No impact would occur.

- iv) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?*

No Impact. The Proposed Project would not induce growth requiring the extension of existing or creation of new services. The Proposed Project would not increase the demand for parks. No impacts are expected.

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

No Impact. The Proposed Project would not induce growth requiring the extension of existing or creation of new services. The Proposed Project would not increase the demand for other public facilities. No impacts are expected.

4.16 RECREATION

16.	RECREATION. Would the project:	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?	☐	☐	☐	☒

4.16.1 Environmental Setting

The Proposed Project is located at 716 Washington Boulevard, in a developed, urbanized area characterized by commercial and industrial uses. The site is not located within or immediately adjacent to any public park or designated recreational area. The closest recreational resource is Cuthbert R. Pattullo Community Center and Park, located approximately 0.5 miles east of the Project site. Other nearby facilities include Montebello City Park and Ashiya Park, which are located farther from the site and serve the broader community.

4.16.2 Impact Analysis

a) *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*

No Impact. The Proposed Project does not include features that would contribute to the increased use of existing neighborhoods, regional parks or other recreational facilities or would cause substantial deterioration of the facility. No impacts are expected.

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

No Impact. The Proposed Project does not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. No impacts are expected.

4.17 TRANSPORTATION

17.	TRANSPORTATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☒	☐

17.	TRANSPORTATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
(c)	Substantially increase hazards due to a geometric design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
(d)	Result in inadequate emergency access?	☐	☐	☐	☒

4.17.1 Environmental Setting

Washington Boulevard, the main road providing access to the Project site, is an east-west roadway that runs through the southern portion of the City. The roadway stretches from Venice Beach to Santa Fe Springs Road in Whittier where it becomes Whittier Boulevard. In the City, Washington Boulevard has three travel lanes in each direction with a posted speed limit of 40 mph. A two-way center left-turn lane is provided for much of the corridor. On-street parking is generally prohibited along the corridor west of Greenwood Avenue; east of Greenwood Avenue, on-street parking is allowed except between 4:00 p.m. and 6:00 p.m. Bicycle facilities are not present.

4.17.2 Impact Analysis

- a) *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?*

Less than Significant Impact. Implementation of the Proposed Project would not result in a substantial increase in vehicle trips that would adversely affect roadway capacity, level of service, or conflict with circulation-related plans and policies. Access to the site would be provided via Washington Boulevard and an existing driveway on-site, thus there is no need for new infrastructure or modifications to the surrounding transportation network.

Construction-related traffic would include a limited number of construction and delivery vehicles traveling to and from the site. These vehicles would be staged on-site, and while there would be a temporary increase in traffic during the construction phase, it would be short-term and minor in scale. Therefore, any construction-related traffic impacts would be considered less than significant.

The proposed groundwater well(s) would be unmanned during normal operations, requiring only occasional maintenance visits, which would not generate significant daily traffic. Impacts would be less than significant.

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

Less than Significant Impact. The Proposed Project does not involve the revisions of land use designation or zoning amendments. The Proposed Project site would operate as a water well and treatment facility following implementation of the Proposed Project. The City of Montebello does not have established vehicle miles traveled (VMT) thresholds for the purpose of analyzing a project under Senate Bill 743 (SB 743) guidelines. However, the goal of SB 742 is to reduce VMT by increasing access to common goods. The Proposed Project would not have a measurable impact on VMT since the

Proposed Project involves a water well that is unmanned and will serve the existing community. A less than significant impact would occur.

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

No Impact. The Proposed Project would not substantially increase hazards due to a geometric design feature or incompatible uses. The Proposed Project involves the construction of a new water well, a potential second well on-site, and a water treatment system within the Proposed Project site. There would be no modification to existing roadways. No impacts are expected.

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

No Impact. Access to the site would be provided via Washington Boulevard and an existing driveway on-site. The Project site does not encroach upon or obstruct any designated evacuation routes or critical access points used for emergency response. All staging and construction-related activities would occur entirely within the Project boundaries and would not require street closures or detours that could interfere with emergency services. There would be a temporary increase in traffic during the construction phase, but it would be short-term and minor in scale.

Furthermore, the City's LHMP identifies major arterials and evacuation corridors; Washington Blvd, which borders the Project site, is considered a major roadway, but the Project's footprint would not affect through traffic or emergency accessibility.

The Project would also comply with all applicable safety and construction traffic management requirements imposed by the City's Public Works and Fire Departments to ensure ongoing access for emergency vehicles during construction. A less than significant impact would occur.

4.18 TRIBAL CULTURAL RESOURCES

18.	TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(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.	☐	☐	☐	☐

4.18.1 Environmental Setting

Assembly Bill 52

Assembly Bill (AB) 52 was enacted in 2015 and expands CEQA by defining a new resource category: 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 § 21084.2). 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. AB 52 requires that lead agencies “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 in the jurisdiction of the lead agency. 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 § 21084.3). PRC § 21074(a)(1)(A) and (B) define TCRs as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” which meet either of the following criteria:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC § 5020.1(k)
- 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 § 5024.1 (in applying the criteria set forth in subdivision (c) of PRC § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe).

4.18.2 Impact Analysis

- a) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?*

No Impact. Chambers Group submitted a request to the Native American Heritage Commission (NAHC) for a review of the Sacred Land Files (SLF) for the Project site and surrounding vicinity on April 16, 2025. On April 25, 2025, Chambers Group received a response from the NAHC stating that the SLF records search was negative for recorded sacred properties within the Project site and the surrounding study area. As discussed in the Cultural Report in Appendix B, neither the SCCIC records search nor the SLF search resulted in identifying previously documented resources within the Project site. During the field survey, no evidence of cultural resources was observed. Thus, no impact regarding a tribal cultural resource, defined in PRC Section 21074, would occur.

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

4.19 UTILITIES AND SERVICE SYSTEMS

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

4.19.1 Environmental Setting

The nearest wastewater treatment facility is the Whittier Narrows Water Reclamation Plant 3.6 miles northeast of the Proposed Project site. The nearest electrical power facility is SCE Jersey Substation 0.5-mile northwest of the Proposed Project site. There are no electricity-generating facilities in the City (City 2023). Electricity in the region is provided by Southern California Edison (SCE). The SoCalGas natural gas facility is 2.50 miles northwest of the Proposed Project site. Telecommunications services in the City are provided by various private companies, including AT&T, Spectrum, T-Mobile, and other providers of internet, phone, and television services. The City of Montebello contracts with Athens Services to provide complete residential and commercial trash, solid waste, and recycling services. Solid waste generated in Montebello is disposed of at 13 different landfills.

4.19.2 Impact Analysis

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

No Impact. The Proposed Project involves the development of a well, a potential second well onsite, and treatment system to support the existing potable water system. The Proposed Project would not require or result in the relocation or construction of new or expanded wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities. Additionally, the well(s) and associated infrastructure would be connected to the existing water infrastructure, and the Project does not necessitate connection to other utility systems or require any significant upgrades to these services. The site is located in an urbanized area with existing utility connections. No significant impact would occur.

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

No Impact. The Proposed Project would be operated by Cal Water, which already manages water supply and distribution in the area. The Proposed Project would involve the construction of a new well and a water treatment system, which would enable utilization of local groundwater. The development of the well(s) enhances local water supply reliability during dry years. No significant impact would occur.

- 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?*

Less than Significant Impact. The nearest wastewater treatment facility is the Whittier Narrows Water Reclamation Plant 3.6 miles northeast of the Proposed Project site. During construction, well drilling would generate drill cuttings, drilling fluids, and mud. A staging area would be located on the Proposed Project site to contain drill cuttings, drilling fluids, and mud (confined to a settling tank), and store construction equipment and materials. A baker tank will be utilized to accept the water discharged during construction, development, and test pumping and allow any solids to settle prior to discharge to the offsite drainage system. Drill cuttings and mud would ultimately be disposed of offsite, in accordance with state laws, at an appropriate disposal facility after being tested for hazardous waste. Drilling fluids would be released to the storm drain located on Washington Blvd.

Post construction, the generation of wastewater on the Proposed Project site would not differ substantially from existing conditions. The Proposed Project would have a less than significant impact on wastewater and water treatment facilities.

- 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?*

d&e Less than Significant Impact. All solid waste generated during construction would be disposed of properly according to the Los Angeles County standard construction practices by the construction

contractor. Minimal solid waste would be generated during operation. Solid waste generation during construction will be transported to Savage Canyon Landfill, approximately 5.50 miles east of the Project site. As of 2019, the Maximum Permitted Throughput per Day for this landfill was 3,350 cubic tons (City 2023). The Maximum Permitted Capacity is 19,337,450 cubic yards and the Remaining Capacity is 9,510,833 cubic yards, thus indicating substantial capacity to accommodate the limited waste generated by the Project.

The Proposed Project would comply with AB 939 and SB 1066 requirements for the diversion of solid waste from landfills. The Project will also comply with Chapter 8.12 of the City Municipal code, which states the regulations and requirements for haulers and residents regarding solid waste and recycling service within the City. A less than significant impact would occur.

4.20 WILDFIRE

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

4.20.1 Environmental Setting

As described in the *Our Safe Community* element of the City's General Plan, the City's Emergency Operations Plan (EOP) establishes an Emergency Management Organization (EMO) and assigns functions and tasks consistent with California's Standardized Emergency Management System (SEMS), and the National Incident Management System (NIMS). It provides for the integration and coordination of planning efforts through a whole community approach and authorizes the City's personnel to perform their duties and tasks before, during, and after an emergency. The intent of the EOP is to provide direction on how to respond to an emergency from the onset, through an extended response and into the recovery process. The goal of the EOP is to simplify the planning process across all areas of 1) Prevention, 2) Protection, 3) Mitigation, 4) Response and 5) Recovery.

The City has also implemented a LHMP to help mitigate hazards and their impacts to the community. It provides historical data, economic factors, vulnerability assessments, mitigation costs, and estimated losses resulting from the hazards.

The Proposed Project site is located in a flat, urbanized area and is not within a designated Fire Hazard Severity Zone under federal, state, or local classifications (CalFire 2025).

4.20.2 Impact Analysis

a) *Would the project impair an adopted emergency response plan or emergency evacuation plan?*

No Impact. The Project site does not encroach upon or obstruct any designated evacuation routes or critical access points used for emergency response. All staging and construction-related activities would occur entirely within the Project boundaries and would not require street closures or detours that could interfere with emergency services. There would be a temporary increase in traffic during the construction phase, but it would be short-term and minor in scale.

Furthermore, the City's LHMP Plan identifies major arterials and evacuation corridors; Washington Blvd, which borders the Project site, is considered a major roadway, but the Project's footprint would not affect through traffic or emergency accessibility.

The Project would also comply with all applicable safety and construction traffic management requirements imposed by the City's Public Works and Fire Departments to ensure ongoing access for emergency vehicles during construction. No impact would occur.

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

No Impact. The Proposed Project site is located in a flat, urbanized area and is not within a designated Fire Hazard Severity Zone under federal, state, or local classifications (CalFire 2025). In addition, the site itself is a vacant, previously disturbed parcel with minimal vegetation, consisting primarily of low-lying grasses and non-native, invasive plant species. These types of vegetation do not pose a high risk for ignition or wildfire spread compared to natural chaparral or forested areas. Surrounding land uses are urban and include commercial and residential structures, paved roads, and minimal fuel loads, further reducing the potential for uncontrolled spread of wildfires.

All construction and operational activities will be conducted in accordance with applicable fire prevention regulations and standard safety protocols, including proper storage and handling of flammable materials such as fuel, lubricants, solvents, and paints. The Project will also adhere to fire code requirements as enforced by the Montebello Fire Department, ensuring that risk is minimized during all phases of development.

The construction of the proposed well(s) will enhance local water infrastructure and could play a beneficial role in supporting emergency fire suppression needs by contributing to the reliability and availability of water resources for firefighting purposes. No impacts are anticipated.

c) *Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

No Impact. As described above, the Project site is not in an area at risk of wildfire. The Proposed Project would not require infrastructure that would exacerbate fire risk. No impact would occur.

- d) *Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?*

No impact. The Proposed Project site is located in a flat, urbanized area and is not within a designated Fire Hazard Severity Zone or a landslide-prone area. Because the site is relatively level, there are no significant slopes onsite or upslope that could be subject to post-fire instability or landslides, even in the unlikely event of a nearby wildfire. Additionally, the Project is not located adjacent to any natural stream, watercourse, or steep hillside that would pose a risk of downstream flooding or slope failure.

The Project involves the installation of groundwater wells and associated treatment infrastructure and would not significantly alter the existing drainage patterns or introduce impervious surfaces at a scale that could increase runoff or cause downstream erosion or flooding. No impact would occur

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

4.21.1 Impact Analysis

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

Less than Significant Impact with Mitigation Incorporated. The Proposed Project involves adding a new water well and treatment system to an undeveloped piece of land in a heavily urbanized area and would not have the potential to substantially degrade the quality of the existing environment; reduce habitat of fish or wildlife species; threaten plant or animals communities; or reduce the number or restrict range of rare plants or animals; or eliminate important examples of the major

periods of California history or prehistory. As described in Section 4.4.2, a less than significant impact on biological resources will occur.

As discussed in Section 4.7.2 and in Appendix C, the high paleontological potential (or sensitivity) of old alluvial-fan deposits underlying the Project site suggests that construction activities (e.g., mass grading, trenching for subsurface infrastructure; but not groundwater well drilling) of the proposed Project has the potential to result in significant impacts to paleontological resources. Mitigation of these potentially significant impacts can be ensured by implementing MM PALEO-1, as required by Action A8.19 of the Montebello General Plan. Impacts would be less than significant with mitigation incorporated.

- b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)*

Less than Significant with Mitigation Incorporated. Impacts associated with the Proposed Project would generally be associated with short-term construction activities as operations of the new well(s) and associated infrastructure would be passive and unmanned. The Project has short-term impacts associated with cultural resources, geology and soils, and noise. However, implementation of MM CUL-1, PALEO-1, and N-1 would reduce associated impacts to less than significant levels. Impacts associated with cultural resources, geology and soils, and noise, when considered in conjunction with other past, present, and reasonably foreseeable future projects in the area, would not result in cumulatively considerable effects, as the Project's contribution would be limited in duration, localized in nature, and mitigated to less than significant levels.

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

Less than Significant with Mitigation Incorporated. Substantial adverse effects on human beings directly or indirectly are primarily resulting from impacts to air quality, geology and soil, greenhouse gas emissions, hazardous materials, land use, noise, and wildfire. From these impact categories, the Proposed Project was determined to have a significant impact regarding noise due to the proximity of residences and noise levels during construction. However, with the implementation of MM N-1, such noise impacts would be reduced to less than significant levels.

Additionally, as discussed in Section 4.7.2, there would be potentially significant impacts towards paleontological resources. However, this impact relates to the potential loss of scientifically important non-renewable resources, and not to environmental effects that would directly or indirectly have adverse effects on human beings. Implementation of MM PALEO-1 would ensure these resources are appropriately managed, thereby reducing the impact to less than significant.

As analyzed in this initial study, all other impacts that would have an effect on human beings have been determined to be less than significant as the Proposed Project's construction and operations will comply with the City's General Plan policies and Municipal Code. Impacts, therefore, would be less than significant with mitigation incorporated.

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APPENDIX A – AIR QUALITY AND GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

AIR QUALITY, ENERGY, AND GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

CALIFORNIA WATER SERVICE COMPANY 716 WASHINGTON BLVD NEW WELL PROJECT

CITY OF MONTEBELLO

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July 13, 2025

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
Air Basin	South Coast Air Basin
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BSFC	Brake Specific Fuel Consumption
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
Cf ₄	tetrafluoromethane
C ₂ F ₆	hexafluoroethane
C ₂ H ₆	ethane
CH ₄	Methane
City	City of Montebello
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalent
CPUC	California Public Utilities Commission
CWSC	California Water Service Company
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
°F	Fahrenheit
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
GWP	Global warming potential
HAP	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons

IPCC	International Panel on Climate Change
kWhr	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds
MATES	Multiple Air Toxics Exposure Study
MMTCO ₂ e	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MSAT	Mobile Source Air Toxics
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NO _x	Nitrogen oxides
NO ₂	Nitrogen dioxide
OPR	Office of Planning and Research
Pfc	Perfluorocarbons
PM	Particle matter
PM ₁₀	Particles that are less than 10 micrometers in diameter
PM _{2.5}	Particles that are less than 2.5 micrometers in diameter
PPM	Parts per million
PPB	Parts per billion
PPT	Parts per trillion
RTIP	Regional Transportation Improvement Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SF ₆	Sulfur Hexafluoride
SIP	State Implementation Plan
SO _x	Sulfur oxides
TAC	Toxic air contaminants
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile organic compounds

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Air Quality, Energy, and Greenhouse Gas (GHG) Emissions Impact Analysis has been completed to determine the air quality, energy, and GHG emissions impacts associated with the proposed California Water Service Company (CWSC) 716 Washington Boulevard New Well project (proposed project). The following is provided in this report:

- A description of the proposed project;
- A description of the atmospheric setting;
- A description of the criteria pollutants and GHGs;
- A description of the air quality regulatory framework;
- A description of the energy conservation regulatory framework;
- A description of the GHG emissions regulatory framework;
- A description of the air quality, energy, and GHG emissions thresholds including the California Environmental Quality Act (CEQA) significance thresholds;
- An analysis of the conformity of the proposed project with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP);
- An analysis of the short-term construction related and long-term operational air quality, energy, and GHG emissions impacts; and
- An analysis of the conformity of the proposed project with all applicable energy and GHG emissions reduction plans and policies.

1.2 Site Location and Study Area

The project site is located at 716 Washington Boulevard in the City of Montebello (City). The approximately 0.88-acre project site is currently vacant and is bounded by multi-family residential uses to the north, multi-family residential and industrial uses to the east, Washington Street to the south, and industrial uses to the west of the project site. The project local study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the project site. There are also single-family homes located as near as 20 feet to the northwest and 110 feet to the west. The nearest school to the project site is Greenwood Elementary School that is located as near as 350 feet west of the project site.

1.3 Proposed Project Description

The proposed project would consist of the development of a new water supply well that will be named Station ID: 064. The new well is anticipated to be drilled to a depth between 800 and 1,000 feet deep and is anticipated to provide a flow rate between 2,500 and 3,000 gallons per minute. The proposed project will be designed to allow for the possibility of siting a second well onsite, however the potential second well has not been analyzed as part of the proposed project.

The proposed project would also include development of a water treatment system that would include both granular activated carbon vessels for the removal of PFOS contaminants and greensand vessels for the removal of iron and manganese. In addition, a block-wall building will be constructed to house disinfection chemicals, including sodium hypochlorite and liquid ammonium sulfate. Other site improvements would include an electrical generator, pressure surge tanks, electrical transformers, electrical panelboards, water process piping and pumping equipment.

Construction of the proposed well is anticipated to commence in the first quarter of 2026 and is anticipated to have a duration of approximately six months. The non-well site development work is anticipated to have a duration of approximately three months, which would result in a total construction time period of approximately nine months. The proposed conceptual site plan is shown in Figure 2.

Construction Phases

The proposed construction activities of the proposed project would occur in seven construction phases. Phase 1 involves the installation of the temporary noise barrier and site improvements. Phase 2 involves the installation of conductor casing. Phase 3 involves drilling of the well. Phase 4 involves construction of the proposed well and Phase 5 involves installation of the well casing. Phase 6 involves test pumping the completed well. Phase 7, which is also described as Phase II in the Initial Study, involves construction of the treatment system (if needed), buildings, piping, electrical facilities, fencing, security, paving, and landscaping.

Well Construction Equipment Assumptions

The following provides the anticipated construction equipment to be utilized for each phase of construction. Since detailed construction equipment assumptions are not yet available for this project, the equipment assumptions from a similar water well project prepared by Orange County Water District (OCWD) were utilized.

Phase 1: Temporary Noise Barrier and Site Preparation

Phase 1 of construction involves the installation of a temporary noise barrier on the east side of the project site and site preparation that include site clearing activities and installation of an onsite catch basin. Phase 1 is anticipated to take approximately one week and all activities are anticipated to occur during the City of Montebello's allowed construction hours of 7:00 a.m. to 8:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, Sundays and holidays. The equipment mix for construction of the temporary noise barrier wall and site improvements is shown in Table A.

Table A – Temporary Noise Barrier and Site Improvements Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Backhoe with Auger Attachment	1	6	7	42	84	1 week
Man-Lift	1	8	7	56	46	
Forklift	1	8	7	56	82	
Rubber Tired Loader	1	6	7	42	150	

Source: CWSC & OCWD.

Phase 2: Conductor Casing Installation

Phase 2 of construction involves installation of conductor casing. The conductor casing borehole would be drilled by the bucket auger drilling method. The conductor construction would consist of installing a 36-inch diameter conductor casing to a depth of 100 feet below ground surface (BGS). Phase 2 is anticipated to take a week to complete and would occur during the City of Montebello's allowed construction hours. The equipment mix for conductor casing installation is shown in Table B.

Table B – Conductor Casing Installation Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Bucket Auger Rig	1	12	1	12	83	1 week
Back-hoe	1	12	8	60	84	
Welder	1	12	8	60	46	
Cement Truck	1	4	4	16	376	
Cement Pumper	1	4	4	16	11	

Source: CWSC & OCWD.

Phase 3: Well Drilling

Phase 3 of construction involves the mobilization of the well drilling equipment and well drilling. The proposed well would be drilled approximately 800 feet deep. The mobilization activities would occur during the City of Montebello's allowed construction hours, however the well drilling activities would require 24-hour operation of the drilling equipment for approximately two weeks. The equipment mix for well drilling and is shown in Table C.

Table C – Well Drilling Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Reverse Circulation Drilling Rig	1	24	14	336	83	3 weeks
Air Compressor	1	24	14	336	37	
Mud System	1	24	14	336	11	
Backhoe	1	6	14	84	84	
Light Tower	1	12	14	168	14	
Generator	1	12	14	168	14	

Source: CWSC & OCWD.

Phase 4: Well Casing

Phase 4 of construction involves installation of the well casing and gravel pack that would be constructed using drilling equipment. The installation of the well casing and gravel pack is anticipated to approximately 7 days to complete, operating 24 hours per day. The equipment mix for well casing is shown in Table D.

Table D – Well Casing Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Drill Rig	1	24	7	168	83	1 week
Gravel/Seal Pump	1	24	7	168	11	
Light Tower	1	12	7	84	14	
Generator	1	12	7	84	14	
Cement Truck	1	4	2	8	376	
Cement Pumper	1	4	2	8	11	
Backhoe	1	12	7	84	84	
Welder	1	12	7	84	46	

Source: CWSC & OCWD.

Phase 5: Well Development

Phase 5 of construction involves the mechanical well development of the proposed well. The well development construction activities would occur during the City of Montebello's allowed construction hours and would take approximately two weeks to complete and would occur during the City of Montebello's allowed construction hours. The equipment mix for well development is shown in Table E.

Table E – Well Development Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Drill Rig	1	10	5	25	83	2 weeks
Air Compressor	1	10	10	100	37	
Pump Installation Rig	1	10	5	25	367	
Generator	1	10	5	25	14	

Source: CWSC & OCWD.

Phase 6: Test Pumping

Phase 6 of construction involves the mobilization of the test pump and test pumping of the proposed well. The mobilization activities would occur during the City of Montebello's allowed construction hours, however the test pumping activities would require 24-hour operation of the diesel pump for approximately two weeks. The equipment mix for test pumping is shown in Table F.

Table F – Test Pumping Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Diesel Water Pump	1	24	14	336	14	3 weeks

Source: CWSC & OCWD.

Phase 7: Site Improvements

Phase 7, involves construction of the treatment system (if needed), buildings, piping, electrical facilities, fencing, security, paving, and landscaping. All site improvement activities would occur during the City of

Montebello's allowed construction hours and are anticipated to be completed over three months. The equipment mix for the site improvements is shown in Table G.

Table G – Site Improvements Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Backhoe	1	8	60	480	84	3 Months
Welder	1	4	30	120	46	
Cement Truck	1	4	10	40	376	
Cement Pumper	1	4	10	40	11	
Crane	1	4	10	40	367	

Source: CWSC & OCWD.

Long-Term Operation and Maintenance Activities

The proposed project is anticipated to be operational by 2027-2028, assuming water quality is acceptable. Routine maintenance would be conducted on the well on a five to 10 year intervals, which would include physical cleaning, swabbing, or can include a full rehabilitation of the well. Table H below identifies the equipment required for a full rehabilitation of the well. A typical well rehabilitation process can be completed in five days and would occur during the City of Montebello's allowed construction hours.

Table H – Long-Term Operations Well Rehabilitation Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower
Pump Rig	1	10	5	50	367
Pickup Truck	1	2	5	10	376
Air Compressor	1	10	5	50	37
Generator	1	10	5	50	14

Source: CWSC & OCWD.

1.4 Executive Summary

Standard Air Quality, Energy, and GHG Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the SCAQMD and State of California (State).

South Coast Air Quality Management District Rules

The following lists the SCAQMD rules that are applicable, but not limited to the proposed project.

- Rule 402 Nuisance – Controls the emissions of odors and other air contaminants;
- Rule 403 Fugitive Dust – Controls the emissions of fugitive dust;
- Rules 1108 and 1108.1 Cutback and Emulsified Asphalt – Controls the VOC content in asphalt;
- Rule 1113 Architectural Coatings – Controls the VOC content in paints and solvents; and
- Rule 1143 Paint Thinners – Controls the VOC content in paint thinners.

State of California Rules

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to the proposed project.

- CCR Title 13, Article 4.8, Chapter 9, Section 2449 – In use Off-Road Diesel Vehicles;
- CCR Title 13, Section 2025 – On-Road Diesel Truck Fleets;
- CCR Title 24 Part 6 – California Building Energy Standards; and
- CCR Title 24 Part 11 – California Green Building Standards.

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines air quality, energy, and GHG emissions checklist questions.

Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Less than significant impact.

Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact.

Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact.

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;

Less than significant impact.

Conflict with or obstruct a state or local plan for renewable energy;

Less than significant impact.

Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact.

Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Less than significant impact.

1.5 Mitigation Measures for the Proposed Project

This analysis found that implementation of the State and SCAQMD air quality, energy, and GHG emissions reductions regulations were adequate to limit criteria pollutants, toxic air contaminants, odors, and GHG emissions from the proposed project to less than significant levels. No mitigation measures are required for the proposed project with respect to air quality, energy, and GHG emissions.

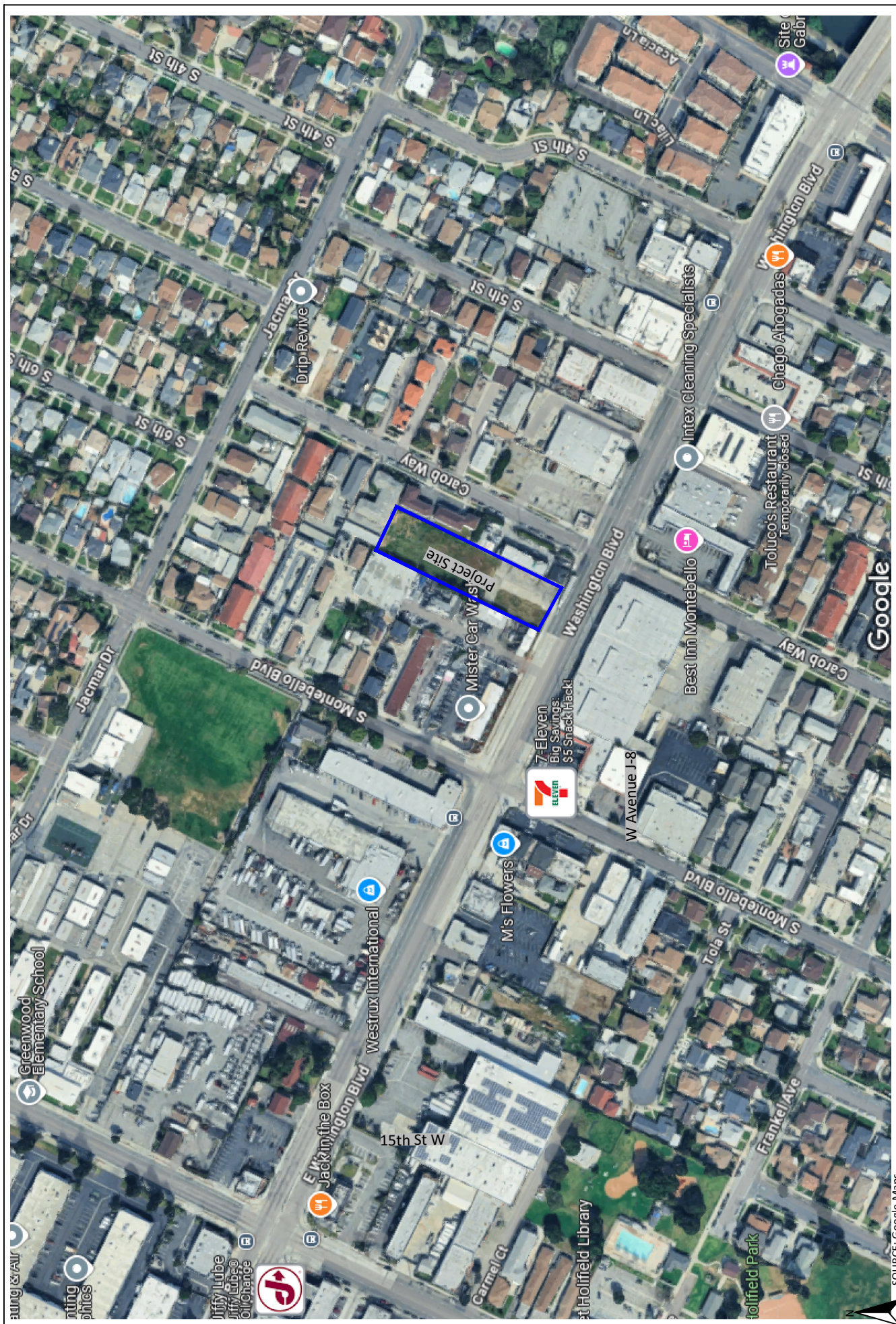


Figure 1
Project Local Study Area

SOURCE: CWSC.

Figure 2
Proposed Conceptual Site Plan
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2.0 AIR POLLUTANTS

Air pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

2.1 Criteria Pollutants and Ozone Precursors

The criteria pollutants consist of: ozone, nitrogen oxides (NO_x), CO, sulfur oxides (SO_x), lead, and particulate matter (PM). The ozone precursors consist of NO_x and VOC. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants “criteria” air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and ozone precursors.

Nitrogen Oxides

NO_x is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NO_x are colorless and odorless, concentrations of nitrogen dioxide (NO₂) can often be seen as a reddish-brown layer over many urban areas. NO_x form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NO_x reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO₂, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NO_x is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone is not usually emitted directly into the air, instead it is created by a chemical reaction between NO_x and VOCs in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NO_x and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NO_x and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NO_x and VOC emissions.

Carbon Monoxide

CO is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves, gas

stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Oxides

SOx gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SOx dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment. Exposure to SOx gases can cause respiratory symptoms (bronchoconstriction, possible wheezing or shortness of breath) during exercise or physical activity in persons with asthma and cause possible allergic sensitization, airway inflammation, and asthma development.

Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

PM is the term for a mixture of solid particles and liquid droplets found in the air. PM is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) that are also known as *Respirable Particulate Matter* are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) that are also known as *Fine Particulate Matter* have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of ozone are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

VOC is not classified as a criteria pollutant, since VOCs by themselves are not a known source of adverse health effects. The primary health effects of VOCs result from the formation of ozone and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

2.2 Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, TACs are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 hundred different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is diesel particulate matter (DPM). DPM is a subset of PM_{2.5} because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in October 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a TAC was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by CARB and as a HAP by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. The nearest likely locations of naturally occurring asbestos, as identified in the *General Location Guide for Ultramafic Rocks in California*, prepared by the California Division of Mines and Geology, is located in Santa Barbara County. The nearest historic asbestos mine to the project site, as identified in the *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California*, prepared by U.S. Geological Survey, is located at Asbestos Mountain, which is approximately 95 miles east of the project site in the San Jacinto Mountains. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

3.0 GREENHOUSE GASES

3.1 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent GHGs contributing to this process include carbon dioxide (CO₂), methane (CH₄), ozone, water vapor, nitrous oxide (N₂O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these GHGs in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO₂ and N₂O are byproducts of fossil fuel combustion. Methane, a potent GHG, results from off-gassing associated with agricultural practices and landfills. Sinks of CO₂, where CO₂ is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the GHGs and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide

The natural production and absorption of CO₂ is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid 1700s, each of these activities has increased in scale and distribution. CO₂ was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of CO₂ in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane

CH₄ is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO₂. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO₂, N₂O, and CFCs). CH₄ has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropogenic sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Concentrations of N₂O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N₂O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N₂O is also commonly used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and race cars).

Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane (C₂H₆) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF₃), HFC-134a (CF₃CH₂F), and HFC-152a (CH₃CHF₂). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF₄) and hexafluoroethane (C₂F₆). Concentrations of CF₄ in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride

Sulfur Hexafluoride (SF₆) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF₆ has the highest global warming potential of any gas evaluated; 23,900 times that of CO₂. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

3.2 Global Warming Potential

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO₂. The GHGs listed by the IPCC and the CEQA Guidelines are discussed in this section in order of abundance in the atmosphere. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. To simplify reporting and analysis, GHGs are commonly defined in terms of their GWP. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO₂e. As such, the GWP of CO₂ is equal to 1. The GWP values used in this analysis are based on the 2007 IPCC Fourth Assessment Report, which are used in the CalEEMod Model Version 2022.1 and are detailed in Table I. The IPCC has updated the GWP of some gases in their Sixth Assessment Report, however the new values have not yet been incorporated into the CalEEMod model that has been utilized in this analysis.

Table I – Global Warming Potentials, Atmospheric Lifetimes and Abundances of GHGs

Gas	Atmospheric Lifetime (years) ¹	Global Warming Potential (100 Year Horizon) ²	Atmospheric Abundance
Carbon Dioxide (CO ₂)	50-200	1	379 ppm
Methane (CH ₄)	9-15	25	1,774 ppb
Nitrous Oxide (N ₂ O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF ₄)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C ₂ F ₆)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF ₆)	3,200	22,800	5.6 ppt

Notes:

¹ Defined as the half-life of the gas.

² Compared to the same quantity of CO₂ emissions and is based on the Intergovernmental Panel On Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2022.1), that is used in this report (CalEEMod user guide, April 2022).

Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion

Source: IPCC 2007, EPA 2015

3.3 Greenhouse Gas Emissions Inventory

According to the Carbon Dioxide Information Analysis Center¹, 9,855 million metric tons of carbon dioxide equivalent (MMTCO₂e) emissions were created globally in the year 2014. According to the EPA, the breakdown of global GHG emissions by sector consists of: 25 percent from electricity and heat production; 21 percent from industry; 24 percent from agriculture, forestry and other land use activities; 14 percent from transportation; 6 percent from building energy use; and 10 percent from all other sources of energy use².

According to *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2022*, prepared by EPA, April 2024, total U.S. GHG emissions in 2022 were 6,343.2 million metric tons (MMT) of CO₂e emissions. Total U.S. emissions have decreased by 3.0 percent between 1990 and 2022, which is down from a high of 15.2 percent above 1990 levels in 2007. Emissions increased from 2021 to 2022 by 0.2 percent. The increase in total GHG emissions was driven largely in an increase in CO₂ emissions from fossil fuel combustion.

According to *California Greenhouse Gas Emissions for 2000 to 2022 Trends of Emissions and Other Indicators*, prepared by the CARB, September 20, 2024, the State of California created 371.1 MMTCO₂e in 2022. The 2022 emissions were 9.3 MMTCO₂e lower than in 2021. The 2022 emissions data shows the State is continuing its established long-term trend of GHG emissions declines, despite the anomalous emissions trends from 2019 through 2021, due in large part to the impacts of the COVID-19 pandemic. The transportation sector showed the largest decrease in emissions of 5.2 MMTCO₂e compared to 2021.

1 Obtained from: https://cdiac.ess-dive.lbl.gov/trends/emis/tre_glob_2014.html

2 Obtained from: <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data>

4.0 AIR QUALITY MANAGEMENT

The air quality at the project site is addressed through the efforts of various federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

4.1 Federal – United States Environmental Protection Agency

The Clean Air Act, first passed in 1963 with major amendments in 1970, 1977 and 1990, is the overarching legislation covering regulation of air pollution in the United States. The Clean Air Act has established the mandate for requiring regulation of both mobile and stationary sources of air pollution at the state and federal level. The EPA was created in 1970 in order to consolidate research, monitoring, standard-setting and enforcement authority into a single agency.

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. NAAQS pollutants were identified using medical evidence and are shown below in Table J.

Table J – State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone	0.09 ppm / 1-hour	0.070 ppm, / 8-hour	a) Pulmonary function decrements and localized lung injury in humans and animals; (b) asthma exacerbation; (c) chronic obstructive pulmonary disease (COPD) exacerbation; (d) respiratory infection; (e) increased school absences, and hospital admissions and emergency department (ED) visits for combined respiratory diseases; (e) increased mortality; (f) possible metabolic effects. Vegetation damage; property damage
	0.07 ppm / 8-hour		
Carbon Monoxide (CO)	20.0 ppm / 1-hour	35.0 ppm / 1-hour	Visibility reduction (a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) possible impairment of central nervous system functions; (d) possible increased risk to fetuses; (f) possible increased risk of pulmonary disease; (g) possible emergency department visits for respiratory diseases overall and visits for asthma.
	9.0 ppm / 8-hour	9.0 ppm / 8-hour	
Nitrogen Dioxide (NO ₂)	0.18 ppm / 1-hour	100 ppb / 1-hour	Short-term (a) asthma exacerbations (“asthma attacks”) Long-term (a) asthma development; (b) higher risk of all-cause, cardiovascular, and respiratory mortality. Both short and long term NO ₂ exposure is also associated with chronic obstructive pulmonary disease (COPD) risk. Potential impacts on cardiovascular health, mortality and cancer, aggravate chronic respiratory disease. Contribution to atmospheric discoloration
	0.030 ppm / annual	0.053 ppm / annual	

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Sulfur Dioxide (SO ₂)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour	Respiratory symptoms (bronchoconstriction, possible wheezing or shortness of breath) during exercise or physical activity in persons with asthma. Possible allergic sensitization, airway inflammation, asthma development.
Respirable Particulate Matter (PM ₁₀)	50 µg/m ³ / 24-hour 20 µg/m ³ / annual	150 µg/m ³ / 24-hour	Short -term (a) increase in mortality rates; (b) increase in respiratory infections; (c) increase in number and severity of asthma attacks; (d) COPD exacerbation; (e) increase in combined respiratory-diseases and number of hospital admissions; (f) increased mortality due to cardiovascular or respiratory diseases; (g) increase in hospital admissions for acute respiratory conditions; (h) increase in school absences; (i) increase in lost work days; (j) decrease in respiratory function in children; (k) increase medication use in children and adults with asthma.
Suspended Particulate Matter (PM _{2.5})	12 µg/m ³ / annual	35 µg/m ³ / 24-hour 12 µg/m ³ / annual	Long-term (a) reduced lung function growth in children; (b) changes in lung development; (c) development of asthma in children; (d) increased risk of cardiovascular diseases; (e) increased total mortality from lung cancer; (f) increased risk of premature death. Possible link to metabolic, nervous system, and reproductive and developmental effects for short-term and long-term exposure to PM2.5.
Sulfates	25 µg/m ³ / 24-hour	No Federal Standards	(a) Decrease in lung function; (b) aggravation of asthmatic symptoms; (c) vegetation damage; (d) Degradation of visibility; (e) property damage
Lead	1.5 µg/m ³ / 30-day	0.15 µg/m ³ / 3-month rolling	(a) Learning disabilities; (b) impairment of blood formation and nerve function; (c) cardiovascular effects, including coronary heart disease and hypertension Possible male reproductive system effects
Hydrogen Sulfide	0.03 ppm / 1-hour	No Federal Standards	Exposure to lower ambient concentrations above the standard may result in objectionable odor and may be accompanied by symptoms such as headaches, nausea, dizziness, nasal irritation, cough, and shortness of breath

Source: 2022 AQMP, SCAQMD, 2022.

