Final Environmental Impact Report

1450 Artesia Specific Plan

State Clearinghouse No. 2023060263

JANUARY 2025

Prepared for:

CITY OF GARDENA
1700 West 162nd Street
Gardena, California 90247
Contact: Amanda Acuna

Prepared by:

DUDEK

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Printed on 30% post-consumer recycled material.

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SECTION **PAGE NO.**

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1 Preface

1.1 Purpose

This Final Environmental Impact Report (EIR) has been prepared by the City of Gardena (City) for the 1450 Artesia Specific Plan (Project or proposed Project). This Final EIR has been prepared in conformance with the California Environmental Quality Act of 1970 (CEQA) statutes (Cal. Pub. Res. Code, Section 21000 et. seq., as amended) and implementing guidelines (Cal. Code Regs., Title 14, Section 15000 et. seq.).

Before approving a project, CEQA requires the lead agency to prepare and certify a Final EIR. The City has the principal responsibility for approval of the proposed Project and is therefore considered the lead agency under CEQA Section 21067. According to the CEQA Guidelines, Section 15132, the Final EIR shall consist of:

- The Draft EIR or a revision of the Draft EIR
- Comments and recommendations received on the Draft EIR either verbatim or in summary
- A list of persons, organizations, and public agencies commenting on the Draft EIR
- The responses of the lead agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the lead agency

1.2 Format of the Final EIR

This Final EIR consists of the August 2024 Draft EIR and the following four chapters:

1.0 Preface. This chapter summarizes the contents of the Final EIR and the environmental review process.

2.0 Response to Comments. During the public review period for the Draft EIR, six comment letters were received. This chapter contains these comment letters and the City's responses to the comments.

3.0 Errata. Comments that are addressed in Chapter 2.0 may have resulted in minor revisions to the information contained in the August 2024 Draft EIR. Where necessary, deletions to the text are shown ~~strikeout~~ and additions to the text are shown in <u>double underline</u> in with references to where those changes apply to the text of the Draft EIR. Additionally, through the certification of this Final EIR, where the term "Draft EIR" is used in the text, this is now deemed to be "Final EIR."

4.0 Mitigation Monitoring and Reporting Program. This section of the Final EIR provides the mitigation monitoring and reporting program (MMRP) for the proposed Project. The MMRP is presented in table format and identifies mitigation measures for the proposed Project, the implementation period for each measure, the implementing party, and the enforcing agency. The MMRP also provides a section for recordation of mitigation reporting.

1.3 Environmental Review Process

1.3.1 Notice of Preparation

The City determined that an EIR would be required for the proposed Project and issued a Notice of Preparation (NOP), which was distributed to the State Clearinghouse, interested agencies, and groups on June 8, 2023. Pursuant to Section 15082 of the CEQA Guidelines, recipients of the NOP were requested to provide responses within 30 days after their receipt of the NOP. The 30-day NOP public review period ended July 10, 2023. Comments received during the NOP public review period were considered during the preparation of this EIR. The NOP and NOP comments are included in Appendix A of the Draft EIR.

1.3.2 Noticing and Availability of the Draft

The Draft EIR was made available for public review and comment pursuant to CEQA Guidelines Section 15087. The 45-day public review period for the Draft EIR started on August 1, 2024, and ended on September 16, 2024. At the beginning of the public review period, an electronic copy of the Draft EIR and an electronic copy of the Notice of Completion (NOC) were submitted to the State Clearinghouse. Relevant State agencies, including the California Air Resources Board, Caltrans, the California Department of Conservation, the California Department of Fish and Wildlife, the California Department of Forestry and Fire Protection, the California Governor's Office of Emergency Services, the California Native American Heritage Commission, the State Office of Historic Preservation, the California Highway Patrol, the California Department of Parks and Recreation, the California Public Utilities Commission, the State Water Resources Control Board and Regional Water Quality Control Board, the California Natural Resources Agency, the California Department of Resources Recycling and Recovery, the Department of Toxic Substances Control and the California Department of Water Resources also received electronic copies of the documents. A Notice of Availability (NOA) was distributed to over 40 interested parties and surrounding property owners and filed with the Los Angeles County Clerk. The NOA described where the document was available and how to submit comments on the Draft EIR. The NOA and Draft EIR were also made available for public review, by appointment, at the City Clerk's office (1700 West 162nd Street, Gardena). Additionally, the document was available to be viewed on City's website at:

https://cityofgardena.org/community-development/planning-projects/

The 45-day public review period provided interested public agencies, groups, and individuals the opportunity to comment on the contents of the Draft EIR.

1.3.3 Final EIR

The Final EIR addresses the comments received during the public review period and includes minor changes to the text of the Draft EIR in accordance with comments that necessitated revisions. This Final EIR will be presented to the City for potential certification as the environmental document for the proposed Project. All agencies who commented on the Draft EIR will be provided with a copy of

the Final EIR, pursuant to CEQA Guidelines Section 15088(b). The Final EIR will also be posted on the City's website at:

https://cityofgardena.org/community-development/planning-projects/

Pursuant to CEQA Guidelines Section 15091, the City shall make findings for each of the significant effects identified in this EIR and shall support the findings with substantial evidence in the record. After considering the Final EIR in conjunction with making findings under Section 15091, the lead agency may decide whether or how to approve or carry out the Project. When a lead agency approves a project that will result in the occurrence of significant effects that are identified in the Final EIR but are not avoided or substantially lessened, the agency is required by CEQA to state in writing the specific reasons to support its action based on the Final EIR and/or other information in the record. Because the Project would result in significant and unavoidable impacts, a "statement of overriding considerations" will be prepared pursuant to CEQA Guidelines Section 15093 and supported by substantial evidence in the record.

1.4 Revisions to the Draft EIR

The comments received during the public review period for the Draft EIR resulted in several minor clarifications and modifications in the text of the August 2024 Draft EIR. In addition, minor editorial corrections have been made in sections of the Draft EIR. These changes are included as part of the Final EIR, to be presented to City decision makers for certification and Project approval.

CEQA Guidelines Section 15088.5 identifies when a lead agency must recirculate an EIR. A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the Draft EIR but before certification of the Final EIR. Information includes changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not considered significant unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement. As defined in CEQA Guidelines Section 15088.5(a), significant new information requiring recirculation includes the following:

1. A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
2. A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
3. A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the environmental impacts of the project, but the project's proponents decline to adopt it.
4. The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

The minor clarifications, modifications, and editorial corrections that were made to the Draft EIR are shown in Chapter 3.0, Errata, of this Final EIR. None of the revisions that have been made to the EIR resulted in new significant impacts; none of the revisions resulted in a substantial increase in the severity of an environmental impact identified in the Draft EIR; and, none of the revisions brought forth a feasible project alternative or mitigation measure that is considerably different from those set forth in the Draft EIR. Furthermore, the revisions do not cause the Draft EIR to be so fundamentally flawed that it precludes meaningful public review. As none of the CEQA criteria for recirculation have been met, recirculation of the EIR is not warranted. As stated in CEQA Guidelines Section 15088.5(b), "recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR."

2 Responses to Comments

A draft version of the Environmental Impact Report (EIR) for the proposed Project was circulated for public review from August 1, 2024 to September 16, 2024. This chapter of the Final EIR includes a copy of each comment letter provided during the 45-day public review period for the Draft EIR. The City of Gardena (City) has prepared responses to each comment, which are included in this chapter. The comments are ordered numerically, and the individual issues within each comment letter are bracketed and numbered. The City's responses to comments on the Draft EIR represent a good-faith, reasoned effort to address the environmental issues identified by the comments. Under the CEQA Guidelines, the Lead Agency is required to evaluate and provide written responses to comments received on the Draft EIR (CEQA Guidelines, Section 15088).