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years. As indicated below in Table K, the Air Basin has been designated by EPA for the national standards as a non-attainment area for ozone and PM2.5 and partial non-attainment for lead. Currently, the Air Basin is in attainment with the national ambient air quality standards for CO, PM10, SO₂, and NO₂.

Table K – National Air Quality Standards Attainment Status – South Coast Air Basin

Criteria Pollutant	Averaging Time	Designation ^a	Attainment Date ^b
Ozone	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (revised deadline)
	2015 8-Hour (0.07 ppm) ^d	Nonattainment (Extreme)	8/3/2038
	2008 8-Hour (0.075 ppm) ^d	Nonattainment (Extreme)	7/20/2032
	1997 8-Hour (0.08 ppm) ^d	Nonattainment (Extreme)	6/15/2024
PM2.5 ^e	2006 24-Hour (35 µg/m ³)	Nonattainment (Serious)	12/31/2019
	2012 Annual (12 µg/m ³)	Nonattainment (Serious)	12/31/2021
	1997 Annual (15 µg/m ³)	Attainment (final determination pending)	4/5/2015 (attained 2013)
PM10 ^f	1987 24-Hour (150 µg/m ³)	Attainment (Maintenance)	7/26/2013 (attained)
Lead ^g	2008 3-Months Rolling (0.15 µg/m ³)	Nonattainment (Partial) (Attainment determination requested)	12/31/2015
CO	1971 1-Hour (35 ppm)	Attainment (Maintenance)	6/11/2007
	1971 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007
NO ₂ ^h	2010 1-Hour (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	1971 Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
SO ₂ ⁱ	2010 1-Hour (75 ppb)	Unclassifiable/Attainment	1/9/2018
	1971 24-Hour (0.14 ppm)	Unclassifiable/Attainment	3/19/1979

Source: SCAQMD, 2022

Notes:

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable.

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.

c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard; original attainment date was 11/15/2010; the revised attainment date is 2/6/2023.

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/2015 with classifications and implementation goals to be finalized by 10/1/2017; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone implementation rule, effective 4/6/2015; there are continuing obligations under the revoked 1997 and revised 2008 ozone NAAQS until they are attained.

e) The attainment deadline for the 2006 24-Hour PM2.5 NAAQS was 12/31/15 for the former “moderate” classification; the EPA approved reclassification to “serious”, effective 2/12/16 with an attainment deadline of 12/31/2019; the 2012 (proposal year) annual PM2.5 NAAQS was revised on 1/15/2013, effective 3/18/2013, from 15 to 12 µg/m³; new annual designations were final 1/15/2015, effective 4/15/2015; on 7/25/2016 the EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m³) and 24-hour PM2.5 (65 µg/m³) NAAQS, effective 8/24/2016.

f) The annual PM10 standard was revoked, effective 12/18/2006; the 24-hour PM10 NAAQS deadline was 12/31/2006; the Basin’s Attainment Re-designation Request and PM10 Maintenance Plan was approved by the EPA on 6/26/2013, effective 7/26/2013.

g) Partial Nonattainment designation – Los Angeles County portion of the Basin only for near-source monitors; expect to remain in attainment based on current monitoring data; attainment re-designation request pending.

h) New 1-hour NO₂ NAAQS became effective 8/2/2010, with attainment designations 1/20/2012; annual NO₂ NAAQS retained.i) The 1971 annual and 24-hour SO₂ NAAQS were revoked, effective 8/23/2010.

Despite substantial improvements in air quality over the past few decades, some air monitoring stations in the Air Basin still exceed the NAAQS and frequently record the highest ozone levels in the United States. In 2020, monitoring stations in the Air Basin exceeded the most current federal standards on a total of 181 days (49 percent of the year), including: 8-hour ozone (157 days over the 2015 ozone NAAQS), 24-hour PM2.5 (39 days), PM10 (3 days), and NO₂ (1 day). Nine of the top 10 stations in the nation most frequently exceeding the 2015 8-hour ozone NAAQS in 2020 were located within the Air Basin, including stations in San Bernardino, Riverside, and Los Angeles Counties (SCAQMD, 2022).

PM2.5 levels in the Air Basin have improved significantly in recent years. Since 2015, none of the monitoring stations in the Air Basin have recorded violations of the former 1997 annual PM2.5 NAAQS (15.0 µg/m³). On July 25, 2016 the U.S. EPA finalized a determination that the Air Basin attained the 1997 annual (15.0 µg/m³) and 24-hour PM2.5 (65 µg/m³) NAAQS, effective August 24, 2016. However, the Air Basin does not meet the 2012 annual PM2.5 NAAQS (12.0 µg/m³), with six monitoring stations having design values above the standard for the 2018-2020 period (SCAQMD, 2022).

4.2 State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants in the Air Basin are shown in Table L. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Table L – California Ambient Air Quality Standards Attainment Status – South Coast Air Basin

Criteria Pollutant	Averaging Time	Level ^a	Designation ^b
Ozone	1-Hour	0.09 ppm	Nonattainment
	8-Hour	0.070 ppm	Nonattainment
PM2.5	Annual	12 µg/m ³	Nonattainment
PM10	24-Hour	50 µg/m ³	Nonattainment
	Annual	20 µg/m ³	Nonattainment
Lead	30-Day Average	1.5 µg/m ³	Attainment
CO	1-Hour	20 ppm	Attainment
	8-Hour	9.0 ppm	Attainment
NO ₂	1-Hour	0.18 ppm	Attainment
	Annual	0.030	Attainment ^c
SO ₂	1-Hour	0.25 ppm	Attainment
	24-Hour	0.04 ppm	Attainment
Sulfates	24-Hour	25 µg/m ³	Attainment
Hydrogen Sulfide	1-Hour	0.03 ppm	Unclassified

Source: SCAQMD, 2022

Notes:

a) CA State standards, or CAAQS, for ozone, SO₂, NO₂, PM10 and PM2.5 are values not to be exceeded; lead, sulfates and H₂S standards are values not to be equaled or exceeded; CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b) CA State designations shown were updated by CARB in 2019, based on the 2016-2018 3-year period; stated designations are based on a 3-year data period after consideration of outliers and exceptional events.

c) The CA-60 near road portion of San Bernardino, Riverside and Los Angeles Counties has recently been redesignated as an attainment area based on data collected between 2018 and 2020

As shown in Table L, the Air Basin has been designated by the CARB as a non-attainment area for ozone, PM10 and PM2.5. Currently, the Air Basin is in attainment with the ambient air quality standards for lead, CO, NO₂, SO₂ and sulfates, and is unclassified for Hydrogen Sulfide.

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to well development projects in the State.

Assembly Bill 2588

The Air Toxics “Hot Spots” Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release in California. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

CARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 to reduce DPM and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet’s average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less). As of January 1, 2023, no commercial operation is allowed to add Tier 0, Tier 1, or Tier 2 engines to their fleets. It should be noted that commercial fleets may continue to use their existing Tiers 0, 1, and 2 equipment, if they can demonstrate that the average emissions from their entire fleet emissions meet the NOx emissions targets.

CARB Resolution 08-43 for On-Road Diesel Truck Fleets

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks utilized during construction of the proposed project will be required to comply with Resolution 08-43.

4.3 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The *Final 2022 Air Quality Management Plan* (2022 AQMP) was adopted by CARB on January 26, 2023 and has been incorporated into the State Implementation Plan (SIP). The 2022 AQMP establishes actions and strategies

to reduce ozone levels to the U.S. EPA 2015 ozone standard of 70 ppb by 2037. The 2022 AQMP promotes extensive use of zero-emission technologies across all stationary and mobile sources coupled with rules and regulations, investment strategies, and incentives.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the Air Basin. Instead, this is controlled through local jurisdictions in accordance with CEQA. In order to assist local jurisdictions with air quality compliance issues the *CEQA Air Quality Handbook* (SCAQMD CEQA Handbook), prepared by SCAQMD, 1993, with the most current updates found at <http://www.aqmd.gov/ceqa/hdbk.html>, was developed in accordance with the projections and programs detailed in the AQMPs. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the Air Basin, and adverse impacts will be minimized.

The following lists the SCAQMD rules that are applicable but not limited to well development projects in the Air Basin.

Rule 402 - Nuisance

Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Compliance with Rule 402 will reduce local air quality and odor impacts to nearby sensitive receptors.

Rule 403- Fugitive Dust

Rule 403 governs emissions of fugitive dust during construction activities and requires that no person shall cause or allow the emissions of fugitive dust such that dust remains visible in the atmosphere beyond the property line or the dust emission exceeds 20 percent opacity, if the dust is from the operation of a motorized vehicle. Compliance with this rule is achieved through application of standard Best Available Control Measures, which include but are not limited to the measures below. Compliance with these rules would reduce local air quality impacts to nearby sensitive receptors.

- Utilize either a pad of washed gravel 50 feet long, 100 feet of paved surface, a wheel shaker, or a wheel washing device to remove material from vehicle tires and undercarriages before leaving project site.
- Do not allow any track out of material to extend more than 25 feet onto a public roadway and remove all track out at the end of each workday.
- Water all exposed areas on active sites at least three times per day and pre-water all areas prior to clearing and soil moving activities.

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- Apply nontoxic chemical stabilizers according to manufacturer specifications to all construction areas that will remain inactive for 10 days or longer.
 - Pre-water all material to be exported prior to loading, and either cover all loads or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114.
 - Replant all disturbed area as soon as practical.
 - Suspend all grading activities when wind speeds (including wind gusts) exceed 25 miles per hour.
 - Restrict traffic speeds on all unpaved roads to 15 miles per hour or less.

Rules 1108 and 1108.1 – Cutback and Emulsified Asphalt

Rules 1108 and 1108.1 govern the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt. This rule regulates the VOC contents of asphalt used during construction as well as any on-going maintenance during operations. Therefore, all asphalt used during construction and operation of the proposed project must comply with SCAQMD Rules 1108 and 1108.1.

Rule 1113 – Architectural Coatings

Rule 1113 governs the sale, use, and manufacturing of architectural coatings and limits the VOC content in sealers, coatings, paints and solvents. This rule regulates the VOC contents of paints available during construction. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Rule 1143 – Paint Thinners

Rule 1143 governs the sale, use, and manufacturing of paint thinners and multi-purpose solvents that are used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations. This rule regulates the VOC content of solvents used during construction. Solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1143.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the *2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal 2024), adopted by SCAG on April 4, 2024 which is based on the regional development and growth forecasts provided in the *2023 Federal Transportation Improvement Program* (2023 FTIP), adopted October 2022. In September 2024, SCAG adopted the *Final 2025 Federal Transportation Improvement Program* (2025 FTIP), that provides a comprehensive listing of projects that will receive federal funding and/or are regionally significant projects that are proposed over the Federal Fiscal years of 2024/2025 through 2027/2028 as well as years 2028/2029 and 2029/2030 that have been included for informational purposes. The projects included in the 2025 FTIP are consistent with programs and projects and subsequent amendments contained in Connect SoCal 2024.

Although the Connect SoCal 2024 and 2025 FTIP are primarily planning documents for future transportation projects, a key component of these plans are to integrate land use planning with

transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the 2022 AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the 2022 AQMP. The Connect SoCal 2024, 2025 FTIP, and 2022 AQMP are based on projections originating within the City and County General Plans.

4.4 Local – City of Montebello

Local jurisdictions, such as the City of Montebello, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the AQMPs. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and state standards. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

5.0 ENERGY CONSERVATION MANAGEMENT

The regulatory setting related to energy conservation is primarily addressed through State and City regulations, which are discussed below.

5.1 State

Energy conservation management in the State was initiated by the 1974 Warren-Alquist State Energy Resources Conservation and Development Act that created the California Energy Resource Conservation and Development Commission (currently named California Energy Commission [CEC]), which was originally tasked with certifying new electric generating plants based on the need for the plant and the suitability of the site of the plant. In 1976 the Warren-Alquist Act was expanded to include new restrictions on nuclear generating plants that effectively resulted in a moratorium of any new nuclear generating plants in the State. The following details specific regulations adopted by the State in order to reduce the consumption of energy.

California Code of Regulations (CCR) Title 20

On November 3, 1976 the CEC adopted the *Regulations for Appliance Efficiency Standards Relating to Refrigerators, Refrigerator-Freezers and Freezers and Air Conditioners*, which were the first energy-efficiency standards for appliances. The appliance efficiency regulations have been updated several times by the CEC and the most current version is the *2016 Appliance Efficiency Regulations*, adopted January 2017 and now includes almost all types of appliances and lamps that use electricity, natural gas as well as plumbing fixtures. The authority for the CEC to control the energy-efficiency of appliances is detailed in CCR Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609.

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The California Energy Commission (CEC) is the agency responsible for the standards that are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. In 2008 the State set an energy-use reduction goal of zero-net-energy use of all new homes by 2020 and the CEC was mandated to meet this goal through revisions to the Title 24, Part 6 regulations.

The Title 24 standards are updated on a three-year schedule and since 2008 the standards have been incrementally moving to the 2020 goal of the zero-net-energy use. The 2022 Title 24 standards are the current standards that went into effect on January 1, 2023.

According to the Title 24 Part 6 Fact Sheet, the CEC estimates that over 30 years the 2022 Title 24 standards will reduce GHG emissions by 16,230 MMTCO_{2e} per year, when compared to the 2019 Title 24 standards, which is equivalent of taking 3,641 gas cars off the road each year. The 2022 Title 24 standards will: (1) Increase onsite renewable energy generation; (2) Increases electric load flexibility to support grid reliability; (3) Reduces emissions from newly constructed buildings; (4) Reduces air pollution for improved public health; and (5) Encourages adoption of environmentally beneficial efficient electric technologies.

California Code of Regulations Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CalGreen Code) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CalGreen Code is also updated every three years and the current version is the 2022 CalGreen Code that went into effect on January 1, 2023.

The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2022 CalGreen Code over the prior 2019 CalGreen Code for nonresidential development mandatory requirements include the repeal of designated parking spaces for clean air vehicles and an increase in the number of electric vehicle (EV) ready parking spaces. The 2022 CalGreen Code also added new requirements for installed Level 2 or direct-current fast charger EV charging stations for autos, EV charging readiness for loading docks, enhanced thermal insulation, and acoustical ceilings.

Senate Bill 1020

Senate Bill 1020 (SB 1020) was adopted September 16, 2022 and would speed up the timeline retail electricity is supplied by renewable energy sources over the prior adoption timelines provided in SB 100, SB 350, SB 1078, SB 107, and SB X1-2. SB 1020 requires that retail sales of electricity are from renewable energy resources and zero-carbon resources supply 90 percent by December 31, 2035, 95 percent by December 31, 2040, and 100 percent by December 31, 2045.

Executive Order N-79-20

The California Governor issued Executive Order N-79-20 on September 23, 2020 that requires all new passenger cars and trucks and commercial drayage trucks sold in California to be zero-emissions by the year 2035 and all medium- heavy-duty vehicles (commercial trucks) sold in the state to be zero-emission by 2045 for all operations where feasible. Executive Order N-79-20 also requires all off-road vehicles and equipment to transition to 100 percent zero-emission equipment, where feasible by 2035.

Executive Order B-48-18 and Assembly Bill 2127

The California Governor issued Executive Order B-48-18 on January 26, 2018 that orders all state entities to work with the private sector to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 EV chargers by 2025. Currently there are approximately 350,000 electric vehicles operating in California, which represents approximately 1.5

percent of the 24 million vehicles total currently operating in California. Implementation of Executive Order B-48-18 would result in approximately 20 percent of all vehicles in California to be zero emission electric vehicles. Assembly Bill 2127 (AB 2127) was codified into statute on September 13, 2018 and requires that the California Energy Commission working with the State Air Resources Board prepare biannual assessments of the statewide EV charging infrastructure needed to support the levels of zero emission vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030.

Assembly Bill 1109

California Assembly Bill 1109 (AB 1109) was adopted October 2007, also known as the Lighting Efficiency and Toxics Reduction Act, prohibits the manufacturing of lights after January 1, 2010 that contain levels of hazardous substances prohibited by the European Union pursuant to the R Restriction of Hazardous Substances Directive. AB 1109 also requires reductions in energy usage for lighting and is structured to reduce lighting electrical consumption by: (1) At least 50 percent reduction from 2007 levels for indoor residential lighting; and (2) At least 25 percent reduction from 2007 levels for indoor commercial and all outdoor lighting by 2018. AB 1109 would reduce GHG emissions through reducing the amount of electricity required to be generated by fossil fuels in California.

Assembly Bill 1493

California Assembly Bill 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted on July 22, 2002 and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the “Pavley I” regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. These regulations will reduce GHG emissions by 30 percent from 2002 levels by 2016. In June 2009, the EPA granted California the authority to implement GHG emission reduction standards for light duty vehicles, in September 2009, amendments to the Pavley I regulations were adopted by CARB and implementation of the “Pavley I” regulations started in 2009.

The second set of regulations “Pavley II” was developed in 2010, and is being phased in between model years 2017 through 2025 with the goal of reducing GHG emissions by 45 percent by the year 2020 as compared to the 2002 fleet. The Pavley II standards were developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the “LEV III” (third stage of the Low Emission Vehicle standards) into a single regulatory framework. The new rules reduce emissions from gasoline-powered cars as well as promote zero-emissions auto technologies such as electricity and hydrogen, and through increasing the infrastructure for fueling hydrogen vehicles. In 2009, the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles and these GHG emissions standards are currently being implemented nationwide.

The EPA has performed a midterm evaluation of the longer-term standards for model years 2022-2025, and based on the findings of this midterm evaluation, the EPA proposed The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026 that amends the corporate average fuel economy (CAFE) and GHG emissions standards for light vehicles for model years 2021 through 2026. The SAFE Vehicles Rule were made effective on June 29, 2020.

5.2 Local – City of Montebello

The applicable energy plan for the proposed project is the *Montebello 2040 General Plan*, adopted April 10, 2024, where energy demand was analyzed in the *City of Montebello General Plan Update and*

Downtown Montebello Specific Plan Draft Environmental Impact Report (2040 General Plan DEIR), prepared by Rincon Consultants, Inc., December 2023, which provided the following analysis for construction energy:

Energy use during construction would be temporary in nature and construction equipment used would be typical of similar-sized construction projects in the region. In addition, construction contractors would be required to comply with the provisions of California Code of Regulations Title 13 Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes, which would minimize unnecessary fuel consumption. Furthermore, per applicable regulatory requirements such as 2022 CALGreen, development under the proposed Project would comply with construction waste management practices to divert a minimum of 65 percent of construction debris. These practices would result in efficient use of energy necessary to construct reasonably foreseeable development under the proposed Project. In the interest of cost-efficiency, construction contractors also would not utilize fuel in a manner that is wasteful or unnecessary. Overall, construction for development under the proposed Project would be temporary and typical of that associated with development throughout the region. Therefore, reasonably foreseeable development under the proposed Project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

For Operational energy demand the General Plan DEIR found with implementation of the following General Policies would reduce energy demand to less than significant levels:

Policies

- P2.3:** Maximize future Light Rail Stop with TOD Planning.
- P2.7:** Encourage urban infill and compact development.
- P3.2:** Direct growth and redevelopment to the Downtown Area.
- P3.4:** New development will create diverse and walkable neighborhoods.
- P4.1:** Support and promote walking, biking, and other nonvehicular modes as an alternative to driving within Montebello.
- P4.2:** Promote the use of public transit through high quality local and regional transit service and facilities.
- P4.3:** Foster multimodal accessibility between transit services and destinations within the city.
- P4.4:** Manage parking and develop curbside regulations to balance the needs for parking, passenger loading, and commercial loading while avoiding negative effects to the walking, biking, and transit experience.
- P4.5:** Provide a network of complete streets that are safe and accessible for all transportation modes and users, including those with impaired mobility, with a system of multimodal and context-appropriate roadways that support a shift to alternative travel modes and a reduction in VMT.
- P4.6:** Balance local and regional vehicular throughput needs, as well as their effects on other modes of travel.
- P4.7:** Prioritize the safety of all modes and users when designing and developing the citywide transportation network.

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- P4.8:** Ensure the City's transportation network and planning efforts incorporate new transportation technologies while also preparing for the needs of potential future technologies and modes.
- P5.2:** Create a multimodal transportation system that encourages active living and healthy lifestyles in all areas of the City across a broad spectrum of ages, interests, and abilities.
- P7.2:** Ensure the maximum distance between residents' homes and the nearest public park is ½ mile.

6.0 GLOBAL CLIMATE CHANGE MANAGEMENT

The regulatory setting related to global climate change is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to reduce GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for global climate change regulations are discussed below.

6.1 International

In 1988, the United Nations established the IPCC to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. The parties of the UNFCCC adopted the Kyoto Protocol, which set binding GHG reduction targets for 37 industrialized countries, the objective of reducing their collective GHG emissions by five percent below 1990 levels by 2012. The Kyoto Protocol has been ratified by 182 countries, but has not been ratified by the United States. It should be noted that Japan and Canada opted out of the Kyoto Protocol and the remaining developed countries that ratified the Kyoto Protocol have not met their Kyoto targets. The Kyoto Protocol expired in 2012 and the amendment for the second commitment period from 2013 to 2020 has not yet entered into legal force. The Parties to the Kyoto Protocol negotiated the Paris Agreement in December 2015, agreeing to set a goal of limiting global warming to less than 2 degrees Celsius compared with pre-industrial levels. The Paris Agreement has been adopted by 195 nations with 147 ratifying it, including the United States by President Obama, who ratified it by Executive Order on September 3, 2016. On June 1, 2017, President Trump announced that the United States is withdrawing from the Paris Agreement, on January 21, 2021 President Biden signed an executive order rejoining the Paris Agreement, and on January 20, 2025 President Trump signed an executive order withdrawing from the Paris Agreement.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

6.2 Federal – United States Environmental Protection Agency

The EPA is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce U.S. GHG intensity. These programs focus on energy efficiency, renewable energy, methane, and other non-CO₂ gases, agricultural practices and implementation of technologies to achieve GHG reductions. EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

In *Massachusetts v. Environmental Protection Agency* (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate GHGs, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO₂ and other GHGs as pollutants under the federal Clean Air Act.

In response to the Consolidations Appropriations Act, 2008 (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to the EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions did not impose any requirements on industry or other entities, however, since 2009 the EPA has been providing GHG emission standards for vehicles and other stationary sources of GHG emissions that are regulated by the EPA. On September 13, 2013 the EPA Administrator signed 40 CFR Part 60, that limits emissions from new sources to 1,100 pounds of CO₂ per mega-watt hour (MWh) for fossil fuel-fired utility boilers and 1,000 pounds of CO₂ per MWh for large natural gas-fired combustion units.

On August 3, 2015, the EPA announced the Clean Power Plan, emissions guidelines for U.S. to follow in developing plans to reduce GHG emissions from existing fossil fuel-fired power plants (Federal Register Vol. 80, No. 205, October 23 2015). On October 11, 2017, the EPA issued a formal proposal to repeal the Clean Power Plan and on June 19, 2019 the EPA replaced the Clean Power Plan with the Affordable Clean Energy rule that is anticipated to lower power sector GHG emissions by 11 million tons by the year 2030.

On April 30, 2020, the EPA and the National Highway Safety Administration published the Final Rule for the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). Part One of the Rule revokes California's authority to set its own GHG emissions standards and zero-emission vehicle mandates in California, which results in one emission standard to be used nationally for all passenger cars and light trucks that is set by the EPA.

6.3 State

The CARB has the primary responsible for implementing state policy to address global climate change, however there are State regulations related to global climate change that affect a variety of State agencies. CARB, which is a part of the CalEPA, is responsible for the coordination and administration of both the federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2008, CARB approved a Climate Change Scoping Plan that proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The Climate Change Scoping Plan has a range of GHG reduction actions which include direct regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary

actions; market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB, 2014) that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017 CARB adopted the California's 2017 Climate Change Scoping Plan, November 2017 (CARB, 2017) that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. On December 15, 2022, CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality*, November 16, 2022 (CARB, 2022) that lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279.

In addition to the Scoping Plans, the State has passed the following laws directing CARB to develop actions to reduce GHG emissions, which are listed below in chronological order, with the most current first.

California Code of Regulations Title 24, Part 6

The Title 24 Part 6 standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the Title 24 Part 6 building standards would also reduce GHG emissions, since energy usage is the primary source of human generated GHG emissions.

California Code of Regulations Title 24, Part 11

The CalGreen Building standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the CalGreen Building standards would also reduce GHG emissions, since energy usage is the primary source of human generated GHG emissions.

Senate Bill 1020

SB 1020 requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-55-18 and Assembly Bill 1279

The California Governor issued Executive Order B-55-18 in September 2018 that establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045. This executive order directs CARB to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal as well as ensuring future scoping plans identify and recommend measures to achieve this carbon neutrality goal. Assembly Bill 1279 was passed by the legislature in September 2022 that codifies the carbon neutrality targets provided in Executive Order B-55-18. The *2022 Scoping Plan for Achieving Carbon Neutrality*, adopted by CARB on December 16, 2022, was prepared in order to meet the carbon neutrality goal targets developed in Executive Order B-55-18 and codified in Assembly Bill 1279.

Executive Order N-79-20

EO N-79-20 establish targets for when all new vehicles and equipment are zero-emission and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-48-18 and Assembly Bill 2127

Executive Order B-48-18 and AB 2127 provides measures to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025 and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-30-15, Senate Bill 32 and Assembly Bill 197

The California Governor issued Executive Order B-30-15 on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. This executive order aligns California's GHG reduction targets with those of other international governments, such as the European Union that set the same target for 2030 in October, 2014. This target will make it possible to reach the ultimate goal of reducing GHG emissions 80 percent under 1990 levels by 2050 that is based on scientifically established levels needed in the U.S.A to limit global warming below 2 degrees Celsius – the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. Assembly Bill 197 (AB 197) (September 8, 2016) and Senate Bill 32 (SB 32) (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in Executive Order B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-29-15

The California Governor issued Executive Order B-29-15 on April 1, 2015 and directed the State Water Resources Control Board to impose restrictions to achieve a statewide 25 percent reduction in urban water usage and directed the Department of Water Resources to replace 50 million square feet of lawn with drought tolerant landscaping through an update to the State's Model Water Efficient Landscape Ordinance. The Ordinance also requires installation of more efficient irrigation systems, promotion of greywater usage and onsite stormwater capture, and limits the turf planted in new residential landscapes to 25 percent of the total area and restricts turf from being planted in median strips or in parkways unless the parkway is next to a parking strip and a flat surface is required to enter and exit vehicles. Executive Order B-29-15 would reduce GHG emissions associated with the energy used to transport and filter water.

Assembly Bill 341 and Senate Bills 939 and 1374

Senate Bill 939 (SB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills. Assembly Bill 341 (AB 341) was adopted in 2011 and builds upon the waste reduction measures of SB 939 and 1374, and sets a new target of a 75 percent reduction in solid waste generated by the year 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 in order to support the State's climate action goals to reduce GHG emissions through coordinated regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each MPO within the State. It was up to each MPO to adopt a sustainable communities

strategy (SCS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP) to meet CARB's 2020 and 2035 GHG emission reduction targets. These reduction targets are required to be updated every eight years and the most current targets are detailed at: <https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets>, which provides GHG emissions reduction targets for SCAG of 8 percent by 2020 and 19 percent by 2035.

The Connect SoCal 2024 provides a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal 2024 include new initiatives of land use, transportation and technology to meet the 19 percent GHG emission reduction target for 2035. CARB is also charged with reviewing SCAG's RTP/SCS for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS. However, new provisions of CEQA incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS and categorized as "transit priority projects."

Assembly Bill 1109

AB 1109 requires reductions in energy usage for lighting and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Executive Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

In 2009 CARB approved the proposed regulation to implement the LCFS. The standard was challenged in the courts, but has been in effect since 2011 and was re-approved by the CARB in 2015. The LCFS is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The LCFS is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet annually. Reformulated gasoline mixed with corn-derived ethanol and low-sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel. Compressed natural gas and liquefied natural gas also may be low-carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles, are also considered as low-carbon fuels.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA Guidelines that addresses GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate Action Plans and other GHG reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that “to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation.”
- OPR’s emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports must specifically consider a projects energy use and energy efficiency potential.

Assembly Bill 32

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and utilize best management practices that are technologically feasible and cost effective.

In 2007 CARB released the calculated Year 1990 GHG emissions of 431 MMTCO₂e. The 2020 target of 431 MMTCO₂e requires the reduction of 78 MMTCO₂e, or approximately 16 percent from the State’s projected 2020 business as usual emissions of 509 MMTCO₂e (CARB, 2014). Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO₂ in a calendar year to submit verification of GHG emissions by

December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources, all of which became enforceable on or before January 1, 2010.

Assembly Bill 1493

AB 1493 or the Pavley Bill sets tailpipe GHG emissions limits for passenger vehicles in California as well as fuel economy standards and is described in more detail above in Section 5.1 under Energy Conservation Management.

6.4 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Air Basin. To that end, as a regional agency, the SCAQMD works directly with SCAG, county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. The SCAQMD is also responsible for GHG emissions for projects where it is the lead agency. However, for other projects in the SCAB where it is not the lead agency, it is limited to providing resources to other lead agencies in order to assist them in determining GHG emission thresholds and GHG reduction measures. In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a working group, which is described below.

SCAQMD Working Group

Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that either provides a quantitative annual thresholds of 3,500 MTCO₂e for residential uses, 1,400 MTCO₂e for commercial uses, and 3,000 MTCO₂e for mixed uses. An alternative annual threshold of 3,000 MTCO₂e for all land use types is also proposed.

Southern California Association of Governments

As detailed above in Section 4.3, the current applicable RTP/SCS for the project area region is the Connect SoCal 2024 and 2025 FTIP, which have been prepared to meet the GHG emissions reduction targets set by SB 375 for the SCAG region of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal 2024 includes new land use, transportation, and technology strategies to meet the new 19 percent GHG emission reduction target for 2035.

Although the Connect SoCal 2024 and 2025 FTIP are primarily planning documents for future transportation projects, a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the 2022 AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the 2022 AQMP. The Connect SoCal 2024, 2025 FTIP, and 2022 AQMP are based on projections originating within the City and County General Plans.

6.5 Local – City of Montebello

Local jurisdictions, such as the City of Montebello, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. In accordance with CEQA requirements and the CEQA review process, the City assesses the global climate change potential of new development projects, requires mitigation of potentially significant global climate change impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The 2040 General Plan DEIR (Rincon Consultants, Inc., 2023), analyzed the GHG emissions created from buildout of the Montebello 2040 General Plan and found that buildout would create less than significant GHG emissions through adherence to State GHG regulations and implementation of the following General Policies would reduce GHG emissions to less than significant levels:

Policies

- P2.3:** Maximize future Light Rail Stop with TOD Planning.
- P2.7:** Encourage urban infill and compact development.
- P3.2:** Direct growth and redevelopment to the Downtown Area.
- P3.4:** New development will create diverse and walkable neighborhoods.
- P4.1:** Support and promote walking, biking, and other nonvehicular modes as an alternative to driving within Montebello.
- P4.2:** Promote the use of public transit through high quality local and regional transit service and facilities.
- P4.3:** Foster multimodal accessibility between transit services and destinations within the city.
- P4.5:** Provide a network of complete streets that are safe and accessible for all transportation modes and users, including those with impaired mobility, with a system of multimodal and context-appropriate roadways that support a shift to alternative travel modes and a reduction in VMT.
- P4.6:** Balance local and regional vehicular throughput needs, as well as their effects on other modes of travel.

7.0 ATMOSPHERIC SETTING

7.1 South Coast Air Basin

The project site is located within southeastern Los Angeles County, which is part of the South Coast Air Basin (Air Basin) that includes the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties and all of Orange County. The Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

7.2 Local Climate

The climate of southeastern Los Angeles County is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern. Although the Air Basin is semi-arid, the air near the surface in south coastal Los Angeles County is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the Air Basin by offshore winds, the ocean effect is dominant. Periods of heavy fog are frequent and low stratus clouds, often referred to as “high fog” are a characteristic feature.

Winds are an important parameter in characterizing the air quality environment of a project site because they both determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in south coastal Los Angeles County are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds allow for good local mixing, but as discussed above, these coastal winds carry significant amounts of industrial and automobile air pollutants from the densely urbanized western portion of the Air Basin into the interior valleys which become trapped by the mountains that border the eastern and northern edges of the Air Basin.

In the summer, strong temperature inversions may occur that limit the vertical depth through which air pollution can be dispersed. Air pollutants concentrate because they cannot rise through the inversion layer and disperse. These inversions are more common and persistent during the summer months. Over time, sunlight produces photochemical reactions within this inversion layer that creates ozone, a particularly harmful air pollutant. Occasionally, strong thermal convections occur which allows the air pollutants to rise high enough to pass over the mountains and ultimately dilute the smog cloud.

In the winter, light nocturnal winds result mainly from the drainage of cool air off of the mountains toward the valley floor while the air aloft over the valley remains warm. This forms a type of inversion known as a radiation inversion. Such winds are characterized by stagnation and poor local mixing and trap pollutants such as automobile exhaust near their source. While these inversions may lead to air pollution “hot spots” in heavily developed coastal areas of the Air Basin, there is not enough traffic in inland valleys to cause any winter air pollution problems. Despite light wind conditions, especially at night and in the early morning, winter is generally a period of good air quality in the project vicinity.

The temperature and precipitation levels for the Montebello Monitoring Station is shown below in Table M. Table M shows that August is typically the warmest month and December is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual

rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table M – Monthly Climate Data

Month	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)	Average Total Precipitation (inches)
January	69.4	47.8	3.69
February	71.1	48.9	3.56
March	72.9	50.4	2.82
April	77.6	53.2	0.78
May	79.4	57.2	0.19
June	83.7	60.8	0.06
July	88.5	64.2	0.01
August	89.7	65.2	0.02
September	87.9	63.6	0.17
October	82.6	58.3	0.28
November	75.4	51.4	1.26
December	70.8	47.2	1.94
Annual	79.1	55.7	14.78

Source: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca5790>

7.3 Monitored Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the Air Basin. Improvements in cleaner technology and strict regulations have reduced ozone levels since its peak in the mid-twentieth century. However, ozone levels have remained unacceptably high over the past decade despite significant reductions. This trend is due to the changes in climate and other weather conditions such as the increase in hot, stagnant days that can lead to the formation of ozone that we have experienced in recent years. (SCAQMD, 2022).

SCAQMD has divided the Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in Air Monitoring Area 5, which covers southeastern Los Angeles County. Since not all air monitoring stations measure all of the tracked pollutants, the data from the following two monitoring stations, listed in the order of proximity to the project sites have been used: Pico Rivera Station (Pico Rivera Station) and Los Angeles Monitoring Station (Los Angeles Station).

The Pico Rivera Station is located approximately 2.8 miles northeast of the project site at 4144 San Gabriel River Parkway, Pico Rivera and the Los Angeles Station is located approximately 8.1 miles northwest of the project site at 1630 N Main Street, Los Angeles. Ozone, NO_x and PM_{2.5} were measured at the Pico Rivera Station and PM₁₀ was measured at the Los Angeles Station. It should be noted that due to the air monitoring stations distances from the project site, recorded air pollution levels at the monitoring stations reflect with varying degrees of accuracy, local air quality conditions at the project site. The monitoring data is presented in Table N that shows the most recent three years of monitoring data from CARB.

Table N – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year		
	2021	2022	2023
Ozone: ¹			
Maximum 1-Hour Concentration (ppm)	0.104	0.123	0.120
Days > CAAQS (0.09 ppm)	2	3	7
Maximum 8-Hour Concentration (ppm)	0.074	0.091	0.090
Days > NAAQS (0.070 ppm)	3	2	7
Days > CAAQs (0.070 ppm)	3	3	9
Nitrogen Dioxide: ¹			
Maximum 1-Hour Concentration (ppb)	72.2	64.5	58.1
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10): ²			
Maximum 24-Hour National Measurement (ug/m ³)	64.0	61.0	58.0
Days > NAAQS (150 ug/m ³)	0	0	0
Days > CAAQS (50 ug/m ³)	14	0	1
Annual Arithmetic Mean (AAM) (ug/m ³)	30.9	24.1	21.8
Annual > NAAQS (50 ug/m ³)	No	No	No
Annual > CAAQS (20 ug/m ³)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5): ¹			
Maximum 24-Hour National Measurement (ug/m ³)	66.0	53.8	60.7
Days > NAAQS (35 ug/m ³)	3	1	1
Annual Arithmetic Mean (AAM) (ug/m ³)	13.3	11.1	10.4
Annual > NAAQS and CAAQS (12 ug/m ³)	Yes	No	No

Notes: Exceedances are listed in **bold**. CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.

¹ Data obtained from the Pico Rivera Station.

² Data obtained from the Los Angeles Station.

Source: <http://www.arb.ca.gov/adam/>

Ozone

Over the last three years, the State 1-hour concentration standard for ozone has been exceeded between two and seven days each year at the Pico Rivera Station. The State 8-hour ozone standards have been exceeded between three and nine days each year over the last three years at the Pico Rivera Station. The Federal 8-hour ozone standards have been exceeded between three and seven days each year over the last three years at the Pico Rivera Station. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO₂, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the ozone levels experienced at this monitoring station, with the more significant areas being those directly upwind.

Nitrogen Dioxide

The Pico Rivera Station did not record an exceedance of either the Federal or State 1-hour NO₂ standards for the last three years.

Particulate Matter

The State 24-hour concentration standard for PM₁₀ has been exceeded between zero and 14 days each year of the last three years at the Los Angeles Station. Over the past three years the Federal 24-hour standard for PM₁₀ has not been exceeded at the Los Angeles Station. The annual PM₁₀ concentration at the Los Angeles Station has exceeded the State standard for the past three years and has not exceeded the Federal standard for the past three years.

The 24-hour concentration standard for PM_{2.5} has been exceeded between one and three days each year over the past three years at the Pico Rivera Station. Over the past three years, the annual PM_{2.5} concentrations at the Pico Rivera Station has only exceeded the State and Federal standards in 2021. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM₁₀ and PM_{2.5}). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

7.4 Toxic Air Contaminant Levels in the Air Basin

In order to determine the Air Basin-wide risks associated with major airborne carcinogens, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES) studies. According to the MATES V study (SCAQMD, 2021), the project site has an estimated cancer risk of 552 per million persons chance of cancer in the vicinity of the project site. In comparison, the average cancer risk for the Air Basin is 455 per million persons. The MATES V study that monitored air toxins between May 1, 2018 to April 30, 2019 found that cancer risk from air toxics has declined significantly in the Air Basin with a 40 percent decrease in cancer risk since the monitoring for the MATES IV study that occurred between July 1, 2012 and June 30, 2013 and an 84 percent decrease in cancer risk since the monitoring for the MATES II study that occurred between April 1, 1998 and March 31, 1999.

The MATES V study also analyzed impacts specific to the communities experiencing environmental injustices (EJ communities) that were evaluated using the Senate Bill 535 definition of disadvantaged communities, which found that between MATES IV and MATES V, the cancer risk from air toxics decreased by 57 percent in EJ communities overall, compared to a 53 percent reduction in non-EJ communities.

In order to provide a perspective of risk, it is often estimated that the incidence in cancer over a lifetime for the U.S. population ranges between 1 in 3 to 4 and 1 in 3, or a risk of about 300,000 per million persons. The MATES-III study referenced a Harvard Report on Cancer Prevention, which estimated that of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures that includes hazardous air pollutants.

8.0 MODELING PARAMETERS AND ASSUMPTIONS

8.1 CalEEMod Model Input Parameters

The criteria air pollution and GHG emissions impacts created by the proposed project have been analyzed through use of the California Emissions Estimator Model (CalEEMod) Version 2022.1.1.29 (see Appendix A). CalEEMod Version 2022.1 is a computer model published by the California Air Pollution Control Officers Association (CAPCOA) for estimating air pollutant and GHG emissions. The CalEEMod 2022.1 program uses the EMFAC2021 computer program to calculate the emission rates specific for the South Coast Air Basin portion of Los Angeles County for employee, vendor and haul truck vehicle trips and the OFFROAD2007 and OFFROAD2011 computer programs to calculate emission rates for heavy equipment operations. EMFAC2021, OFFROAD2007 and OFFROAD2011 are computer programs generated by the CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The project characteristics in the CalEEMod model were set to a project location of South Coast Air Basin portion of Los Angeles County, utility companies of Southern California Edison and Southern California Gas Company and construction only analysis.

Land Use Parameters

The proposed project is located on a 0.88-acre project site and would consist of the development of a new water supply well and water treatment system. Construction activities were modeled based on the phases, timing, and construction equipment detailed above in Section 1.3. The proposed project's land use parameters that were entered into the CalEEMod model are shown in Table O.

Table O – CalEEMod Land Use Parameters

Proposed Land Use	Land Use Subtype in CalEEMod	Land Use Size (TSF) ¹	Lot Acreage ²	Building Area (square feet)	Landscaped Area ³ (square feet)
Water Supply Well and Treatment System	User Defined Industrial	1.2	0.63	1,200	2,744
Paved Area	Other Asphalt Surfaces	10.9	0.25	--	1,089

Notes:

¹ TSF = Thousand Square Feet

² Lot acreage calculated based on the total area of 0.88-acre.

³ Landscaped Area based on 10% of total area landscaped.

The construction activities were modeled based on the phases, timing and construction equipment detailed in Section 1.3. CalEEMod provides the selection of reduction measures to account for project conditions that would result in less emissions than a project without these conditions. This includes the required adherence to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions and was modeled in CalEEMod by selection of watering all exposed areas three times per day during site preparation and grading, water unpaved roads twice daily, reduce vehicle speeds on dirt roads and sweep paved roads once per month.

Operational Emissions Modeling

In general, operation of the water supply well would consist of the operation of an electrical water pump, that would not create any onsite air emissions, and implementation of the proposed project would result

in a net decrease in electricity usage, when compared to the electricity currently utilized to transport water to the project vicinity from Northern California. Routine maintenance would be conducted on the well in five to 10 year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The anticipated timing and construction equipment utilized during well rehabilitation have been discussed above in Section 1.3. The worst-case operational emissions created by the proposed project have been analyzed through use of the CalEEMod model and the parameters detailed in Section 1.3 for the well rehabilitation activities.

8.2 Energy Use Calculations

The proposed project is anticipated to consume energy during both construction and operation of the proposed project and the parameters utilized to calculate energy use from construction and operation of the proposed project are detailed separately below.

Construction-Related Energy Use

Construction of the proposed project is anticipated to use energy in the forms of petroleum fuel for both off-road equipment as well as from the transport of workers and materials to and from the project site and the calculations for each source are described below.

Off-Road Construction Equipment

The off-road construction equipment fuel usage was calculated through use of the CalEEMod model's default off-road equipment assumptions detailed above in Section 8.1. For each piece of off-road equipment, the fuel usage was calculated through use of the *2017 Off-road Diesel Emission Factors* spreadsheet, prepared by CARB (<https://ww3.arb.ca.gov/msei/ordiesel.htm>). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

$$\text{Fuel Used} = \text{Load Factor} \times \text{Horsepower} \times \text{Total Operational Hours} \times \text{BSFC} / \text{Unit Conversion}$$

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table P shows the off-road construction equipment fuel calculations based on the above formula. Table P shows that the off-road equipment utilized during construction of the proposed project would consume 5,166 gallons of diesel fuel.

Table P – Off-Road Equipment and Fuel Consumption from Construction of the Proposed Project

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours	Fuel Used (gallons)
Phase 1: Temporary Noise Barrier and Site Preparation						
Backhoe with Auger Attachment	1	84	0.37	6	42	75
Man Lift	1	46	0.31	8	56	46
Forklift	1	82	0.20	8	56	53
Rubber Tired Loader	1	150	0.36	6	42	117
Phase 2: Conductor Casing Installation						
Bucket Auger Rig	1	83	0.50	12	12	29
Backhoe	1	84	0.37	12	60	107
Welder	1	46	0.45	12	60	71
Cement Truck	1	376	0.38	4	16	118
Cement Pumper	1	11	0.74	4	16	7
Phase 3: Well Drilling						
Reverse Circulation Drilling Rig	1	83	0.50	24	336	800
Air Compressor	1	37	0.48	24	336	342
Mud System	1	11	0.74	24	336	157
Backhoe	1	84	0.37	6	84	150
Light Tower	1	14	0.74	12	168	100
Generator	1	14	0.74	12	168	100
Phase 4: Well Casing						
Drill Rig	1	83	0.50	24	168	400
Gravel/Seal Pump	1	11	0.74	24	168	78
Light Tower	1	14	0.74	12	84	50
Generator	1	14	0.74	12	84	50
Cement Truck	1	376	0.38	4	8	59
Cement Pumper	1	11	0.74	4	8	4
Backhoe	1	84	0.37	12	84	150
Welder	1	46	0.45	12	84	100
Phase 5: Well Development						
Drill Rig	1	83	0.50	5	25	60
Air Compressor	1	37	0.48	10	100	102
Pump Installation Rig	1	367	0.29	5	25	137
Generator	1	14	0.74	5	25	15
Phase 6: Test Pumping						
Diesel Water Pump	1	11	0.74	24	336	157
Phase 7: Site Improvements						
Backhoe	1	84	0.37	8	480	856
Welder	1	46	0.45	4	120	143
Cement Truck	1	376	0.38	4	40	295
Cement Pumper	1	11	0.74	4	40	19
Crane	1	367	0.29	4	40	220
Total Off-Road Equipment Diesel Fuel Used during Construction (gallons)						5,166

Notes:

Source: CalEEMod Version 2022.1 (see Appendix A); CARB, 2017.

On-Road Construction-Related Vehicle Trips

The on-road construction-related vehicle trips fuel usage was calculated through use of the construction vehicle trip assumptions from the CalEEMod model run as detailed above in Section 8.1. The calculated total construction miles was then divided by the fleet average for the South Coast Air Basin portion of Los Angeles County miles per gallon rates for the year 2026 calculated through use of the EMFAC2021 model and the EMFAC2021 model printouts are shown in Appendix B. The worker trips were based on the combined fleet average miles per gallon rates for gasoline powered automobiles, SUVs and pickup trucks and the vendor and haul truck trips were based on the combined T6 and T7 diesel trucks fleet average miles per gallon rate. Table Q shows the on-road construction vehicle trips modeled in CalEEMod and the fuel usage calculations.

Table Q – On-Road Vehicle Trips and Fuel Consumption from Construction of Proposed Project

Vehicle Trip Types / Fuel Type	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase	Fleet Average Miles per Gallon ¹	Fuel Used (gallons)
Phase 1: Temporary Noise Barrier and Site Preparation						
Worker (Gasoline)	10	18.5	185	1,295	26.5	49
Vendor (Diesel)	2	10.2	20.4	143	7.5	19
Phase 2: Conductor Casing Installation						
Worker (Gasoline)	12.5	18.5	231	1,850	26.5	70
Vendor (Diesel)	2	10.2	20.4	163	7.5	22
Phase 3: Well Drilling						
Worker (Gasoline)	15	18.5	278	3,885	26.5	147
Vendor (Diesel)	2	10.2	20.4	286	7.5	38
Phase 4: Well Casing						
Worker (Gasoline)	20	18.5	370	2,590	26.5	98
Vendor (Diesel)	2	10.2	20.4	143	7.5	19
Phase 5: Well Development						
Worker (Gasoline)	10	18.5	185	1,850	26.5	70
Vendor (Diesel)	2	10.2	20.4	204	7.5	27
Phase 6: Test Pumping						
Worker (Gasoline)	2.5	18.5	46	971	26.5	37
Vendor (Diesel)	2	10.2	20.4	428	7.5	57
Phase 7: Site Improvements						
Worker (Gasoline)	10	18.5	185	12,025	26.5	454
Vendor (Diesel)	2	10.2	20.4	1,326	7.5	177
Total Gasoline Fuel Used from On-Road Worker Vehicles (gallons)						923
Total Diesel Fuel Used from On-Road Vendor Truck Vehicles (gallons)						360

Notes:

¹ From EMFAC 2021 model (see Appendix B).

Source: CalEEMod Version 2022.1; CARB, 2018.

Table Q shows that the on-road construction-related vehicle trips would consume 923 gallons of gasoline and 360 gallons of diesel fuel. As detailed above, Table P shows that the off-road construction equipment would consume 5,526 gallons of diesel fuel. This would result in the total consumption of 923 gallons of gasoline and 5,526 gallons of diesel fuel from construction of the proposed project.

Operations-Related Energy Use

In general, operation of the water supply well would consist of the operation of an electrical water pump, that would not create any onsite air emissions, and implementation of the proposed project would result in a net decrease in electricity usage, when compared to the electricity currently utilized to transport water to the project vicinity from Northern California. Routine maintenance would be conducted on the well in five to 10 year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The anticipated timing and construction equipment utilized during well rehabilitation have been discussed above in Section 1.3.

Table R shows the off-road equipment fuel calculations based on the formula used above for construction fuel use. Table R shows that the off-road equipment utilized operational well rehabilitation activities would consume 429 gallons of diesel fuel.

Table R – Off-Road Equipment and Fuel Consumption from Operational Well Rehabilitation

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours	Fuel Used (gallons)
Pump Rig	1	367	0.29	10	50	275
Pickup Truck	1	376	0.38	2	10	74
Air Compressor	1	37	0.48	10	50	51
Generator	1	14	0.74	10	50	30
Total Off-Road Equipment Diesel Fuel Used during Well Rehabilitation (gallons)						429

Notes:

Source: CalEEMod Version 2022.1 (see Appendix A); CARB, 2017.

Table S shows the on-road vehicle trips from operational well rehabilitation modeled in CalEEMod and the fuel usage calculations.

Table S – On-Road Vehicle Trips and Fuel Consumption from Operational Well Rehabilitation

Vehicle Trip Types / Fuel Type	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles	Fleet Average Miles per Gallon ¹	Fuel Used (gallons)
Worker (Gasoline)	10	18.5	185	925	26.5	35
Vendor (Diesel)	2	10.2	20.4	102	7.5	14
Total Gasoline Fuel Used from On-Road Worker Vehicles (gallons)						35
Total Diesel Fuel Used from On-Road Vendor Truck Vehicles (gallons)						14

Notes:

¹ From EMFAC 2021 model (see Appendix B).

Source: CalEEMod Version 2022.1; CARB, 2018.

Table S shows that the on-road well rehabilitation vehicle trips would consume 35 gallons of gasoline and 14 gallons of diesel fuel. As detailed above, Table R shows that the off-road equipment would consume 429 gallons of diesel fuel. This would result in the total consumption of 35 gallons of gasoline and 443 gallons of diesel fuel from operational well rehabilitation that are anticipated to occur once every 5 to 10 years.

9.0 THRESHOLDS OF SIGNIFICANCE

9.1 Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the Air Basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table T.

Table T – SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance

	Pollutant Emissions (pounds/day)						
	VOC	NOx	CO	SOx	PM10	PM2.5	Lead
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>

9.2 Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO₂, CO, PM10, and PM2.5.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. As detailed above in Section 7.3, the project site is located in Air Monitoring Area 5, Southeast Los Angeles County. The Look-Up Tables provided in the LST Methodology include project site acreage sizes of 1-acre, 2-acres and 5-acres. Since the project site is 0.88 acre, the 1-acre thresholds were utilized. The nearest sensitive receptors to the project site include the multi-family homes that are as near as 8 feet (2.4 meters) to the north of the project site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the 25-meter thresholds. Table U below shows the LSTs for NOx, CO, PM10 and PM2.5 for both construction and operational activities.

Table U – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (pounds/day) ¹			
	NOx	CO	PM10	PM2.5
Construction	80	571	4	3
Operation	80	571	1	1

Notes:

¹ The nearest sensitive receptors to the project site are the multi-family homes located as near as 8 feet (2.4 meters) north of the project site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.

Source: Calculated from SCAQMD's Mass Rate Look-up Tables for 1-acre in Air Monitoring Area 5, Southeast Los Angeles County.

9.3 Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to toxic air contaminants (TACs), the *Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, (Diesel Analysis) prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the hazardous air pollutant (HAP) should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

9.4 Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

“A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.

The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.”

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

9.5 Energy Conservation

The 2022 *CEQA California Environmental Quality Act Statutes & Guidelines* (2022 CEQA Guideline) include an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce

inefficient, wasteful or unnecessary consumption of energy. Appendix F of the 2022 CEQA Statute and Guidelines, states the following:

The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:

- (1) Decreasing overall per capita energy consumption,
- (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
- (3) Increasing reliance on renewable energy sources.

Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, Appendix F, Subsection II.C of the 2022 CEQA Guidelines provides the following criteria for determining significance.

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
2. The effects of the project on local and regional energy supplies and on requirement for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

9.6 Greenhouse Gas Emissions

The City of Montebello adopted the Montebello 2040 General Plan (adopted April 10, 2024) and associated 2040 General Plan DEIR (Rincon Consultants, Inc., 2023), that found the anticipated projects in the City that would include any project that does not require a General Plan Amendment, would result in a less than significant impact for GHG emissions on the condition that the project adhere to the State GHG emission reduction regulations and the project is consistent with the identified General Plan policies that have been listed above in Section 6.5.

As such, this analysis has quantified GHG emission for informational purposes only and determination of significance will be based on consistency with the applicable General Plan policies. The GHG emissions analysis for both construction and operation of the proposed project can be found below in Sections 10.8 and 10.9.

10.0 IMPACT ANALYSIS

10.1 CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality, energy, and GHG emissions would occur if the proposed project is determined to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

10.2 Air Quality Compliance

The proposed project would not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP). The following section discusses the proposed project's consistency with the SCAQMD AQMP.

SCAQMD Air Quality Management Plan

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD AQMP. Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

-
- (1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
 - (2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of significance discussed above in Section 9.1 or local thresholds of significance discussed above in Section 9.2. The ongoing operation of the proposed project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance discussed above in Section 9.1. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not be projected to exceed the air quality standards. Therefore, a less than significant long-term impact would occur and no mitigation would be required.

Therefore, based on the information provided above, the proposed project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the 2022 AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The 2022 AQMP was developed through use of the planning forecasts provided in the Connect SoCal and 2019 FTIP. The Connect SoCal is a major planning document for the regional transportation and land use network within Southern California. The Connect SoCal is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The 2019 FTIP provides long-range planning for future transportation improvement projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this project, the City of Montebello General Plan's Land Use Plan defines the assumptions that are represented in AQMP.

The project site is currently designated as Corridor District in the General Plan and is zoned Heavy Commercial – Limited Industrial (C-M). The proposed project consists of development of a new water supply well and water treatment system, which is an allowed use in the Corridor District and C-M zoning. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

Level of Significance

Less than significant impact.

10.3 Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not 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 following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the SCAQMD standards.

Construction Emissions

The construction activities for the proposed project are anticipated to include construction of a new water supply well and water treatment system. The CalEEMod model has been utilized to calculate the construction-related criteria pollutant emissions from the proposed project and the input parameters utilized in this analysis have been detailed in Section 8.1. The maximum daily construction emissions by season are shown below in Table V and the CalEEMod printouts are shown in Appendix A.

Table V – Construction-Related Criteria Pollutant Emissions

Season and Year of Construction	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Winter 2026/9	1.57	13.1	18.2	0.03	0.70	0.45
Summer 2026	0.50	3.38	5.11	0.01	0.26	0.14
Maximum Daily Construction Emissions	1.57	13.1	18.2	0.03	0.70	0.45
SCQAMD Regional Thresholds	75	100	550	150	150	55
SCAQMD Local Thresholds	--	80	571	--	4	3
Exceeds Thresholds?	No	No	No	No	No	No

Source: CalEEMod Version 2022.1.

Table V shows that none of the analyzed criteria pollutants would exceed either the regional or local emissions thresholds during construction of the proposed project. Therefore, less than significant regional and local air quality impacts would occur from construction of the proposed project.

Operational Emissions

Operation of the proposed water supply well would consist of the operation of an electrical water pump, that would not create any onsite air emissions. Routine maintenance would be conducted on the well in five to 10 year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The routine maintenance activities would create onsite air emissions from off-road diesel equipment exhaust as well as from fugitive dust created from the movement of dirt and debris on the project site.

The operations-related regional criteria air quality impacts created by the proposed project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter VOC, NOx, CO, SO₂, PM10, and PM2.5 daily emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table W and the CalEEMod emissions printouts are shown in Appendix A.

Table W – Operational Well Rehabilitation Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM10	PM2.5
Well Rehabilitation	0.92	7.19	7.63	0.02	0.41	0.28
SCQAMD Regional Operational Thresholds	55	55	550	150	150	55
SCAQMD Local Thresholds	--	80	571	--	1	1
Exceeds Threshold?	No	No	No	No	No	No

Source: Calculated from CalEEMod Version 2022.1.

The data provided in Table W shows that none of the analyzed criteria pollutants would exceed either the regional or local emissions thresholds. Therefore, less than significant regional and local air quality impacts air quality impacts would occur from operation of the proposed project.

In *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (also referred to as “*Friant Ranch*”), the California Supreme Court held that when an EIR concluded that when a project would have significant impacts to air quality impacts, an EIR should “make a reasonable effort to substantively connect a project’s air quality impacts to likely health consequences.” To determine compliance with this Case, the Court developed a multi-part test that includes the following:

- 1) The air quality discussion shall describe the specific health risks created from each criteria pollutant, including diesel particulate matter.

This Analysis details the specific health risks created from each criteria pollutant above in Section 4.1 and specifically in Table J. In addition, the specific health risks created from diesel particulate matter is detailed above in Section 2.2 of this analysis. As such, this analysis meets the part 1 requirements of the Friant Ranch Case.

- 2) The analysis shall identify the magnitude of the health risks created from the Project. The Ruling details how to identify the magnitude of the health risks. Specifically, on page 24 of the ruling it states “The Court of Appeal identified several ways in which the EIR could have framed the analysis so as to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project’s impact on the days of nonattainment per year.”

The Friant Ranch Case found that an EIR’s air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (<https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf>) (Brief), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes. The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed Project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The Brief states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on “speculation” (i.e., without knowing the future tenant(s)). Even where a health risk

assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk, it does not necessarily mean anyone will contract cancer as a result of the Project. The Brief also cites the author of the CARB methodology, which reported that a PM_{2.5} methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NO_x or VOC emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

On the other hand, for extremely large regional projects (unlike the proposed project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 pounds per day of NO_x and 89,180 pounds per day of VOC were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone. As shown above in Table V, project-related construction activities would generate a maximum of 1.57 pounds per day of VOC and 13.1 pounds per day of NO_x and as shown above in Table W, operation of the proposed project would generate 0.92 pounds per day of VOC and 7.19 pounds per day of NO_x. The proposed project would not generate anywhere near these levels of 6,620 pounds per day of NO_x or 89,190 pounds per day of VOC emissions. Therefore, the proposed project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

Notwithstanding, this analysis does evaluate the proposed project's localized impact to air quality for emissions of CO, NO_x, PM₁₀, and PM_{2.5} by comparing the proposed project's onsite emissions to the SCAQMD's applicable LST thresholds. As evaluated in this analysis, the proposed project would not result in emissions that exceeded the SCAQMD's LSTs. Therefore, the proposed project would not be expected to exceed the most stringent applicable federal or state ambient air quality standards for emissions of CO, NO_x, PM₁₀, and PM_{2.5}.

Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Level of Significance

Less than significant impact.

10.4 Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated above in Section 10.3 for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from toxic air contaminant emissions. The nearest sensitive receptors to the project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the project site. There are also single-family homes located as near as 20 feet to the northwest and 110 feet to the west.

Construction-Related Sensitive Receptor Impacts

Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the proposed project has been analyzed above in Section 10.3 and found that the construction of the proposed project would not exceed the local NO_x, CO, PM₁₀ and PM_{2.5} thresholds of significance discussed above in Section 9.2. Therefore, construction of the proposed project would create a less than significant construction-related impact to local air quality and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

The greatest potential for toxic air contaminant emissions would be related to diesel particulate matter (DPM) emissions associated with heavy equipment operations during construction of the proposed project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of “individual cancer risk”. “Individual Cancer Risk” is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30-year exposure period for the nearby sensitive receptors (OEHHA, 2015).

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the proposed project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In addition, California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet’s usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0, Tier 1 or Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. Therefore, due to the limitations in off-road construction equipment DPM emissions from implementation of Section 2448, a less than significant short-term TAC impacts would occur during construction of the proposed project from DPM emissions.

Operations-Related Sensitive Receptor Impacts

The on-going operations of the proposed project may expose sensitive receptors to substantial pollutant concentrations from the potential local air quality impacts from onsite operations and from possible toxic air contaminant impacts.

Local Criteria Pollutant Impacts from Onsite Operations

Operation of the proposed water supply well would consist of the operation of an electrical water pump, that would not create any onsite air emissions. Routine maintenance would be conducted on the well in five to 10 year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The routine maintenance activities would create onsite air emissions from off-road diesel equipment exhaust as well as from fugitive dust created from the movement of dirt and debris on the project site. The analysis provided above in Section 10.3 found that the operation of the proposed project would not exceed the local NO_x, CO, PM₁₀ and PM_{2.5} thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than

significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

The greatest potential for toxic air contaminant emissions would only occur during the well rehabilitation activities that are limited to approximately five days every five to ten years. Given, the infrequent activity schedule, the proposed project would not result in a long-term (i.e., 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. Therefore, no significant long-term toxic air contaminant impacts would occur during operation of the proposed project. As such, operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Therefore, operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Level of Significance

Less than significant impact.

10.5 Odor Emissions

The proposed project would not create objectionable odors affecting a substantial number of people. Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and

solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

Potential sources that may emit odors during operational activities include the operation of diesel-powered maintenance trucks and equipment as well as from use of chemicals such as chlorine, if a treatment facility is determined to be required to be installed onsite. The objectionable odors that may be produced from diesel-powered maintenance trucks and equipment would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. If a treatment facility is required all chemicals such as chlorine would be utilized in closed systems with no exposure to outside air and all stockpiles of chemicals would be kept inside the proposed treatment facility structure within their original packaging until utilized. As such the odor impacts from the proposed treatment facility would be limited to within the project site boundaries and would not affect a substantial number of people. Therefore, a less than significant odor impact would occur from operation of the proposed project.

Therefore, a less than significant odor impact would occur and no mitigation would be required.

Level of Significance

Less than significant impact.

10.6 Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity and petroleum-based fuel supplies and distribution systems. No natural gas hook-ups would be required as part of the project and as such, no natural gas consumption has been analyzed. This analysis includes a discussion of the potential energy impacts of the proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of electricity and petroleum-based fuels are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2022, Los Angeles County consumed 68,485 gigawatt-hours per year of electricity³.

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several

³ Obtained from: <http://www.ecdms.energy.ca.gov/elecbycounty.aspx>

policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2023, 3,039 million gallons of gasoline and 290 million gallons of diesel was sold in Los Angeles County⁴.

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The proposed project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project Site, construction worker travel to and from the Project Site, as well as delivery and haul truck trips (e.g. hauling of demolition material to off-site reuse and disposal facilities);
2. Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction the proposed project would consume electricity to construct the new structures and infrastructure. Electricity would be supplied to the project site by Southern California Edison (SCE) and would be obtained from the existing electrical lines in the vicinity of the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on energy use. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since SCE already provides power to the project site, it is anticipated that only nominal improvements would be required to SCE distribution lines and equipment with development of the proposed project. Compliance with City's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the

⁴ Obtained from: <https://www.energy.ca.gov/media/3874>

project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that construction of the proposed project would consume 942 gallons of gasoline and 5,529 gallons of diesel fuel. This equates to 0.00003 percent of the gasoline and 0.0019 percent of the diesel used annually in Los Angeles County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the proposed project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

In general, operation of the water supply well would consist of the operation of an electrical water pump, and implementation of the proposed project would result in a net decrease in electricity usage, when compared to the electricity currently utilized to transport water to the project vicinity from Northern California. Well rehabilitation activities would be conducted on the well in five to 10 year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The well rehabilitation activities would require the use of petroleum-based fuels for off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The well rehabilitation off-road equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that well rehabilitation activities would consume 36 gallons of gasoline and 443 gallons of diesel fuel. This equates to 0.000001 percent of the gasoline and 0.0002 percent of the diesel used annually in Los Angeles County. As such, the operation-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and City related to air quality (see section 4.0 above), energy (see section 5.0 above), and GHGs (see section 6.0 above). Additionally, the proposed project would be constructed in accordance with all

applicable City Building and Fire Codes. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.7 Energy Plan Consistency

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the proposed project is the *Montebello 2040 General Plan*, adopted April 10, 2024, where energy demand was analyzed in the 2040 General Plan DEIR (Rincon Consultants, Inc., 2023). The 2040 General Plan DEIR found that construction energy would be less than significant with adherence to the statewide regulatory requirements that include equipment idling restrictions and construction waste diversion requirements. For operations, the 2040 General Plan DEIR found that if projects are consistent with the General Plan policies shown below in Table X, energy demand would be reduced to less than significant levels. Since, the General Plan DEIR, list the same policies for GHG emissions, the consistency analysis in Table X is relevant to both Energy and GHG emissions.

Table X – Proposed Project Compliance with the General Plan Energy and GHG Emission Policies

General Plan Policy	Proposed Project Implementation Actions
P2.3: Maximize future Light Rail Stop with TOD Planning.	Not Applicable. The policy is only applicable to the City to implement.
P2.7: Encourage urban infill and compact development.	Not Applicable. The policy is only applicable to the City to implement.
P3.2: Direct growth and redevelopment to the Downtown Area.	Not Applicable. The policy is only applicable to the City to implement.
P3.4: New development will create diverse and walkable neighborhoods.	Consistent. The proposed project would improve the existing sidewalk on the project site, adjacent to Washington Boulevard.
P4.1: Support and promote walking, biking, and other nonvehicular modes as an alternative to driving within Montebello.	Consistent. The proposed project would improve the existing sidewalk on the project site, adjacent to Washington Boulevard.
P4.2: Promote the use of public transit through high quality local and regional transit service and facilities.	Not Applicable. The policy is only applicable to the City to implement.
P4.3: Foster multimodal accessibility between transit services and destinations within the city.	Not Applicable. The policy is only applicable to the City to implement.
P4.4: Manage parking and develop curbside regulations to balance the needs for parking, passenger loading, and commercial loading while avoiding negative effects to the walking, biking, and transit experience.	Consistent. The project will provide adequate parking onsite for all employees and will provide an onsite area for unloading of trucks that will not block the sidewalk.
P4.5: Provide a network of complete streets that are safe and accessible for all transportation modes and users, including those with impaired mobility, with a system of multimodal and context-appropriate roadways that support a shift to alternative travel modes and a reduction in VMT.	Not Applicable. The policy is only applicable to the City to implement.
P4.6: Balance local and regional vehicular throughput needs, as well as their effects on other modes of travel.	Not Applicable. The policy is only applicable to the City to implement.

General Plan Policy	Proposed Project Implementation Actions
P4.7: Prioritize the safety of all modes and users when designing and developing the citywide transportation network.	Not Applicable. The policy is only applicable to the City to implement.
P4.8: Ensure the City’s transportation network and planning efforts incorporate new transportation technologies while also preparing for the needs of potential future technologies and modes.	Not Applicable. The policy is only applicable to the City to implement.
P5.2: Create a multimodal transportation system that encourages active living and healthy lifestyles in all areas of the City across a broad spectrum of ages, interests, and abilities.	Not Applicable. The policy is only applicable to the City to implement.
P7.2: Ensure the maximum distance between residents’ homes and the nearest public park is ½ mile.	Not Applicable. The policy is only applicable to the City to implement and the project does not include any residential uses.

Source: City of Montebello, 2024.

As shown in Table X, the proposed project would be consistent with all applicable energy conservation policies from the General Plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.8 Generation of Greenhouse Gas Emissions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would consist of development of a student housing development. The proposed project is anticipated to generate GHG emissions from mobile sources, area sources, energy usage, waste disposal, water usage, and construction equipment.

The 2040 General Plan is the applicable plan for the project area for reducing GHG emissions. The 2040 General Plan DEIR (Rincon Consultants, Inc., 2023), analyzed the GHG emissions created from buildout of the Montebello 2040 General Plan and utilized a threshold of determination if the project is consistent with the applicable plans policies for reducing GHG emissions and details that quantification of the project’s GHG emissions is only for informational purposes and not for determination of significance. Since the proposed project does not require a General Plan Amendment, the project is an anticipated development under the 2040 General Plan and as such this analysis is tiered off of the 2040 General Plan.

As such, this analysis has quantified GHG emission for informational purposes only and determination of significance will be based on consistency with the applicable GHG reduction policies in the 2040 General Plan. The project’s GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed above in Section 8.1. A summary of the results is shown below in Table Y and the CalEEMod model run is provided in Appendix A.

Table Y – Project Related Greenhouse Gas Annual Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO ₂	CH ₄	N ₂ O	CO ₂ e
Construction				
Year 2026	91.6	<0.01	<0.01	92.2
Total Construction Emissions	91.6	<0.01	<0.01	92.2
Amortized Construction Emissions (30 years) ¹	3.05	<0.01	<0.01	3.07
Operations				
Well Rehabilitation	4.79	<0.01	<0.01	4.82
Amortized Operational Emissions (5 years) ²	0.96	<0.01	<0.01	0.96
Total GHG Emissions	4.01	<0.01	<0.01	4.04

Notes:

¹ Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.

² Well Rehabilitation amortized over 5 years as that is the worst-case schedule for well rehabilitation.

Source: CalEEMod Version 2022.1.

The data provided in Table Y shows that over a 30 year analysis period, the proposed project would create an average of 4.04 MTCO₂e per year. As detailed below in Section 10.9, the proposed project would implement the applicable measures in the 2040 General Plan. Therefore, a less than significant generation of GHG emissions would occur from development of the proposed project. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.9 Greenhouse Gas Plan Consistency

The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The 2040 General Plan is the applicable plan for the project area for reducing GHG emissions. The 2040 General Plan DEIR (Rincon Consultants, Inc., 2023), analyzed the GHG emissions created from buildout of the Montebello 2040 General Plan, which found through implementation of General Plan Policies P2.3, P2.7, P3.2, P3.4, P4.1, P4.2, P4.3, P4.5, and P4.6, that implementation of the General Plan would result in a less than significant GHG emissions impact. Consistency with these policies has been provided above in Table X that found that the proposed project would be consistent with the applicable policies of the 2040 General Plan. Therefore, implementation of the proposed project would not conflict with any applicable plan that reduces GHG emissions.

Level of Significance

Less than significant impact.

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APPENDIX A

CalEEMod Model Printouts

CWSC 716 Washington Blvd New Well Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	CWSC 716 Washington Blvd New Well
Construction Start Date	12/1/2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	0.50
Precipitation (days)	18.2
Location	716 Washington Blvd, Montebello, CA 90640, USA
County	Los Angeles-South Coast
City	Montebello
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4162
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.29

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
User Defined Industrial	1.20	User Defined Unit	0.63	1,200	2,744	—	—	—

Other Asphalt Surfaces	10.9	1000sqft	0.25	0.00	1,089	—	—	—
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1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.50	3.38	5.11	0.01	0.26	0.14	1,299	0.05	0.02	0.63	1,308
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	13.1	18.2	0.03	0.70	0.45	3,483	0.14	0.04	0.03	3,500
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.24	1.88	2.62	0.01	0.11	0.07	553	0.02	0.01	0.10	557
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.04	0.34	0.48	< 0.005	0.02	0.01	91.6	< 0.005	< 0.005	0.02	92.2
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—	—	—	—	—
Unmit.	No	No	No	No	No	No	—	—	—	—	—
Exceeds Average (Daily)	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0	—	—	—	—	—
Unmit.	No	No	No	No	No	No	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	0.50	3.38	5.11	0.01	0.26	0.14	1,299	0.05	0.02	0.63	1,308
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
2026	1.57	13.1	18.2	0.03	0.70	0.45	3,483	0.14	0.04	0.03	3,500
2027	0.92	7.19	7.63	0.02	0.41	0.28	2,110	0.08	0.03	0.01	2,121
Average Daily	—	—	—	—	—	—	—	—	—	—	—
2026	0.24	1.88	2.62	0.01	0.11	0.07	553	0.02	0.01	0.10	557
2027	0.01	0.10	0.10	< 0.005	0.01	< 0.005	28.9	< 0.005	< 0.005	< 0.005	29.1
Annual	—	—	—	—	—	—	—	—	—	—	—
2026	0.04	0.34	0.48	< 0.005	0.02	0.01	91.6	< 0.005	< 0.005	0.02	92.2
2027	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	4.79	< 0.005	< 0.005	< 0.005	4.82

3. Construction Emissions Details

3.1. 1 Noise Barrier-Site Prep (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.34	3.17	5.59	0.01	0.12	0.11	894	0.04	0.01	—	897

Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.06	0.11	< 0.005	< 0.005	< 0.005	17.1	< 0.005	< 0.005	< 0.005	—	—	17.2
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005	2.84	< 0.005	< 0.005	< 0.005	—	—	2.85
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.55	0.00	0.13	0.03	128	0.01	< 0.005	< 0.005	0.01	130	130
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	62.4	< 0.005	< 0.005	0.01	< 0.005	65.1	65.1
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	2.50	< 0.005	< 0.005	< 0.005	< 0.005	2.53	2.53
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.20	< 0.005	< 0.005	< 0.005	< 0.005	1.25	1.25
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.41	< 0.005	< 0.005	< 0.005	< 0.005	0.42	0.42

3.3. 2 Conductor Casing (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.81	6.89	10.6	0.02	0.21	0.19	2,031	0.08	0.02	—	2,038
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.23	< 0.005	< 0.005	< 0.005	44.5	< 0.005	< 0.005	—	44.7
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005	7.37	< 0.005	< 0.005	—	7.39
Dust From Material Movement	—	—	—	—	0.00	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.69	0.00	0.16	0.04	0.01	161	0.01	0.01	0.01	0.01	0.01	0.01	0.01	163	0.00
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	< 0.005	62.4	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	65.1	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	< 0.005	3.57	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.62	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.37	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.43	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.59	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.60	0.00
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.23	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.24	0.00
Hauling	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	0.00

3.5. 7 Site Improvements (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.27	4.43	0.01	0.11	0.10	1,102	0.04	0.01	—	1,105
Paving	0.01	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.45	3.27	4.43	0.01	0.11	0.10	1,102	0.04	0.01	—	1,105

Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.58	0.79	< 0.005	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	< 0.005	—	—	197	—
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.11	0.14	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	—	32.6	—
Paving	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.65	0.00	0.13	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01	< 0.005	0.46	0.01	137	—
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	< 0.005	0.01	0.17	0.01	65.2	—
Hauling	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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.55	0.00	0.13	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.01	< 0.005	0.01	< 0.005	130	—
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	< 0.005	0.01	< 0.005	< 0.005	65.1	—
Hauling	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	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.10	0.00	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	< 0.005	< 0.005	0.04	< 0.005	23.5	—
Vendor	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	< 0.005	11.6	—
Hauling	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	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	< 0.005	3.89	—
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.92	—

3.7. 3 Well Drilling (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.38	12.0	16.0	0.03	0.38	0.35	2,461	0.10	0.02	—	2,470
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.46	0.61	< 0.005	0.01	0.01	94.4	< 0.005	< 0.005	—	94.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.11	< 0.005	< 0.005	< 0.005	15.6	< 0.005	< 0.005	—	15.7
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05	193	0.01	0.01	0.02	195
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	62.4	< 0.005	0.01	< 0.005	65.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005	7.50	< 0.005	< 0.005	0.01	7.60

[illegible]

3.9. 4 Well Casing (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

[illegible]

Worker	0.07	0.09	1.10	0.00	0.26	0.06	257	0.01	0.01	0.02	260
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	62.4	< 0.005	0.01	< 0.005	65.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	5.00	< 0.005	< 0.005	0.01	5.07
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.20	< 0.005	< 0.005	< 0.005	1.25
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.83	< 0.005	< 0.005	< 0.005	0.84
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.20	< 0.005	< 0.005	< 0.005	0.21
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. 5 Well Development (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.90	8.22	9.36	0.02	0.29	0.27	2,070	0.08	0.02	—	2,077
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.23	0.26	< 0.005	0.01	0.01	56.7	< 0.005	< 0.005	—	56.9
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005	9.39	< 0.005	< 0.005	—	9.42

Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.55	0.00	0.13	0.03	128	0.01	< 0.005	0.01	< 0.005	0.01	130	
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	62.4	< 0.005	0.01	< 0.005	0.01	< 0.005	65.1	
Hauling	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	
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	0.02	0.00	< 0.005	< 0.005	3.57	< 0.005	< 0.005	< 0.005	< 0.005	0.01	3.62	
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.71	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.79	
Hauling	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	
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.59	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.60	
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.28	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.30	
Hauling	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	

3.13. 6 Test Pumping (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.25	1.86	1.29	< 0.005	0.08	0.07	245	0.01	< 0.005	—	246
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.01	0.11	0.07	< 0.005	< 0.005	< 0.005	< 0.005	14.1	< 0.005	—	—	14.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	2.33	< 0.005	—	—	2.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.14	0.00	0.03	0.01	< 0.005	32.1	< 0.005	< 0.005	< 0.005	32.5
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	< 0.005	62.4	< 0.005	< 0.005	< 0.005	65.1
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	< 0.005	1.87	< 0.005	< 0.005	< 0.005	1.90
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.59	< 0.005	< 0.005	< 0.005	3.75
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	< 0.005	0.31	< 0.005	< 0.005	< 0.005	0.31
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.59	< 0.005	< 0.005	< 0.005	0.62
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. 8 Operations Maintenance (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.88	7.08	7.09	0.02	0.26	0.24	1,923	0.08	0.02	—	—	—	—	—	—	—	1,930	—
Onsite truck	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	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.10	< 0.005	< 0.005	< 0.005	26.3	< 0.005	< 0.005	—	—	—	—	< 0.005	< 0.005	—	26.4	—
Onsite truck	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	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005	4.36	< 0.005	< 0.005	—	—	—	—	< 0.005	< 0.005	—	4.38	—
Onsite truck	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	0.00	—
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.04	0.51	0.00	0.13	0.03	126	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.01	127	—
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01	61.2	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	63.8	—
Hauling	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	0.00	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005	1.75	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.77	—
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.84	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.87	—
Hauling	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	0.00	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.29	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.29	—
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.14	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.14	—
Hauling	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	0.00	—

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—
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5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
1 Noise Barrier-Site Prep	Site Preparation	1/12/2026	1/20/2026	5.00	7.00	—
2 Conductor Casing	Grading	1/21/2026	1/30/2026	5.00	8.00	—
7 Site Improvements	Paving	3/30/2026	6/26/2026	5.00	65.0	—
3 Well Drilling	Trenching	2/2/2026	2/15/2026	7.00	14.0	—
4 Well Casing	Trenching	2/16/2026	2/22/2026	7.00	7.00	—
5 Well Development	Trenching	2/23/2026	3/6/2026	5.00	10.0	—
6 Test Pumping	Trenching	3/7/2026	3/27/2026	7.00	21.0	—
8 Operations Maintenance	Trenching	1/4/2027	1/8/2027	5.00	5.00	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
1 Noise Barrier-Site Prep	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
1 Noise Barrier-Site Prep	Aerial Lifts	Diesel	Average	1.00	8.00	46.0	0.31
1 Noise Barrier-Site Prep	Forklifts	Diesel	Average	1.00	8.00	82.0	0.20
1 Noise Barrier-Site Prep	Rubber Tired Loaders	Diesel	Average	1.00	6.00	150	0.36
2 Conductor Casing	Tractors/Loaders/Back hoes	Diesel	Average	1.00	12.0	84.0	0.37
4 Conductor Casing	Bore/Drill Rigs	Diesel	Average	1.00	12.0	83.0	0.50
3 Conductor Casing	Welders	Diesel	Average	1.00	12.0	46.0	0.45