As shown in Table 2-1, the City comment letters from four agencies: Los Angeles County Fire Department, Los Angeles County Sanitation Districts, the City of Torrance, and Caltrans. Additionally, letters representing two organizations were submitted. To finalize the EIR for the proposed Project, responses have been prepared to comments that were received during the public review period. In accordance with the requirements of CEQA Guidelines Section 15088(b), the City will provide a written response on comments submitted by public agencies to each respective public agency at least 10 days prior to certifying the Final EIR.

Table 2-1. List of Commenters

Comment Letter	Name	Date
Agencies		
A-1	Los Angeles County Fire Department	08/16/2024
A-2	Los Angeles County Sanitation Districts	09/09/2024
A-3	City of Torrance	09/16/2024
A-4	Caltrans	09/11/2024
Organizations		
O-1	Lozeau Drury LLP	08/27/2024
O-2	Blum, Collins & Ho LLP	09/12/2024

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COUNTY OF LOS ANGELES
FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE
LOS ANGELES, CALIFORNIA 90063-3294
(323) 881-2401
www.fire.lacounty.gov

ANTHONY C. MARRONE
FIRE CHIEF
FORESTER & FIRE WARDEN

"Proud Protectors of Life, the Environment, and Property"

BOARD OF SUPERVISORS
LINDSEY P. HORVATH, CHAIR
THIRD DISTRICT
HILDA L. SOLIS, FIRST DISTRICT
HOLLY J. MITCHELL, SECOND DISTRICT
JANICE HAHN, FOURTH DISTRICT
KATHRYN BARGER, FIFTH DISTRICT

August 16, 2024

LETTER A-1

Amanda Acuna
1700 West 162nd Street Unit 101
Gardena, CA 90247

Dear Ms. Acuna:

THE NOTICE OF AVAILABILITY OF A DRAFT EIR, "1450 ARTESIA SPECIFIC PLAN PROJECT", PROPOSES THE CONSTRUCTION OF A MIXED-USE COMMERCIAL AND INDUSTRIAL DEVELOPMENT TOTALING 268,000 SQUARE-FEET, CITY OF GARDENA, FFER2024003994

The Notice of Availability of a Draft EIR, was reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. 1

The following are their comments:

PLANNING DIVISION: 2

We have no comments.

For any questions regarding this response, please contact Kien Chin, at (323) 881-2404 or Kien.Chin@fire.lacounty.gov.

LAND DEVELOPMENT UNIT:

The development of this project must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows and fire hydrants. Every building constructed shall be accessible to Fire Department apparatus by way of access roadways, with an all-weather surface of not less than 28 width. Revise Project Description on page 2-6 (see attached) of the Specific Plan Draft EIR document. The roadway shall be extended to within 150 feet of all portions of the exterior walls when measured by an unobstructed route around the exterior of the building. The roadway shall provide approved signs and/or stripping stating, 3

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

AGOURA HILLS	CARSON	EL MONTE	INGLEWOOD	LAWNDALE	PICO RIVERA	SIGNAL HILL
ARTESIA	CERRITOS	GARDENA	IRWINDALE	LOMITA	POMONA	SOUTH EL MONTE
AZUSA	CLAREMONT	GLENDORA	LA CANADA-FLINTRIDGE	LYNWOOD	RANCHO PALOS VERDES	SOUTH GATE
BALDWIN PARK	COMMERCE	HAWAIIAN GARDENS	LA HABRA	MALIBU	ROLLING HILLS	TEMPLE CITY
BELL	COVINA	HAWTHORNE	LA MIRADA	MAYWOOD	ROLLING HILLS ESTATES	VERNON
BELL GARDENS	CUDAHY	HERMOSA BEACH	LA PUENTE	NORWALK	ROSEMEAD	WALNUT
BELLFLOWER	DIAMOND BAR	HIDDEN HILLS	LAKEWOOD	PALMDALE	SAN DIMAS	WEST HOLLYWOOD
BRADBURY	DUARTE	HUNTINGTON PARK	LANCASTER	PALOS VERDES ESTATES	SANTA CLARITA	WESTLAKE VILLAGE
CALABASAS		INDUSTRY		PARAMOUNT		WHITTIER

"NO PARKING - FIRE LANE" and shall be maintained in accordance with the County of Los Angeles Fire Code. All proposed development within the 1450 Artesia Boulevard Specific Plan shall comply with the County of Los Angeles Fire Code for adequate water and access for firefighting purposes.

Specific fire and life safety requirements for the construction phase will be addressed at the Fire Department building plan check review. There may be additional fire and life safety requirements during this time. 4

Every building constructed shall provide an adequate water supply for fire protection purposes in compliance with applicable codes sections of the County of Los Angeles Fire Code. Specific fire hydrant locations and fire flow requirements will be confirmed during the Fire Department plan check process of the Tentative Map during the subdivision review process. 5

The County of Los Angeles Fire Department, Land Development Unit appreciates the opportunity to comment on this project. Should any questions arise, please contact Juan Padilla at (323) 890-4243 or Juan.Padilla@fire.lacounty.gov. 6

FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:

The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, brush clearance, vegetation management, fuel modification for Fire Hazard Severity Zones, archeological and cultural resources, and the County Oak Tree Ordinance. 7

For any questions regarding this response, please contact Forestry Assistant, Terence Duldulao at (818) 890-5719.

HEALTH HAZARDOUS MATERIALS DIVISION:

The Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department advises that the Cal-EPA Department of Toxic Substances Control (DTSC) is currently overseeing the assessment and future mitigation of contaminated soil at the project site. Coordinate project development activities with the DTSC prior to disturbing onsite soil. HHMD has no additional comments or requirements for the project at this time. 8

Please contact HHMD Hazardous Materials Specialist III, Jennifer Levenson at (323) 890-4114 or Jennifer.Levenson@fire.lacounty.gov if you have any questions.

Very truly yours,

RONALD M. DURBIN, CHIEF, FORESTRY DIVISION
PREVENTION SERVICES BUREAU

RMD:pg

Parking

Parking would be located along the northeastern portion of the Project site. CalGreen includes specific parking requirements for bicycle parking, designated parking for clean air vehicles, EV charging stations, and other parking requirements. The Project would include a total of 124 automobile parking stalls.

Landscape and Streetscape

The Project would include aesthetically pleasing and drought-tolerant landscaping (Figure 2-6, Landscape Plan). The Project's streetscape improvements would include a combination of shrubs and trees along the frontage of both Artesia Boulevard and the eastern edge of the property as well as within the Project site.

The landscaping would be layered with regionally adapted plants that minimizing water use. The Project would be consistent with the state and City water efficient landscape ordinances, and a minimum of 75% of the plantings would be water efficient. The total landscaped area is approximately 32,473 SF (or approximately 12% of the total Project site area) and 66% of the total paved area utilized for driveways and open parking areas. Water-wise landscaping principles, including a low percentage of water-thirsty plants, smart irrigation controllers, drip irrigation, and bark mulch to slow evapotranspiration and weed germination would be employed.