2 Conductor Casing	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
2 Conductor Casing	Pumps	Diesel	Average	1.00	4.00	11.0	0.74
7 Site Improvements	Tractors/Loaders/Back hoes	Diesel	Average	1.00	8.00	84.0	0.37
7 Site Improvements	Welders	Diesel	Average	1.00	4.00	46.0	0.45
7 Site Improvements	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
7 Site Improvements	Pumps	Diesel	Average	1.00	4.00	11.0	0.74
3 Well Drilling	Bore/Drill Rigs	Diesel	Average	1.00	24.0	83.0	0.50
3 Well Drilling	Air Compressors	Diesel	Average	1.00	24.0	37.0	0.48
3 Well Drilling	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
3 Well Drilling	Tractors/Loaders/Back hoes	Diesel	Average	1.00	6.00	84.0	0.37
3 Well Drilling	Generator Sets	Diesel	Average	2.00	12.0	14.0	0.74
4 Well Casing	Bore/Drill Rigs	Diesel	Average	1.00	24.0	83.0	0.50
4 Well Casing	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
4 Well Casing	Generator Sets	Diesel	Average	2.00	12.0	14.0	0.74
4 Well Casing	Off-Highway Trucks	Diesel	Average	1.00	4.00	376	0.38
4 Well Casing	Pumps	Diesel	Average	1.00	4.00	11.0	0.74
4 Well Casing	Tractors/Loaders/Back hoes	Diesel	Average	1.00	12.0	84.0	0.37
4 Well Casing	Welders	Diesel	Average	1.00	12.0	46.0	0.45
5 Well Development	Bore/Drill Rigs	Diesel	Average	1.00	10.0	83.0	0.50
5 Well Development	Air Compressors	Diesel	Average	1.00	10.0	37.0	0.48
5 Well Development	Cranes	Diesel	Average	1.00	10.0	367	0.29
5 Well Development	Generator Sets	Diesel	Average	1.00	10.0	14.0	0.74
6 Test Pumping	Pumps	Diesel	Average	1.00	24.0	11.0	0.74
Operations Maintenance	Cranes	Diesel	Average	1.00	10.0	367	0.29
Operations Maintenance	Off-Highway Trucks	Diesel	Average	1.00	2.00	376	0.38

8 Operations Maintenance	Air Compressors	Diesel	Average	1.00	10.0	37.0	0.48
8 Operations Maintenance	Generator Sets	Diesel	Average	1.00	10.0	14.0	0.74

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
1 Noise Barrier-Site Prep	—	—	—	—
1 Noise Barrier-Site Prep	Worker	10.0	18.5	LDA,LDT1,LDT2
1 Noise Barrier-Site Prep	Vendor	2.00	10.2	HHDT,MHDT
1 Noise Barrier-Site Prep	Hauling	0.00	20.0	HHDT
1 Noise Barrier-Site Prep	Onsite truck	—	—	HHDT
2 Conductor Casing	—	—	—	—
2 Conductor Casing	Worker	12.5	18.5	LDA,LDT1,LDT2
2 Conductor Casing	Vendor	2.00	10.2	HHDT,MHDT
2 Conductor Casing	Hauling	0.00	20.0	HHDT
2 Conductor Casing	Onsite truck	—	—	HHDT
7 Site Improvements	—	—	—	—
7 Site Improvements	Worker	10.0	18.5	LDA,LDT1,LDT2
7 Site Improvements	Vendor	2.00	10.2	HHDT,MHDT
7 Site Improvements	Hauling	0.00	20.0	HHDT
7 Site Improvements	Onsite truck	—	—	HHDT
3 Well Drilling	—	—	—	—
3 Well Drilling	Worker	15.0	18.5	LDA,LDT1,LDT2
3 Well Drilling	Vendor	2.00	10.2	HHDT,MHDT
3 Well Drilling	Hauling	0.00	20.0	HHDT
3 Well Drilling	Onsite truck	—	—	HHDT

4 Well Casing	—	—	—	—	—	—
4 Well Casing	Worker	20.0	18.5	LDA,LDT1,LDT2		
4 Well Casing	Vendor	2.00	10.2	HHDT,MHDT		
4 Well Casing	Hauling	0.00	20.0	HHDT		
4 Well Casing	Onsite truck	—	—	HHDT		
5 Well Development	—	—	—	—		
5 Well Development	Worker	10.0	18.5	LDA,LDT1,LDT2		
5 Well Development	Vendor	2.00	10.2	HHDT,MHDT		
5 Well Development	Hauling	0.00	20.0	HHDT		
5 Well Development	Onsite truck	—	—	HHDT		
6 Test Pumping	—	—	—	—		
6 Test Pumping	Worker	2.50	18.5	LDA,LDT1,LDT2		
6 Test Pumping	Vendor	2.00	10.2	HHDT,MHDT		
6 Test Pumping	Hauling	0.00	20.0	HHDT		
6 Test Pumping	Onsite truck	—	—	HHDT		
8 Operations Maintenance	—	—	—	—		
8 Operations Maintenance	Worker	10.0	18.5	LDA,LDT1,LDT2		
8 Operations Maintenance	Vendor	2.00	10.2	HHDT,MHDT		
8 Operations Maintenance	Hauling	0.00	20.0	HHDT		
8 Operations Maintenance	Onsite truck	—	—	HHDT		

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%
Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
1 Noise Barrier-Site Prep	—	—	0.00	0.00	—
2 Conductor Casing	—	—	0.00	0.00	—
7 Site Improvements	0.00	0.00	0.00	0.00	0.25

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
User Defined Industrial	0.00	0%
Other Asphalt Surfaces	0.25	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	13.1	annual days of extreme heat
Extreme Precipitation	4.85	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi. Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	1	1	1	2
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2

Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract			
Exposure Indicators	—			
AQ-Ozone	59.7			
AQ-PM	88.7			
AQ-DPM	47.3			
Drinking Water	5.93			
Lead Risk Housing	80.0			
Pesticides	0.00			
Toxic Releases	85.4			
Traffic	59.2			
Effect Indicators	—			
CleanUp Sites	17.1			
Groundwater	27.8			

Haz Waste Facilities/Generators	73.5
Impaired Water Bodies	23.9
Solid Waste	80.0
Sensitive Population	—
Asthma	66.0
Cardio-vascular	79.9
Low Birth Weights	27.9
Socioeconomic Factor Indicators	—
Education	73.2
Housing	39.7
Linguistic	83.4
Poverty	41.9
Unemployment	39.2

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	65.27653022
Employed	55.84498909
Median HI	45.10458103
Education	—
Bachelor's or higher	33.8380598
High school enrollment	100
Preschool enrollment	27.71718209
Transportation	—
Auto Access	42.71782369
Active commuting	62.35082767

Social	—
2-parent households	79.30193764
Voting	12.93468497
Neighborhood	—
Alcohol availability	17.66970358
Park access	53.72770435
Retail density	64.58360067
Supermarket access	13.40947004
Tree canopy	12.5882202
Housing	—
Homeownership	63.5698704
Housing habitability	52.12370076
Low-inc homeowner severe housing cost burden	37.48235596
Low-inc renter severe housing cost burden	45.0019248
Uncrowded housing	34.15886052
Health Outcomes	—
Insured adults	22.85384319
Arthritis	0.0
Asthma ER Admissions	37.5
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	44.4
Cognitively Disabled	21.0
Physically Disabled	14.9

Heart Attack ER Admissions	17.6
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	6.8
Elderly	38.0
English Speaking	17.1
Foreign-born	77.5
Outdoor Workers	78.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	26.5
Traffic Density	60.4
Traffic Access	23.0
Other Indices	—
Hardship	51.4
Other Decision Support	—
2016 Voting	35.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	69.0
Healthy Places Index Score for Project Location (b)	45.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

- a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Healthy Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total project site 0.88 acres, 10% landscaped.
Construction: Construction Phases	Construction phases and schedule provided by applicant
Construction: Off-Road Equipment	Equipment provided by applicant
Construction: Trips and VMT	Worker trips set to 2 trips per piece of equipment. Vendor trips set to 2 trips per day for all phases

APPENDIX B

EMFAC2021 Model Printouts

Source: EMFAC2021 (v1.0.2) Emissions Inventory

Region Type: Sub-Area

Region: Los Angeles (SC)

Calendar Year: 2026

Season: Annual

Vehicle Classification: EMFAC202x Categories

Units: miles/day for CVMT and EVMT, trips/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar	Vehicle Category	Model	Yea	Speed	Fuel	Population	Total VMT	Trips	Fuel Consumption
Los Angeles (	2026	LDA	Aggregate	Aggregate	Aggregate	Gasoline	3219653	125598332	14941929	4157.0
Los Angeles (	2026	LDT1	Aggregate	Aggregate	Aggregate	Gasoline	303122	10988219	1336831	436.9
Los Angeles (	2026	LDT2	Aggregate	Aggregate	Aggregate	Gasoline	1632991	66847122	7689351	2677.3
Los Angeles (	2026	MCV	Aggregate	Aggregate	Aggregate	Gasoline	153887	1005181	307775	24.2
Los Angeles (	2026	MDV	Aggregate	Aggregate	Aggregate	Gasoline	964399	36646219	4482010	1803.3
Los Angeles (	2026	T6 Instate Delivery Class	Aggregate	Aggregate	Aggregate	Diesel	3908	130759	55761	14.6
Los Angeles (	2026	T6 Instate Delivery Class	Aggregate	Aggregate	Aggregate	Diesel	4046	136053	57736	15.3
Los Angeles (	2026	T6 Instate Delivery Class	Aggregate	Aggregate	Aggregate	Diesel	12398	415983	176917	46.7
Los Angeles (	2026	T6 Instate Delivery Class	Aggregate	Aggregate	Aggregate	Diesel	3129	168114	44650	18.5
Los Angeles (	2026	T6 Instate Other Class 4	Aggregate	Aggregate	Aggregate	Diesel	4842	198676	55977	22.3
Los Angeles (	2026	T6 Instate Other Class 5	Aggregate	Aggregate	Aggregate	Diesel	10973	465082	126849	52.4
Los Angeles (	2026	T6 Instate Other Class 6	Aggregate	Aggregate	Aggregate	Diesel	9812	411849	113424	46.2
Los Angeles (	2026	T6 Instate Other Class 7	Aggregate	Aggregate	Aggregate	Diesel	4629	207055	53515	22.9
Los Angeles (	2026	T6 Instate Tractor Class 6	Aggregate	Aggregate	Aggregate	Diesel	137	6923	1578	0.8
Los Angeles (	2026	T6 Instate Tractor Class 7	Aggregate	Aggregate	Aggregate	Diesel	1762	100865	20368	10.5
Los Angeles (	2026	T6 Public Class 5	Aggregate	Aggregate	Aggregate	Diesel	469	16560	2408	1.9
Los Angeles (	2026	T7 Single Concrete/Trans	Aggregate	Aggregate	Aggregate	Diesel	712	48248	6702	7.8
Los Angeles (	2026	T7 Single Dump Class 8	Aggregate	Aggregate	Aggregate	Diesel	2043	112757	19245	18.7
Los Angeles (	2026	T7 SWCV Class 8	Aggregate	Aggregate	Aggregate	Diesel	922	59858	4242	22.9
Los Angeles (	2026	T7 Tractor Class 8	Aggregate	Aggregate	Aggregate	Diesel	15882	1133317	230766	181.6

Autos (gasoline) vehicle miles per day 241,085,074 9,099 1,000 gall per day
Autos Avg Miles per gallon 26.5 9,098,780 gallons per day

Diesel Truck vehicle miles per day 3,612,098 483 1,000 gall per day
Diesel Truck Fleet Avg Miles per gallon 7.5 482,983 gallons per day

APPENDIX B – CULTURAL RESOURCES SURVEY LETTER REPORT

CULTURAL RESOURCES SURVEY LETTER REPORT FOR THE MONTEBELLO NEW GROUNDWATER WELL SITE PROJECT

California Water Service Company

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GROUP

June 7, 2025

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San Diego, CA 92123
(21543)

Clyde Arucan
P.E. Manager, Capital Delivery
California Water Service
2632 West 237th Street
Torrence, CA 90505

Subject: Cultural Resources Survey Letter Report for the Montebello New Groundwater Well Site Project, Los Angeles County, California

Chambers Group provides this Cultural Resources Survey Letter Report to the California Water Service Company (Cal Water) East Los Angeles District in support of the proposed Montebello New Groundwater Well Site Project (Project) in the City of Montebello (City), Los Angeles County, California. This assessment includes a cultural resources records search, literature review, and survey results for the Project site and surrounding half-mile radius search area (study area). The purpose of the study was to gather and analyze information needed to assess the potential for impacts to cultural resources within the Project site. The State Water Resources Control Board (SWRCB; Lead Agency) is the lead agency for the proposed Project.

Project Location and Description

The Project site is located at 716 Washington Boulevard, Montebello, California (Figure 1). The Assessor's Parcel Number (APN) for the Project is 6352-028-012. Cal Water is proposing to construct one new groundwater well, and potentially a second well on-site. The lot is 0.88 acres (38,500 square feet) in size and is located within a residential area. The Project site is within Township 2 South, Range 12 West, on the U.S. Geological Survey (USGS) 7.5-Minute *Whittier*, California Quadrangle.

The new well(s) would have anticipated flow rates of 2,500 to 3,000 gallons per minute and would be drilled to a depth of 800 to 1,000 feet below ground surface. In addition, a block wall building will be constructed to house disinfection chemicals. Other site improvements include electrical generators, pressure surge tanks, electrical transformers, electrical panelboards, water process piping and pumping equipment. The well(s) would be constructed utilizing the reverse circulation hydraulic rotary drilling method. Equipment used for well construction would include a reverse rotary drill rig with drilling fluid/mud system, temporary water storage tank, well test pump/development rig, two support trucks, and a forklift. During borehole drilling, drill fluid (consisting of water and bentonite, if necessary) and cuttings (consisting of native clay, silt, sand, and gravel) would be contained in a settling tank. A staging area would be located on the Project site to store the drill-fluid settling tank, drill-cuttings, construction equipment and materials.

CULTURAL RESOURCES SURVEY LETTER REPORT FOR THE
MONTEBELLO NEW GROUNDWATER WELL SITE PROJECT

California Water Service Company



Figure 1: Project Location



Regulatory Context

As the lead California Environmental Quality Act (CEQA) agency for the Project, the SWRCB must determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC] Section 21084.1). In addition to State of California (State), projects in the City are also subject to several local regulations relating to cultural resources. City of Montebello 2040 General Plan Update (2024) pertains specifically to the identification and protection of cultural resources within the City. The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

Under the provisions of CEQA, including the CEQA Statutes (PRC §§ 21083.2 and 21084.1), the CEQA Guidelines (Title 14 California Code of Regulations [CCR] § 15064.5), and PRC § 5024.1 (Title 14 CCR § 4850 et seq.), properties expected to be directly or indirectly affected by a proposed project must be evaluated for eligibility for listing in the California Register of Historical Resources (CRHR).

California Register of Historical Resources

The purpose of the CRHR is to maintain listings of the State's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from material impairment and substantial adverse change. The term *historical resources* includes a resource listed in or determined to be eligible for listing in the CRHR; a resource included in a local register of historical resources; and any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (CCR § 15064.5[a]). The criteria for listing properties in the CRHR were expressly developed in accordance with previously established criteria developed for listing in the National Register of Historic Places (NRHP). The California Office of Historic Preservation (OHP; 1995:2) regards "any physical evidence of human activities over 45 years old" as meriting recordation and evaluation.

A cultural resource is considered "historically significant" under CEQA if the resource meets one or more of the criteria for listing in the CRHR. The CRHR was designed to be used by State and local agencies, private groups, and citizens to identify existing cultural resources within the State and to indicate which of those resources should be protected, to the extent prudent and feasible, from substantial adverse change. The following criteria have been established for the CRHR. A resource is considered significant if it:

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 in 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; or
4. has yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the above criteria, historical resources eligible for listing in the CRHR must retain enough of their historic character or appearance to be able to convey the reasons for their significance. Such integrity is evaluated in regard to the retention of location, design, setting, materials, workmanship, feeling, and association.

Under CEQA, if an archeological site is not a historical resource but meets the definition of a "unique archeological resource" as defined in PRC § 21083.2, then it should be treated in accordance with the provisions of that section. A *unique archaeological resource* is defined as follows:

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 meets any of the following criteria:

- Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

CULTURAL RESOURCES SURVEY LETTER REPORT FOR THE MONTEBELLO NEW GROUNDWATER WELL SITE PROJECT

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- Has a special and particular quality, such as being the oldest of its type or the best available example of its type; and
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Resources that neither meet any of these criteria for listing in the CRHR nor qualify as a “unique archaeological resource” under CEQA PRC § 21083.2 are viewed as not significant. Under CEQA, “A non-unique archaeological resource need be given no further consideration, other than the simple recording of its existence by the lead agency if it so elects” (PRC § 21083.2[h]).

Impacts that adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. Impacts to historical resources from a proposed project are thus considered significant if the project:

1. physically destroys or damages all or part of a resource;
2. changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or
3. introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

Assembly Bill 52

Assembly Bill (AB) 52 was enacted in 2015 and expands CEQA by defining a new resource category: 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 § 21084.2). 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. AB 52 requires that lead agencies “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 in the jurisdiction of the lead agency. 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 § 21084.3). PRC § 21074(a)(1)(A) and (B) define TCRs as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” which meet either of the following criteria:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC § 5020.1(k)
- 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 § 5024.1 (in applying the criteria set forth in subdivision (c) of PRC § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe).

City of Montebello

In addition to State regulations, projects built in the City are also subject to several goals and policies as outlined in the City of Montebello 2040 General Plan Update and Final Environmental Impact Report (FEIR) - Appendix A: Mitigation Monitoring and Reporting Program (2024) document.

Goal NRC-5: Protect Montebello’s archaeological and paleontological resources.

- Policy NRC-5.1: Identify, evaluate, and protect known archaeological and paleontological resources in accordance with CEQA and other relevant laws and guidelines.

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- Policy NRC-5.2: Require the preparation of archaeological and/or paleontological resource assessments for new development projects in areas with known or potential resources.
- Policy NRC-5.3: If archaeological or paleontological resources are discovered during construction, require all ground-disturbing activities in the area of the find to stop until a qualified professional evaluates the discovery and recommends appropriate treatment.

Goal NRC-6: Protect and promote Montebello's cultural heritage.

- Policy NRC-6.1: Identify and preserve buildings, structures, objects, and sites that have historical, architectural, cultural, or aesthetic significance.
- Policy NRC-6.2: Encourage the adaptive reuse of historic buildings and structures where appropriate to retain their cultural significance and integrity.
- Policy NRC-6.3: Promote community awareness of Montebello's cultural resources through signage, educational materials, and events.

Goal NRC-7: Respect tribal cultural resources and Native American heritage.

- Policy NRC-7.1: Comply with AB 52 and SB 18 by consulting with California Native American tribes early in the planning process for projects that may affect tribal cultural resources.
- Policy NRC-7.2: Encourage the preservation and protection of tribal cultural resources through avoidance and minimization strategies where feasible.
- Policy NRC-7.3: Support the preparation and implementation of Tribal Cultural Resource Treatment Plans where such resources may be present.

Environmental Setting

The City of Montebello is located in the western portion of the Los Angeles Basin, a structural depression formed by complex tectonic activity associated with the boundary between the Pacific and North American plates. This region has undergone extensive folding, faulting, and subsidence over millions of years. Montebello specifically lies within the Puente Hills Formation, composed primarily of marine sedimentary rocks deposited during the Miocene epoch (approximately 23 to 5 million years ago). These formations include interbedded layers of shale, siltstone, and sandstone that have been uplifted and deformed over time (Yerkes et al. 1965).

Montebello is situated near the Montebello and Whittier Fault Zones, both part of the larger Transverse Ranges fault system. These faults are considered active and are capable of generating significant seismic activity, which contributes to the regional seismic hazard. The area's complex stratigraphy and structural traps have made it a productive site for petroleum extraction, especially following the discovery of oil in the early 20th century. Surficial deposits in Montebello include younger Quaternary alluvium from the nearby Rio Hondo and San Gabriel River systems, which have contributed to relatively flat topography suitable for urban development (Yerkes et al. 1965).

The Project site is located approximately 0.25 miles from the Rio Hondo and is mapped within older surficial sediments, which are composed of slightly elevated and locally dissected Quaternary alluvial gravel and sand (Qae) dating to the Late Pleistocene and early Holocene (Dibblee and Ehrenspeck 2001). Due to the Project site setting and particularly the proximity to Rio Hondo, there is potential for buried resources.

Soils within the Project site are characterized as the Urban land-Azuvin-Montebello complex, with 0 to 5 percent slopes, whose parent material consists of discontinuous human-transported material over old alluvium derived from granite (USDA 2025). The entire Project site (northeast of the concrete parking lot) has been disturbed by some previous use, and current vegetation is predominantly characterized by various grasses, weeds and shrubs, and a few trees on the northwestern perimeter.

Cultural Setting

Prehistoric Overview

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes within all, or portions of southern California (Moratto 1984; Jones and Klar 2007). A prehistoric chronology was devised for the southern California coastal region based on early studies and focused on data synthesis that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric (Wallace 1955, 1978). Although initially lacking the chronological precision of absolute dates (Moratto 1984:159), Wallace's 1955 synthesis has been modified and improved using thousands of radiocarbon dates obtained by southern California researchers over recent decades (Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2002). The prehistoric chronological sequence for southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

It is generally believed that human occupation of southern California began at least 10,000 years before present (BP). The archaeological record indicates that between approximately 10,000- and 6,000- years BP, a predominantly hunting and gathering economy existed, characterized by archaeological sites containing numerous projectile points and butchered large animal bones. The most heavily exploited species were likely those species still alive today. Bones of extinct species have been found but cannot definitively be associated with human artifacts in California, unlike other regions of the continent. Although small animal bones and plant grinding tools are rarely found within archaeological sites of this period, small game and vegetal foods were likely exploited. A lack of deep cultural deposits from this period has been interpreted by some researchers as indicative that the region was occupied by small groups that practiced high residential mobility during this period (Wallace 1978).

The three major periods of prehistory for the greater Los Angeles Basin region have been refined by recent research using radiocarbon dates from archaeological sites in coastal southern California (Koerper and Drover 1983; Mason and Peterson 1994):

- Millingstone Period (6,000 –1,000 BP, or about 8,000–3,000 years ago)
- Intermediate Period (1,000 BC – AD 650, or 3,000–1,350 years ago)
- Late Prehistoric Period (AD 650 – about AD 1800, or 1,350–200 years ago)

Around 6,000 years BP, a shift in focus from hunting toward a greater reliance on vegetal resources occurred. Archaeological evidence of this trend consists of a much greater number of milling tools (e.g., metates and manos) for processing seeds and other vegetable matter (Wallace 1978). This period, termed by archaeologists as the Millingstone Period, was a long cultural phase characterized by small, mobile groups that likely relied on a seasonal round of settlements that included both inland and coastal residential bases. Seeds from sage and grasses, rather than acorns, provided calories and carbohydrates. Faunal remains from sites dating to this period indicate that similar animals to those in the prior period were hunted. Inland Millingstone sites are characterized by numerous manos, metates, and hammerstones. Shell middens are common at coastal Millingstone sites. Coarse-grained lithic materials, such as quartzite and rhyolite, are more common than fine-grained materials in flaked stone tools from this time. Projectile points are found in archaeological sites from this period, but they are far fewer in number than from sites dating to before 6,000 years BP. An increase in the size of groups and the stability of settlements is indicated by deep, extensive middens at some sites from this period (Wallace 1978).

In sites post-dating roughly 3,000 years BP, archaeological evidence indicates the reliance on both plant gathering and hunting continued but was more specialized and locally adapted to particular environments. Mortars and pestles were added to metates and manos for grinding seeds and other vegetable material. Chipped-stone tools became more refined and specialized, and bone tools appear to be more common. During this period, migrating peoples from the Great Basin began entering southern California. These immigrants, who spoke a language of the Uto-Aztecan linguistic stock, seem to have displaced or absorbed the earlier population of Hokan-speaking peoples. The exact time of their

entry into the region is not known; however, they were present in southern California during the final phase of prehistory. During this period, population densities were higher than before; and settlement became concentrated in villages and communities along the coast and interior valleys (Erlandson 1994; McCawley 1996). During the Intermediate Period, mortars and pestles appeared, indicating the beginning of acorn exploitation. Use of the acorn – a high-calorie, storable food source – probably facilitated greater sedentism and increased social organization. Large projectile points from archaeological sites of this period indicate that the bow and arrow, a hallmark of the Late Prehistoric Period, had not yet been introduced; and hunting was likely accomplished using the atlatl (spear thrower) instead. Settlement patterns during this time are not well understood. The semi-sedentary settlement pattern characteristic of the Late Prehistoric Period may have begun during the Intermediate Period, although territoriality may not yet have developed because of lower population densities. Regional subcultures also started to develop, each with its own geographical territory and language or dialect (Kroeber 1925; McCawley 1996; Moratto 1984). These were most likely the basis for the groups encountered by the first Europeans during the eighteenth century (Wallace 1978). Despite the regional differences, many material culture traits were shared among groups, indicating a great deal of interaction (Erlandson 1994). The Late Prehistoric Period is better understood than earlier periods largely through ethnographic analogy made possible by ethnographic and anthropological research of the descendants of these groups in the late nineteenth and early twentieth centuries.

Ethnographic Overview

The Project site lies within an area known to be transitionally occupied by the Gabrieleño, whose villages stretched from the Pacific coast to the San Bernardino Mountains to the east.

Gabrieleño

The Gabrieleño (sometimes spelled Gabrieliño or Gabrieleno) are Cupan speakers. The Cupan languages are part of the Takic family, which is part of the Uto-Aztecan linguistic stock. Their tribal territory included the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers, all of the Los Angeles Basin, the coast from Aliso Creek in the south to Topanga Creek in the north, and the islands of San Clemente, San Nicholas, and Santa Catalina. Villages or triblets were politically autonomous and made up of different lineages. Each lineage had its own leader and would seasonally leave the village to collect resource items. Tribal boundaries were not fixed and overlapped with neighboring people, including Chumash (Barbareño, Ventureño, Purisimeño, Obispeño, Ineseño, Cruzeño, Emigdiano, and the Cuyama Chumash), Fernandeseño Tataviam, Serrano, Cahuilla, Acjachemen (Juaneño), and Luiseño cultural groups. These overlaps historically have been a source of confusion, contest, conflict, and opportunity, which has persisted to this day (Bean and Smith 1978a).

Gabrielino material culture incorporates a variety of tools, including saws made from deer scapulae, bone or shell needles, fishhooks and awls, scrapers, flakers (of bone or shell), wedges, hafted or unhafted lithic or cane knives, and lithic drills. Food preparation items included bedrock and portable mortars, metates, mullers, shell spoons, and mealing brushes. Wooden items include stirrers, paddles, bark platters, wooden bowls (often inlaid with *Haliotis* shell). Pottery vessels were made by coiling technique and paddle and anvil (Blackburn 1962–1963). The Gabrieleño were noted for their objects made of steatite, usually obtained from Santa Catalina Islands, where a veritable steatite industry flourished, either in raw or finished form. The steatite was used in making animal carvings, pipes, "ritual" objects, ornaments, and cooking utensils. Utilitarian items were frequently decorated with shell inlaid in asphaltum, rare minerals, carvings, and painting, and comparable in quality and excellence to that of the Chumash (Bean and Smith 1978a).

Houses were domed, circular structures thatched with tule, fern, or carrizo, and in some cases, "so spacious that each will hold fifty people" (Johnston 1962), capable of supporting three or four families living in each one (Costansó 1911). For groups located near the sea, the doorways opened seaward, to avoid the north wind (Harrington 1942). Other structures commonly found in villages included sweathouses (small, semicircular, earth-covered buildings used for pleasure and as a clubhouse or meeting place for adult males), menstrual huts, and a ceremonial enclosure, the *yuva·r*.

Ayuva'r was built near the chief's house and was essentially an open-air enclosure, oval in plan, made with willows inserted wicker fashion among willow stakes, decorated with eagle and raven feathers, skins, and flowers, and containing inside the enclosure painted and decorated poles. Consecrated anew before every ceremony, these ceremonial enclosures were the centers for activities relating to the Chingichngish cult. The religious beliefs and rituals of the cult originated in the Gabrielino territory and found its way to, and significantly influenced, non-Gabrielino groups (Bean and Smith 1978a).

Typically, men hunted, fished, assisted in some gathering activities, and conducted most trading ventures. Large land mammals were hunted with bow and arrow, while smaller game was taken with deadfalls, snares, and traps, or in communal hunts with nets, bow and arrows, and throwing clubs (Blackburn 1962–1963). Along the coast harpoons, spear throwers, and clubs were used. Fishing, typically, took place along the shore or along rivers, streams, and creeks with the use of hook and line, nets, basketry traps, spears, bow and arrow, and vegetal poisons. Deep-sea fishing and trading expeditions also occurred between island and mainland groups and were undertaken from boats made of wooden planks lashed and asphalted together. Women were involved mainly in collecting and preparing most floral and some animal food resources, as well as the production of baskets, pots, and clothing (Bean and Smith 1978a).

During the Spanish missionization period people from greater area would have been incorporated into the San Gabriel Mission. Whether they were Serrano, Cahuilla, Fernandeano Tataviam, Chumash or local Gabrielino, all would have been identified as Gabrielino, or as belonging to Mission San Gabriel. Indeed, even Fernandeano people have been collectively grouped within Gabrielino ethnographic treatments. Today, Fernandeano Tataviam, Gabrieleño Band of Mission Indians-Kizh Nation, and the Gabrielino-Tongva Indian Tribe identify as individual groups.

Historic Overview

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848 – present). Briefly, and in very general terms, the Spanish Period encompassed the earliest historic-period explorations of the West, colonization, missionization and proselytization across the western frontier, the establishment of major centers such as Los Angeles and Monterey and a line of missions and presidios with attendant satellite communities, minor prospecting, and a foundational economic structure based on the rancho system. The Mexican Period initiated with a continuation of the same structures; however, commensurate with the political changes that led to the establishment of the Mexican state, the missions and presidios were secularized, the lands parceled, and Indian laborers released. Increased global trade introduced both foreign and American actors into the Mexican economic and political sphere, both coincidentally, and purposefully, smoothing the transition to the American Period. The American Period was ushered in with a momentous influx of people seeking fortune in the Sierra foothills where gold was “discovered” in 1848. By the early 1850s people from all over the globe had made their way to California. Expansive industries were required to supply the early mining operations, such as forestry products and food networks. Grains, poultry, cattle, and water systems, which were initiated in the early Mexican Period, were intensified into a broad system of ranches and supply networks. Additionally, this period witnessed the development and expansion of port cities to supply hard goods and clothes, animals, and people transported along improved trail and road networks throughout the interior regions of the state. California cycled through boom and bust for several decades until World War I, when the Department of the Navy began porting war ships along the west coast. Subsequently, California has grown and contracted, predominantly around military policy along the west coast and the Pacific Ocean. Following the industrial expansion related to World War II and the Cold War, technology and systems associated have come to fore as economic drivers.

City of Montebello

Montebello, located in the southeastern portion of Los Angeles County, was originally part of the expansive Rancho San Antonio, a Spanish land grant awarded to Antonio María Lugo in 1810. The area remained primarily agricultural through the 19th century, with sheep grazing and citrus cultivation as dominant land uses. In the early 20th century, the city's transformation began with oil discoveries—most notably in 1917—when Union Oil struck a productive well, turning

Montebello into one of the richest oil-producing areas in California. The City was incorporated on October 16, 1920, and saw rapid suburban development in the following decades, fueled by its location along key transportation routes like Whittier Boulevard and the San Gabriel River.

By the mid-20th century, Montebello evolved into a diverse residential and commercial community, shaped by waves of migration and regional economic shifts. Its population expanded steadily, with a strong working-class character and a vibrant Latino cultural presence. The city is known for landmarks like the Montebello Barnyard Zoo, the historic Juan Matias Sanchez Adobe (built in 1844), and its close ties to the regional transportation network, including its own municipal bus system. Today, Montebello continues to balance its historic roots with urban redevelopment, focusing on revitalization of its downtown corridor and preserving cultural and natural resources (City of Montebello 2025; Montebello Historical Society 2025).

Methods of Review

Chambers Group conducted an in-person records search at the California Historical Resources Information System (CHRIS) South-Central Coastal Information Center (SCCIC) at California State University, Fullerton, on April 17, 2025. A study area consisting of a half-mile radius surrounding the Project site was used to define the scope of the records search and provide contextual information for the Project. The SCCIC records search results provided information on all documented cultural resources and previous archaeological investigations within a half-mile radius of the Project site. Resources consulted included the NRHP, California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), California Department of Transportation (Caltrans) Historic Highway Bridge Inventory, the California State Historic Resources Inventory, local registries of historic properties, and a review of available Sanborn Fire Insurance maps, historical photographs, maps, and aerial imagery. The task also included a search for potential prehistoric and/or historic burials (human remains) evident in previous site records and/or historical maps.

In addition to the records search review, Chambers Group archaeologists completed background research to determine if any additional historic properties, landmarks, bridges, or other potentially significant or listed properties are located within the Project site or within the half-mile records search radius. This background research included, but was not limited to the California State Historic Property Data Files, California State Historical Landmarks, California Points of Historical Interest, Office of Historic Preservation Archaeological Determinations of Eligibility, historic aerial imagery accessed via NETR Online, Historic U.S. Geological Survey topographic maps, Sanborn fire maps, Built Environment Resource Directory (BERD) review, and Caltrans, and State and local bridge surveys.

Chambers Group submitted a request to the Native American Heritage Commission (NAHC) for a review of the Sacred Land Files (SLF) for the Project site and surrounding vicinity on April 16, 2025. Results of the NAHC SLF records search and additional outreach are detailed below and included in Attachment A. The results of the SCCIC records search are also detailed below and included in confidential Attachment B.

Field Survey Methods

The pedestrian survey consisted of a systematic surface inspection of the entire Project site. The Project site was transected at 10-meter intervals to ensure that any evidence of surface-exposed cultural materials and/or paleontological resources could be identified.

Chambers Group examined the ground surface for prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools) and features (e.g., milling features, hearths, stone circles). Historical artifacts (e.g., metal, glass, ceramics) and features (e.g., agricultural installations, irrigation systems) were also sought. The survey further included examination for sediment discoloration indicative of cultural middens, as well as for roads, trails, depressions, and other features that might suggest the former presence of prehistoric or historic structures or buildings (e.g., post holes, foundations).

As the Project site was surveyed, transect data were recorded using a hand-held global positioning system (GPS) unit, with sub-meter accuracy available for recordation of cultural finds should any resources be identified. The Project site

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was photographed using a digital camera to capture overview photographs of the surveyed areas and existing conditions, and to record other potentially relevant contextual visual information.

All field notes, photographs, and records related to the current study are on file at the Chambers Group San Diego office.

Project Personnel

Chambers Group Cultural Resources Department Lead Lucas Tutschulte managed the Project. Chambers Group archaeologist Kellie Kandybowicz completed the pedestrian survey. Additionally, Ms. Kandybowicz conducted background research, in-person SCCIC record search, and authored the report. Richard Shultz, MA, RPA, served as principal investigator for cultural resources and performed quality control for the report. Efrain Arroyo, MA, RPA, SOI-qualified archaeologist, served as principal investigator support for cultural resources and provided oversight throughout this study.

Results

Cultural Resources Reports within the Half-Mile Radius Study Area

Based on the records search conducted at the SCCIC, three cultural resource studies have previously been completed within the half-mile radius study area. Of these three reports, none intersect with the Project site. Table 1 provides further details of these three studies. A map (Figure 2) of the record search results is included in confidential Attachment B.

Table 1: Previous Cultural Resources Studies within a Half-Mile Radius of the Project Site

Report Number	Year	Author	Title	Within Project Site?
LA-04660	1987	Skidmore, Charlotte, and Judy Triem	Historic Property Survey Report - Greenwood Avenue, Montebello, California	No
LA-07731	2006	Bonner, Wayne H.	Cultural Resource Records Search and Site Visit Results for T-Mobile Telecommunications Facility Candidate LA03248 (Holifield Park), 1060 South Greenwood Avenue, Montebello, Los Angeles County, California	No
LA-07757	2005	Bonner, Wayne H.	Cultural Resources Records Search and Site Visit Results for Nextel Communications Candidate CA5527B Carmel LA 944 South Greenwood Avenue, Montebello, Los Angeles County, California	No



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Previously Recorded Cultural Resources within the Half-Mile Radius Study Area

Based upon the records search conducted at the SCCIC, 47 previously recorded cultural resources have been recorded within the half-mile study area (Table 2). None are located within the Project site. A map (Figure 2) of the record search results is included in confidential Attachment B.

Table 2: Previously Recorded Cultural Resources within a Half-Mile Radius of the Project Site

Primary Number	Trinomial	Site Description	Within Project Site?
P-19-186562	N/A	Rio San Gabriel Battlefield	No
P-19-191003	N/A	Greenwood Elementary School	No
P-19-191004	N/A	Kelly Residence	No
P-19-191005	N/A	South Montebello Irrigation District	No
P-19-191159	N/A	932 S 4th St	No
P-19-191160	N/A	1016 S 4th St	No
P-19-191161	N/A	1017 S 4th St	No
P-19-191274	N/A	936 S Greenwood Ave	No
P-19-191275	N/A	944 S Greenwood Ave	No
P-19-191276	N/A	1020 S Greenwood Ave	No
P-19-191333	N/A	123 Washington Blvd	No
P-19-191334	N/A	400 Washington Blvd	No
P-19-191335	N/A	405 Washington Blvd	No
P-19-191336	N/A	410 Washington Blvd	No
P-19-191337	N/A	420 Washington Blvd	No
P-19-191338	N/A	500 Washington Blvd	No
P-19-191339	N/A	501 Washington Blvd	No
P-19-191340	N/A	524 Washington Blvd	No
P-19-191341	N/A	701 Washington Blvd	No
P-19-191342	N/A	720 Washington Blvd	No
P-19-191343	N/A	740 Washington Blvd	No
P-19-191344	N/A	801 Washington Blvd	No
P-19-191345	N/A	809 Washington Blvd	No
P-19-191346	N/A	812 Washington Blvd	No
P-19-191347	N/A	817 Washington Blvd	No

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Table 2: Previously Recorded Cultural Resources within a Half-Mile Radius of the Project Site

Primary Number	Trinomial	Site Description	Within Project Site?
P-19-191348	N/A	825 Washington Blvd	No
P-19-191349	N/A	829 Washington Blvd	No
P-19-191350	N/A	840 Washington Blvd	No
P-19-191351	N/A	844 Washington Blvd	No
P-19-191352	N/A	1129 Washington Blvd	No
P-19-191353	N/A	1220 Washington Blvd	No
P-19-191354	N/A	1400 Washington Blvd	No
P-19-191355	N/A	1436 Washington Blvd	No
P-19-191473	N/A	Rio Hondo Bridge 53C0156	No
P-19-192860	N/A	Vail Field Industrial Addition	No
P-19-192910	N/A	933 Carob Way	No
P-19-192911	N/A	940 Carob Way	No
P-19-192915	N/A	1025 South Greenwood Avenue	No
P-19-192916	N/A	901-945 South Greenwood Avenue	No
P-19-192922	N/A	939 South Montebello Boulevard	No
P-19-192947	N/A	1225 Washington Boulevard	No
P-19-192950	N/A	1125 Washington Boulevard	No
P-19-192958	N/A	510 Washington Boulevard	No
P-19-192961	N/A	855 Washington Boulevard	No
P-19-192962	N/A	733 Washington Boulevard	No
P-19-192970	N/A	870 Washington Boulevard	No
P-19-192976	N/A	800 Washington Boulevard	No

Background Research Results

As a result of the records search review and archival research, no previously recorded resources or any other listed or potentially significant properties are located within the Project site or within its half-mile boundary.

Additionally, based on the review of available historic maps and imagery, Chambers Group archaeologists observed that the Project was in agriculture use at least by 1927, based on aerial imagery (UCSB 2025b). By 1948, the agricultural field had been subdivided, and an apparent residential building had been established, along with ornamental trees and other vegetation (NETR 2025). At some point before 1982 an apparent commercial building had been constructed in

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the southwestern portion of the Project site (UCSB 2025a). By 2013, the parcel had been cleared of all buildings, and the property subsequently used, intermittently, as a storage yard (Google Earth 2025).

Native American Heritage Commission and AB 52 Consultation

On April 25, 2025, Chambers Group received a response from the NAHC stating that the SLF records search was **negative** for recorded sacred properties within the Project site and the surrounding study area. The NAHC provided a list of 15 Native American tribal contacts that may have knowledge of cultural resources near the Project site. The 15 Native American tribes identified by the NAHC include the Cahuilla Band of Indians, Gabrieleño Band of Mission Indians – Kizh Nation, Gabrieleño/Tongva San Gabriel Band of Mission Indians, Gabrieliño Tongva Indians of California Tribal Council, Gabrieliño/Tongva Nation, Gabrieliño-Tongva Tribe, Santa Rosa Band of Cahuilla Indians, Serrano Nation of Mission Indians, and Soboba Band of Luiseño Indians. The response from the NAHC and the list of tribal contacts have already been provided directly to Cal Water and is included in Attachment A.

As Lead Agency, SWRCB is responsible for conducting AB 52 consultation for the Project. As of the date of this report, the initial outreach for consultation has not yet commenced. All details and any results of the pending AB 52 consultation will be captured in the appropriate section of the Project Environmental Document.

Field Survey Results

Chambers Group archaeologist Kellie Kandybowicz conducted a pedestrian survey of the entire Project site on April 24, 2025. The site was visually inspected using north-south oriented transects spaced 10 meters apart in the Project site. Ground visibility across the site was primarily limited to exposed bare ground, which provided approximately 60 percent surface visibility throughout the Project site. Current vegetation is predominantly characterized by various non-native grasses and weeds. Additionally, there are a few trees on the northwestern perimeter and dense ornamental shrubs lining a portion of the southeastern perimeter. General ground slope was approximately 5 percent (Photograph 01).

The soil in the exposed areas is characterized as light brown, dry, moderately consolidated sand, clay, and silt, with approximately 25-40 percent small-sized gravel. The southern third of the Project site is covered by a concrete parking area (Photograph 02).

No archaeological deposits, artifactual materials, or historic-period resources were identified within the Project site during the field survey.



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Photograph 01: Northern portion of the Project site showing ground covered by grass, weeds, and shrubs (to the right). View to the north/northeast.



Photograph 02: Southern portion of the Project site showing previous construction of a small parking lot. View to the south/southwest.

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Discussion

As detailed above, Chambers Group conducted a Project site-specific study that included cultural resources records searches, literature review, and a pedestrian survey for the Project in accordance with CEQA. An archival records search of the CHRIS database at the SCCIC, background research of the Project site, and a field survey were conducted as part of this study. In addition, Chambers Group requested an SLF search from the NAHC to determine the presence or absence of data regarding any known TCRs previously reported within the Project site or its half-mile radius. Neither the SCCIC records search nor the SLF search resulted in identifying previously documented resources within the Project site. During the field survey, no evidence of cultural resources was observed.

In summary, Chambers Group found no physical or archival evidence of cultural resources within the Project site. While no surficial evidence of prehistoric or historic archaeological resources was observed, the ground surface visibility was limited due to dense vegetation in much of the Project site. While the Project site exhibits evidence of past disturbance and the potential for encountering intact resources within the upper sediments is low, the possibility of identifying buried resources below surface disturbances is not diminished. This is due to the Project site's proximity to the Rio Hondo alluvial floodplain, an area known for potential buried deposits.

Recommendations

Per CEQA Guidelines, the Project should be designed to avoid impacts to cultural resources within the Project site whenever feasible. While the study did not identify any cultural resources through background research or survey of the Project site, Chambers Group recommends the following mitigation measures be implemented as part of Project approval to ensure that potential impacts to cultural resources are less than significant and in conformance with the City's goals and policies regarding the protection of archaeological or historic resources.

MM CUL-1 The Applicant shall retain the services of a Qualified Archaeologist, meeting the Secretary of the Interior Standards, on an on-call basis for the duration of ground disturbing construction activity. The Qualified Archaeologist or cultural resources specialist working under the direction of the Qualified Archaeologist, shall provide training to inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the Project's initial on-site safety meeting and shall explain the applicable protocols, procedures, and legal basis for the protection of significant archaeological resources.

In the event of an inadvertent discovery of potential archaeological resources (artifacts or features) during ground-disturbing activities, construction activities within a 50-foot radius of the discovery shall be halted while the Qualified Archaeologist assesses the find. If the resource is determined to be significant or unique through significance evaluation, and avoidance is not possible, appropriate mitigation or treatment shall be established and implemented. These might include an archaeological mitigation and monitoring plan, treatment, or data recovery programs. All monitoring or associated plans would be prepared and implemented under the direction of the qualified archaeologist. All required close-out reporting would be completed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR).

HUMAN REMAINS – LEGAL REQUIREMENTS: In the event that human remains are discovered during ground-disturbing activities, then the proposed Project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California PRC Section 5097.98. If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states 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 shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific

CULTURAL RESOURCES SURVEY LETTER REPORT FOR THE MONTEBELLO NEW GROUNDWATER WELL SITE PROJECT

California Water Service Company

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removal and nondestructive analysis of human remains and items associated with Native American burials (National Park Service 1983).

Chambers Group is available to assist with any further support or document preparation related to Cultural Resources. Please contact the cultural resources staff at the contact information below if you have any questions or comments regarding this report.

Sincerely,

CHAMBERS GROUP, INC.



Kellie Kandybowicz

Cultural Resources Specialist
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Richard Shultz, MA, RPA

Cultural Resources Principal Investigator
9620 Chesapeake Drive, Suite 104
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Attachments

Attachment A: NAHC SLF Search Results

Attachment B (Confidential): CHRIS SCCIC Record Search Results

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ATTACHMENT A – NAHC SLF SEARCH RESULTS

Attachment A: NAHC SLF Search Results



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Chumash

VICE-CHAIRPERSON
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*Yokayo Pomo, Yuki,
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COMMISSIONER
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Cahuilla

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*Pamona-Yuima Band of
Luiseño Indians*

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STATE OF CALIFORNIA

Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

April 25, 2025

Kellie Kandybowicz
Chambers Group, Inc.

Via Email to: kkandybowicz@chambersgroupinc.com

Re: Montebello New Groundwater Well Site Project, Los Angeles County

To Whom It May Concern:

As requested, a record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on information submitted for the above referenced project. The results were negative. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, a SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. If within two weeks of notification, a response has not been received, the Commission requests that you follow-up with a telephone call or email to ensure that the project information was received.

If you receive notification of a change of address or phone number from a tribe, please notify the NAHC so that we can assure that our lists contain current information.

In addition to engaging in tribal consultation, you should consult the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center to determine whether it has information regarding the presence of recorded archaeological sites within the project area.

If you have any questions or need additional information, please contact me at Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Los Angeles County
4/25/2025

Tribe Name	Fed (F) Non-Fed (N)	Contact Person	Contact Address	Phone #	Email Address	Cultural Affiliation	Counties	Last Updated
Cahuilla Band of Indians	F	Erica Schenk, Chairperson	52701 CA Highway 371 Ariza, CA, 92539	(951) 590-0642	chair@cahuilla-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	2/11/2024
Cahuilla Band of Indians	F	Bobby Ray Esparza, Cultural Director	52701 CA Highway 371 Ariza, CA, 92539	(951) 763-5549	besparza@cahuilla-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	6/26/2023
Cahuilla Band of Indians	F	Anthony Madrid, Tribal Historic Preservation Officer	52701 CA Highway 371 Ariza, CA, 92539	(951) 763-5549	anthony.madrid2002@gmail.com	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	6/26/2023
Gabrielino Band of Mission Indians - Kith N Nation	N	Andrew Salas, Chairperson	P.O. Box 383 Covina, CA, 91723	(644) 390-0787	admin@gabrielinonations.org	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	8/19/2023
Gabrielino Band of Mission Indians - Kith N Nation	N	Christina Swindall Martinez, Secretary	P.O. Box 383 Covina, CA, 91723	(644) 390-0787	admin@gabrielinonations.org	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	8/19/2023
Gabrielino/Tongva San Gabriel Band of Mission Indians	N	Anthony Morales, Chairperson	P.O. Box 663 San Gabriel, CA, 91778	(626) 463-3564	GTTribalCouncil@aol.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	12/4/2023
Gabrielino Tongva Indians of California Tribal Council	N	Christina Conley, Cultural Resource Administrator	P.O. Box 941078 Simi Valley, CA, 913094	(626) 407-6781	christina.moralesen@lumi.usc.edu	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	3/16/2023
Gabrielino Tongva Indians of California Tribal Council	N	Robert Dorame, Chairperson	P.O. Box 490 Bellflower, CA, 90707	(562) 761-6417	rgongva@gmail.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	3/16/2023
Gabrielino Tongva Nation	N	Sandanne Good, Chairperson	106 1/2 Judge John Aliso St., #231 Los Angeles, CA, 90012	(951) 807-0479	sgood@gabrielino-losangeles.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	3/26/2023
Gabrielino Tongva Tribe	N	Sam Dunlap, Cultural Resource Director	P.O. Box 3619 Seal Beach, CA, 90740	(909) 262-9351	longva@lgaia.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	5/30/2023
Gabrielino Tongva Tribe	N	Charles Alvarez, Chairperson	23454 Vanowen Street West Hills, CA, 91307	(310) 403-6048	Chavez1956metro@gmail.com	Gabrielino	Los Angeles, Orange, Riverside, San Bernardino, Santa Barbara, Ventura	5/30/2023
Santa Rosa Band of Cahuilla Indians	F	Vanessa Minott, Tribal Administrator	P.O. Box 361820 Ariza, CA, 92539	(951) 656-2700	vmintot@santerosan-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	4/9/2024
Santa Rosa Band of Cahuilla Indians	F	Steven Estrada, Tribal Chairman	P.O. Box 361820 Ariza, CA, 92539	(951) 656-2700	sestrada@santerosan-nsn.gov	Cahuilla	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	4/9/2024
Soboba Band of Luiseño Indians	F	Joseph Ortiveros, Tribal Historic Preservation Officer	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-5279	ortiveros@soboba-nsn.gov	Cahuilla Luiseño	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	7/14/2023
Soboba Band of Luiseño Indians	F	Jessica Valdez, Cultural Resource Specialist	P.O. Box 487 San Jacinto, CA, 92581	(951) 663-6261	jvaldez@soboba-nsn.gov	Cahuilla Luiseño	Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Diego	7/14/2023

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 5097.96 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Montebello New Groundwater Well Site Project, Los Angeles County.

Record: PH03-2025-002315
Report Type: List of Tribes
Counties: Los Angeles
NHC Group: All

APPENDIX C – PALEONTOLOGICAL RESOURCES ASSESSMENT

SAN DIEGO NATURAL HISTORY MUSEUM

25 June 2025

California Water Service
2632 W. 237th Street
Torrance, California 90505-5272

RE: Paleontological Resources Assessment – Cal Water New Well (East Los Angeles Station 064)

To Whom it May Concern:

This letter presents the results of an assessment of paleontological resources conducted for the California Water Service (Cal Water) New Well (East Los Angeles Station 064) project (Project), located in the southern portion of the City of Montebello, Los Angeles County, California. The 0.88-acre Project site is located at 716 Washington Boulevard on Assessor's Parcel Number (APN) 6352-028-012, and is bounded to the southwest by Washington Boulevard and on all other sides by existing development. The Project proposes to install a new groundwater well and construct associated site improvements, including greensand vessels, a blockwall building to house disinfection chemicals, electrical generators, pressure surge tanks, electrical transformers, electrical panelboards, and water process piping and pumping equipment.

Definition of Paleontological Resources

As defined here, paleontological resources (i.e., fossils) are the buried remains and/or traces of prehistoric organisms (i.e., animals, plants, and microbes). Body fossils such as bones, teeth, shells, leaves, and wood, as well as trace fossils such as tracks, trails, burrows, and footprints, are found in the geologic units/formations within which they were originally buried. The primary factor determining whether an object is a fossil is not how the organic remain or trace is preserved (e.g., "petrified"), but rather the age of the organic remain or trace. Although typically it is assumed that fossils must be older than ~11,700 years (i.e., the generally accepted end of the last glacial period of the Pleistocene Epoch), organic remains older than recorded human history and/or older than middle Holocene (about 5,000 radiocarbon years) can also be considered to represent fossils (Society of Vertebrate Paleontology [SVP], 2010).

Fossils are considered important scientific and educational resources because they serve as direct and indirect evidence of prehistoric life and are used to understand the history of life on Earth, the nature of past environments and climates, the membership and structure of ancient ecosystems, and the pattern and process of organic evolution and extinction. In addition, fossils are considered to be non-renewable resources because typically the organisms they represent no longer exist. Thus, once destroyed, a particular fossil can never be replaced.

Finally, paleontological resources can be thought of as including not only the actual fossil remains and traces, but also the fossil collecting localities and the geologic units containing those localities. The locality includes both the geographic and stratigraphic context of fossils—the place on the earth and stratum (deposited during a particular time in Earth's history) from which the fossils were collected. Localities themselves may persist for decades, in the case of a fossil-bearing outcrop that is protected from natural or human impacts, or may be temporarily exposed and ultimately destroyed, as

is the case for fossil-bearing strata uncovered by erosion or construction. Localities are documented with a set of coordinates and a measured stratigraphic section tied to elevation detailing the lithology of the fossil-bearing stratum as well as overlying and underlying strata. This information provides essential context for any future scientific study of the recovered fossils.

It is important to point out that many fossil sites presently on record in Los Angeles County were discovered during paleontological monitoring of residential development construction projects, highway and freeway construction projects, and pipeline and other utility construction projects. This close correlation between fossil sites and construction is related to the fact that surface weathering quickly destroys most fossils, and it is often not until fresh, unweathered exposures are generated by construction-related earthwork that well-preserved fossils are recovered.

Methods

A review of published geological maps covering the Project site and surrounding area was conducted to determine the specific geologic units underlying the Project site. Relevant published and unpublished geological and paleontological reports were also reviewed. In addition, searches of the paleontological collection records housed at the Natural History Museum of Los Angeles County (NHMLA) and the San Diego Natural History Museum (SDNHM) were conducted in order to determine if any documented fossil collection localities occur at the Project site or within the immediate surrounding area. Each geologic unit present within the Project site was subsequently assigned a paleontological resource potential utilizing resource assessment criteria developed by the Society of Vertebrate Paleontology (SVP; SVP, 2010). No field survey was conducted due to a review of aerial imagery indicating an evident lack of natural or manmade exposures within the Project site.

Results

Published geological mapping (e.g., Saucedo, 1999; Saucedo et al., 2016) covering the Project area depicts the entire Project site as underlain by Pleistocene-age old alluvial-fan deposits (Figure 1). The strata underlying the Project site are specifically categorized as silt by Saucedo (1999). More detailed division of these deposits by Tan (2000) on the adjacent 7.5-minute quadrangle to the north suggests that the strata underlying the Project site likely belong to Unit 4, which is thought to be middle to late Pleistocene in age (approximately 774,000 to 11,700 years old). These deposits consist of sediments derived from the surrounding uplands and deposited by the action of the ancestral San Gabriel River and associated drainages, which began depositing fluvial and alluvial sediments during Pleistocene time (Yerkes et al., 1965).

Records searches at the NHMLA and SDNHM did not identify any fossil collection localities within the Project site or the immediately surrounding area. The nearest NHMLA fossil collection locality from similar Pleistocene-age alluvial deposits is located about five miles northwest of the Project site in the City of Monterey Park, and yielded remains of an extinct horse (*Equus* sp.) from Pleistocene sand and silt (see confidential Appendix A). The nearest SDNHM fossil locality is located approximately seven miles southeast of the Project site in the City of Santa Fe Springs. At this locality, which was discovered during paleontological monitoring of the construction of an apartment building, Pleistocene fluvial overbank deposits produced a large partial bone tentatively identified as a proboscidean posterior rib (SDNHM unpublished paleontological collections data).

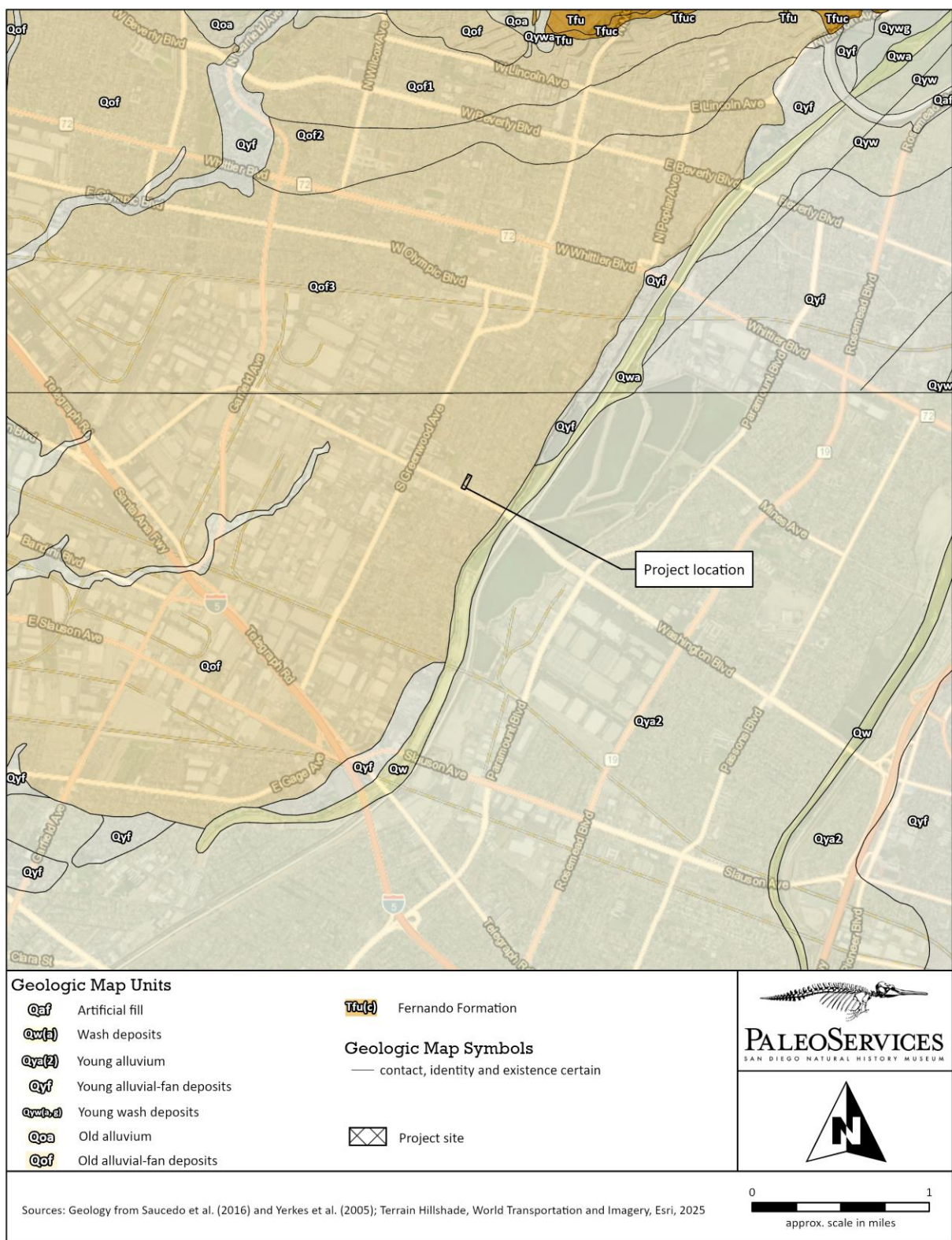


Figure 1. Geologic map of the Project site, City of Montebello, Los Angeles County, California.

Pleistocene-age nonmarine deposits exposed within Los Angeles County have produced scientifically significant vertebrate fossils, including fossil remains of rabbits, rodents, ancient horse, camel, bison, mammoth, sabertooth cat, tapir, and giant ground sloth (Miller, 1971; Jefferson, 2010). Based on the important fossil remains recovered from similar deposits in Los Angeles County, old alluvial-fan deposits are assigned a high paleontological potential.

Impact Analysis

Direct impacts to paleontological resources occur when earthwork activities, such as drilling, grading, and trenching, cut into the geologic units within which fossils are buried. These direct impacts are in the form of physical destruction of fossil remains and loss of original stratigraphic context. No construction plans or subsurface geotechnical data are currently available for review, so only a preliminary impact analysis is provided here.

The proposed groundwater well is anticipated to extend to a total depth of between 800 and 1,000 feet, and will be constructed using the reverse circulation hydraulic rotary drilling method. While drilling activities will impact potentially fossil-bearing Pleistocene-age old alluvial-fan deposits and other geologic units present in the deeper subsurface, this drilling method produces only fragmentary cuttings that are mixed with drill fluid and generally lack precise stratigraphic control, making the recovery of scientifically significant fossil remains unlikely.

Ground disturbance is anticipated to be required for construction of the blockwall building and any subgrade infrastructure. Site grading and/or excavation for equipment foundations may also be required for other Project components, including the greensand vessels, tanks, transformers, and well equipment. Any site grading, trenching, or miscellaneous excavation at the site that takes place within previously undisturbed and unweathered Pleistocene-age old alluvial-fan deposits has the potential to impact paleontological resources.

Finally, there may be previously placed artificial fill present within the Project site. Because the geographic and stratigraphic origins of artificial fill deposits are unknown, any fossils contained within fill deposits lack the necessary contextual data to enable their scientific study. Therefore, artificial fill is considered to have no paleontological potential. Earthwork that takes place solely within previously placed artificial fill will not result in impacts to paleontological resources.

Significance of Impacts

Paleontological resources are considered scientifically and educationally significant nonrenewable resources; they are protected under a variety of laws, regulations, and ordinances. The Project site is located within the City of Montebello, California. As such, state and local regulations are applicable to the Project.

The **California Environmental Quality Act (CEQA, Public Resources Code Section 21000 et seq.)** protects paleontological resources on both state and private lands in California. This act requires the identification of environmental impacts of a proposed project, the determination of significance of the impacts, and the identification of alternative and/or mitigation measures to reduce adverse environmental impacts. The Guidelines for the Implementation of CEQA (Title 14, Chapter 3, California Code of Regulations: 15000 et seq.) outlines these necessary procedures for complying with CEQA. Paleontological resources are specifically included as a question in the CEQA Environmental Checklist

(Section 15023, Appendix G): “Will the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.” Most CEQA lead agencies follow the definitions and guidelines provided by SVP (2010), which are in line with industry standards (e.g., Murphey et al., 2019). SVP (2010) provides criteria for determining the significance of paleontological resources and for appropriate measures to minimize impacts to paleontological resources. As advised by SVP (2010), impacts to paleontological resources can be minimized to a level below the threshold of significance through: 1.) the permanent preservation of a fossil locality and its contained fossil resources; or 2.) the implementation of a paleontological mitigation program that would reduce any adverse impacts to a level below the threshold of significance through the salvage and permanent storage of any salvaged fossils in an established scientific institution.

In the **City of Montebello**, potential impacts to paleontological resources are addressed in Action A8.19 of the Montebello General Plan (City of Montebello, 2024), which states:

A Qualified Professional Paleontologist shall be retained by the project applicant to conduct a paleontological resources analysis prior to the beginning of projects involving ground disturbance in geologic units with high paleontological sensitivity to determine whether there is a potential for significant impacts to paleontological resources. Paleontological resources analyses shall be reviewed, approved, and enforced by the City of Montebello.

If potential impacts to paleontological resources are found to be significant, then the project applicant shall retain a Qualified Professional Paleontologist to develop and implement a Paleontological Resources Impact Mitigation Plan (PRIMP) that shall be approved by the City of Montebello, to ensure that impacts to paleontological resources resulting from the project are less than significant. The PRIMP shall include measures for a pre-construction survey, a Worker Environmental Awareness Program, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable. Final reporting shall be reviewed and approved by the City of Montebello.

Summary and Recommendations

The high paleontological potential (or sensitivity) of old alluvial-fan deposits suggests that construction activities (e.g., mass grading, trenching for subsurface infrastructure; **but not groundwater well drilling**) of the proposed Project has the potential to result in significant impacts to paleontological resources. Mitigation of these potentially significant impacts can be ensured by implementing the following mitigation measure, as required by the City of Montebello:

PALEO-1. The project applicant shall retain a Qualified Professional Paleontologist to develop and implement a Paleontological Resources Impact Mitigation Plan (PRIMP) that shall be approved by the City of Montebello, to ensure that impacts to paleontological resources resulting from construction of the project are less than significant. The PRIMP shall include measures for a pre-construction survey, a Worker Environmental Awareness Program, paleontological monitoring, fossil salvage, curation, and final reporting, as applicable. Final reporting shall be reviewed and approved by the City of Montebello.

In summary, the geologic unit immediately underlying the Project site has a high potential for producing significant paleontological resources. Proposed excavation activities have the potential to

result in significant impacts to these resources. The mitigation measure proposed above will ensure that these impacts are less than significant.

If you have any questions concerning these findings, please feel free to contact me at 619-255-0250 or zbrook@sdnhm.org.

Sincerely,



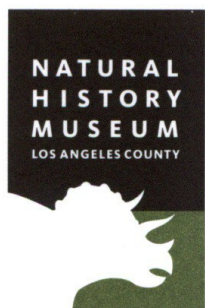
Zev Brook, M.S.
Report Writer
Department of PaleoServices
San Diego Natural History Museum

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Appendix A (Confidential)

Paleontological records search results, Natural History Museum of Los Angeles County.



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Research & Collections

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June 1, 2025

Department of PaleoServices
San Diego Natural History Museum
Attn: Zev Brook

re: Paleontological resources records search for the Cal Water Well Project

Dear Zev:

I have conducted a thorough search of our paleontology collection records for the locality and specimen data for proposed development at the Cal Water Well project area as outlined on the portion of the Whittier USGS topographic quadrangle map that you sent to me via e-mail on May 28, 2025. We do not have any fossil localities that lie directly within the proposed project area, but we do have fossil localities nearby from the same sedimentary deposits that may occur in the proposed project area, either at the surface or at depth.

The following table shows the closest known localities in the collection of the Natural History Museum of Los Angeles County (NHMLA).

Locality Number	Location	Formation	Taxa	Depth
LACM VP 3363	W of Monterey Pass Road in Coyote Pass; E of the Long Beach Freeway & S of the N boundary of Section 32; Monterey Park	Unknown Formation (Pleistocene; sand and silt)	Horse (<i>Equus</i>) Fish (<i>Gasterosteus</i>); Snake (Colubridae), Rodents (<i>Thomomys</i> , <i>Microtus</i> , <i>Reithrodontomys</i>); Rabbit (<i>Sylvilagus</i>)	Unknown
LACM VP 7702	Intersection of 26th St and Atlantic Blvd, Bell Gardens	Unknown Formation (Pleistocene; silt)		30 feet bgs
LACM VP 1088	San Gabriel River near Whittier.	Unknown Formation (Pleistocene)	Mammoth (<i>Mammuthus</i>)	Unknown
LACM VP 3347	Bluefield Dr.; Whittier	La Habra Formation (lacustrine silt with caliche and plant detritus)	Horse (<i>Equus</i>)	2 feet bgs
LACM VP 3382	Near intersection of Artesia Blvd and	Unknown formation (Pleistocene; brown clay)	Mammoth (<i>Mammuthus</i>)	5 feet bgs

Locality Number	Location	Formation	Taxa	Depth
	Williams Ave., Compton	silt)		
<i>VP, Vertebrate Paleontology; IP, Invertebrate Paleontology; bgs, below ground surface</i>				

This records search covers only the records of the NHMLA. It is not intended as a paleontological assessment of the project area for the purposes of CEQA or NEPA. Potentially fossil-bearing units are present in the project area, either at the surface or in the subsurface. As such, NHMLA recommends that a full paleontological assessment of the project area be conducted by a paleontologist meeting Federal (43 Code of Federal Regulations Part 49.110) or Society of Vertebrate Paleontology standards.

Sincerely,



Alyssa Bell, Ph.D.
Natural History Museum of Los Angeles County

APPENDIX D – NOISE IMPACT ANALYSIS

NOISE IMPACT ANALYSIS

CALIFORNIA WATER SERVICE COMPANY 716

WASHINGTON BLVD NEW WELL PROJECT

CITY OF MONTEBELLO

Lead Agency:

City of Montebello
Department of Planning and Community Development
1600 W. Beverly Boulevard
Montebello, CA 90640

Prepared by:

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Project No. 25034

July 13, 2025

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ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
City	City of Montebello
CMU	Concrete Masonry Unit
CNEL	Community Noise Equivalent Level
dB	Decibel
dBA	A-weighted decibels
DOT	Department of Transportation
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
EPA	Environmental Protection Agency
HVAC	Heating Ventilation & Air Conditioning System
Hz	Hertz
Ldn	Day-night average noise level
Leq	Equivalent sound level
Lmax	Maximum noise level
ONAC	Federal Office of Noise Abatement and Control
OSB	Oriented strand board
OSHA	Occupational Safety and Health Administration
PPV	Peak particle velocity
RMS	Root mean square
SEL	Single Event Level or Sound Exposure Level
STC	Sound Transmission Class
VdB	Vibration velocity level in decibels

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Noise Impact Analysis has been prepared to determine the noise impacts associated with the proposed California Water Service Company (CWSC) 716 Washington Boulevard New Well project (proposed project). The following is provided in this report:

- A description of the study area and the proposed project;
- Information regarding the fundamentals of noise;
- Information regarding the fundamentals of vibration;
- A description of the local noise guidelines and standards;
- An evaluation of the current noise environment;
- An analysis of the potential short-term construction-related noise impacts from the proposed project; and,
- An analysis of long-term operations-related noise impacts from the proposed project.

1.2 Site Location and Study Area

The project site is located at 716 Washington Boulevard in the City of Montebello (City). The approximately 0.88-acre project site is currently vacant and is bounded by multi-family residential uses to the north, multi-family residential and industrial uses to the east, Washington Street to the south, and industrial uses to the west of the project site. The project study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the project site. There are also single-family homes located as near as 20 feet to the northwest and 110 feet to the west. The nearest school to the project site is Greenwood Elementary School that is located as near as 350 feet west of the project site.

1.3 Proposed Project Description

The proposed project would consist of the development of a new water supply well that will be named Station ID: 064. The new well is anticipated to be drilled to a depth between 800 and 1,000 feet deep and is anticipated to provide a flow rate between 2,500 and 3,000 gallons per minute. The proposed project will be designed to allow for the possibility of siting a second well onsite, however the potential second well has not been analyzed as part of the proposed project.

The proposed project would also include development of a water treatment system that would include both granular activated carbon vessels for the removal of PFOS contaminants and greensand vessels for the removal of iron and manganese. In addition, a block wall building will be constructed to house disinfection chemicals, including sodium hypochlorite and liquid ammonium sulfate. Other site improvements would include an electrical generator, pressure surge tanks, electrical transformers, electrical panelboards, water process piping and pumping equipment.

Construction of the proposed well is anticipated to commence in the first quarter of 2026 and is anticipated to have a duration of approximately six months. The non-well site development work is

anticipated to have a duration of approximately three months, which would result in a total construction time period of approximately nine months. The proposed conceptual site plan is shown in Figure 2.

Construction Phases

The proposed construction activities of the proposed project would occur in seven construction phases. Phase 1 involves the installation of the temporary noise barrier and site improvements. Phase 2 involves the installation of conductor casing. Phase 3 involves drilling of the well. Phase 4 involves construction of the proposed well and Phase 5 involves installation of the well casing. Phase 6 involves test pumping the completed well. Phase 7, which is also described as Phase II in the Initial Study, involves construction of the treatment system (if needed), buildings, piping, electrical facilities, fencing, security, paving, and landscaping.

Well Construction Equipment Assumptions

The following provides the anticipated construction equipment to be utilized for each phase of construction. Since detailed construction equipment assumptions are not yet available for this project, the equipment assumptions from a similar water well project prepared by Orange County Water District (OCWD) were utilized.

Phase 1: Temporary Noise Barrier and Site Preparation

Phase 1 of construction involves the installation of a temporary noise barrier on the east side of the project site and site preparation that include site clearing activities and installation of an onsite catch basin. Phase 1 is anticipated to take approximately one week and all activities are anticipated to occur during the City of Montebello's allowed construction hours of 7:00 a.m. to 8:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on Saturdays, Sundays and holidays. The equipment mix for construction of the temporary noise barrier wall and site improvements is shown in Table A.

Table A – Temporary Noise Barrier and Site Improvements Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Backhoe with Auger Attachment	1	6	7	42	84	1 week
Man-Lift	1	8	7	56	46	
Forklift	1	8	7	56	82	
Rubber Tired Loader	1	6	7	42	150	

Source: CWSC & OCWD.

Phase 2: Conductor Casing Installation

Phase 2 of construction involves installation of conductor casing. The conductor casing borehole would be drilled by the bucket auger drilling method. The conductor construction would consist of installing a 36-inch diameter conductor casing to a depth of 100 feet below ground surface (BGS). Phase 2 is anticipated to take a week to complete and would occur during the City of Montebello's allowed construction hours. The equipment mix for conductor casing installation is shown in Table B.

Table B – Conductor Casing Installation Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Bucket Auger Rig	1	12	1	12	83	1 week
Backhoe	1	12	8	60	84	
Welder	1	12	8	60	46	
Cement Truck	1	4	4	16	376	
Cement Pumper	1	4	4	16	11	

Source: CWSC & OCWD.

Phase 3: Well Drilling

Phase 3 of construction involves the mobilization of the well drilling equipment and well drilling. The proposed well would be drilled approximately 800 feet deep. The mobilization activities would occur during the City of Montebello's allowed construction hours, however the well drilling activities would require 24-hour operation of the drilling equipment for approximately two weeks. The equipment mix for well drilling and is shown in Table C.

Table C – Well Drilling Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Reverse Circulation Drilling Rig	1	24	14	336	83	3 weeks
Air Compressor	1	24	14	336	37	
Mud System	1	24	14	336	11	
Backhoe	1	6	14	84	84	
Light Tower	1	12	14	168	14	
Generator	1	12	14	168	14	

Source: CWSC & OCWD.

Phase 4: Well Casing

Phase 4 of construction involves installation of the well casing and gravel pack that would be constructed using drilling equipment. The installation of the well casing and gravel pack is anticipated to approximately 7 days to complete, operating 24 hours per day. The equipment mix for well casing is shown in Table D.

Table D – Well Casing Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Drill Rig	1	24	7	168	83	1 week
Gravel/Seal Pump	1	24	7	168	11	
Light Tower	1	12	7	84	14	
Generator	1	12	7	84	14	
Cement Truck	1	4	2	8	376	
Cement Pumper	1	4	2	8	11	
Backhoe	1	12	7	84	84	
Welder	1	12	7	84	46	

Source: CWSC & OCWD.

Phase 5: Well Development

Phase 5 of construction involves the mechanical well development of the proposed well. The well development construction activities would occur during the City of Montebello's allowed construction hours and would take approximately two weeks to complete and would occur during the City of Montebello's allowed construction hours. The equipment mix for well development is shown in Table E.

Table E – Well Development Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Drill Rig	1	10	5	25	83	2 weeks
Air Compressor	1	10	10	100	37	
Pump Installation Rig	1	10	5	25	367	
Generator	1	10	5	25	14	

Source: CWSC & OCWD.

Phase 6: Test Pumping

Phase 6 of construction involves the mobilization of the test pump and test pumping of the proposed well. The mobilization activities would occur during the City of Montebello's allowed construction hours, however the test pumping activities would require 24-hour operation of the diesel pump for approximately two weeks. The equipment mix for test pumping is shown in Table F.

Table F – Test Pumping Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Diesel Water Pump	1	24	14	336	14	3 weeks

Source: CWSC & OCWD.

Phase 7: Site Improvements

Phase 7, involves construction of the treatment system (if needed), buildings, piping, electrical facilities, fencing, security, paving, and landscaping. All site improvement activities would occur during the City of Montebello's allowed construction hours and are anticipated to be completed over three months. The equipment mix for the site improvements is shown in Table G.

Table G – Site Improvements Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower	Total Task Duration
Backhoe	1	8	60	480	84	3 Months
Welder	1	4	30	120	46	
Cement Truck	1	4	10	40	376	
Cement Pumper	1	4	10	40	11	
Crane	1	4	10	40	367	

Source: CWSC & OCWD.

Long-Term Operation and Maintenance Activities

The proposed project is anticipated to be operational by 2027-2028, assuming water quality is acceptable. Routine maintenance would be conducted on the well on a five to 10 year intervals, which would include physical cleaning, swabbing, or can include a full rehabilitation of the well. Table H below identifies the equipment required for a full rehabilitation of the well. A typical well rehabilitation process can be completed in five days and would occur during the City of Montebello's allowed construction hours.

Table H – Long-Term Operations Well Rehabilitation Equipment Mix

Equipment	Pieces of Equipment	Hours Per Day	Days of Operation	Total Hours	Horsepower
Pump Rig	1	10	5	50	367
Pickup Truck	1	2	5	10	376
Air Compressor	1	10	5	50	37
Generator	1	10	5	50	14

Source: CWSC & OCWD.

1.4 Standard Noise Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the City of Montebello and State of California.

City of Montebello Municipal Code

The following lists the noise and vibration regulations from the Municipal Code that are applicable, but not limited to the proposed project.

- Section 9.08.050(I) Construction Noise
- Section 17.22.110 Commercial Zone Development Standards - Noise

State of California Rules

The following lists the State of California noise regulations that are applicable, but not limited to the proposed project.

- California Vehicle Code Section 2700-27207 – On Road Vehicle Noise Limits
- California Vehicle Code Section 38365-38350 – Off-Road Vehicle Noise Limits

1.5 Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines noise checklist questions.

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?

Potentially significant impact. Mitigation Measure 1 is provided to reduce this impact to less than significant.

Generation of excessive groundborne vibration or groundborne noise levels?

Less than significant impact.

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

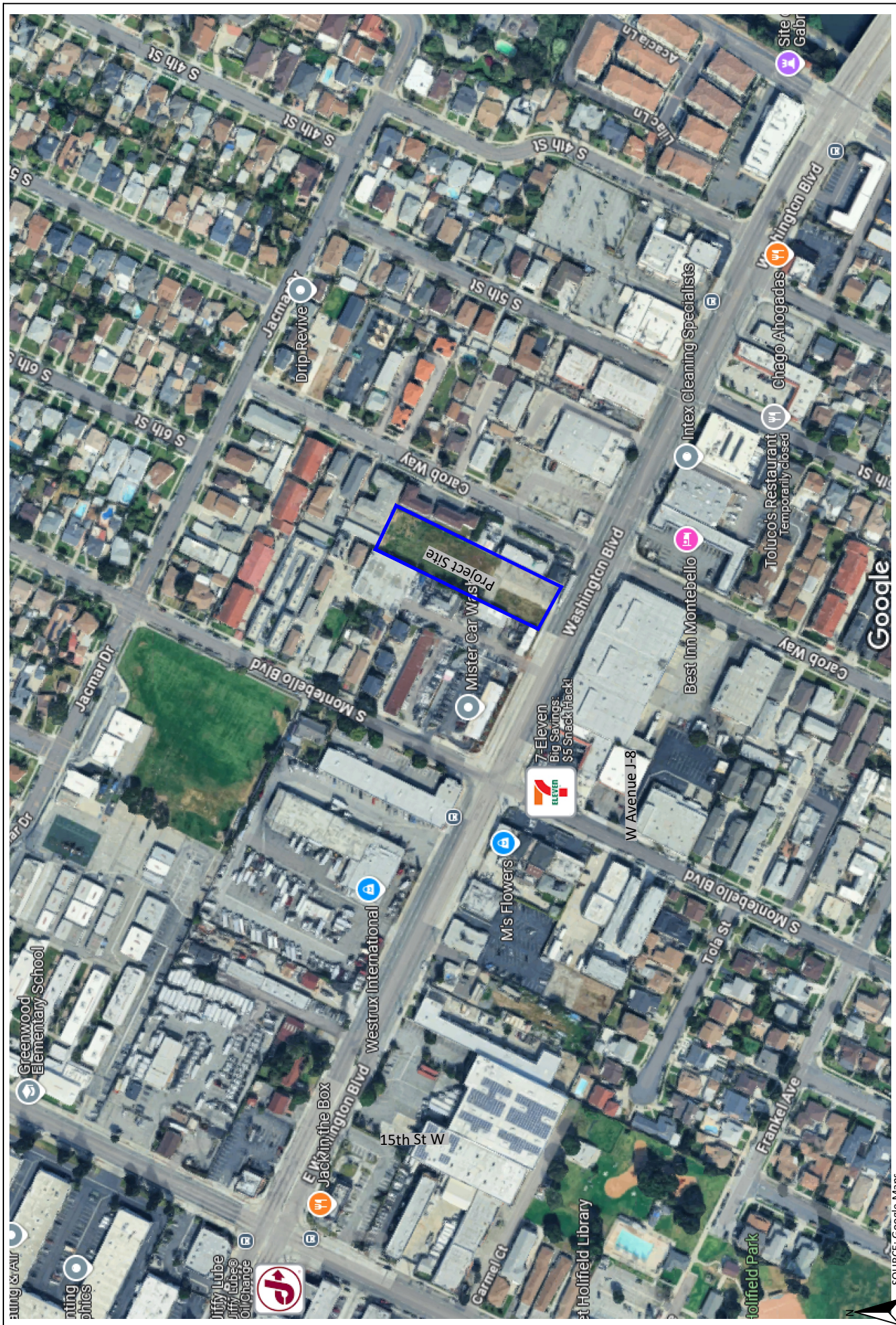
Less than significant impact.