Circulation Improvements and Pedestrian Access

The Project would include two curb-cuts – one for right turn in, and one for right turn out driveways along Artesia Boulevard located approximately at the northwest corner of the Project site. Local vehicular access to the Project site would be provided via one 35-foot driveway from Artesia Boulevard. A separate 35-foot exit driveway travel lane would be adjacent to the entrance divided by a 20-foot landscape divide (Figure 2-7, Circulation Plan: Vehicular Access). The Project driveway would only serve the Project. Trucks would access the Project similar to vehicular access with ingress within the northwest portion of the Project with circulation continuing along the western to southern edge of the property and into the loading docks. Trucks would exit the loading dock area heading north within the parking lot with egress back through the northwest of Project (Figure 2-8a, Circulation Plan: Truck Access). The truck circulation would be a loop around the proposed building with an aim to ease flow of on-site traffic. Per Los Angeles County Fire Department requirements, a ~~26-foot-wide~~ fire access lane would surround the property structure with direct access to Artesia Boulevard.

minimum 28ft wide fire apparatus required as shown on Figure 2-8a)

9

During special events, barriers would be erected to separate truck and vehicular traffic. Trucks would exit the same way they come in during special events (Figure 2-8b, Circulation Plan: Truck Access during Special Events).

Pedestrian access to the Project site would be provided from sidewalks located along Artesia Boulevard. Primary pedestrian access would connect to the building lobby on the northern portion of the Project site and to the parking lot within the northeastern portion of the Project site. Areas with loading docks would be gated to prohibit pedestrian access for safety reasons.

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Response to Comment Letter A-1

Los Angeles County Fire Department
Ronald Durbin, Chief, Forestry Division
August 16, 2024

A-1.1 This comment is introductory and nature and does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-1.2 This comment states that the Planning Division does not have any comments at this time. As such, no further response is required.

A-1.3 This comment references an attached page with a correction that needs to be incorporated into the Project Description. In response to this comment, the last sentence of the first paragraph under the "Circulation Improvements and Pedestrian Access" on page 2-6 of the EIR is revised to read as follows:

> Per Los Angeles County Fire Department requirements, a ~~26-foot~~ 28-foot-wide fire access lane would surround the property structure with direct access to Artesia Boulevard.

A-1.4 This comment states that specific fire and life safety requirements will be addressed at the Fire Department building plan check review. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-1.5 This comment states that adequate water supply for fire protection purposes will be required and that fire hydrant locations and fire flow requirements will be confirmed during the plan check process. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-1.6 This comment is a closing statement from the Land Development Unit. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-1.7 This comment states the responsibilities of the Forestry Division. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-1.8 This comment acknowledges that there is future mitigation of contaminated soil at the project site and requests that project development activities be coordinated with DTSC prior to disturbing onsite soil. As discussed in Project Design Feature (PDF)-HAZ-1 in Section 3.6, Hazards and Hazardous Materials, project construction activities will be done in coordination with DTSC.

A-1.9 This comment is the suggested correction to the Project Description, as discussed under Comment A-1.3. In response to this comment, the correction, as noted in Response A-1.3, is incorporated into the Final EIR.

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

1955 Workman Mill Road, Whittier, CA 90601-1400
Mailing Address: P.O. Box 4998, Whittier, CA 90607-4998
(562) 699-7411 • www.lacsd.org

September 9, 2024

Ref. DOC 7285720

VIA EMAIL aacuna@cityofgardena.org

Ms. Amanda Acuna, Community Development Manager
City of Gardena
1700 West 162nd Street
Gardena, CA 90247

Dear Ms. Acuna:

Second Response to 1450 Artesia Specific Plan Project

The Los Angeles County Sanitation Districts (Districts) received a Notice of Availability (NOA) of a Draft Environmental Impact Report (DEIR) for the subject project located in the City of Gardena on August 2, 2024. The proposed project is located within the jurisdictional boundaries of District No. 5. Previous comments submitted by the Districts in correspondence dated June 29, 2023 (copy enclosed), still apply to the subject project with the following updated information: 1

1. **Section 3.12 Utilities and Service Systems**, *Existing Water Use*, page 3.12-2: the last sentence stated that "The total existing demand for the Project site was conservatively estimated at 604 gallons per day (gpd)." As indicated in the correspondence dated June 29, 2023, the expected increase in average wastewater flow from the project, described as 186,000 square feet of self-storage use, 72,000 square feet of industrial warehouse use, 10,000 square feet of office and/or retail use, and potentially an additional 10,000 square feet of warehouse use is 6,037 gpd, after all structures on the project site are demolished. 2

2. **Section 3.12 Utilities and Service Systems**, *Wastewater*, page 3.12-3: the second to the last paragraph stated that "Both sewer lines are owned and maintained by the LACSD." Please note that LACSD owns the 21-inch sewer main line in Artesia Boulevard, but the 8-inch sewer line in South Normandie Avenue is owned by the City of Gardena. 3

3. All other information concerning Districts' facilities and sewerage service contained in the document is current. 4

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2742, or phorsley@lacsd.org.

Very truly yours,

Patricia Horsley

Patricia Horsley
Environmental Planner
Facilities Planning Department

PLH:plh

Enclosure

DOC 7314275.D05

LOS ANGELES COUNTY SANITATION DISTRICTS
Converting Waste Into Resources

Robert C. Ferrante
Chief Engineer and General Manager

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(562) 699-7411 • www.lacsd.org

June 29, 2023

Ref. DOC 6944605

VIA EMAIL aacuna@cityofgardena.org

Ms. Amanda Acuna, Senior Planner
Community Development Department
City of Gardena
1700 West 162nd Street
Gardena, CA 90247

Dear Ms. Acuna:

NOP Response to 1450 Artesia Boulevard Specific Plan

The Los Angeles County Sanitation Districts (Districts) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the subject project located in the City of Gardena on June 9, 2023. The proposed project is located within the jurisdictional boundaries of District No. 5. We offer the following comments regarding sewerage service: 5

1. The wastewater flow originating from the proposed project will discharge directly to the Districts' Gardena Pump Trunk Sewer, located in West Artesia Boulevard, between Normandie Avenue and Dalton Avenue. The Districts' 19.9–inch diameter trunk sewer has a capacity of 2.7 million gallons per day (mgd) and conveyed a peak flow of 2.3 mgd when last measured in 2017. A 6-inch diameter or smaller direct connection to a Districts' trunk sewer requires a Trunk Sewer Connection Permit issued by the Districts. An 8-inch diameter or larger direct connection to a Districts' trunk sewer requires submittal of Sewer Plans for review and approval by the Districts. For additional information, please contact the Districts' Engineering Counter at engineeringcounter@lacsd.org or (562) 908-4288, extension 1205. 6

2. The wastewater generated by the proposed project will be treated at the Joint Water Pollution Control Plant located in the City of Carson, which has a capacity of 400 mgd and currently processes an average flow of 243.1 mgd. 7

3. The expected increase in average wastewater flow from the project, described in the Initial Study as 186,000 square feet of self-storage use, 72,000 square feet of industrial warehouse use, 10,000 square feet of office and/or retail use, and potentially an additional 10,000 square feet of warehouse use, is 6,037 gallons per day, after all structures on the project site are demolished. For a copy of the Districts' average wastewater generation factors, go to www.lacsd.org, under Services, then Wastewater Program and Permits and select Will Serve Program, and click on the Table 1, Loadings for Each Class of Land Use link. 8

4. The Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewerage System or to increase the strength or quantity of wastewater discharged from connected facilities. This connection fee is used by the Districts for its capital facilities. Payment of a connection fee may be required before this project is permitted to discharge to the Districts' Sewerage System. For more information and a copy of the Connection Fee Information Sheet, go to www.lacsd.org, under Services, then Wastewater (Sewage) and select Rates & Fees. In determining 9

the impact to the Sewerage System and applicable connection fees, the Districts will determine the user category (e.g. Condominium, Single Family Home, etc.) that best represents the actual or anticipated use of the parcel(s) or facilities on the parcel(s) in the development. For more specific information regarding the connection fee application procedure and fees, please contact the Districts' Wastewater Fee Public Counter at (562) 908-4288, extension 2727. 9 cont.

5. In order for the Districts to conform to the requirements of the Federal Clean Air Act (CAA), the capacities of the Districts' wastewater treatment facilities are based on the regional growth forecast adopted by the Southern California Association of Governments (SCAG). Specific policies included in the development of the SCAG regional growth forecast are incorporated into clean air plans, which are prepared by the South Coast and Antelope Valley Air Quality Management Districts to improve air quality in the South Coast and Mojave Desert Air Basins as mandated by the CAA. All expansions of Districts' facilities must be sized and service phased in a manner that will be consistent with the SCAG regional growth forecast for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial. The available capacity of the Districts' treatment facilities will, therefore, be limited to levels associated with the approved growth identified by SCAG. As such, this letter does not constitute a guarantee of wastewater service but is to advise the developer that the Districts intend to provide this service up to the levels that are legally permitted and to inform the developer of the currently existing capacity and any proposed expansion of the Districts' facilities. 10

If you have any questions, please contact the undersigned at (562) 908-4288, extension 2743, or mandyhuffman@lacsd.org.

Very truly yours,

Mandy Huffman

Mandy Huffman
Environmental Planner
Facilities Planning Department

MNH:mnh

cc: A. Schmidt
A. Howard

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Response to Comment Letter A-2

Los Angeles County Sanitation Districts
Patricia Horsley
September 9, 2024

A-2.1 This comment is introductory and nature and does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-2.2 This comment references a letter provided by the Sanitation Districts, dated June 29, 2023, where it was indicated that the Project would generate approximately 6,037 gallons per day (gpd) of wastewater flow upon completion of construction, rather than the 604 gpd cited in the EIRAs discussed in Section 3.12, Utilities and Service Systems, the existing water demand is 604 gallons per day (gpd), consistent with the existing demand used in the Project's wastewater analysis included in Appendix L1 of the EIR. The existing wastewater generation amount is estimated at 1,510 gpd, which is also discussed in Appendix L1 of the EIR. This comment estimates the total proposed wastewater demand would be 6,037 gpd upon Project buildout. As discussed on page 3.12-13 in Section 3.12 of the Draft EIR, the analysis within the EIR assumed an expected increase in average wastewater from the Project to be 17,786 gpd, which is significantly greater than the amount estimated by the Sanitation Districts. As shown in Section 3.12, even with this higher estimate, the Project would not require the construction of additional wastewater treatment facilities and potential impacts would be less than significant.

A-2.3 This comment states that the while the Draft EIR identifies that two sewer lines are owned and maintained by the LACSD, LACSD actually owns the 21-inch sewer main line in Artesia Boulevard, and the 8-inch sewer line in South Normandie Avenue is owned by the City of Gardena. In response to this comment, the last sentence of the first full paragraph on page 3.12-3 is revised to read as follows:

> "~~Both sewer lines are~~The 21-inch sewer line in Artesia Boulevard is owned and maintained by the LACSD, while the 8-inch sewer line in South Normandie Avenue is owned and maintained by the City. The site currently connects to the 21-inch sewer main in Artesia Boulevard via a lateral connection."

A-2.4 This comment notes that all other information concerning the District's facilities and sewage service within the Draft EIR is correct and provides contact information for the commenter. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-2.5 This comment is introductory and was part of the letter submitted on the Notice of Preparation (NOP) on June 29, 2023. The comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-2.6 This comment discusses how wastewater flow originating from the Project site would discharge and flow through the wastewater system. This comment was addressed and incorporated into the analysis included in Section 3.12, Utilities and Service Systems, in the Draft EIR. As such, no further response is required.

A-2.7 This comment identifies that wastewater generated by the proposed Project would be treated at the Joint Water Pollution Control Plant located in the City of Carson and identifies the treatment capacity of this Plant. This comment was addressed and incorporated into the analysis included in Section 3.12, Utilities and Service Systems, in the Draft EIR. As such, no further response is required.

A-2.8 This comment references a letter provided by the Sanitation Districts, dated June 29, 2023, where it was indicated that the Project would generate approximately 6,037 gallons per day (gpd) of wastewater flow upon completion of construction, rather than the 604 gpd cited in the EIR. See Response A-2.2 above regarding the estimated wastewater flows from the Project site.

A-2.9 This comment discusses that the Districts are empowered by the California Health and Safety Code to charge a fee to connect facilities (directly or indirectly) to the Districts' Sewage System and how the fee is utilized by the Districts. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-2.10 This comment discusses how all expansion of Districts' facilities must be sized and service phased in a manner that is consistent with the Southern California Association of Governments (SCAG) regional growth forecasts. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

CITY OF TORRANCE
COMMUNITY DEVELOPMENT DEPARTMENT

MICHELLE G. RAMIREZ
COMMUNITY DEVELOPMENT
DIRECTOR

LETTER A-3

September 16, 2024

VIA E-MAIL AND
FIRST CLASS MAIL

Amanda Acuna – Community Development Manager
1700 West 162nd Street
Gardena, CA 90247

RE: 1450 ARTESIA SPECIFIC PLAN PROJECT DEIR COMMENT

Dear Ms. Acuna,

The City of Torrance appreciates being notified on the release of the Draft Environmental Impact Report (DEIR) prepared for the 1450 Artesia Specific Plan Project (Project).
After careful review of the DEIR and Local Transportation Assessment (Appendix J2), the City of Torrance requests the following improvements for the intersection of Artesia Boulevard and Western Avenue to offset potential impacts: 1

- Install the following traffic signal equipment and appurtenances to the satisfaction of the City of Torrance Public Works Director: 2
  - Contactless Pedestrian Push Buttons
  - Pedestrian Countdown Heads
  - Signal head and backplates with Yellow Retroreflective Border
  - Video Detection System
  - Emergency Vehicle Preemption (EVP)
  - Battery Backup Unit
  - Rewire entire intersection
  - Remove and replace two damaged Type 15 traffic signal poles at the southwest and southeast corners
- Reconstruct the curb ramp at the southeast corner to achieve ADA compliance.

If there are any questions for the City of Torrance, please do not hesitate to contact Oscar Martinez, Planning Manager of the Community Development Department (OMartinez@TorranceCA.gov / 310.618.5990) or Shin Furukawa, Deputy Public Works Director (SFurukawa@TorranceCA.gov / 310.781.6900). 3

Sincerely,

Michelle G. Ramirez
Community Development Director

By _____
Oscar Martinez
Planning Manager

3031 Torrance Blvd. • Torrance, California 90503 • Telephone 310-618-5990 • Fax 310-618-5829
Visit Torrance's home page: http://www.TorranceCA.Gov

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Response to Comment Letter A-3

City of Torrance
Oscar Martinez
September 16, 2024

A-3.1 This comment is introductory in nature and identifies that the City of Torrance has reviewed the Draft EIR and Local Transportation Assessment. The comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-3.2 This comment requests traffic signal equipment and appurtenances, as well as the reconstruction of the curb ramp at the southeast corner to achieve ADA compliance, to the satisfaction of the City of Torrance Public Works Director. The comment specifically asks for the following:

- Contactless Pedestrian Push Buttons
- Pedestrian Countdown Heads
- Signal head and backplates with Yellow Retroreflective Border
- Video Detection System
- Emergency Vehicle Preemption (EVP)
- Battery Backup Unit
- Rewire entire intersection
- Remove and replace two damaged Type 15 traffic signal poles at the southwest and southeast corners

The analysis shown in Appendix J2 of the EIR demonstrates that the Project does not result in impacts to this intersection and to roadway segments, that would trigger any improvements to the equipment.. As such, no further response is required.