1.6 Mitigation Measures for the Proposed Project

This analysis found that through adherence to the noise and vibration regulations detailed in Section 1.4 above and through implementation of the following mitigation all noise and vibration impacts would be reduced to less than significant levels.

Mitigation Measure 1:

The project applicant shall install a temporary sound wall on the entire north side and the northern 165 feet of the east side of the project site. The temporary sound wall shall be a minimum 24 feet high and be constructed with steel posts, 2x4 framing between the posts and minimum ½" plywood or oriented strand board (OSB) covering both sides of the 2x4 framing, with no cutouts or openings in the sound wall. The sound wall shall be installed in Phase 1 of construction activities and shall remain in place until the completion of Phase 6 construction activities.



SOURCE: Google Maps.

Figure 1
Project Location Map



2.0 NOISE FUNDAMENTALS

Noise is defined as unwanted sound. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Sound is produced by the vibration of sound pressure waves in the air. Sound pressure levels are used to measure the intensity of sound and are described in terms of decibels. The decibel (dB) is a logarithmic unit which expresses the ratio of the sound pressure level being measured to a standard reference level. A-weighted decibels (dBA) approximate the subjective response of the human ear to a broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear.

2.1 Noise Descriptors

Noise Equivalent sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The peak traffic hour Leq is the noise metric used by California Department of Transportation (Caltrans) for all traffic noise impact analyses.

The Day-Night Average Level (Ldn) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of ten decibels to sound levels at night between 10 p.m. and 7 a.m. While the Community Noise Equivalent Level (CNEL) is similar to the Ldn, except that it has another addition of 4.77 decibels to sound levels during the evening hours between 7 p.m. and 10 p.m. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, there is a decrease in the ambient noise levels, which creates an increased sensitivity to sounds. For this reason, the sound appears louder in the evening and nighttime hours and is weighted accordingly. The City of Montebello relies on the CNEL noise standard to assess transportation-related impacts on noise sensitive land uses.

2.2 Tone Noise

A pure tone noise is a noise produced at a single frequency and laboratory tests have shown that humans are more perceptible to changes in noise levels of a pure tone. For a noise source to contain a “pure tone,” there must be a significantly higher A-weighted sound energy in a given frequency band than in the neighboring bands, thereby causing the noise source to “stand out” against other noise sources. A pure tone occurs if the sound pressure level in the one-third octave band with the tone exceeds the average of the sound pressure levels of the two contiguous one-third octave bands by:

- 5 dB for center frequencies of 500 hertz (Hz) and above
- 8 dB for center frequencies between 160 and 400 Hz
- 15 dB for center frequencies of 125 Hz or less

2.3 Noise Propagation

From the noise source to the receiver, noise changes both in level and frequency spectrum. The most obvious is the decrease in noise as the distance from the source increases. The manner in which noise reduces with distance depends on whether the source is a point or line source as well as ground absorption, atmospheric effects and refraction, and shielding by natural and manmade features. Sound

from point sources, such as air conditioning condensers, radiate uniformly outward as it travels away from the source in a spherical pattern. The noise drop-off rate associated with this geometric spreading is 6 dBA per each doubling of the distance (dBA/DD). Transportation noise sources such as roadways are typically analyzed as line sources, since at any given moment the receiver may be impacted by noise from multiple vehicles at various locations along the roadway. Because of the geometry of a line source, the noise drop-off rate associated with the geometric spreading of a line source is 3 dBA/DD.

2.4 Ground Absorption

The sound drop-off rate is highly dependent on the conditions of the land between the noise source and receiver. To account for this ground-effect attenuation (absorption), two types of site conditions are commonly used in traffic noise models, soft-site and hard-site conditions. Soft-site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. For point sources, a drop-off rate of 7.5 dBA/DD is typically observed over soft ground with landscaping, as compared with a 6.0 dBA/DD drop-off rate over hard ground such as asphalt, concrete, stone and very hard packed earth. For line sources a 4.5 dBA/DD is typically observed for soft-site conditions compared to the 3.0 dBA/DD drop-off rate for hard-site conditions. Caltrans research has shown that the use of soft-site conditions is more appropriate for the application of the Federal Highway Administration (FHWA) traffic noise prediction model used in this analysis.

3.0 GROUND-BORNE VIBRATION FUNDAMENTALS

Ground-borne vibrations consist of rapidly fluctuating motions within the ground that have an average motion of zero. The effects of ground-borne vibrations typically only cause a nuisance to people, but at extreme vibration levels damage to buildings may occur. Although ground-borne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects of the shaking of a building can be notable. Ground-borne noise is an effect of ground-borne vibration and only exists indoors, since it is produced from noise radiated from the motion of the walls and floors of a room and may also consist of the rattling of windows or dishes on shelves.

3.1 *Vibration Descriptors*

There are several different methods that are used to quantify vibration amplitude such as the maximum instantaneous peak in the vibrations velocity, which is known as the peak particle velocity (PPV) or the root mean square (rms) amplitude of the vibration velocity. Due to the typically small amplitudes of vibrations, vibration velocity is often expressed in decibels and is denoted as (L_v) and is based on the rms velocity amplitude. A commonly used abbreviation is “VdB”, which in this text, is when L_v is based on the reference quantity of 1 micro inch per second.

3.2 *Vibration Perception*

Typically, developed areas are continuously affected by vibration velocities of 50 VdB or lower. These continuous vibrations are not noticeable to humans whose threshold of perception is around 65 VdB. Off-site sources that may produce perceptible vibrations are usually caused by construction equipment, steel-wheeled trains, and traffic on rough roads, while smooth roads rarely produce perceptible ground-borne noise or vibration.

3.3 *Vibration Propagation*

The propagation of ground-borne vibration is not as simple to model as airborne noise. This is due to the fact that noise in the air travels through a relatively uniform median, while ground-borne vibrations travel through the earth which may contain significant geological differences. There are three main types of vibration propagation; surface, compression, and shear waves. Surface waves, or Rayleigh waves, travel along the ground’s surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a “push-pull” fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or “side-to-side and perpendicular to the direction of propagation.”

As vibration waves propagate from a source, the vibration energy decreases in a logarithmic nature and the vibration levels typically decrease by 6 VdB per doubling of the distance from the vibration source. As stated above, this drop-off rate can vary greatly depending on the soil but has been shown to be effective enough for screening purposes, in order to identify potential vibration impacts that may need to be studied through actual field tests.

4.0 REGULATORY SETTING

The project site is located in the City of Montebello. Noise regulations are addressed through the efforts of various federal, state, and local government agencies. The agencies responsible for regulating noise are discussed below.

4.1 Federal Regulations

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

- Promulgating noise emission standards for interstate commerce
- Assisting state and local abatement efforts
- Promoting noise education and research

The Federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, the Occupational Safety and Health Administration (OSHA) agency prohibits exposure of workers to excessive sound levels. The Department of Transportation (DOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the FTA, while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that “noise sensitive” uses are either prohibited from being sited adjacent to a highway or, alternately that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the proposed project is not under the jurisdiction of the FTA, the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual), prepared by the FTA, September 2018, is a guidance document from a government agency that has defined what constitutes significant noise and vibration impacts from implementing a project. The FTA recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relates to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the noise impacts of a construction project. Project construction noise criteria should take into account the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land uses. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings for a general construction noise assessment are provided below in Table I.

Table I – FTA General Assessment Construction Noise Criteria

Land Use	Day (dBA Leq _(1-hour))	Night (dBA Leq _(1-hour))
Residential	90	80
Commercial	100	100
Industrial	100	100

Source: Federal Transit Administration, 2018.

The FTA also provides guidance on analyzing vibration impacts that details architectural damage to non-engineered timber and masonry buildings would occur when vibration exceeds 0.2 inch per second peak particle velocity (PPV).

4.2 State Regulations

Noise Standards

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the “Land Use Compatibility for Community Noise Environments Matrix,” which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise. The Land Use/Noise Compatibility Matrix that was adopted by the City is shown in Figure 3.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

Land Use Category	Community Noise Exposure Ldn or CNEL, dBA						
	55	60	65	70	75	80	85
Residential - Low Density Single Family, Duplex, Mobile Homes							
Residential - Multi-Family							
Transient Lodging - Motels, Hotels							
Schools, Libraries, Churches, Hospitals, Nursing Homes							
Auditoriums, Concert Halls, Amphitheatres							
Sports Arena, Outdoor Spectator Sports							
Playgrounds, Neighborhood Parks							
Golf Courses, Riding Stables, Water Recreation, Cemeteries							
Office Buildings, Business Commercial And Professional							
Industrial, Manufacturing, Utilities, Agriculture							

-  Normally Acceptable. Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
-  Conditionally Acceptable. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
-  Normally Unacceptable. New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
-  Clearly Unacceptable. New construction or development should generally not be undertaken.

Table C5.3. Land Use/Noise Compatibility Matrix

SOURCE: Montebello 2040 General Plan, Adopted April 10, 2024.

California Vehicle Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California. 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Vibration Standards

Title 14 of the California Administrative Code Section 15000 requires that all state and local agencies implement the California Environmental Quality Act (CEQA) Guidelines, which requires the analysis of exposure of persons to excessive groundborne vibration. However, no statute has been adopted by the state that quantifies the level at which excessive groundborne vibration occurs.

4.3 Local Regulations

The *Montebello 2040 General Plan*, adopted April 10, 2024, and Municipal Code establishes the following applicable policies related to noise and vibration.

City of Montebello General Plan

Policies (P) and Actions (A)

P5.4 Minimize noise impacts to ensure that noise does not detract from Montebello’s quality of life.

- A5.4b Require development projects to implement mitigation measures, where necessary, to reduce exterior and interior noise levels to meet adopted standards and criteria. Require mixed-use structures to minimize the transfer of noise from commercial uses to residential uses.
- A5.4d Minimize stationary noise impacts on sensitive receptors, and require control of noise from construction activities, private developments/ residences, landscaping activities, and special events.

P5.5 Minimize excessive construction-related noise and vibrations.

- A5.5a Adopt and implement measures that reduce construction noise and vibrations.
- A5.5b Construction plans submitted to the City shall include construction noise analysis (and vibration analysis where applicable) and identify measures to mitigate excessive noise and vibrations associated with demolition, grading, and construction plans.
The noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds.

City of Montebello Municipal Code

The City of Montebello Municipal Code establishes the following applicable standards related to noise.

9.08.050 – Loud and Raucous Noise

The following acts, among others, are declared to be loud or raucous noises but the enumeration shall not be deemed to be exclusive:

- I. Construction or Repairing of Real Property. Noise sources associated with construction, demolition, grading, repair or remodeling of any real property other than between the hours of seven a.m. and eight p.m. on weekdays (Monday through Friday), and nine a.m. to six p.m. on Saturdays, Sundays and legal holidays, except in the case of an emergency where such action is immediately required to prevent injuries to persons or damage to property as determined by the director of building and safety or his designated representative.
- L. Pile Drivers, Hammers, Etc. Any pile driver, pneumatic hammer, bulldozers or other construction vehicles, motorized hoists or other devices operated between the hours of eight p.m. and seven a.m.;

17.22.110 – Commercial Zone - Development Standards - Noise

- A. 1. Every use shall be so operated that the noise inherent and recurrently generated does not exceed the following levels at the lot line of the lot on which the use is located:

Table J – City of Montebello Municipal Code Noise Standards

Adjacent Zone	Maximum Noise Level	
	7 a.m. – 10 p.m.	10 p.m. – 7 a.m.
Residential	65 dBA	60 dBA
Commercial	70 dBA	70 dBA
Industrial	75 dBA	75 dBA

Source: City of Montebello Municipal Code Chapter 17.22.110(A)(1).

1. Every use in the C-R and C-1 zones shall be so operated that the noise inherently and recurrently generated does not exceed sixty dBA between seven a.m. and nine p.m. and fifty-five dBA between ten p.m. and seven a.m. when adjacent to a residential zone.
- B. 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; or
 2. The noise standard plus five dBA for cumulative period of more than fifteen minutes in any hour; or
 3. The noise standard plus ten dBA for a cumulative period of more than five minutes in any hour; or
 4. The noise standard plus fifteen dBA for a cumulative period of more than one minute in any hour; or
 5. The noise standard plus twenty dBA for any period of time.
- C. For the purpose hereof, the peak decibel reading for a noise with a fluctuating noise level (such as live or recorded music) shall be considered as noise level for the entire cumulative period of the noise. Likewise, the time between repetitive intermittent noises (such as banging, pounding, or hammering) shall be included in the cumulative period of the noise.

5.0 EXISTING NOISE CONDITIONS

To determine the existing noise levels, noise measurements have been taken in the vicinity of the project site. The field survey noted that noise within the proposed project area is generally characterized by vehicle traffic on Washington Boulevard that is adjacent to the south side of the project site and from industrial noise sources that are to the west and southern portion of the east side of the project site.

Noise Measurement Equipment

The noise measurements were taken using a Larson-Davis Model 831 Type 1 precision sound level meter programmed in “slow” mode to record noise levels in “A” weighted form as well as the frequency spectrum of the noise broken down into 1/3 octaves. The sound level meter and microphone were mounted on a tripod five feet above the ground and were equipped with a windscreen during all measurements. The sound level meter was calibrated before and after the monitoring using a Larson-Davis calibrator, Model CAL 200. The accuracy of the calibrator is maintained through a program established through the manufacturer and is traceable to the National Bureau of Standards. The noise level measurement equipment meets American National Standards Institute (ANSI) specifications for sound level meters (ANSI S1.4-2014 standard).

Noise Measurement Locations

The noise monitoring locations were selected in order to obtain noise levels in the vicinity of the project site. Descriptions of the noise monitoring sites are provided below in Table K and are shown in Figure 4. Appendix A includes a photo index of the study area and noise level measurement locations.

Noise Measurement Timing and Climate

The noise measurements were recorded between 4:39 p.m. and 5:34 p.m. on Tuesday, May 13, 2025. During the noise measurements, the sky was partly cloudy, the temperature was 71 degrees Fahrenheit, the humidity was 45 percent, barometric pressure was 29.69 inches of mercury, and the wind was blowing at an average rate of six miles per hour.

Noise Measurement Results

The results of the noise level measurements are presented in Table K and the noise monitoring data printouts are included in Appendix B.

Table K – Existing (Ambient) Noise Measurement Results

Site No.	Description	Primary Noise Source	Start Time of Measurement	Measured Noise Level	
				dBA Leq	dBA Lmax
1	Located east of the project site in front of apartment at 933 Carob Way, approximately 30 feet west of Carob Way centerline	Vehicles on Carob Way	4:39 p.m.	55.1	77.6
2	Located on the southern portion of the project site, approximately 44 feet north of Washington Boulevard centerline	Vehicles on Washington Blvd	4:59 p.m.	71.4	86.9
3	Located west of the project site in front of single-family home at 940c Montebello Boulevard, approximately 190 feet east of Montebello Boulevard centerline.	Industrial fan on building to south	5:19 p.m.	61.3	67.9

Notes: Noise measurements taken with a Larson-Davis Model 831 Type 1 precision sound level meter on Tuesday, May 13, 2025.

LEGEND

- 4 Noise Measurement Location

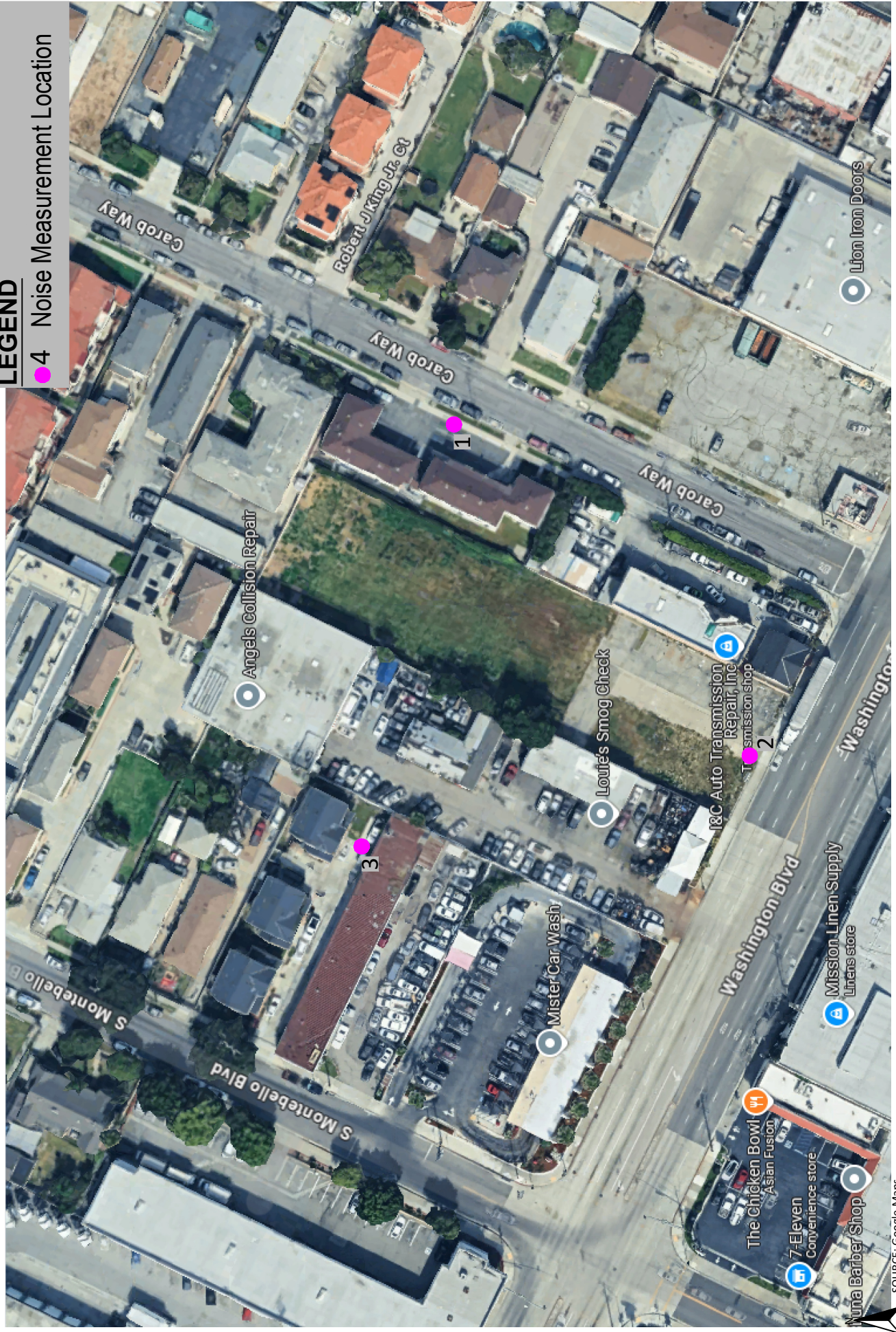


Figure 4
Field Noise Measurement Locations

6.0 MODELING PARAMETERS AND ASSUMPTIONS

6.1 Equipment Noise Levels

In order to determine the noise impacts created from the proposed equipment that will be utilized onsite during construction and on-going well rehabilitation activities, reference noise measurements were taken at an active OCWD well drilling project that captured the noise levels of specific pieces of equipment and the noise measurement printouts are provided in Appendix C. For the pieces of equipment listed above in Section 1.3, where no reference noise measurement was taken, the equipment noise levels provided in the *FHWA Roadway Construction Noise Model User's Guide* (RCNM User Guide), U.S. Department of Transportation, January, 2006, has been utilized and the summary Table 1 from the User Guide is also provided in Appendix C. Table L provides a summary of the reference noise levels and the anticipated noise level from each source at the nearest proposed home to each noise source.

Table L – Equipment Reference Noise Levels

Noise Source	Reference Noise Measurements		
	Noise Meter to Source (feet)	Height of Noise Source (feet)	Reference Noise Level (dBA Leq)
Air Compressor ¹	10	7	88.9
Backhoe ¹	10	8	82.7
Cement Truck ²	50	8	79.0
Cement Pumper (Gravel Pump) ¹	10	5	90.8
Drill Rig ¹	10	11	86.7
Forklift ¹	10	4	74.4
Generator ¹	10	4	71.0
Light Tower ¹	10	7	70.0
Man Lift ²	50	4	75.0
Mud System (Shaker) ¹	10	9	74.5
Pump Installation Rig (Crane) ²	50	11	81.0
Rubber Tired Loader ²	50	8	79.0
Water Pump ¹	10	4	86.3
Welder ¹	10	4	85.0

Notes:

¹ Obtained from a reference noise measurement (see Appendix C).

² Obtained from the RCNM User Guide.

The noise levels at the nearby homes were calculated based on the methodology provided in the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) that is described in the *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (TeNS), prepared by Caltrans, September 2013. Since well construction sites are typically covered with equipment and storage containers, the soft site drop off rates for point sources was utilized that results in a drop off rate of 7.5 dB per doubling the distance between source and receptor and was calculated based on the following equation:

$$dBA_2 = dBA_1 + 10\log_{10}[(D_1/D_2)]^{1.5} = dBA_1 + 20\log_{10}(D_1/D_2)$$

where:

dBA_1 = noise level at distance D_1

dBA_2 = noise level at distance D_2

As shown in Section 1.3, not all equipment is anticipated to be operated during the entire workday. The Use Factor provides the percent each piece of equipment will be operated in a typical day and the following Use Factor adjustment formula from the RCNM User Guide was utilized:

$$Leq = Lmax + 10\log(\text{Use Factor}/100)$$

In order to account for the noise reduction provided by the existing 6 foot high concrete masonry unit walls located on the shared property lines with the nearby homes as well as the 24 foot high temporary sound wall (see Mitigation Measure 1), the following noise barrier noise attenuation formulas were utilized and the spreadsheet printouts are provided in Appendix D for construction and Appendix E for operations:

$$N_0 = 2(\delta_0/\gamma)$$

Where:

N_0 = Fresnel number determined along the perpendicular line between source and receiver (i.e., barrier must be perpendicular to the direct noise path)

δ_0 = δ measured along perpendicular line to barrier

γ = wavelength of sound radiated by source

$$\delta = a + b - c$$

Where:

δ = Path length difference

a = distance from source to top of barrier

b = distance from top of barrier to receiver

c = distance from source to receiver (straight line)

6.2 Vibration

Construction activity can result in varying degrees of ground vibration, depending on the equipment used on the site. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Buildings in the vicinity of the construction site respond to these vibrations with varying results ranging from no perceptible effects at the low levels to slight damage at the highest levels. Table M gives approximate vibration levels for particular construction activities. The data in Table M provides a reasonable estimate for a wide range of soil conditions.

Table M – Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity (inches/second)	Approximate Vibration Level (L_v) at 25 feet
Caisson drill	0.089	87
Loaded trucks	0.076	86
Jackhammer	0.035	79
Small bulldozer	0.003	58

Source: Federal Transit Administration, 2020.

The construction-related vibration impacts have been calculated through the vibration levels shown above in Table M and through typical vibration propagation rates. The equipment assumptions were based on the equipment lists provided above in Section 1.3.

7.0 IMPACT ANALYSIS

7.1 CEQA Thresholds of Significance

Consistent with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a significant impact related to noise would occur if a proposed project is determined to 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;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- 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.

7.2 Generation of Noise Levels in Excess of Standards

The proposed project may generate 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. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the proposed project and compares the noise levels to the City standards.

Construction-Related Noise

The construction activities for the proposed project are anticipated to include construction of a new water supply well and water treatment system. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Section 9.08.050(I) of the City's Municipal Code limits construction activities to between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, between 6:00 p.m. and 9:00 a.m. on Saturdays, or anytime on Sundays or federal holidays. Under the City's General Plan Noise Policies, Action A5.5b states that noise analyses should be prepared based on the FTA standards and the FTA construction noise standards have been described above in Section 4.1. As such, for construction activities that occur during the allowable hours as detailed in Section 9.08.050(I), the FTA construction noise level standard of 90 dBA during the daytime at the nearby homes have been utilized in this analysis.

As detailed in Section 1.3, the following phases would require construction activities to occur 24 hours per day: Phase 3 – Well Drilling, Phase 4 – Well Casing, and Phase 6 – Test Pumping. For construction activities that occur outside of the allowable hours of construction, the applicable noise standard is provided in Section 17.22.110 of the Municipal Code that details the nighttime noise standard for residential uses adjacent to Commercial land uses is 60 dBA.

The nearest sensitive receptors to the project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the project site. Construction noise levels to the nearby sensitive receptors have been calculated based on the methodology detailed above in Section 6.1

of this report. The results are shown below in Table N and the noise calculation printouts are provided in Appendix D.

Table N – Construction Noise Levels at the Nearby Homes Prior to Mitigation

Construction Phase	Construction Noise Level (dBA Leq) at:		City Noise Standard ¹	Exceed Standard?
	Homes to North	Homes to East		
Phase 1: Temporary Noise Barrier & Site Preparation	80.4	80.4	90	No
Phase 2: Conductor Casing Installation	79.6	78.1	90	No
Phase 3: Well Drilling	78.2	74.2	60	Yes
Phase 4: Well Casing	78.0	76.4	60	Yes
Phase 5: Well Development	87.0	83.6	90	No
Phase 6: Test Pumping	71.2	70.0	60	Yes
Phase 7: Site Improvements	71.7	75.6	90	No

Notes:

¹ For construction phases that occur during the allowable construction times as detailed in 9.08.050(l) of the City's Municipal Code, the applicable noise standard is the FTA Construction daytime noise standard of 90 dBA as detailed above in Table I. For construction phases that occur 24 hours per day, the construction noise standard is based on the nighttime noise standard from Section 17.22.110 of 60 dBA for residential uses next to commercial land uses.

Table N shows that construction Phases 1, 2, 5, and 7 that would occur during the allowable construction times as detailed in Section in 9.08.050(l) of the City's Municipal Code would be within the FTA daytime construction noise standard of 90 dBA. However, construction Phases 3, 4, and 6 that would require construction activities to occur 24 hours per day, would exceed the nighttime noise standard of 60 dBA from Section 17.22.110 of the Municipal Code for residential uses adjacent to commercial land uses. This would be considered a significant impact.

Mitigation Measure 1 is provided that would require the project applicant to install a temporary sound wall on the entire north side and the northern 165 feet of the east side of the project site. The temporary sound wall shall be a minimum 24 feet high and be constructed with steel posts with 2x4 framing between the posts and minimum ½" plywood or OSB board covering both sides of the 2x4 framing, with no cutouts or openings in the sound wall. The sound wall shall be installed in Phase 1 of construction activities and shall remain in place until the completion of Phase 6 construction activities.

The construction noise levels at the nearby homes were re-calculated with implementation of Mitigation Measure 1 and the results are shown in Table O. Table O shows that with implementation of Mitigation Measure 1 the construction noise level for all phases of construction would be reduced to below the applicable construction noise standards. Therefore, with implementation of Mitigation Measure 1, a less than significant noise impact is anticipated from construction of the proposed project.

Table O – Mitigated Construction Noise Levels at the Nearby Homes

Construction Phase	Construction Noise Level (dBA Leq) at:		City Noise Standard ¹	Exceed Standard?
	Homes to North	Homes to East		
Phase 1: Temporary Noise Barrier & Site Preparation	80.4	80.4	90	No
Phase 2: Conductor Casing Installation	60.4	59.0	90	No
Phase 3: Well Drilling	59.1	55.1	60	No
Phase 4: Well Casing	59.3	57.9	60	No
Phase 5: Well Development	67.8	64.5	90	No
Phase 6: Test Pumping	52.0	50.8	60	No
Phase 7: Site Improvements	71.7	76.8	90	No

Notes:

¹ For construction phases that occur during the allowable construction times as detailed in 9.08.050(I) of the City's Municipal Code, the applicable noise standard is the FTA Construction daytime noise standard of 90 dBA as detailed above in Table I. For construction phases that occur 24 hours per day, the construction noise standard is based on the nighttime noise standard from Section 17.22.110 of 60 dBA for residential uses next to commercial land uses.

Operational-Related Noise

Operation of the proposed water supply well would consist of the operation of an underground electrical water pump, that would not create any noise that is audible offsite. Routine maintenance would be conducted on the well in five to 10 year intervals. Maintenance would include physical cleaning, swabbing, or can include a full rehabilitation of the well. The routine maintenance activities from a full rehabilitation of the well would create noise from the operation of off-road diesel equipment on the project site. The well rehabilitation activities would be limited to the allowable times for construction as detailed in Section 9.08.050(I) of the City's Municipal Code. As such, the FTA construction noise level standard of 90 dBA during the daytime at the nearby homes have been utilized in this analysis for the operational well rehabilitation activities.

The nearest sensitive receptors to the project site include the multi-family homes that are as near as 8 feet to the north and as near as 10 feet to the east of the project site. Operational well rehabilitation activities noise levels at the nearby sensitive receptors have been calculated based on the methodology detailed above in Section 6.1 of this report. The results are shown below in Table P and the operational noise calculation printouts are provided in Appendix E.

Table P – Operational Well Rehabilitation Noise Levels at the Nearby Homes

Activity	Operational Noise Level (dBA Leq) at:		City Noise Standard ¹	Exceed Standard?
	Homes to North	Homes to East		
Well Rehabilitation	81.8	77.1	90	No

Notes:

¹ Well Rehabilitation will be limited to the allowable construction times as detailed in 9.08.050(I) of the City's Municipal Code. As such, the applicable noise standard is the FTA Construction daytime noise standard of 90 dBA as detailed above in Table I.

Table P shows that operational well rehabilitation activities that would occur during the allowable construction times as detailed in Section in 9.08.050(I) of the City's Municipal Code would be within the FTA daytime construction noise standard of 90 dBA. Therefore, a less than significant noise impact is anticipated from operation of the proposed project.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Mitigation Measure 1:

The project applicant shall install a temporary sound wall on the entire north side and the northern 165 feet of the east side of the project site. The temporary sound wall shall be a minimum 24 feet high and be constructed with steel posts, 2x4 framing between the posts and minimum ½" plywood or oriented strand board (OSB) covering both sides of the 2x4 framing, with no cutouts or openings in the sound wall. The sound wall shall be installed in Phase 1 of construction activities and shall remain in place until the completion of Phase 6 construction activities.

Level of Significance after Mitigation

Less than significant impact.

7.3 Generation of Excessive Groundborne Vibration

The proposed project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the proposed project.

Construction-Related Vibration Impacts

The construction activities for the proposed project are anticipated to include construction of a new water supply well and water treatment system. Vibration impacts from construction activities associated with the proposed project would typically be created from the operation of heavy off-road equipment. The nearest vibration sensitive receptors to the project site include the multi-family homes that are as near as 8 feet to the north of the project site.

Under the City's General Plan Noise Policies, Action A5.5b states that vibration levels shall not exceed the FTA architectural damage thresholds. For the nearby multi-family homes that would most closely fit the building structure category of non-engineered timber and masonry buildings, the damage threshold is 0.2 inch per second PPV.

A list of known vibration producing construction equipment is provided above in Table M. As shown in Table M above, a caisson drill would create the highest vibration level of the listed construction equipment that would likely be used during construction of the proposed project and would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest offsite structure (30 feet away from the proposed well location) would be 0.073 inch per second PPV, which would be below the 0.2 inch per second PPV threshold detailed above. Construction-related vibration impacts would be less than significant.

Operations-Related Vibration Impacts

The operation of the proposed project may require scheduled deliveries of disinfection chemicals, as well as replacement parts that would be delivered on trucks. It is anticipated that truck deliveries may occur as near as 30 feet from the homes to the east.

Caltrans has done extensive research on vibration level created along freeways and State Routes and their vibration measurements of roads have never exceeded 0.08 inches per second PPV at 15 feet from the center of the nearest lane, with the worst combinations of heavy trucks. Based on typical propagation rates, the vibration level at the nearest offsite residential structure (30 feet away) would be 0.04 inch per second PPV, which is well below the FTA's 0.2 inch per second PPV architectural damage threshold detailed above. Therefore, a less than significant vibration impact is anticipated from operation of the proposed project.

Level of Significance

Less than significant impact.

7.4 Aircraft Noise

The proposed project would not expose people residing or working in the project area to excessive noise levels from aircraft. The nearest airport is San Gabriel Valley Airport that is located approximately 7.5 miles northeast of the project site. The project site is located outside of the 60 dBA CNEL noise contours of San Gabriel Airport. A less than significant impact would occur from aircraft noise.

Level of Significance

Less than significant impact.

8.0 REFERENCES

California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analytics Protocol*, September 2013.

California Department of Transportation, *Transportation and Construction Vibration Guidance Manual*, April 2020.

City of Montebello, *Montebello 2040 General Plan*, adopted April 10, 2024.

City of Montebello, *Montebello Municipal Code*, October 9, 2024.

Federal Transit Administration, *Transit Noise and Vibration Impact Assessment*, September 2018.

U.S. Department of Transportation, *FHWA Roadway Construction Noise Model User's Guide*, January, 2006.

Vista Environmental, *Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis California Water Service Company 716 Washington Blvd New Well Project*, July 13, 2025.

APPENDIX A

Field Noise Measurements Photo Index



Noise Measurement Site 1 - looking north



Noise Measurement Site 1 - looking northeast



Noise Measurement Site 1 - looking east



Noise Measurement Site 1 - looking southeast



Noise Measurement Site 1 - looking south



Noise Measurement Site 1 - looking southwest



Noise Measurement Site 1 - looking west



Noise Measurement Site 1 - looking northwest



Noise Measurement Site 2 - looking north



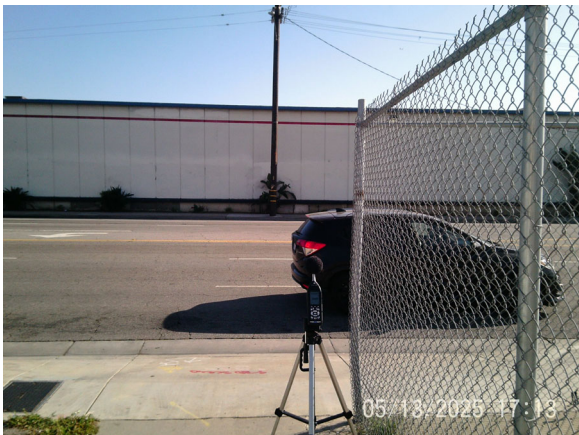
Noise Measurement Site 2 - looking nnortheast



Noise Measurement Site 2 - looking east



Noise Measurement Site 2 - looking southeast



Noise Measurement Site 2 - looking south



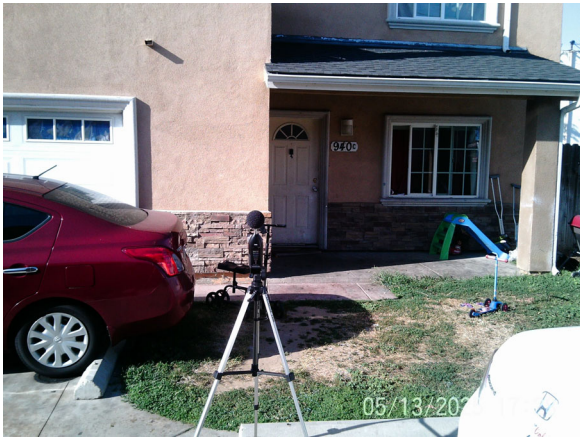
Noise Measurement Site 2 - looking southwest



Noise Measurement Site 2 - looking west



Noise Measurement Site 2 - looking northwest



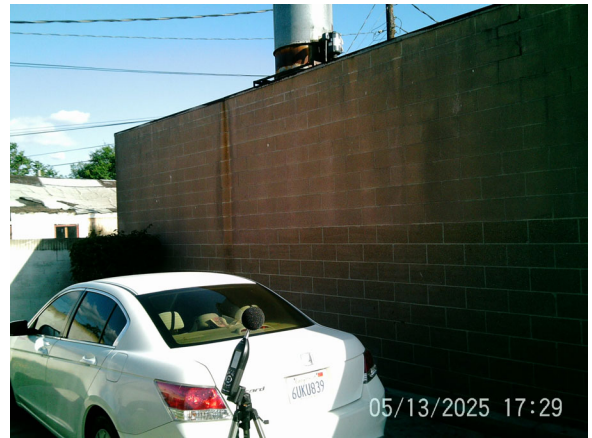
Noise Measurement Site 3 - looking north



Noise Measurement Site 3 - looking northeast



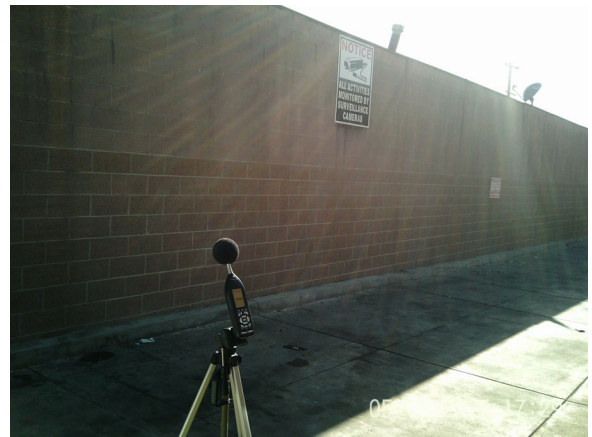
Noise Measurement Site 3 - looking east



Noise Measurement Site 3 - looking southeast



Noise Measurement Site 3 - looking south



Noise Measurement Site 3 - looking southwest



Noise Measurement Site 3 - looking west



Noise Measurement Site 3 - looking northwest

APPENDIX B

Field Noise Measurements Printouts

Measurement Report

Report Summary

Meter's File Name	831_Data.001.s	Computer's File Name	831_0002509-20250513 163955-831_Data.001.ldbin
Meter	831 0002509	Firmware	2.403
User	GT	Location	East Side of Project Site - in front of MFH at 933 Carob Way
Job Description	Cal Water - 716 Washington Blvd, Montebello Well Site		
Note	Approx 30 ft west of Carob Way CL		

Measurement

Start Time	2025-05-13 16:39:55	Duration	0:15:00.0		
End Time	2025-05-13 16:54:55	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2025-05-13 16:38:19	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	55.1 dB		
LAE	84.6 dB	SEA	--- dB
EA	32.4 µPa²h		
LZ _{peak}	103.4 dB		2025-05-13 16:40:15
LAS _{max}	77.6 dB		2025-05-13 16:40:15
LAS _{min}	45.5 dB		2025-05-13 16:51:31
LA _{eq}	55.1 dB		
LC _{eq}	66.3 dB	LC _{eq} - LA _{eq}	11.2 dB
LAI _{eq}	63.8 dB	LAI _{eq} - LA _{eq}	8.7 dB

Exceedances	Count	Duration
LAS > 65.0 dB	2	0:00:06.9
LAS > 85.0 dB	0	0:00:00.0
LZpk > 135.0 dB	0	0:00:00.0
LZpk > 137.0 dB	0	0:00:00.0
LZpk > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight	
	55.1 dB	55.1 dB	---	
	LDEN	LDay	LEve	LNight
	55.1 dB	55.1 dB	---	---

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	55.1 dB		66.3 dB		77.3 dB	
L _S (max)	77.6 dB	2025-05-13 16:40:15	78.0 dB	2025-05-13 16:47:24	90.9 dB	2025-05-13 16:48:18
L _F (max)	85.8 dB	2025-05-13 16:40:15	85.4 dB	2025-05-13 16:40:15	94.4 dB	2025-05-13 16:48:18
L _I (max)	90.1 dB	2025-05-13 16:40:15	89.7 dB	2025-05-13 16:40:15	96.6 dB	2025-05-13 16:48:17
L _S (min)	45.5 dB	2025-05-13 16:51:31	56.7 dB	2025-05-13 16:46:57	63.6 dB	2025-05-13 16:53:21
L _F (min)	44.8 dB	2025-05-13 16:51:40	54.7 dB	2025-05-13 16:47:02	59.9 dB	2025-05-13 16:53:27
L _I (min)	45.2 dB	2025-05-13 16:51:34	57.1 dB	2025-05-13 16:46:57	64.6 dB	2025-05-13 16:51:31
L _{Peak} (max)	104.0 dB	2025-05-13 16:40:15	103.4 dB	2025-05-13 16:40:15	103.4 dB	2025-05-13 16:40:15