A-3.3 This comment provides contact information for the commenter. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

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STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, Governor

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 897- 0673
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life

September 11, 2024

Amanda Acuna, Community Development Manager
City of Gardena
1700 West 162nd Street
Gardena, CA 90247

RE: 1450 Artesia Specific Plan Project–
Draft Environmental Impact Report
(DEIR)
SCH #2023060263
GTS #07-LA-2023-04590
LA 405/R 13.944

Dear Amanda Acuna,

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above referenced project. The Project seeks approval of the 1450 Artesia Specific Plan and proposes the construction and operation of a mixed-use development with a total building area of 268,000 square feet and an approximate height of 75 feet, including a self-storage use, a warehouse/distribution use, and an office/retail use. Associated improvements would include perimeter fencing, landscaping, lighting, exterior sidewalks, and pavement for parking. The Project would include 124 automobile parking stalls, including 25 EV capable parking spaces and 6 EVCS spaces (charging stations). 1

After reviewing the Draft EIR, Caltrans has the following comments:

Caltrans supports the Project as an infill development for self-storage, warehouse, and office/retail use to revitalize an area previously impacted by environmental contamination from industrial pollutants. With regard to active transportation, Figure 2-5 in the Draft EIR depicts a bike-share facility rendering from the May 2023 Draft 1450 Artesia Specific Plan. As the City of Gardena's Circulation Plan and Figure 3.10-2 from the DEIR identifies Normandie Avenue as a Class III bike facility, Caltrans would like to confirm if the Class III bike lane is up to standard, with regard to pavement markings and appropriate signage. Caltrans highly recommends developing under a Complete Streets framework to 2

"Provide a safe and reliable transportation network that serves all people and respects the environment"

encourage bike-share facilities within the lots/property of projects, and to prepare for the integration of a Class II (painted bike lane) and/or IV (separated bikeway) network, as encouraged by the City of Los Angeles 2035 Mobility Plan. Bicycle parking should be located as close to the main entrance as possible, including short-term visitor bike racks and long-term lockers or other secure facilities for employees and customers. 2 cont.

To provide pedestrian accommodations, Caltrans strongly recommends installing shade trees that will provide canopy over the public sidewalk along Artesia Boulevard. With active bus lines serving the Artesia Boulevard/Normandie Avenue intersection, and the regional Harbor Gateway Transit Center less than one mile to the east, the opportunity to enhance mobility of non-motorized users helps advance the active transportation efforts of regional agencies to achieve greenhouse gas (GHG) reduction. Additionally, Caltrans encourages the construction of a raised crosswalk within the Project's internal property connecting Artesia Boulevard to the project building. This design element would provide a safer and more comfortable crossing for those walking and using mobility devices. Should surface parking be built, it is advised that it does not face the street directly. The implementation of active frontage and landscaping against the sidewalk encourages recreational walking by providing a barrier for pedestrians. 3 4

Any transportation of heavy construction equipment and/or materials that requires the use of oversized transport vehicles on State Highways will require a Caltrans transportation permit. Caltrans recommends limiting construction traffic to off-peak periods to minimize the potential impact on State facilities. If construction traffic is expected to cause issues on any State facilities, please submit a construction traffic control plan detailing these issues for Caltrans' review. We look forward to the coordination of our efforts to ensure potential impacts to the highway facilities and traveling public are discussed and addressed before work begins. 5

If you have any questions, please contact project coordinator Frances Duong, at frances.duong@dot.ca.gov and refer to GTS #07-LA-2023-04590. 6

Sincerely,

Anthony Higgins

Anthony Higgins
Acting LDR/CEQA Branch Chief

Cc: State Clearinghouse

"Provide a safe and reliable transportation network that serves all people and respects the environment"

Response to Comment Letter A-4

Caltrans
Anthony Higgins
September 11, 2024

A-4.1 This comment is introductory in nature and defines the Project, as analyzed in the Draft EIR. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-4.2 This comment questions if the Class III bike lane along Normandie Avenue is up to standard and recommends developing the roadway under a Complete Streets framework to encourage bike-sharing facilities and to prepare for the integration of Class II and/or Class IV bike lane networks. The comment also requests that bicycle parking be located as close to the main entrance as possible. This design recommendation is being shared with decision-makers; however, this comment is not within the scope of the environmental analysis included in the Draft EIR. As such, no further response is required.

A-4.3 This comment recommends installing shade trees along Artesia Boulevard to enhance mobility of non-motorized users. The right-of-way along Artesia Boulevard, and the wall that has been installed beneath the ground surface to contain contamination on the Project site limits the ability to install shade trees. Additionally, this comment is not within the scope of the environmental analysis included in the Draft EIR. As such, no further response is required.

A-4.4 This comment recommends a raised crosswalk to connect the Project to Artesia Boulevard to ensure a safer and more comfortable crossing for those walking and using mobility devices. The comment also requests that surface parking not face the street directly and that landscaping along the sidewalks would encourage recreational walking. The Project includes a landscape buffer along Artesia Boulevard, as shown in Figure 2-6, Landscape Plan, of the Draft EIR. The raised crosswalk recommendation is being shared with decision-makers; however, this comment is not within the scope of the environmental analysis included in the Draft EIR. As such, no further response is required.

A-4.5 This comment states that if any heavy construction equipment and/or materials would require the use of oversized transport vehicles on State Highways, a permit from Caltrans must be obtained. Additionally, if any construction traffic is expected to cause issues on State Highways, a construction traffic control plan must be submitted to Caltrans. These comments and needs are understood. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

A-4.6 This comment provides contact information for the commenter. This comment does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

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LOZEAU DRURY LLP
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1939 Harrison Street, Ste. 150
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brian@lozeaudrury.com

Via Email

August 27, 2024

Amanda Acuna, Community Development Manager
Community Development Department
City of Gardena
1700 West 162nd Street
Gardena, California 90247
aacuna@cityofgardena.org

Re: Comment on Draft Environmental Impact Report, 1450 Artesia Specific Plan (SCH No. 2023060263)

Dear Ms. Acuna,

This comment is submitted on behalf of Supporters Alliance for Environmental Responsibility ("SAFER") regarding the Draft Environmental Impact Report ("DEIR") prepared for the 1450 Artesia Specific Plan Project (SCH No. 2023060263), which proposes the construction of a mixed-use commercial/industrial development with a total building area of 268,000 square feet, located at the corner of Artesia Boulevard and Normandie Avenue in the City of Gardena ("Project"). 1

SAFER is concerned that the DEIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. SAFER requests that the Community Development Department address these shortcomings in a revised draft environmental impact report ("RDEIR") and recirculate the RDEIR prior to considering approvals for the Project. 2

SAFER reserves the right to supplement these comments during the administrative process. *Galante Vineyards v. Monterey Peninsula Water Management Dist.*, 60 Cal. App. 4th 1109, 1121 (1997). 3

Sincerely,

Brian B. Flynn
Lozeau Drury LLP

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Response to Comment Letter O-1

Lozeau Drury LLP
Brian B. Flynn
August 27, 2024

O-1.1 This comment is introductory and nature and does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-1.2 This comment asserts that the Draft EIR fails as an informational document and fails to impose all feasible mitigation measures to reduce the Project's impacts. The comment further states that because of shortcomings a revised Draft EIR should be prepared and recirculated. However, no specific deficiencies are identified by the commenter and no mitigation measures are recommended. This comment does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-1.3 This comment states that the Supporters Alliance for Responsibility reserves the right to supplement these comments during the administrative process. This comment is understood. However, the comment does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