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	58.3 dB
LAS 10.0	56.7 dB
LAS 33.3	53.5 dB
LAS 50.0	52.1 dB
LAS 66.6	51.0 dB
LAS 90.0	48.6 dB

Measurement Report

Report Summary

Meter's File Name	831_Data.002.s	Computer's File Name	831_0002509-20250513 165946-831_Data.002.ldbin
Meter	831 0002509	Firmware	2.403
User	GT	Location	On Southern Portion of Project Site
Job Description	Cal Water - 716 Washington Blvd, Montebello Well Site		
Note	Approx 55 ft north of Washington Blvd CL		

Measurement

Start Time	2025-05-13 16:59:46	Duration	0:15:00.0		
End Time	2025-05-13 17:14:46	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2025-05-13 16:38:15	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	71.4 dB		
LAE	100.9 dB	SEA	--- dB
EA	1.4 mPa²h		
LZ _{peak}	106.8 dB		2025-05-13 17:06:20
LAS _{max}	86.9 dB		2025-05-13 17:06:20
LAS _{min}	52.4 dB		2025-05-13 17:07:06
LA _{eq}	71.4 dB		
LC _{eq}	78.2 dB	LC _{eq} - LA _{eq}	6.8 dB
LAI _{eq}	72.7 dB	LAI _{eq} - LA _{eq}	1.3 dB

Exceedances	Count	Duration
LAS > 65.0 dB	19	0:11:54.9
LAS > 85.0 dB	1	0:00:02.4
LZpk > 135.0 dB	0	0:00:00.0
LZpk > 137.0 dB	0	0:00:00.0
LZpk > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight	
	71.4 dB	71.4 dB	---	
	LDEN	LDay	LEve	LNight
	71.4 dB	71.4 dB	---	---

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	71.4 dB		78.2 dB		81.4 dB	
L _{S(max)}	86.9 dB	2025-05-13 17:06:20	92.5 dB	2025-05-13 17:06:20	93.0 dB	2025-05-13 17:03:49
L _{F(max)}	89.3 dB	2025-05-13 17:06:19	95.2 dB	2025-05-13 17:06:19	96.4 dB	2025-05-13 17:01:56
L _{I(max)}	90.1 dB	2025-05-13 17:06:19	96.0 dB	2025-05-13 17:06:19	98.8 dB	2025-05-13 17:01:56
L _{S(min)}	52.4 dB	2025-05-13 17:07:06	65.5 dB	2025-05-13 17:06:57	68.6 dB	2025-05-13 17:06:00
L _{F(min)}	52.0 dB	2025-05-13 17:07:04	63.7 dB	2025-05-13 17:07:04	66.4 dB	2025-05-13 17:05:52
L _{I(min)}	52.3 dB	2025-05-13 17:07:04	66.2 dB	2025-05-13 17:07:07	69.1 dB	2025-05-13 17:06:00
L _{Peak(max)}	103.7 dB	2025-05-13 17:06:19	105.6 dB	2025-05-13 17:06:20	106.8 dB	2025-05-13 17:06:20

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	76.3 dB
LAS 10.0	74.6 dB
LAS 33.3	71.2 dB
LAS 50.0	69.4 dB
LAS 66.6	66.8 dB
LAS 90.0	60.1 dB

Measurement Report

Report Summary

Meter's File Name	831_Data.003.s	Computer's File Name	831_0002509-20250513 171949-831_Data.003.ldbin
Meter	831 0002509	Firmware	2.403
User	GT	Location	West of Project Site in front of SFH at 940c Montebello Blvd
Job Description	Cal Water - 716 Washington Blvd, Montebello Well Site		
Note	Approx 190 ft east of Montebello Blvd CL		

Measurement

Start Time	2025-05-13 17:19:49	Duration	0:15:00.0		
End Time	2025-05-13 17:34:49	Run Time	0:15:00.0	Pause Time	0:00:00.0
Pre-Calibration	2025-05-13 16:38:15	Post-Calibration	None	Calibration Deviation	---

Results

Overall Metrics

LA _{eq}	61.3 dB		
LAE	90.8 dB	SEA	--- dB
EA	134.9 µPa²h		
LZ _{peak}	98.9 dB		2025-05-13 17:31:08
LAS _{max}	67.9 dB		2025-05-13 17:25:26
LAS _{min}	49.2 dB		2025-05-13 17:33:21
LA _{eq}	61.3 dB		
LC _{eq}	69.3 dB	LC _{eq} - LA _{eq}	8.0 dB
LAI _{eq}	63.3 dB	LAI _{eq} - LA _{eq}	2.0 dB

Exceedances	Count	Duration
LAS > 65.0 dB	11	0:01:19.6
LAS > 85.0 dB	0	0:00:00.0
LZpk > 135.0 dB	0	0:00:00.0
LZpk > 137.0 dB	0	0:00:00.0
LZpk > 140.0 dB	0	0:00:00.0

Community Noise	LDN	LDay	LNight	
	61.3 dB	61.3 dB	---	
	LDEN	LDay	LEve	LNight
	61.3 dB	61.3 dB	---	---

Any Data

	A		C		Z	
	Level	Time Stamp	Level	Time Stamp	Level	Time Stamp
L _{eq}	61.3 dB		69.3 dB		75.7 dB	
L _{S(max)}	67.9 dB	2025-05-13 17:25:26	76.7 dB	2025-05-13 17:23:53	88.9 dB	2025-05-13 17:31:09
L _{F(max)}	72.0 dB	2025-05-13 17:25:25	81.9 dB	2025-05-13 17:32:12	93.0 dB	2025-05-13 17:31:08
L _{I(max)}	75.2 dB	2025-05-13 17:25:25	85.0 dB	2025-05-13 17:27:33	95.6 dB	2025-05-13 17:31:08
L _{S(min)}	49.2 dB	2025-05-13 17:33:21	60.3 dB	2025-05-13 17:33:20	64.3 dB	2025-05-13 17:30:00
L _{F(min)}	48.5 dB	2025-05-13 17:33:19	58.9 dB	2025-05-13 17:29:48	62.2 dB	2025-05-13 17:31:29
L _{I(min)}	48.9 dB	2025-05-13 17:33:21	60.9 dB	2025-05-13 17:33:19	65.4 dB	2025-05-13 17:30:00
L _{Peak(max)}	84.1 dB	2025-05-13 17:24:58	93.2 dB	2025-05-13 17:27:33	98.9 dB	2025-05-13 17:31:08

Overloads

Count	Duration	OBA Count	OBA Duration
0	0:00:00.0	0	0:00:00.0

Statistics

LAS 5.0	64.6 dB
LAS 10.0	63.7 dB
LAS 33.3	62.5 dB
LAS 50.0	62.1 dB
LAS 66.6	56.7 dB
LAS 90.0	53.2 dB

APPENDIX C

Reference Noise Measurements of Construction Equipment Printouts

General Information		
Serial Number		02509
Model		831
Firmware Version		2.000
Filename		831_Data.003
User		GT
Job Description		OCWD SAR-11
Location		Compressor

Measurement Description		
Start Time	Thursday, 2011 September 15	20:20:00
Stop Time	Thursday, 2011 September 15	20:24:01
Duration		00:04:01.1
Run Time		00:04:01.1
Pause		00:00:00.0
Pre Calibration	Thursday, 2011 September 15	20:04:18
Post Calibration		None
Calibration Deviation		---

Note

Ingersoll Rand 600
10' from compressor
7' elevation

Overall Data			
LAEq		88.9	dB
LASmax	2011 Sep 15 20:22:09	89.9	dB
LZpeak (max)	2011 Sep 15 20:23:53	107.7	dB
LASmin	2011 Sep 15 20:20:07	86.2	dB
LCeq		92.5	dB
LAEq		88.9	dB
LCeq - LAeq		3.6	dB
LAIEq		89.1	dB
LAEq		88.9	dB
LAIEq - LAeq		0.1	dB
Ldn		88.9	dB
LDay 07:00-23:00		88.9	dB
LNight 23:00-07:00		---	dB
Lden		---	dB
LDay 07:00-19:00		---	dB
LEvening 19:00-23:00		88.9	dB
LNight 23:00-07:00		---	dB
LAE		112.8	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics			
LAS5.00		89.7	dBA
LAS10.00		89.7	dBA
LAS33.30		89.3	dBA
LAS50.00		89.2	dBA
LAS66.60		88.5	dBA
LAS90.00		88.0	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 241.1 s	
LAS > 85.0 dB (Exceedence Counts / Duration)		1 / 241.1 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	

Settings		
RMS Weight	A Weighting	
Peak Weight	Z Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Low	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	At Bin Max	
Gain	+0	dB
Under Range Limit	26.3	dB
Under Range Peak	78.5	dB
Noise Floor	17.2	dB
Overload	144.1	dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	61.8	69.1	73.6	90.9	80.8	76.0	75.9	76.2	75.0	79.5	87.7	87.1
LZSmax	70.2	71.4	75.8	92.3	84.6	77.3	79.5	78.4	76.0	80.8	89.0	88.6
LZSmin	57.6	65.6	71.1	88.8	78.0	74.8	75.1	75.3	74.3	76.7	84.2	82.7

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	54.8	56.9	58.6	67.3	60.5	62.9	70.3	66.3	69.3	75.0	83.7	89.6
LZSmax	66.8	65.6	63.1	70.3	64.0	66.5	72.9	69.0	72.6	77.3	85.7	91.2
LZSmin	45.2	49.8	53.5	61.8	56.4	58.3	65.8	63.2	64.9	72.4	81.7	86.1
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	72.5	72.7	79.1	70.2	71.6	71.7	72.0	71.0	70.5	71.8	70.4	72.0
LZSmax	75.0	79.0	83.0	72.5	73.3	73.9	73.7	75.1	75.9	74.5	73.0	75.1
LZSmin	69.6	70.0	75.6	67.9	69.7	68.8	69.6	69.6	68.5	70.1	69.0	70.5
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	70.8	69.8	70.0	72.8	73.8	76.7	80.1	83.2	84.6	83.5	82.7	80.2
LZSmax	72.4	71.7	72.1	75.5	75.2	79.0	81.8	85.1	85.7	85.0	84.2	82.2
LZSmin	69.5	68.6	69.0	69.5	70.6	74.0	77.3	79.7	80.5	79.5	78.2	74.8

Calibration History		
Preamp	Date	dB re. 1V/Pa
Direct	07 Dec 2010 00:05:22	-26.4
PRM831	15 Sep 2011 20:04:18	-26.6
PRM831	26 Jul 2011 15:57:55	-25.7
PRM831	06 Jun 2011 10:37:42	-24.9
PRM831	07 Dec 2010 13:27:12	-25.8
PRM831	07 Dec 2010 08:57:27	-26.3
PRM831	07 Dec 2010 11:06:22	-26.4
PRM831	07 Dec 2010 00:27:55	-25.0

General Information		
Serial Number	02509	
Model	831	
Firmware Version	2.000	
Filename	831_Data.008	
User	GT	
Job Description	OCWD SAR-11	
Location	Backhoe	

Measurement Description	
Start Time	Thursday, 2011 September 15 20:49:33
Stop Time	Thursday, 2011 September 15 20:52:33
Duration	00:03:00.5
Run Time	00:03:00.5
Pause	00:00:00.0
Pre Calibration	Thursday, 2011 September 15 20:04:18
Post Calibration	None
Calibration Deviation	---

Note		
Case 590 Super L Backhoe		
10' from Backhoe		
8' elevation		

Overall Data			
LAEq		82.7	dB
LASmax	2011 Sep 15 20:51:12	83.6	dB
LZpeak (max)	2011 Sep 15 20:51:30	102.4	dB
LASmin	2011 Sep 15 20:49:33	76.5	dB
LCeq		91.3	dB
LAEq		82.7	dB
LCeq - LAeq		8.6	dB
LAIEq		83.1	dB
LAEq		82.7	dB
LAIEq - LAeq		0.4	dB
Ldn		82.7	dB
LDay 07:00-23:00		82.7	dB
LNight 23:00-07:00		---	dB
Lden		---	dB
LDay 07:00-19:00		---	dB
LEvening 19:00-23:00		82.7	dB
LNight 23:00-07:00		---	dB
LAE		105.3	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics			
LAS5.00		83.4	dBA
LAS10.00		83.3	dBA
LAS33.30		82.9	dBA
LAS50.00		82.7	dBA
LAS66.60		82.5	dBA
LAS90.00		82.2	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 180.5 s	
LAS > 85.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	

Settings		
RMS Weight	A Weighting	
Peak Weight	Z Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Low	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	At Bin Max	
Gain	+0	dB
Under Range Limit	26.3	dB
Under Range Peak	78.5	dB
Noise Floor	17.2	dB
Overload	144.1	dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	61.0	57.5	71.4	91.6	74.2	76.2	76.0	79.7	76.3	69.3	62.0	50.4
LZSmax	72.0	67.0	85.6	92.0	75.8	77.7	76.9	81.4	77.0	70.4	63.7	51.3
LZSmin	50.6	54.1	62.6	77.8	71.7	67.9	70.3	73.6	69.5	63.5	55.3	46.2

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	58.3	55.7	53.6	54.2	52.2	52.3	62.4	63.4	69.6	91.6	73.5	63.2
LZSmax	69.6	65.2	62.7	63.6	62.5	59.5	65.7	82.6	85.5	92.0	78.2	75.3
LZSmin	46.0	44.7	43.8	47.3	46.8	47.7	56.6	57.1	55.9	55.8	72.3	59.2
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	66.5	69.4	71.1	70.9	73.6	68.1	70.0	72.0	71.5	76.3	73.5	74.8
LZSmax	72.3	72.4	73.1	73.0	76.3	73.6	71.4	74.1	74.6	79.1	75.4	76.8
LZSmin	63.5	67.5	61.4	64.1	63.4	61.0	62.4	65.6	67.0	67.3	70.2	67.9
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	73.2	70.1	70.8	67.0	63.0	61.5	59.7	56.9	51.6	48.1	45.0	40.1
LZSmax	74.5	71.4	71.8	67.9	64.2	63.2	61.8	58.5	52.5	49.1	46.4	42.1
LZSmin	66.0	64.0	62.9	60.9	58.2	55.7	52.8	50.3	46.3	43.8	40.6	37.7

Calibration History		
Preamp	Date	dB re. 1V/Pa
Direct	07 Dec 2010 00:05:22	-26.4
PRM831	15 Sep 2011 20:04:18	-26.6
PRM831	26 Jul 2011 15:57:55	-25.7
PRM831	06 Jun 2011 10:37:42	-24.9
PRM831	07 Dec 2010 13:27:12	-25.8
PRM831	07 Dec 2010 08:57:27	-26.3
PRM831	07 Dec 2010 11:06:22	-26.4
PRM831	07 Dec 2010 00:27:55	-25.0

General Information		
Serial Number		02509
Model		831
Firmware Version		2.000
Filename		831_Data.004
User		GT
Job Description		OCWD SAR-11
Location		Gravel Pump

Measurement Description	
Start Time	Thursday, 2011 September 15 20:26:49
Stop Time	Thursday, 2011 September 15 20:30:50
Duration	00:04:00.6
Run Time	00:04:00.6
Pause	00:00:00.0
Pre Calibration	Thursday, 2011 September 15 20:04:18
Post Calibration	None
Calibration Deviation	---

Note
10' from Gravel pump
5' elevation

Overall Data			
LAEq		90.8	dB
LASmax	2011 Sep 15 20:26:59	91.7	dB
LZpeak (max)	2011 Sep 15 20:29:20	111.8	dB
LASmin	2011 Sep 15 20:30:49	90.1	dB
LCeq		100.0	dB
LAEq		90.8	dB
LCeq - LAeq		9.2	dB
LAIEq		91.1	dB
LAEq		90.8	dB
LAIEq - LAeq		0.3	dB
Ldn		90.8	dB
LDay 07:00-23:00		90.8	dB
LNight 23:00-07:00		---	dB
Lden		---	dB
LDay 07:00-19:00		---	dB
LEvening 19:00-23:00		90.8	dB
LNight 23:00-07:00		---	dB
LAE		114.6	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		31	
OBA Overload Duration		149.9	s

Statistics			
LAS5.00		91.4	dBA
LAS10.00		91.2	dBA
LAS33.30		91.0	dBA
LAS50.00		90.7	dBA
LAS66.60		90.5	dBA
LAS90.00		90.3	dBA
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 240.6 s	
LAS > 85.0 dB (Exceedence Counts / Duration)		1 / 240.6 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	

Settings		
RMS Weight	A Weighting	
Peak Weight	Z Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Low	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	At Bin Max	
Gain	+0	dB
Under Range Limit	26.3	dB
Under Range Peak	78.5	dB
Noise Floor	17.2	dB
Overload	144.1	dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	63.4	62.6	73.7	87.4	98.5	92.2	86.1	85.0	82.6	77.5	71.7	65.7
LZSmax	73.0	68.5	75.9	89.2	100.2	93.8	87.1	86.9	84.3	78.3	72.7	67.2
LZSmin	52.0	58.7	71.8	86.7	97.0	88.8	85.2	83.5	81.6	76.6	70.9	64.4

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	60.4	58.1	57.1	56.0	57.3	59.4	72.9	63.1	63.6	80.5	83.4	83.3
LZSmax	70.8	68.2	66.6	64.8	64.7	62.7	74.7	66.5	67.0	82.1	84.3	86.2
LZSmin	48.0	46.4	45.1	49.0	51.1	55.3	71.1	59.8	60.4	78.9	82.6	81.5
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	77.0	98.4	79.1	86.3	90.1	82.3	83.1	81.3	79.2	79.1	82.1	79.0
LZSmax	79.9	100.0	86.6	88.3	91.6	86.0	85.4	83.3	81.5	81.6	84.2	82.3
LZSmin	74.9	96.8	76.4	82.5	84.8	79.7	80.2	77.1	77.0	76.7	79.6	77.0
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	80.0	77.5	74.5	74.4	72.5	70.5	68.3	67.0	65.1	63.0	60.9	56.5
LZSmax	81.7	80.0	75.9	75.7	73.3	71.9	69.3	68.1	66.4	64.2	63.0	58.9
LZSmin	78.6	76.1	73.3	73.4	71.5	69.6	67.3	66.2	64.1	61.8	59.1	54.4

Calibration History												
Preamp	Date										dB re. 1V/Pa	
Direct	07 Dec 2010 00:05:22										-26.4	
PRM831	15 Sep 2011 20:04:18										-26.6	
PRM831	26 Jul 2011 15:57:55										-25.7	
PRM831	06 Jun 2011 10:37:42										-24.9	
PRM831	07 Dec 2010 13:27:12										-25.8	
PRM831	07 Dec 2010 08:57:27										-26.3	
PRM831	07 Dec 2010 11:06:22										-26.4	
PRM831	07 Dec 2010 00:27:55										-25.0	

General Information													
Serial Number	02509												
Model	831												
Firmware Version	2.000												
Filename	831_Data.010												
User	GT												
Job Description	OCWD SAR-11												
Location	Drill Rig												
Measurement Description													
Start Time	Thursday, 2011 September 15 21:02:15												
Stop Time	Thursday, 2011 September 15 21:06:15												
Duration	00:04:00.5												
Run Time	00:04:00.5												
Pause	00:00:00.0												
Pre Calibration	Thursday, 2011 September 15 20:04:18												
Post Calibration	None												
Calibration Deviation	---												
Note													
10' from front of drill rig and engine exhaust													
11' elevation													
29.91 in HG, 66 F, 85% Humid, Overcast													
Overall Data													
LAEq												86.7	dB
LASmax	2011 Sep 15 21:02:15											89.1	dB
LZpeak (max)	2011 Sep 15 21:06:05											104.3	dB
LASmin	2011 Sep 15 21:02:50											85.8	dB
LCeq												89.9	dB
LAEq												86.7	dB
LCeq - LAeq												3.2	dB
LAIEq												87.2	dB
LAEq												86.7	dB
LAIEq - LAeq												0.4	dB
Ldn												86.7	dB
LDay 07:00-23:00												86.7	dB
LNight 23:00-07:00												---	dB
Lden												---	dB
LDay 07:00-19:00												---	dB
LEvening 19:00-23:00												86.7	dB
LNight 23:00-07:00												---	dB
LAE												110.6	dB
# Overloads												0	
Overload Duration												0.0	s
# OBA Overloads												0	
OBA Overload Duration												0.0	s
Statistics													
LAS5.00												87.3	dB
LAS10.00												87.2	dB
LAS33.30												86.9	dB
LAS50.00												86.7	dB
LAS66.60												86.6	dB
LAS90.00												86.2	dB
LAS > 65.0 dB (Exceedence Counts / Duration)												1 / 240.5 s	
LAS > 85.0 dB (Exceedence Counts / Duration)												1 / 240.5 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)												0 / 0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)												0 / 0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)												0 / 0.0 s	
Settings													
RMS Weight												A Weighting	
Peak Weight												Z Weighting	
Detector												Slow	
Preamp												PRM831	
Integration Method												Linear	
OBA Range												Low	
OBA Bandwidth												1/1 and 1/3	
OBA Freq. Weighting												Z Weighting	
OBA Max Spectrum												At Bin Max	
Gain												+0	dB
Under Range Limit												26.3	dB
Under Range Peak												78.5	dB
Noise Floor												17.2	dB
Overload												144.1	dB
1/1 Spectra													
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k	
LZeq	57.9	66.0	77.6	84.1	78.6	81.6	83.2	83.3	79.5	71.5	62.5	52.1	
LZSmax	76.6	70.7	81.6	85.4	81.0	83.9	85.5	85.7	82.1	75.7	68.0	57.5	
LZSmin	49.8	62.2	71.5	81.5	75.9	78.4	81.7	82.5	78.0	70.5	60.8	50.1	

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	54.6	53.6	53.0	61.7	61.2	60.9	75.7	71.7	68.5	72.6	81.7	79.5
LZSmax	73.1	72.0	67.5	65.9	68.8	65.3	78.7	78.7	73.5	76.6	82.8	82.0
LZSmin	40.8	42.4	47.1	56.4	54.9	56.1	64.6	59.4	62.8	65.5	80.4	70.9
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	68.2	70.7	76.8	80.3	73.8	73.4	75.9	79.5	79.2	79.0	79.0	77.7
LZSmax	73.3	74.3	80.0	83.0	76.4	77.1	79.0	82.3	81.8	81.7	80.8	80.4
LZSmin	65.3	68.2	72.2	75.7	70.9	71.1	73.5	76.7	76.8	76.2	76.4	75.8
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	77.4	73.6	70.6	69.0	65.9	63.7	60.6	56.0	53.2	50.7	45.2	39.6
LZSmax	79.3	76.4	75.0	73.2	69.9	68.0	66.3	61.6	58.0	56.0	50.8	45.0
LZSmin	75.5	72.2	68.5	67.7	64.9	63.0	58.2	54.7	52.0	48.4	43.2	37.2

Calibration History												
Preamp	Date										dB re. 1V/Pa	
Direct	07 Dec 2010 00:05:22										-26.4	
PRM831	15 Sep 2011 20:04:18										-26.6	
PRM831	26 Jul 2011 15:57:55										-25.7	
PRM831	06 Jun 2011 10:37:42										-24.9	
PRM831	07 Dec 2010 13:27:12										-25.8	
PRM831	07 Dec 2010 08:57:27										-26.3	
PRM831	07 Dec 2010 11:06:22										-26.4	
PRM831	07 Dec 2010 00:27:55										-25.0	

File Translated: V:\Vista Env\2010\10022-Fresno Walmart\Noise Measurements\LD\10.slm1
 Model/Serial Number: 824 / A3176
 Firmware/Software Revs: 4.283 / 3.120
 Name:
 Descr1: 1021 Didrikson Way
 Descr2: Laguna Beach, CA 92651
 Setup/Setup Descr: slm&rt.a.ssa / SLM & Real-Time Analyzer
 Location: At pallet stacking area on north side of Walmart
 Note1: Approx. 10' from operational forklift
 Note2: 70F, 29.43 in Hg, 27% Humid., 4 mph wind, partly cloudy

Overall Any Data

Start Time: 18-May-2011 17:21:20
 Elapsed Time: 00:04:00.7

	A Weight	C Weight	Flat
Leq:	74.4 dBA	80.5 dBC	81.0 dBF
SEL:	98.2 dBA	104.3 dBC	104.8 dBF
Peak:	108.4 dBA	109.1 dBC	109.1 dBF
18-May-2011 17:24:51	18-May-2011 17:24:44	18-May-2011 17:24:48	
Lmax (slow):	87.9 dBA	90.9 dBC	91.0 dBF
18-May-2011 17:24:49	18-May-2011 17:24:49	18-May-2011 17:24:49	
Lmin (slow):	62.8 dBA	68.6 dBC	69.7 dBF
18-May-2011 17:21:34	18-May-2011 17:21:33	18-May-2011 17:21:33	
Lmax (fast):	91.7 dBA	93.9 dBC	94.0 dBF
18-May-2011 17:24:48	18-May-2011 17:24:48	18-May-2011 17:24:48	
Lmin (fast):	59.2 dBA	67.1 dBC	68.2 dBF
18-May-2011 17:21:28	18-May-2011 17:21:30	18-May-2011 17:21:30	
Lmax (impulse):	94.3 dBA	96.2 dBC	96.3 dBF
18-May-2011 17:24:51	18-May-2011 17:24:44	18-May-2011 17:24:48	
Lmin (impulse):	63.1 dBA	69.1 dBC	70.4 dBF
18-May-2011 17:23:23	18-May-2011 17:21:33	18-May-2011 17:21:33	

Spectra

Date 18-May-2011 Time 17:21:20 Run Time 00:04:00.7

Hz	Leq1/3	Leq1/1	Max1/3	Max1/1	Min1/3	Min1/1	Hz	Leq1/3	Leq1/1	Max1/3	Max1/1	Min1/3	Min1/1
12.5	63.2		76.2		39.0		630	67.7		84.8		45.8	
16.0	60.8	66.2	73.2	78.3	41.6	45.6	800	64.6		83.9		47.6	
20.0	59.6		67.5		41.5		1000	63.1	68.6	82.1	86.9	46.7	52.4
25.0	62.7		70.0		44.6		1250	63.6		79.1		48.4	
31.5	67.6	72.5	68.8	73.9	46.6	51.1	1600	63.8		79.9		48.8	
40.0	70.0		68.5		47.3		2000	61.7	66.9	81.9	84.9	46.3	51.4
50.0	70.4		68.1		48.0		2500	60.1		77.6		42.6	
63.0	71.6	76.2	83.2	86.2	51.8	55.4	3150	63.4		76.7		41.0	
80.0	72.1		83.1		51.2		4000	53.5	64.2	73.4	79.7	36.6	43.3
100	68.5		73.7		51.0		5000	53.5		74.0		36.4	
125	68.7	73.9	77.6	82.2	50.3	54.9	6300	49.8		69.2		32.9	
160	70.1		79.2		48.9		8000	47.2	52.2	66.0	71.2	30.3	35.3
200	68.1		77.5		51.5		10000	42.4		59.4		25.8	
250	63.4	69.9	73.7	80.0	46.3	53.3	12500	39.5		57.8		24.0	
315	60.2		73.2		45.0		16000	34.8	41.1	52.6	59.4	23.0	27.7
400	65.6		78.8		48.7		20000	30.1		48.9		21.3	
500	69.1	72.5	85.1	88.5	48.5	52.6							

Ln Start Level: 15 dB
 L1.00 0.0 dBA L50.00 0.0 dBA L95.00 0.0 dBA
 L5.00 0.0 dBA L90.00 0.0 dBA L99.00 0.0 dBA

Detector: Slow
 Weighting: A
 SPL Exceedance Level 1: 85.0 dB Exceeded: 1 times
 SPL Exceedance level 2: 120 dB Exceeded: 0 times
 Peak-1 Exceedance Level: 105 dB Exceeded: 4 times
 Peak-2 Exceedance Level: 100 dB Exceeded: 4 times
 Hysteresis: 2
 Overloaded: 0 time(s)
 Paused: 0 times for 00:00:00.0

File Translated: V:\Vista Env\2010\10022-Fresno Walmart\Noise Measurements\LD\10.slm1
Model/Serial Number: 824 / A3176

Current Any Data

Start Time: 18-May-2011 17:21:20
Elapsed Time: 00:04:00.7

	A Weight	C Weight	Flat
Leq:	74.4 dBA	80.5 dBC	81.0 dBF
SEL:	98.2 dBA	104.3 dBC	104.8 dBF
Peak:	108.4 dBA	109.1 dBC	109.1 dBF
18-May-2011 17:24:51		18-May-2011 17:24:44	18-May-2011 17:24:48
Lmax (slow):	87.9 dBA	90.9 dBC	91.0 dBF
18-May-2011 17:24:49		18-May-2011 17:24:49	18-May-2011 17:24:49
Lmin (slow):	62.8 dBA	68.6 dBC	69.7 dBF
18-May-2011 17:21:34		18-May-2011 17:21:33	18-May-2011 17:21:33
Lmax (fast):	91.7 dBA	93.9 dBC	94.0 dBF
18-May-2011 17:24:48		18-May-2011 17:24:48	18-May-2011 17:24:48
Lmin (fast):	59.2 dBA	67.1 dBC	68.2 dBF
18-May-2011 17:21:28		18-May-2011 17:21:30	18-May-2011 17:21:30
Lmax (impulse):	94.3 dBA	96.2 dBC	96.3 dBF
18-May-2011 17:24:51		18-May-2011 17:24:44	18-May-2011 17:24:48
Lmin (impulse):	63.1 dBA	69.1 dBC	70.4 dBF
18-May-2011 17:23:23		18-May-2011 17:21:33	18-May-2011 17:21:33

Calibrated:	18-May-2011 13:09:02	Offset:	-48.2 dB
Checked:	19-May-2011 06:46:08	Level:	113.9 dB
Calibrator	not set	Level:	114.0 dB
Cal Records Count:	0		

Interval Records:	Disabled	Number Interval Records:	0
History Records:	Disabled	Number History Records:	0
Run/Stop Records:		Number Run/Stop Records:	2

General Information			
Serial Number		02509	
Model		831	
Firmware Version		2.000	
Filename		831_Data.005	
User		GT	
Job Description		OCWD SAR-11	
Location		Generator for Shaker	

Measurement Description			
Start Time	Thursday, 2011 September 15	20:34:07	
Stop Time	Thursday, 2011 September 15	20:37:07	
Duration		00:03:00.6	
Run Time		00:03:00.6	
Pause		00:00:00.0	
Pre Calibration	Thursday, 2011 September 15	20:04:18	
Post Calibration		None	
Calibration Deviation		---	

Note			
Ingersoll Rand G25			
10' from generator			
4' elevation			
29.91 in HG, 66 F, 85% Humid, Overcast			

Overall Data			
LAEq		71.0	dB
LASmax	2011 Sep 15 20:34:07	76.0	dB
LZpeak (max)	2011 Sep 15 20:34:34	107.7	dB
LASmin	2011 Sep 15 20:35:38	69.8	dB
LCeq		88.7	dB
LAEq		71.0	dB
LCeq - LAeq		17.7	dB
LAIeq		72.5	dB
LAEq		71.0	dB
LAIeq - LAeq		1.5	dB
Ldn		71.0	dB
LDay 07:00-23:00		71.0	dB
LNight 23:00-07:00		---	dB
Lden		---	dB
LDay 07:00-19:00		---	dB
LEvening 19:00-23:00		71.0	dB
LNight 23:00-07:00		---	dB
LAE		93.6	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics			
LAS5.00		71.6	dB
LAS10.00		71.4	dB
LAS33.30		71.1	dB
LAS50.00		71.0	dB
LAS66.60		70.8	dB
LAS90.00		70.6	dB
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 180.6 s	
LAS > 85.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	

Settings			
RMS Weight		A Weighting	
Peak Weight		Z Weighting	
Detector		Slow	
Preamp		PRM831	
Integration Method		Linear	
OBA Range		Low	
OBA Bandwidth		1/1 and 1/3	
OBA Freq. Weighting		Z Weighting	
OBA Max Spectrum		At Bin Max	
Gain		+0	dB
Under Range Limit		26.3	dB
Under Range Peak		78.5	dB
Noise Floor		17.2	dB
Overload		144.1	dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	62.9	68.2	74.2	87.6	84.0	73.1	62.5	58.3	57.3	50.9	45.6	36.3
LZSmax	72.8	85.4	93.5	97.8	91.6	75.1	67.4	61.4	60.1	54.2	47.8	47.8
LZSmin	50.7	53.8	66.1	70.6	82.2	69.4	61.2	57.1	56.3	49.7	44.3	34.1

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	59.8	57.9	55.6	56.2	64.5	65.4	60.6	66.3	73.1	77.0	87.2	63.1
LZSmax	69.8	65.4	65.4	69.2	81.9	84.5	77.3	80.4	93.5	97.4	89.7	67.5
LZSmin	40.7	43.9	45.0	39.3	49.2	48.3	51.1	58.9	60.1	54.0	85.8	60.6

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	66.6	82.1	79.4	71.3	63.8	59.0	59.5	57.3	56.2	54.5	54.3	50.9
LZSmax	73.7	84.7	81.8	73.4	65.8	67.4	63.4	62.4	63.5	59.5	57.4	55.3
LZSmin	64.2	80.0	76.6	64.8	61.4	56.5	55.9	53.1	54.2	52.6	52.8	49.1

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	51.3	53.4	52.5	48.6	44.3	43.0	42.8	40.3	38.6	34.1	30.3	27.0
LZSmax	54.6	55.8	55.7	52.1	48.7	46.1	45.3	43.4	42.1	47.8	34.3	32.0
LZSmin	49.9	52.2	51.1	47.3	43.0	41.3	40.6	39.3	37.7	31.7	28.4	24.4

Calibration History		
Preamp	Date	dB re. 1V/Pa
Direct	07 Dec 2010 00:05:22	-26.4
PRM831	15 Sep 2011 20:04:18	-26.6
PRM831	26 Jul 2011 15:57:55	-25.7
PRM831	06 Jun 2011 10:37:42	-24.9
PRM831	07 Dec 2010 13:27:12	-25.8
PRM831	07 Dec 2010 08:57:27	-26.3
PRM831	07 Dec 2010 11:06:22	-26.4
PRM831	07 Dec 2010 00:27:55	-25.0

General Information		
Serial Number	02509	
Model	831	
Firmware Version	2.000	
Filename	831_Data.002	
User	GT	
Job Description	OCWD SAR-11	
Location	Generator for lights	

Measurement Description	
Start Time	Thursday, 2011 September 15 20:14:18
Stop Time	Thursday, 2011 September 15 20:16:19
Duration	00:02:00.9
Run Time	00:02:00.9
Pause	00:00:00.0
Pre Calibration	Thursday, 2011 September 15 20:04:18
Post Calibration	None
Calibration Deviation	---

Note		
10' from Generator		
7' elevation		

Overall Data			
L _{Aeq}		70.0	dB
L _{ASmax}	2011 Sep 15 20:14:28	70.6	dB
L _{Zpeak} (max)	2011 Sep 15 20:14:18	99.3	dB
L _{ASmin}	2011 Sep 15 20:14:23	69.6	dB
L _{Ceq}		89.7	dB
L _{Aeq}		70.0	dB
L _{Ceq} - L _{Aeq}		19.7	dB
L _{A1eq}		70.6	dB
L _{Aeq}		70.0	dB
L _{A1eq} - L _{Aeq}		0.6	dB
L _{dn}		70.0	dB
L _{Day} 07:00-23:00		70.0	dB
L _{Night} 23:00-07:00		---	dB
L _{den}		---	dB
L _{Day} 07:00-19:00		---	dB
L _{Evening} 19:00-23:00		70.0	dB
L _{Night} 23:00-07:00		---	dB
L _{AE}		90.8	dB
# Overloads		0	
Overload Duration		0.0	s
# OBA Overloads		0	
OBA Overload Duration		0.0	s

Statistics			
L _{AS5.00}		70.3	dBA
L _{AS10.00}		70.2	dBA
L _{AS33.30}		70.0	dBA
L _{AS50.00}		70.0	dBA
L _{AS66.60}		69.9	dBA
L _{AS90.00}		69.8	dBA
L _{AS} > 65.0 dB (Exceedence Counts / Duration)		1 / 120.9 s	
L _{AS} > 85.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
L _{Zpeak} > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
L _{Zpeak} > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
L _{Zpeak} > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	

Settings		
RMS Weight	A Weighting	
Peak Weight	Z Weighting	
Detector	Slow	
Preamp	PRM831	
Integration Method	Linear	
OBA Range	Low	
OBA Bandwidth	1/1 and 1/3	
OBA Freq. Weighting	Z Weighting	
OBA Max Spectrum	At Bin Max	
Gain	+0	dB
Under Range Limit	26.3	dB
Under Range Peak	78.5	dB
Noise Floor	17.2	dB
Overload	144.1	dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
L _{Zeq}	66.7	61.7	64.1	90.4	72.3	73.4	66.8	61.9	58.9	55.6	51.2	43.9
L _{ZSmax}	74.1	66.6	68.2	90.8	73.8	74.5	68.4	64.2	60.6	62.3	51.9	45.2
L _{ZSmin}	55.1	54.7	60.8	89.9	70.6	72.0	65.3	60.0	58.0	54.7	50.7	42.6

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	63.8	62.1	59.5	57.8	56.7	56.3	56.1	59.4	61.0	62.4	90.4	62.9
LZSmax	71.2	69.9	66.2	64.7	62.5	64.2	60.4	66.2	64.8	64.4	90.7	70.5
LZSmin	50.2	50.2	48.5	48.9	49.5	50.1	51.1	55.2	56.7	60.3	89.9	59.4
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	62.0	65.0	70.8	72.7	64.9	59.8	61.9	63.8	59.3	60.0	54.8	53.9
LZSmax	68.4	67.1	72.5	74.3	66.8	63.5	64.9	65.1	62.1	62.7	57.1	58.9
LZSmin	58.7	63.0	69.0	71.2	62.9	57.8	59.3	61.4	57.8	58.0	53.1	52.2
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	53.5	55.0	53.7	52.2	50.4	49.3	48.0	46.7	43.7	40.1	39.4	37.5
LZSmax	57.1	56.3	55.3	57.2	60.6	49.8	48.7	47.6	44.4	41.0	40.7	39.4
LZSmin	52.2	54.1	52.3	50.6	49.4	48.5	47.4	45.9	43.1	39.5	37.6	34.0

Calibration History		
Preamp	Date	dB re. 1V/Pa
Direct	07 Dec 2010 00:05:22	-26.4
PRM831	15 Sep 2011 20:04:18	-26.6
PRM831	26 Jul 2011 15:57:55	-25.7
PRM831	06 Jun 2011 10:37:42	-24.9
PRM831	07 Dec 2010 13:27:12	-25.8
PRM831	07 Dec 2010 08:57:27	-26.3
PRM831	07 Dec 2010 11:06:22	-26.4
PRM831	07 Dec 2010 00:27:55	-25.0

General Information				
Serial Number			02509	
Model			831	
Firmware Version			2.000	
Filename			831_Data.006	
User			GT	
Job Description			OCWD SAR-11	
Location			Linear Shaker	
Measurement Description				
Start Time	Thursday, 2011 September 15	20:38:37		
Stop Time	Thursday, 2011 September 15	20:41:38		
Duration		00:03:00.6		
Run Time		00:03:00.6		
Pause		00:00:00.0		
Pre Calibration	Thursday, 2011 September 15	20:04:18		
Post Calibration		None		
Calibration Deviation		---		
Note				
MI Swaco				
10' from Shaker				
9' elevation				
29.91 in HG, 66 F, 85% Humid, Overcast				
Overall Data				
LAEq		74.5		dB
LASmax	2011 Sep 15 20:39:04	75.7		dB
LZpeak (max)	2011 Sep 15 20:40:36	104.8		dB
LASmin	2011 Sep 15 20:38:52	70.8		dB
LCeq		94.0		dB
LAEq		74.5		dB
LCeq - LAeq		19.5		dB
LAIEq		75.2		dB
LAEq		74.5		dB
LAIEq - LAeq		0.7		dB
Ldn		74.5		dB
LDay 07:00-23:00		74.5		dB
LNight 23:00-07:00		---		dB
Lden		---		dB
LDay 07:00-19:00		---		dB
LEvening 19:00-23:00		74.5		dB
LNight 23:00-07:00		---		dB
LAE		97.0		dB
# Overloads		0		
Overload Duration		0.0		s
# OBA Overloads		0		
OBA Overload Duration		0.0		s
Statistics				
LAS5.00		75.3		dB
LAS10.00		75.2		dB
LAS33.30		75.0		dB
LAS50.00		74.8		dB
LAS66.60		74.6		dB
LAS90.00		71.9		dB
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 180.6 s		
LAS > 85.0 dB (Exceedence Counts / Duration)		0 / 0.0 s		
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s		
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s		
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s		
Settings				
RMS Weight		A Weighting		
Peak Weight		Z Weighting		
Detector		Slow		
Preamp		PRM831		
Integration Method		Linear		
OBA Range		Low		
OBA Bandwidth		1/1 and 1/3		
OBA Freq. Weighting		Z Weighting		
OBA Max Spectrum		At Bin Max		
Gain		+0		dB
Under Range Limit		26.3		dB
Under Range Peak		78.5		dB
Noise Floor		17.2		dB
Overload		144.1		dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	63.4	57.8	95.1	89.9	80.6	74.3	74.7	67.6	56.3	52.4	48.3	38.1
LZSmax	78.1	69.4	95.8	91.5	82.3	76.2	77.1	68.8	59.3	55.4	50.3	40.8
LZSmin	50.7	52.7	92.8	79.1	73.6	72.7	67.2	65.5	53.5	47.8	42.3	30.8
1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	60.4	58.5	55.9	54.3	53.7	51.6	54.6	95.1	61.5	57.3	89.9	65.3
LZSmax	73.6	73.2	67.6	65.7	64.4	61.6	59.0	95.8	64.5	62.5	91.5	67.9
LZSmin	44.0	44.1	44.3	46.5	48.1	46.7	49.6	92.8	54.6	54.2	78.9	60.3
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	68.8	79.4	72.8	71.8	65.3	69.9	68.0	73.3	63.1	63.8	63.3	60.2
LZSmax	71.2	81.3	75.4	74.8	72.3	72.4	74.6	75.6	66.2	65.6	64.9	62.4
LZSmin	63.8	70.1	69.1	68.3	60.8	65.1	63.1	62.0	58.4	60.3	61.8	58.3
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	54.4	50.2	46.2	48.0	46.1	48.6	46.3	41.1	40.3	36.3	31.5	25.4
LZSmax	57.8	54.1	52.3	50.3	53.1	50.0	48.2	43.4	42.4	39.4	33.9	28.9
LZSmin	51.5	47.4	43.0	42.5	42.5	43.4	40.0	35.3	34.6	28.2	24.6	20.7

Calibration History												
Preamp	Date										dB re. 1V/Pa	
Direct	07 Dec 2010 00:05:22										-26.4	
PRM831	15 Sep 2011 20:04:18										-26.6	
PRM831	26 Jul 2011 15:57:55										-25.7	
PRM831	06 Jun 2011 10:37:42										-24.9	
PRM831	07 Dec 2010 13:27:12										-25.8	
PRM831	07 Dec 2010 08:57:27										-26.3	
PRM831	07 Dec 2010 11:06:22										-26.4	
PRM831	07 Dec 2010 00:27:55										-25.0	

General Information													
Serial Number	02509												
Model	831												
Firmware Version	2.000												
Filename	831_Data.007												
User	GT												
Job Description	OCWD SAR-11												
Location	Water Pump												
Measurement Description													
Start Time	Thursday, 2011 September 15 20:44:15												
Stop Time	Thursday, 2011 September 15 20:47:15												
Duration	00:03:00.6												
Run Time	00:03:00.6												
Pause	00:00:00.0												
Pre Calibration	Thursday, 2011 September 15 20:04:18												
Post Calibration	None												
Calibration Deviation	---												
Note													
10' from diesel water pump													
4' elevation													
29.91 in HG, 66 F, 85% Humid, Overcast													
Overall Data													
L _{Aeq}	86.3											dB	
L _{ASmax}	2011 Sep 15 20:44:34											87.7	dB
L _{Zpeak} (max)	2011 Sep 15 20:44:33											107.5	dB
L _{ASmin}	2011 Sep 15 20:46:49											85.1	dB
L _{Ceq}	92.8											dB	
L _{Aeq}	86.3											dB	
L _{Ceq} - L _{Aeq}	6.5											dB	
L _{A_{Ieq}}	86.6											dB	
L _{Aeq}	86.3											dB	
L _{A_{Ieq}} - L _{Aeq}	0.3											dB	
L _{dn}	86.3											dB	
L _{Day} 07:00-23:00	86.3											dB	
L _{Night} 23:00-07:00	---											dB	
L _{den}	---											dB	
L _{Day} 07:00-19:00	---											dB	
L _{Evening} 19:00-23:00	86.3											dB	
L _{Night} 23:00-07:00	---											dB	
L _{AE}	108.8											dB	
# Overloads	0												
Overload Duration	0.0											s	
# OBA Overloads	0												
OBA Overload Duration	0.0											s	
Statistics													
L _{AS5.00}	87.4											dB	
L _{AS10.00}	87.3											dB	
L _{AS33.30}	86.7											dB	
L _{AS50.00}	85.9											dB	
L _{AS66.60}	85.7											dB	
L _{AS90.00}	85.4											dB	
L _{AS} > 65.0 dB (Exceedence Counts / Duration)	1 / 180.6 s												
L _{AS} > 85.0 dB (Exceedence Counts / Duration)	1 / 180.6 s												
L _{Zpeak} > 135.0 dB (Exceedence Counts / Duration)	0 / 0.0 s												
L _{Zpeak} > 137.0 dB (Exceedence Counts / Duration)	0 / 0.0 s												
L _{Zpeak} > 140.0 dB (Exceedence Counts / Duration)	0 / 0.0 s												
Settings													
RMS Weight	A Weighting												
Peak Weight	Z Weighting												
Detector	Slow												
Preamp	PRM831												
Integration Method	Linear												
OBA Range	Low												
OBA Bandwidth	1/1 and 1/3												
OBA Freq. Weighting	Z Weighting												
OBA Max Spectrum	At Bin Max												
Gain	+0											dB	
Under Range Limit	26.3											dB	
Under Range Peak	78.5											dB	
Noise Floor	17.2											dB	
Overload	144.1											dB	
1/1 Spectra													
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k	
L _{Zeq}	62.7	57.4	82.4	88.4	85.2	86.8	83.3	79.7	79.9	74.7	67.8	64.1	
L _{Zsmax}	76.4	71.3	83.3	89.3	86.4	89.4	84.7	81.6	82.1	76.3	70.1	67.1	
L _{Zsmin}	47.4	51.6	81.7	87.8	84.3	85.3	81.5	78.5	77.9	73.3	65.9	61.3	

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	59.7	57.9	55.3	53.0	52.4	52.6	82.4	61.9	55.1	84.9	83.5	82.1
LZSmax	72.4	69.2	71.6	67.4	65.7	65.7	83.2	65.1	59.4	86.1	84.0	82.8
LZSmin	44.3	43.0	41.5	44.4	45.2	47.3	81.7	58.3	51.4	83.9	83.1	81.5
Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	83.3	77.5	76.6	85.4	80.2	79.3	79.8	79.4	75.1	74.9	75.1	74.7
LZSmax	85.1	78.5	80.1	87.9	83.2	83.1	82.7	82.5	79.2	76.9	77.5	78.0
LZSmin	82.2	76.1	74.1	84.1	78.4	76.7	74.2	73.9	72.8	72.9	72.8	71.9
Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	76.0	75.5	74.0	72.1	69.2	66.9	64.7	62.6	60.9	60.2	60.5	55.7
LZSmax	79.0	77.7	76.3	74.0	71.0	68.7	66.8	65.0	63.6	63.6	63.9	58.7
LZSmin	73.9	73.5	71.6	70.4	67.7	65.3	62.6	60.5	58.8	57.7	57.5	53.0

Calibration History		
Preamp	Date	dB re. 1V/Pa
Direct	07 Dec 2010 00:05:22	-26.4
PRM831	15 Sep 2011 20:04:18	-26.6
PRM831	26 Jul 2011 15:57:55	-25.7
PRM831	06 Jun 2011 10:37:42	-24.9
PRM831	07 Dec 2010 13:27:12	-25.8
PRM831	07 Dec 2010 08:57:27	-26.3
PRM831	07 Dec 2010 11:06:22	-26.4
PRM831	07 Dec 2010 00:27:55	-25.0

General Information			
Serial Number		02509	
Model		831	
Firmware Version		2.000	
Filename		831_Data.009	
User		GT	
Job Description		OCWD SAR-11	
Location		Welder	

Measurement Description			
Start Time	Thursday, 2011 September 15	20:54:44	
Stop Time	Thursday, 2011 September 15	20:57:44	
Duration		00:03:00.8	
Run Time		00:03:00.8	
Pause		00:00:00.0	
Pre Calibration	Thursday, 2011 September 15	20:04:18	
Post Calibration		None	
Calibration Deviation		---	

Note
Miller Big 40 Diesel Welding Generator
10' from Welder
4' elevation
29.91 in HG, 66 F, 85% Humid, Overcast

Overall Data				
LAeq		85.0		dB
LASmax	2011 Sep 15 20:54:44	86.5		dB
LZpeak (max)	2011 Sep 15 20:55:02	105.6		dB
LASmin	2011 Sep 15 20:55:45	84.4		dB
LCeq		94.4		dB
LAeq		85.0		dB
LCeq - LAeq		9.3		dB
LA1eq		85.5		dB
LAeq		85.0		dB
LA1eq - LAeq		0.5		dB
Ldn		85.0		dB
LDay 07:00-23:00		85.0		dB
LNight 23:00-07:00		---		dB
Lden		---		dB
LDay 07:00-19:00		---		dB
LEvening 19:00-23:00		85.0		dB
LNight 23:00-07:00		---		dB
LAE		107.6		dB
# Overloads		0		
Overload Duration		0.0		s
# OBA Overloads		0		
OBA Overload Duration		0.0		s

Statistics			
LAS5.00		86.1	dB
LAS10.00		85.9	dB
LAS33.30		84.9	dB
LAS50.00		84.8	dB
LAS66.60		84.7	dB
LAS90.00		84.6	dB
LAS > 65.0 dB (Exceedence Counts / Duration)		1 / 180.8 s	
LAS > 85.0 dB (Exceedence Counts / Duration)		1 / 180.8 s	
LZpeak > 135.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 137.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	
LZpeak > 140.0 dB (Exceedence Counts / Duration)		0 / 0.0 s	

Settings			
RMS Weight		A Weighting	
Peak Weight		Z Weighting	
Detector		Slow	
Preamp		PRM831	
Integration Method		Linear	
OBA Range		Low	
OBA Bandwidth		1/1 and 1/3	
OBA Freq. Weighting		Z Weighting	
OBA Max Spectrum		At Bin Max	
Gain		+0	dB
Under Range Limit		26.3	dB
Under Range Peak		78.5	dB
Noise Floor		17.2	dB
Overload		144.1	dB

1/1 Spectra												
Freq. (Hz):	8.0	16.0	31.5	63.0	125	250	500	1k	2k	4k	8k	16k
LZeq	64.2	59.3	81.7	89.9	91.3	82.9	81.9	79.8	75.6	73.7	67.0	59.1
LZSmax	73.2	68.3	83.1	91.3	93.4	84.7	83.1	81.9	77.8	75.6	69.6	61.9
LZSmin	53.4	52.0	81.0	88.8	90.5	81.9	80.5	78.7	74.7	72.6	66.0	58.0

1/3 Spectra												
Freq. (Hz):	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0	63.0	80.0
LZeq	61.5	59.5	57.6	55.6	54.4	53.4	55.7	59.8	82.0	80.8	86.4	86.5
LZSmax	72.3	69.3	68.1	65.1	64.1	63.3	66.2	64.2	83.3	81.9	88.0	88.2
LZSmin	49.8	47.2	46.8	42.6	46.4	47.7	50.6	51.6	81.2	79.4	85.0	84.7

Freq. (Hz):	100	125	160	200	250	315	400	500	630	800	1k	1.25k
LZeq	85.8	89.6	79.3	80.8	78.5	69.1	72.4	77.2	79.4	74.6	75.9	74.4
LZSmax	87.2	91.8	81.2	83.7	80.9	72.8	74.7	78.7	80.7	77.4	77.5	76.3
LZSmin	84.4	88.7	77.9	77.4	76.7	67.4	70.4	74.4	77.7	72.6	74.9	73.2

Freq. (Hz):	1.6k	2k	2.5k	3.15k	4k	5k	6.3k	8k	10k	12.5k	16k	20k
LZeq	72.2	70.2	69.6	70.4	69.7	65.3	64.0	62.0	59.5	56.8	53.9	49.6
LZSmax	74.5	72.6	72.2	72.6	71.8	67.1	66.6	65.0	62.0	59.5	56.9	52.9
LZSmin	70.8	68.9	68.1	68.8	68.2	64.2	62.7	60.9	58.4	55.7	52.5	47.9

Calibration History												
Preamp	Date										dB re. 1V/Pa	
Direct	07 Dec 2010 00:05:22										-26.4	
PRM831	15 Sep 2011 20:04:18										-26.6	
PRM831	26 Jul 2011 15:57:55										-25.7	
PRM831	06 Jun 2011 10:37:42										-24.9	
PRM831	07 Dec 2010 13:27:12										-25.8	
PRM831	07 Dec 2010 08:57:27										-26.3	
PRM831	07 Dec 2010 11:06:22										-26.4	
PRM831	07 Dec 2010 00:27:55										-25.0	

Table 1. CA/T equipment noise emissions and acoustical usage factors database.

CA/T Noise Emission Reference Levels and Usage Factors					
filename: EQUIPLST.xls					
revised: 7/26/05					
	Impact	Acoustical Use Factor	Spec 721.560 Lmax @ 50ft	Actual Measured Lmax @ 50ft	No. of Actual Data Samples
Equipment Description	Device ?	(%)	(dBA, slow)	(dBA, slow)	(Count)
				(samples averaged)	
All Other Equipment > 5 HP	No	50	85	-- N/A --	0
Auger Drill Rig	No	20	85	84	36
Backhoe	No	40	80	78	372
Bar Bender	No	20	80	-- N/A --	0
Blasting	Yes	-- N/A --	94	-- N/A --	0
Boring Jack Power Unit	No	50	80	83	1
Chain Saw	No	20	85	84	46
Clam Shovel (dropping)	Yes	20	93	87	4
Compactor (ground)	No	20	80	83	57
Compressor (air)	No	40	80	78	18
Concrete Batch Plant	No	15	83	-- N/A --	0
Concrete Mixer Truck	No	40	85	79	40
Concrete Pump Truck	No	20	82	81	30
Concrete Saw	No	20	90	90	55
Crane	No	16	85	81	405
Dozer	No	40	85	82	55
Drill Rig Truck	No	20	84	79	22
Drum Mixer	No	50	80	80	1
Dump Truck	No	40	84	76	31
Excavator	No	40	85	81	170
Flat Bed Truck	No	40	84	74	4
Front End Loader	No	40	80	79	96
Generator	No	50	82	81	19
Generator (<25KVA, VMS signs)	No	50	70	73	74
Gradall	No	40	85	83	70
Grader	No	40	85	-- N/A --	0
Grapple (on backhoe)	No	40	85	87	1
Horizontal Boring Hydr. Jack	No	25	80	82	6
Hydra Break Ram	Yes	10	90	-- N/A --	0
Impact Pile Driver	Yes	20	95	101	11
Jackhammer	Yes	20	85	89	133
Man Lift	No	20	85	75	23
Mounted Impact Hammer (hoe ram)	Yes	20	90	90	212
Pavement Scarafier	No	20	85	90	2
Paver	No	50	85	77	9
Pickup Truck	No	40	55	75	1
Pneumatic Tools	No	50	85	85	90
Pumps	No	50	77	81	17
Refrigerator Unit	No	100	82	73	3
Rivit Buster/chipping gun	Yes	20	85	79	19
Rock Drill	No	20	85	81	3
Roller	No	20	85	80	16
Sand Blasting (Single Nozzle)	No	20	85	96	9
Scraper	No	40	85	84	12
Shears (on backhoe)	No	40	85	96	5
Slurry Plant	No	100	78	78	1
Slurry Trenching Machine	No	50	82	80	75
Soil Mix Drill Rig	No	50	80	-- N/A --	0
Tractor	No	40	84	-- N/A --	0
Vacuum Excavator (Vac-truck)	No	40	85	85	149
Vacuum Street Sweeper	No	10	80	82	19
Ventilation Fan	No	100	85	79	13
Vibrating Hopper	No	50	85	87	1
Vibratory Concrete Mixer	No	20	80	80	1
Vibratory Pile Driver	No	20	95	101	44
Warning Horn	No	5	85	83	12
Welder / Torch	No	40	73	74	5

APPENDIX D

Construction Noise Calculations Printouts

Phase 1 Temporary Noise Barrier Noise Calculations at Multi-Family Homes to East (Daytime Only)

Stationary Noise Sources	Reference Measurements				At Homes East of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Backhoe with Auger Attachment	10	82.7	75	10	82.7	81.5 (eq. N-2141.2 of TeNS)
Man-Lift**	50	75.0	100	20	84.9	84.9
Forklift	10	74.4	100	20	66.9	66.9
Rubber Tired Loader**	50	79.0	75	40	81.4	80.2

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y				(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Level at Residence	Source Height (feet)	Source Height (feet)				source to barrier - a	source to receiver - c	=a+b-c (auto)	fresnel		
Backhoe with Auger	5	10	6	81.5	76.1	7	5	800	5.099	5.099	10.050	15.133	0.016	1	0.046	-5.4
Man-Lift**	5	20	6	84.9	76.4	4	5	800	5.099	5.099	20.100	25.020	0.179	1	0.509	-8.5
Forklift	5	20	6	66.9	58.4	4	5	800	5.099	5.099	20.100	25.020	0.179	1	0.509	-8.5
Rubber Tired Loader	5	40	6	80.2	73.9	8	5	800	5.099	5.099	40.050	45.100	0.049	1	0.140	-6.24
Combined Noise Levels											87.5					

Phase 1 Temporary Noise Barrier Noise Calculations at Multi-Family Homes to North (Daytime Only)

Stationary Noise Sources	Reference Measurements				At Homes North of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Backhoe with Auger Attachment	10	82.7	75	10	82.7	81.5 (eq. N-2141.2 of TeNS)
Man-Lift**	50	75.0	100	20	84.9	84.9
Forklift	10	74.4	100	20	66.9	66.9
Rubber Tired Loader**	50	79.0	75	40	81.4	80.2

Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y = a+b-c (auto)		(slope) (1 = blocked line of sight)		Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Source Height (feet)	Source Height (feet)				source to receiver - c	source to barrier - a	fresnel	Barrier Atten	
Backhoe with Auger	5	10	6	81.5	76.1	7	800	5	800	5.099	15.133	0.016	1	0.046	-5.4
Man-Lift**	5	20	6	84.9	76.4	4	800	5	800	5.099	25.020	0.179	1	0.509	-8.5
Forklift	5	20	6	66.9	58.4	4	800	5	800	5.099	25.020	0.179	1	0.509	-8.5
Rubber Tired Loader	5	40	6	80.2	73.9	8	800	5	800	5.099	45.100	0.049	1	0.140	-6.24

Combined Noise Levels 87.5 80.4

*Use Factor based on hours per day equipment operational (based on 8 hour workday)

**Obtained from RCNM Model

Phase 2 Conductor Casing Noise Calculations at Multi-Family Homes to North (Daytime Only)

Stationary Noise Sources	Reference Measurements			At Homes North of Project Site		
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Bucket Auger Rig	10	86.7	100	30	74.8	74.8 (eq. N-2141.2 of TeNS)
Backhoe	10	82.7	100	35	69.1	69.1
Welder	10	85.0	100	35	71.4	71.4
Cement Truck**	50	79.0	33	50	79.0	74.2
Cement Pumper	10	90.8	33	40	75.7	70.9

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall	Exterior Observer Height (feet)	Source Height (feet)	Source Frequency (hz)	(slope) (1 = blocked line of sight)				
				Noise Level at Residence	Noise Level at Residence					barrier to receiver - b (all)	source to barrier - a	source to receiver - c	path difference - (auto)	Barrier Atten
Bucket Auger Rig	5	30	24	74.8	55.6	11	5	800	19.647	19.647	32.696	35.511	16.832	47.877
Backhoe	5	35	24	69.1	49.9	8	5	800	19.647	19.647	38.484	40.112	18.018	51.252
Welder	5	35	24	71.4	52.2	4	5	800	19.647	19.647	40.311	40.012	19.946	56.734
Cement Truck**	5	50	24	74.2	55.0	8	5	800	19.647	19.647	52.498	55.082	17.063	48.534
Cement Pumper	5	40	24	70.9	51.7	5	5	800	19.647	19.647	44.283	45.000	18.930	53.846
Combined Noise Levels														

*Use Factor based on hours per day equipment operational (based on 12 hour workday)

**Obtained from RCNM Model

Phase 2 Conductor Casing Noise Calculations at Multi-Family Homes to East (Daytime Only)

Stationary Noise Sources	Reference Measurements			At Homes East of Project Site		
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Bucket Auger Rig	10	86.7	100	45	70.4	70.4 (eq. N-2141.2 of TeNS)
Backhoe	10	82.7	100	40	67.6	67.6
Welder	10	85.0	100	40	69.9	69.9
Cement Truck**	50	79.0	33	50	79.0	74.2
Cement Pumper	10	90.8	33	40	75.7	70.9

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=.5)
Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	(slope) (1 = blocked line of sight)					
				Noise Level at Residence	Noise Level at Residence	Source Height (feet)	Source Height (feet)				source to barrier - a	source to receiver - c	path difference - (auto)	fresnel	Barrier Atten	
Bucket Auger Rig	5	45	24	70.4	51.3	11	5	5	800	19.647	46.840	50.359	16.128	1	45.876	-19.117
Backhoe	5	40	24	67.6	48.4	8	5	5	800	19.647	43.081	45.100	17.628	1	50.143	-19.2
Welder	5	40	24	69.9	50.7	4	5	5	800	19.647	44.721	45.011	19.357	1	55.060	-19.2
Cement Truck**	5	50	24	74.2	55.0	8	5	5	800	19.647	52.498	55.082	17.063	1	48.534	-19.171
Cement Pumper	5	40	24	70.9	51.7	5	5	5	800	19.647	44.283	45.000	18.930	1	53.846	-19.2
Combined Noise Levels												78.1	59.0			

*Use Factor based on hours per day equipment operational (based on 12 hour workday)

**Obtained from RCNM Model

Phase 3 Well Drilling Noise Calculations at Multi-Family Homes to North (24 hours)

Stationary Noise Sources	Reference Measurements			At Homes North of Project Site		
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Reverse Circulation Drilling Rig	10	86.7	100	30	74.8	74.8 (eq. N-2141.2 of TeNS)
Air Compressor	10	88.9	100	50	71.4	71.4
Mud System	10	90.8	100	50	73.3	73.3
Backhoe	10	82.7	25	50	65.2	59.2
Light Tower	10	70.0	50	40	54.9	51.9
Generator	10	71.0	50	40	55.9	52.9

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y				(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Level at Residence	Source Height (feet)				source to barrier - a	source to receiver - c	=a+b-c (auto)	fresnel		
Reverse Circulator	5	30	24	74.8	55.6	11	5	800	19.647	32.696	35.511	16.832	47.877	1	-19.157	
Air Compressor	5	50	24	71.4	52.2	7	5	800	19.647	52.811	55.036	17.422	49.555	1	-19.191	
Mud System	5	50	24	73.3	54.1	5	5	800	19.647	53.488	55.000	18.135	51.585	1	-19.2	
Backhoe	5	50	24	59.2	40.0	8	5	800	19.647	52.498	55.082	17.063	48.534	1	-19.171	
Light Tower	5	40	24	51.9	32.7	5	5	800	19.647	44.283	45.000	18.930	53.846	1	-19.2	
Generator	5	40	24	52.9	33.7	4	5	800	19.647	44.721	45.011	19.357	55.060	1	-19.2	

*Use Factor based on hours per day equipment operational (based on 24 hour workday)

Phase 3 Well Drilling Noise Calculations at Multi-Family Homes to East (24 hours)

Stationary Noise Sources	Reference Measurements				At Homes East of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Reverse Circulation Drilling Rig	10	86.7	100	45	70.4	70.4 (eq. N-2141.2 of TeNS)
Air Compressor	10	88.9	100	50	71.4	71.4
Mud System	10	74.5	100	50	57.0	57.0
Backhoe	10	82.7	25	50	65.2	59.2
Light Tower	10	70.0	50	40	54.9	51.9
Generator	10	71.0	50	40	55.9	52.9

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y				(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Level at Residence	Source Height (feet)				source to barrier - a	source to receiver - c	=a+b-c (auto)			
Reverse Circulator	5	45	24	70.4	51.3	11	5	800	19.647	46.840	50.359	16.128	1	45.876	-19.117	
Air Compressor	5	50	24	71.4	52.2	7	5	800	19.647	52.811	55.036	17.422	1	49.555	-19.191	
Mud System	5	50	24	57.0	37.9	9	5	800	19.647	52.202	55.145	16.703	1	47.511	-19.15	
Backhoe	5	50	24	59.2	40.0	8	5	800	19.647	52.498	55.082	17.063	1	48.534	-19.171	
Light Tower	5	40	24	51.9	32.7	5	5	800	19.647	44.283	45.000	18.930	1	53.846	-19.2	
Generator	5	40	24	52.9	33.7	4	5	800	19.647	44.721	45.011	19.357	1	55.060	-19.2	

*Use Factor based on hours per day equipment operational (based on 24 hour workday)

Phase 4 Well Casing Noise Calculations at Multi-Family Homes to North (24 hours)

Stationary Noise Sources	Reference Measurements			At Homes North of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq w UF
Drill Rig	10	86.7	100	30	74.8 (eq. N-2141.2 of TeNS)
Gravel/Seal Pump	10	90.8	100	50	73.3
Light Tower	10	70.0	50	50	49.5
Generator	10	71.0	50	50	50.5
Cement Truck**	50	79.0	17	60	69.3
Cement Pumper	10	90.8	17	60	63.7
Backhoe	10	82.7	50	40	64.6
Welder	10	85.0	50	40	66.9

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y				(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Source Height (feet)	Noise Level at Residence				source to barrier - a	source to receiver - c	=a+b-c (auto)	fresnel		
Drill Rig	5	30	24	74.8	55.6	11	55.6	5	800	19.647	32.696	35.511	16.832	47.877	1	-19.157
Gravel/Seal Pump	5	50	24	73.3	54.1	5	54.1	5	800	19.647	53.488	55.000	18.135	51.585	1	-19.2
Light Tower	5	50	24	49.5	30.3	7	30.3	5	800	19.647	52.811	55.036	17.422	49.555	1	-19.191
Generator	5	50	24	50.5	31.3	8	31.3	5	800	19.647	52.498	55.082	17.063	48.534	1	-19.171
Cement Truck**	5	60	24	69.3	50.2	8	50.2	5	800	19.647	62.097	65.069	16.674	47.429	1	-19.148
Cement Pumper	5	60	24	63.7	44.5	4	44.5	5	800	19.647	63.246	65.008	17.885	50.872	1	-19.2
Backhoe	5	40	24	64.6	45.4	8	45.4	5	800	19.647	43.081	45.100	17.628	50.143	1	-19.2
Welder	5	40	24	66.9	47.7	4	47.7	5	800	19.647	44.721	45.011	19.357	55.060	1	-19.2

Combined Noise Levels 78.0 59.3

*Use Factor based on hours per day equipment operational (based on 24 hour workday)

**Obtained from RCNM Model

Phase 4 Well Casing Noise Calculations at Multi-Family Homes to East (24 hours)

Stationary Noise Sources	Reference Measurements			At Homes East of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq w UF
Drill Rig	10	86.7	100	45	70.4 (eq. N-2141.2 of TeNS)
Gravel/Seal Pump	10	90.8	100	50	73.3
Light Tower	10	70.0	50	50	49.5
Generator	10	71.0	50	50	50.5
Cement Truck**	50	79.0	17	60	69.3
Cement Pumper	10	90.8	17	60	63.7
Backhoe	10	82.7	50	40	64.6
Welder	10	85.0	50	40	66.9

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y				(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Source Height (feet)	Source Height (feet)				source to barrier - a	source to receiver - c	=a+b-c (auto)	fresnel		
Drill Rig	5	45	24	70.4	51.3	11	800	5	800	19.647	46.840	50.359	16.128	45.876	1	-19.117
Gravel/Seal Pump	5	50	24	73.3	54.1	5	800	5	800	19.647	53.488	55.000	18.135	51.585	1	-19.2
Light Tower	5	50	24	49.5	30.3	7	800	5	800	19.647	52.811	55.036	17.422	49.555	1	-19.191
Generator	5	50	24	50.5	31.3	8	800	5	800	19.647	52.498	55.082	17.063	48.534	1	-19.171
Cement Truck**	5	60	24	69.3	50.1	5	800	5	800	19.647	62.936	65.000	17.583	50.015	1	-19.2
Cement Pumper	5	60	24	63.7	44.5	4	800	5	800	19.647	63.246	65.008	17.885	50.872	1	-19.2
Backhoe	5	40	24	64.6	45.4	8	800	5	800	19.647	43.081	45.100	17.628	50.143	1	-19.2
Welder	5	40	24	66.9	47.7	4	800	5	800	19.647	44.721	45.011	19.357	55.060	1	-19.2

Combined Noise Levels 76.4 57.9

*Use Factor based on hours per day equipment operational (based on 24 hour workday)

**Obtained from RCNM Model

Phase 5 Well Development Noise Calculations at Multi-Family Homes to North (Daytime Only)

Stationary Noise Sources	Reference Measurements			At Homes North of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq w UF
Drill Rig	10	86.7	100	30	74.8
Air Compressor	10	88.9	100	50	71.4
Pump Installation Rig (crane)**	50	81.0	100	30	86.5
Generator	10	71.0	100	50	53.5

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
 74.8 (eq. N-2141.2 of TeNS)
 Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y			(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Level at Residence	Source Height (feet)				source to barrier - a	source to receiver - c	=a+b-c (auto)		
Drill Rig	5	30	24	74.8	55.6	11	5	800	19.647	19.647	32.696	35.511	16.832	1	47.877
Air Compressor	5	50	24	71.4	52.2	7	5	800	19.647	19.647	52.811	55.036	17.422	1	49.555
Pump Installation F	5	30	24	86.5	67.4	11	5	800	19.647	19.647	32.696	35.511	16.832	1	47.877
Generator	5	50	24	53.5	34.3	4	5	800	19.647	19.647	53.852	55.009	18.489	1	52.592

Combined Noise Levels 87.0 67.8

*Use Factor based on hours per day equipment operational (based on 10 hour workday)

**Obtained from RCNM Model

Phase 5 Well Development Noise Calculations at Multi-Family Homes to East (Daytime Only)

Stationary Noise Sources	Reference Measurements				At Homes East of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Drill Rig	10	86.7	100	45	70.4	70.4 (eq. N-2141.2 of TeNS)
Air Compressor	10	88.9	100	50	71.4	71.4
Pump Installation Rig (crane)**	50	82.0	100	45	83.1	83.1
Generator	10	71.0	100	50	53.5	53.5

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
 Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y			(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Level at Residence	Source Height (feet)				source to receiver - c	=a+b-c (auto)	fresnel		
Drill Rig	5	45	24	70.4	51.3	11	5	800	19.647	46.840	50.359	16.128	1	45.876	-19.117
Air Compressor	5	50	24	71.4	52.2	7	5	800	19.647	52.811	55.036	17.422	1	49.555	-19.191
Pump Installation F	5	45	24	83.1	64.0	11	5	800	19.647	46.840	50.359	16.128	1	45.876	-19.117
Generator	5	50	24	53.5	34.3	4	5	800	19.647	53.852	55.009	18.489	1	52.592	-19.2

Combined Noise Levels 83.6 64.5

*Use Factor based on hours per day equipment operational (based on 10 hour workday)

**Obtained from RCNM Model

Phase 6 Test Pumping Noise Calculations at Multi-Family Homes to North (24 Hours)

Stationary Noise Sources	Reference				At Homes North of Project Site	
	Measurements		Use Factor*		Distance	Leq w UF
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Water Pump	10	86.3	100	40	71.2	71.2 (eq. N-2141.2 of TeNS)
						1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
						Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path			(1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Level at Residence	Source Height (feet)				source to barrier - a	source to receiver - c	difference - (auto)		
Water Pump	5	40	24	71.2	52.0	52.0	4	5	800	19.647	44.721	45.011	19.357	1	-19.2
Combined Noise Levels										55.060	fresnel	55.060			

*Use Factor based on hours per day equipment operational (based on 24 hour workday)

Phase 6 Test Pumping Noise Calculations at Multi-Family Homes to East (24 Hours)

Stationary Noise Sources	Reference Measurements				At Homes East of Project Site	
	Distance		Use Factor*		Leq	
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Water Pump	10	86.3	100	45	70.0	70.0 (eq. N-2141.2 of TeNS)
						1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
						Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall	5	Distance from source to Wall (feet)	45	Height of Wall (feet)	24	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	Barrier to receiver - b (all)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
							Noise Level at Residence	70.0	Noise Level at Residence	50.8			Source Height (feet)	4	barrier to receiver - b (all)	19.647	source to barrier - a	49.244	source to receiver - c	50.010	path difference - (auto)	18.881																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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*Use Factor based on hours per day equipment operational (based on 24 hour workday)

Phase 7 Site Improvements Noise Calculations at Multi-Family Homes to North (Daytime Only)

Stationary Noise Sources	Reference Measurements			At Homes North of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq w UF
Backhoe	10	82.7	100	50	65.2
Welder	10	85.0	50	40	69.9
Cement Truck**	50	79.0	50	60	77.0
Cement Pumper	10	90.8	50	50	73.3
Crane**	50	81.0	50	60	79.0

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
 Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall (feet)	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		Noise Level at Residence	With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)		source to barrier - a		source to receiver - c		path difference - =a+b-c (auto)		(slope) (1 = blocked line of sight)		Barrier Fresnel		Barrier Atten
				Residence	at	Residence	Level at	Residence															
Backhoe	5	50	6	65.2		58.7		8	5	800	5.099		50.040		55.082		0.057		1		0.163		-6.48
Welder	5	40	6	66.9		59.0		4	5	800	5.099		40.050		45.011		0.138		1		0.392		-7.95
Cement Truck**	5	60	6	74.0		66.3		4	5	800	5.099		60.033		65.008		0.125		1		0.355		-7.75
Cement Pumper	5	50	6	70.3		62.8		5	5	800	5.099		50.010		55.000		0.109		1		0.310		-7.55
Crane**	5	60	6	76.0		68.5		5	5	800	5.099		60.008		65.000		0.107		1		0.305		-7.5
Combined Noise Levels											79.2		71.7										

*Use Factor based on hours per day equipment operational (based on 8 hour workday)

**Obtained from RCNM Model

Phase 7 Site Improvements Noise Calculations at Multi-Family Homes to East (Daytime Only)

Stationary Noise Sources	Reference Measurements			At Homes East of Project Site	
	Distance	Leq	Use Factor*	Distance	Leq w UF
Backhoe	10	82.7	100	30	70.8
Welder	10	85.0	50	40	69.9
Cement Truck**	50	79.0	50	40	81.4
Cement Pumper	10	90.8	50	50	73.3
Crane**	50	81.0	50	40	83.4

1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
 Leq with Use Factor = Leq + 10log(UF/100) from RCNM

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)		source to barrier - a		source to receiver - c		path difference y = a+b-c (auto)	(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	Level at Residence	Source Height (feet)			Receiver (all)	Barrier (all)	Receiver (all)	Barrier (all)					
Backhoe	5	30	6	70.8	64.8	8	5	800	5.099	5.099	30.067	35.128	0.037	1	0.106	-6		
Welder	5	40	6	66.9	59.0	4	5	800	5.099	5.099	40.050	45.011	0.138	1	0.392	-7.95		
Cement Truck**	5	40	6	78.4	70.5	4	5	800	5.099	5.099	40.050	45.011	0.138	1	0.392	-7.95		
Cement Pumper	5	50	6	70.3	63.8	8	5	800	5.099	5.099	50.040	55.082	0.057	1	0.163	-6.48		
Crane**	5	40	6	80.4	72.9	5	5	800	5.099	5.099	40.012	45.000	0.112	1	0.317	-7.55		
Combined Noise Levels				83.2	75.6													

*Use Factor based on hours per day equipment operational (based on 8 hour workday)

**Obtained from RCNM Model

APPENDIX E

Operational Noise Calculations Printouts

Operational Well Rehabilitation Noise Calculations at Multi-Family Homes to North (Daytime Only)

Stationary Noise Sources	Reference Measurements			At Homes North of Project Site		
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF
Pump Rig (crane)**	50	81.0	100	30	86.5	86.5 (eq. N-2141.2 of TeNS)
Pickup Truck**	50	75.0	20	40	77.4	70.4
Air Compressor	10	88.9	100	50	71.4	71.4
Generator	10	71.0	100	50	53.5	53.5

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	source to			path difference y = a+b-c (auto)	(slope) (1 = blocked line of sight)	Barrier Atten
				Noise Level at Residence	Noise Level at Residence	barrier - a	source to receiver - c				source to receiver - c					
Pump Rig (crane)**	5	30	6	86.5	81.6	11	5	800	5.099	30.414	35.511	0.002	1	0.006	-4.9	
Pickup Truck**	5	40	6	70.4	62.5	4	5	800	5.099	40.050	45.011	0.138	1	0.392	-7.95	
Air Compressor	5	50	6	71.4	64.6	7	5	800	5.099	50.010	55.036	0.073	1	0.207	-6.8	
Generator	5	50	6	53.5	45.7	4	5	800	5.099	50.040	55.009	0.130	1	0.370	-7.8	
Combined Noise Levels										86.8	81.8					

*Use Factor based on hours per day equipment operational (based on 10 hour workday)

**Obtained from RCNM Model

Operational Well Rehabilitation Noise Calculations at Multi-Family Homes to East (Daytime Only)

Stationary Noise Sources	Reference Measurements				At Homes East of Project Site		1.5 (Line Source: hard=0, soft=.5; Point Source: hard=1, soft=1.5)
	Distance	Leq	Use Factor*	Distance	Leq	Leq w UF	
Pump Rig (crane)**	50	81.0	100	45	82.1	82.1 (eq. N-2141.2 of TeNS)	
Pickup Truck**	50	75.0	20	45	76.1	69.2	Leq with Use Factor = Leq + 10log(UF/100) from RCNM
Air Compressor	10	88.9	100	50	71.4	71.4	
Generator	10	71.0	100	50	53.5	53.5	

Stationary Noise Sources	Distance from Receptor to Wall	Distance from source to Wall (feet)	Height of Wall (feet)	Without Wall		With Wall		Exterior Observer Height (feet)	Source Frequency (hz)	barrier to receiver - b (all)	path difference y			(slope) (1 = blocked line of sight)	Barrier Atten	
				Noise Level at Residence	Noise Residence	Level at Residence	Source Height (feet)				source to barrier - a	source to receiver - c	=a+b-c (auto)			
Pump Rig (crane)**1	5	45	6	82.1	76.7	11	5	800	5.099	50.999	45.277	50.359	0.017	1	0.049	-5.4
Pickup Truck**	5	45	6	69.2	61.3	4	5	800	5.099	50.999	45.044	50.010	0.133	1	0.380	-7.85
Air Compressor	5	50	6	71.4	64.6	7	5	800	5.099	50.999	50.010	55.036	0.073	1	0.207	-6.8
Generator	5	50	6	53.5	45.7	4	5	800	5.099	50.999	50.040	55.009	0.130	1	0.370	-7.8
Combined Noise Levels				82.7	77.1											

*Use Factor based on hours per day equipment operational (based on 10 hour workday)

**Obtained from RCNM Model