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LETTER O-2

BLUM, COLLINS & HO LLP
ATTORNEYS AT LAW
AON CENTER
707 WILSHIRE BOULEVARD
SUITE 4880
LOS ANGELES, CALIFORNIA 90017
(213) 572-0400

September 12, 2024

Amanda Acuna
Community Development Manager
1700 West 162nd Street
Gardena, CA 90247

Via Email to:
aacuna@cityofgardena.org

Subject: Comments on 1450 Artesia Specific Plan Project EIR (SCH NO. 2023060263)

Dear Ms. Acuna,

Thank you for the opportunity to comment on the Environmental Impact Report (EIR) for the proposed 1450 Artesia Specific Plan Project. Please accept and consider these comments on behalf of Golden State Environmental Justice Alliance. Also, Golden State Environmental Justice Alliance formally requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877. 1

1.0 Summary

The project proposes to demolish all existing onsite structures to accommodate the construction and operation of the 1450 Artesia Specific Plan on the 6.33 acre project site. The project proposes the development of a 268,000 gross square foot (GSF) building comprised of a 72,000 sf ground floor warehouse/distribution use with 10 truck/trailer loading docks and three levels of self-storage totaling 186,000 GSF with 1,480 storage units, and an office/retail use (a mezzanine totaling 10,000 GSF). The building has a maximum proposed height of 75 feet. The Project's proposed 72,000 GSF of warehouse/distribution use includes 10,000 GSF of potential future square footage to account for the potential future acquisition of a 0.23-acre parcel currently occupied by a single residential dwelling unit. Under the Specific Plan and a proposed Development Agreement, the parking lot area (approximately 36,000-square-foot (0.8-acre)) would be used periodically for City-sponsored outdoor events outside of the Project's warehouse/distribution component operating hours. The Project includes construction of a 200 GSF, non-habitable structure on the eastern side of the Project site for storage of special event-related materials by the City. The City anticipates hosting several types of medium-size special events, such as food trucks, farmer's 2

markets, car shows, live entertainment, food giveaways, community meetings, health fairs, and mobile vaccination events. The special events would be held approximately two to three times per month and include up to 250 attendees. 2

2.0 Project Description

The EIR does not include detailed building elevations, a detailed site plan, floor plans, or a conceptual grading plan. The basic components of a Planning Application include a detailed site plan, floor plan, conceptual grading plan, written narrative, and detailed elevations. The site plan provided in Figure 2-4: Site Plan has been edited for public review to remove meaningful information such as the general notes, parking requirements, floor area ratio, and site coverage. All of these basic items are necessary to conduct any type of analysis, and the EIR is inadequate as an informational document as it is not possible to ascertain any meaningful analysis based upon the information provided. 3

There are no building elevations provided, which are vital to review the maximum building heights. There are no grading plans provided and the EIR does not provide any information regarding the required quantity of cut/fill material during the grading phase of construction. Providing the complete grading plan to verify the earthwork quantities is vital as this directly informs the quantity of necessary truck hauling trips due to soil import/export during the grading phase of construction. A revised EIR must be prepared to include wholly accurate and unedited detailed floor plan, grading plan, building elevations, and project narrative for public review. 4

The EIR has also excluded copies of the 1450 Artesia Specific Plan document and Development Agreement document from the EIR. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the 1450 Artesia Specific Plan document and Development Agreement document contribute directly to analysis of the problem at hand and is relied upon throughout the EIR to support less than significant findings. A revised EIR must be prepared to include the 1450 Artesia Specific Plan document and Development Agreement document for review, analysis, and comment by the public and decision makers. 5

3.1 Air Quality, 3.3 Energy, and 3.5 Greenhouse Gas Emissions

Please refer to attachments from SWAPE for a complete technical commentary and analysis.

The EIR does not include for analysis relevant environmental justice issues in reviewing potential impacts, including cumulative impacts from the proposed project. The EIR provides general information about CalEnviroScreen but does not provide meaningful analysis regarding project census tract and the health impacts of pollution. This is in conflict with CEQA Guidelines Section 15131 (c), which requires that "Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the EIR. If information on these factors is not contained in the EIR, the information must be added to the record in some other manner to allow the agency to consider the factors in reaching a decision on the project." This is especially significant as the surrounding community is highly burdened by pollution. According to CalEnviroScreen 4.0[1], CalEPA's screening tool that ranks each census tract in the state for pollution and socioeconomic vulnerability. The proposed project's census tract (6037603200) is ranked in the 99th percentile for overall pollution burden, meaning the surrounding community bears the impact of multiple sources of pollution and is among the most polluted census tracts in the state. For example, the project census tract ranks in the 81st percentile for particulate matter (PM) 2.5 burden, 78th percentile for diesel PM, and 69th percentile for traffic impacts. All of these environmental factors are typically attributed to heavy car and truck activity in the area. While California has strict vehicle-emissions standards, exhaust from cars and trucks is the main source of air pollution in much of the state[2]. Fine particle pollution has been shown to cause many serious health effects, including heart and lung disease and exposure to PM 2.5 contributes to deaths across California[3]. The very small particles of diesel PM can reach deep into the lung, where they can contribute to a range of health problems. These include irritation to the eyes, throat and nose, heart and lung disease, and lung cancer[4].

6

The census tract also ranks in the 99th percentile for toxic releases. People living near facilities that emit toxic releases may breathe contaminated air regularly or if contaminants are released during an accident[5].

[1] CalEnviroScreen 4.0 https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40
[2] OEHHA Traffic https://oehha.ca.gov/calenviroscreen/indicator/traffic-density
[3] OEHHA Air Quality: PM 2.5 https://oehha.ca.gov/calenviroscreen/indicator/air-quality-pm25
[4] OEHHA Diesel Particulate Matter https://oehha.ca.gov/calenviroscreen/indicator/diesel-particulate-matter
[5] OEHHA Toxic Releases https://oehha.ca.gov/calenviroscreen/indicator/toxic-releases-facilities

The census tract ranks in the 91st percentile for solid waste facility impacts and 67th percentile for hazardous waste facility impacts. Solid waste facilities can expose people to hazardous chemicals, release toxic gases into the air (even after these facilites are closed), and chemicals can leach into soil around the facility and pose a health risk to nearby populations[6]. Hazardous waste generators and facilities contribute to the contamination of air, water and soil near waste generators and facilities can harm the environment as well as people[7]. 7

The census tract ranks above average in several areas that impact water quality. The census tract ranks in the 96th percentile for impaired waters. Water pollution can harm wildlife habitats and change the number and types of plants and animals in the environment[8]. When fish and shellfish are contaminated, people who eat them can be exposed to toxic substances[9]. The census tract also ranks in the 87th percentile for groundwater threats. People who live near contaminated groundwater may be exposed to chemicals moving from the soil into the air inside their homes[10]. 8

The census tract ranks in the 89th percentile for cleanup sites impacts. Cleanup sites are places that are contaminated with harmful chemicals and need to be cleaned up by the property owners or government[11]. People living near these sites are more likely to be exposed to chemicals from the sites than people living further away[12]. Some studies have shown that neighborhoods with cleanup sites are generally poorer and have more people of color than other neighborhoods[13]. 9

Further, the census tract is a diverse community including 34% Hispanic, 12% African-American, and 36% Asian-American residents, whom are especially vulnerable to the impacts of pollution. The community has a high rate of low educational attainment, meaning 31% of the census tract over age 25 has not attained a high school diploma, which is an indication that they may lack health insurance or access to medical care. The community has a high rate of poverty, meaning 33% of the households in the census tract have a total income before taxes that is less than the poverty level. Income can affect health when people cannot afford healthy living and working conditions, nutritious food and necessary medical care[14]. Poor communities are often 10

[6] OEHHA Solid Waste Facilities https://oehha.ca.gov/calenviroscreen/indicator/solid-waste-sites-and-facilities
[7] OEHHA Hazardous Waste Generators and Facilities https://oehha.ca.gov/calenviroscreen/indicator/hazardous-waste-generators-and-facilities
[8] OEHHA Impaired Waters https://oehha.ca.gov/calenviroscreen/indicator/impaired-water-bodies
[9] Ibid.
[10] OEHHA Groundwater Threats https://oehha.ca.gov/calenviroscreen/indicator/groundwater-threats
[11] OEHHA Cleanup Sites https://oehha.ca.gov/calenviroscreen/indicator/cleanup-sites
[12] Ibid.
[13] Ibid.
[14] OEHHA Poverty https://oehha.ca.gov/calenviroscreen/indicator/poverty

located in areas with high levels of pollution[15]. Poverty can cause stress that weakens the immune system and causes people to become ill from pollution[16]. Living in poverty is also an indication that residents may lack health insurance or access to medical care. Medical care is vital for this census tract as it ranks in the 66th percentile for incidence of cardiovascular disease and 68th percentile for incidence of asthma. The community has a high rate of linguistic isolation, meaning 77% of households speak little to no English and face further inequities as a result. 10

Additionally, the project census tract (6037603200) and the census tracts adjacent to the project site (6037603302 (north) and 6037291300 (east and south)) are identified as SB 535 Disadvantaged Communities[17]. The City's Environmental Justice Element of the General Plan[18] also identifies these census tracts as Disadvantaged Communities. None of these facts are discussed or presented for analysis in the EIR. This indicates that cumulative negative impacts of development and environmental impacts in the area are disproportionately impacting these communities. The EIR does not discuss that the surrounding area is a disadvantaged community and does not utilize this information in its analysis. The EIR has not considered the project's significant and unavoidable environmental impacts in relation to the SB 535/General Plan EJ status of the project census tract and surrounding area. The negative environmental, health, and quality of life impacts of the warehousing and logistics industry in the area have become distinctly inequitable. The severity of environmental impacts particularly on these Disadvantaged Communities must be included for analysis as part of a revised EIR. 11

The State of California lists three approved compliance modeling softwares[19] for non-residential buildings: CBECC-Com, EnergyPro, and IES VE. CalEEMod is not listed as an approved software. The CalEEMod modeling does not comply with the 2022 Building Energy Efficiency Standards and under-reports the project's significant Energy impacts and fuel consumption to the public and decision makers. Since the EIR did not accurately or adequately model the energy impacts in compliance with Title 24, it cannot conclude the project will generate less than significant impacts and a finding of significance must be made. A revised EIR with modeling using one of the approved software types must be prepared and circulated for public review in order to adequately analyze the project's significant environmental impacts. This is vital as the 12

[15] Ibid.
[16] Ibid.
[17] OEHHA SB 535 Census Tracts https://oehha.ca.gov/calenviroscreen/sb535
[18] Gardena Environmental Justice Element https://cityofgardena.org/wp-content/uploads/2022/12/Gardena_EJ-Element_FINAL-FOR-ADOPTION_with-APPENDICES.pdf
[19] California Energy Commission 2022 Energy Code Compliance Software https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-1

EIR utilizes CalEEMod as a source in its methodology and analysis, which is clearly not an approved software. 12

3.8 Land Use and Planning

The EIR does not provide any information regarding the buildout conditions of the City's General Plan. Notably, the horizon year of the City's General Plan and its associated EIR[20] is 2025. The project is proposed within one year of the horizon and buildout timeline of the prior environmental analysis. The EIR must be revised to provide a cumulative analysis discussion of projects approved since General Plan adoption and projects "in the pipeline" to determine if the project will exceed the City's General Plan buildout scenario. 13

Table 3.8-1. Consistency with 2020–2045 RTP/SCS Goals provides a misleading and erroneous consistency analysis with SCAG's 2020-2045 Connect SoCal RTP/SCS. Due to errors in modeling and modeling without supporting evidence, the proposed project has significant potential for inconsistency with Goal 5 to reduce greenhouse gas emissions and improve air quality, Goal 6 to support healthy and equitable communities, and Goal 7 to adapt to a changing climate. A revised EIR must be prepared to include a finding of significance due to these inconsistencies with SCAG's 2020-2045 Connect SoCal RTP/SCS. 14

The EIR does not provide substantial or meaningful evidence to support the claim that the project does not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. A revised EIR must be prepared to provide a consistency analysis with all of the most updated versions of the General Plan objectives, goals, policies, and actions, including but not limited to the following: 15

1. Policy LU 1.8: Minimize through-traffic on residential streets.
2. LU Goal 2: Develop and preserve high quality commercial centers and clean industrial uses that benefit the City's tax base, create jobs and provide a full range of services to the residents and businesses.
3. LU Goal 3: Provide high quality, attractive and well-maintained commercial, industrial, and public environments that enhance the image and vitality of the City.
4. Policy ED 1.6: Discourage distribution centers that do not provide jobs or point-of-sale activities.

[20] https://cityofgardena.org/wp-content/uploads/2020/04/General-Plan-Update-2006-Final-EIR.pdf

5. DS 3.4: Support mixed-use developments that include adequate open space areas and a full range of site amenities.
6. DS Goal 4 Achieve high quality design for commercial uses.
7. DS 4.5: New or remodeled commercial structures and properties should be designed to reflect the City's architectural diversity, yet be compatible with nearby existing buildings.
8. DS 4.6: Promote pedestrian-friendly corridors by improving traffic and pedestrian safety and by providing pedestrian amenities such as benches and outdoor seating, potted plants, decorative paving, and detailed lighting elements along the street frontage.
9. DS 4.7: Encourage the use of entrance patios, courtyards, plazas, arcades, fountains, porches, tower elements, covered walks, and other design features and amenities in commercial areas.
10. DS 7.4: Screen or underground unsightly equipment cabinets, infrastructure support structures and equipment.

15

Table 3.8-2. Consistency with Applicable City of Gardena General Plan Policies concludes the project is consistent with several goals and policies (including but not limited to: Policy LU 2.1, Policy LU 3.1, Policy LU 3.3, Policy LU 3.4, Policy LU 3.7, Policy LU 3.9, Policy DS 2.3, Policy DS 2.12, Policy DS 2.14, Policy DS 3.1, Policy DS 3.3, Policy DS 3.5, Policy DS 4.3, Policy DS 4.8, Policy DS 4.9, Policy DS 4.12, Policy DS 5.1, Policy DS 5.2, Policy DS 5.3, Policy DS 5.4, Policy DS 6.1, Policy DS 6.2, and Policy PS 1.7) due to implementation of the 1450 Artesia Specific Plan. However, the EIR has excluded a copy of the 1450 Artesia Specific Plan document from the EIR. This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). Incorporation by reference (CEQA § 15150 (f)) is not appropriate as the 1450 Artesia Specific Plan document contributes directly to analysis of the problem at hand and is relied upon throughout the EIR to support less than significant findings. A revised EIR must be prepared to include the 1450 Artesia Specific Plan document for review, analysis, and comment by the public and decision makers.

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3.10 Transportation

The EIR concludes the industrial portion of the project meets the Transit Proximity Screening criteria within the City's SB 743 Implementation Transportation Analysis Updates[21] (City Guidelines) and has "screened out" the project from preparing a project-specific VMT analysis. The City Guidelines provide the following requirements regarding the TPA Screening Method:

17

[21] https://cityofgardena.org/wp-content/uploads/2021/08/VMT-Exhibit-A-SB-743-Transportation-Analysis-Updates.pdf

"This presumption may not be appropriate if the project:

- Has a Floor Area Ratio (FAR) of less than 0.75 (for office, retail, hotel and industrial projects) or less than 20 units per acre (for residential projects)"

17

The industrial portion of the project has a FAR of 0.26, which is less than the 0.75 threshold. Therefore, the industrial portion of the project does not meet the Transit Proximity Screening criteria and it must be included in a project-specific VMT analysis. Notably, the operational nature of industrial/warehouse uses involves high rates of truck/trailer/delivery van VMT due to traveling from large import hubs to regional distribution centers to smaller industrial parks and then to their final delivery destinations. Once employees arrive at work at the proposed project, they will conduct their jobs by driving delivery vans across the region as part of the daily operations as a distribution facility, which will drastically increase project-generated VMT. The project's truck/trailer and delivery van activity is unable to utilize public transit or active transportation and it is misleading to the public and decision makers to exclude this activity from VMT analysis. The project's total operational VMT generated is not consistent with the screening threshold and legislative intent of SB 743 to reduce greenhouse gas emissions by reducing VMT. A revised EIR must be prepared to reflect a quantified VMT analysis that includes all truck/trailer and delivery van activity.

18

Further, the EIR provides a misleading qualitative VMT analysis of the project's self-storage use. The EIR states that, "…it is assumed that someone will travel to a newly constructed typical self-storage because of its proximity to the area attraction, rather than the proposed self-storage fulfilling an unmet need. Typical self-storage most often can be presumed to reduce trip lengths when a new self-storage is introduced within a cluster of existing self-storages located near a local neighborhood. Thus, the impact to the transportation system would be negligible or reduced by the introduction of a new self-storage use to an area where people are already traveling and planning on storing goods. Self-storage units do not attract any new trips other than need of storage which is fulfilled by local storage units. While a specific market study for the proposed self-storage use was not conducted as part of this memorandum, a map showing the proximity of other similar self-storage facilities is provided as Exhibit 2. A half-mile buffer was placed around the eight existing self-storage facilities in the area and the Project to illustrate the lack of overlapping service area between the Project and the existing self-storage uses. As shown in Exhibit 2, the Project will reduce trip lengths by adding self-storage opportunities into the local area, reducing proximity to self-storage services for users. Therefore, in accordance with the City's VMT guidelines, it is assumed that the Project will result in a VMT reduction and support the goals of SB 743."

19

The EIR has not provided any meaningful or quantified evidence to support the conclusion that the self-storage project will reduce VMT and result in less than significant impacts. The EIR

utilizes uncertain language in stating that it is presumed that typical self-storage uses reduce VMT due to their location. Exhibit 2 within Appendix J1 depicts only two other self-storage uses in a half-mile of the project site, indicating that the project will attract new customers to the area and result in increased VMT. The EIR also does not cite a specific VMT Screening exemption to conclude the self-storage project will have less than significant impacts, which is notable as the EIR has also concluded it does not meet the criteria for any of the exemptions (Project Type Screening, Low VMT Area Screening, and Transit Proximity Screening). The EIR has not provided any meaningful or quantified evidence to support a less than significant finding and must be revised to include a quantified VMT analysis for the self-storage project. 19

The EIR also concludes that the Special Event component of the project is exempt via the Project Type Screening exemption for local-serving commercial projects less than 50,000 square feet. However, the EIR has not provided any meaningful evidence that the Special Events will generate less than significant VMT impacts. Notably, the Project Description states that, "The City anticipates hosting several types of medium-size special events, such as food trucks, farmer's markets, car shows, live entertainment, food giveaways, community meetings, health fairs, and mobile vaccination events. The special events would be held approximately two to three times per month and include up to 250 attendees." The type of activities held during the medium-size Special Events and quantity of events indicates that they are not local-serving commercial activities. Medium-size Special Events attract attendees beyond the City boundaries, especially the type of activities listed including car shows, giveaways, and live entertainment. The EIR has not provided any meaningful or quantified evidence to support a less than significant finding and must be revised to include a quantified VMT analysis for the Special Events component of the project. 20

The EIR has not adequately analyzed the project's potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses; or the project's potential to result in inadequate emergency access. The EIR has excluded any specific truck/trailer turning exhibits from public review. There are no exhibits adequately depicting the available maneuvering and queueing space for trucks/trailers at the intersection of the project driveways and the adjacent streets. There are also no exhibits adequately depicting the onsite turning radius available for trucks maneuvering throughout the site. This is notable as several areas for potential conflicts between trucks/trailers, passenger vehicles, and pedestrians exist throughout the site. For example, there are six passenger car parking spaces and the City Storage Building located within the gated truck/trailer loading dock. These parking stalls may be in use at any time and restrict truck/trailer movement in the area. Pedestrians will access the City Storage Building within the gated court area and pedestrian access and safety in this area has not 21

been analyzed. The EIR must be revised to include a finding of significance as it has not provided any meaningful evidence or analysis to support a less than significant finding. 21

Additionally, the EIR has not provided any analysis of the available horizontal and vertical sight distance at the intersection of the project driveways and adjacent streets. Sight distance is the continuous length of street ahead visible to the driver. At unsignalized intersections, corner sight distance must provide a substantially clear line of sight between the driver of the vehicle waiting on the minor road (driveway) and the driver of an approaching vehicle. A revised EIR must be prepared with this analysis based on the American Association of State Highway and Transportation Officials (AASHTO) Stopping Sight Distance requirements. 22

4.2.11 Effects Found Not to Be Significant: Population and Housing

The EIR states that, "Based on the square footage of different uses that would be developed, the Project site is expected to support approximately 40 employees." However, the EIR does not provide a source calculation or methodology that resulted in the project's operations generating 40 employees. This does not comply with CEQA's requirements for meaningful disclosure. SCAG's Employment Density Study[22] provides the following applicable employment generation rates for Los Angeles County:

Light Manufacturing: 1 employee per 829 square feet
Other Retail/Service: 1 employee per 424 square feet
Office:1 employee per 319 square feet 23

Applying these ratios results in the following calculation:

Light Manufacturing: 72,000 sf / 829 sf = 87 employees

Other Retail/Service: 186,000 sf/ 424 sf = 439 employees

Office: 10,000 sf / 319 sf = 32 employees

Total: 558 employees

Utilizing SCAG's Employment Density Study ratios, the proposed project will generate 558 employees. The EIR utilizes uncertain and misleading language which does not provide any meaningful analysis of the project's population and employment generation. In order to comply

[22] SCAG Employment Density Study
http://www.mwcog.org/file.aspx?A=QTTlTR24POOOUIw5mPNzK8F4d8djdJe4LF9Exj6lXOU%3D

with CEQA's requirements for meaningful disclosure, a revised EIR must be prepared to provide an accurate estimate of employees generated by all uses of the proposed project. It must also provide demographic and geographic information on the location of qualified workers to fill these positions. 23

SCAG's Connect SoCal Demographics and Growth Forecast[23] notes that the City will add 2,800 jobs between 2016 - 2045. Utilizing SCAG's Employment Density Study calculation of 558 employees, the project represents 19.9% of the City's employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the project will exceed SCAG's employment growth forecast for the City. For example, other recent industrial projects such as Gardena Industrial Center[24] (251 employees) combined with the proposed project will generate 809 employees, which is 28.9% of the City's growth over 29 years accounted for by only two recent industrial projects. This total increases exponentially when other industrial and commercial development activity is added to the calculation. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since General Plan adoption, 2016 (SCAG), and projects "in the pipeline" to determine if the proposed project will exceed the employment/population growth forecasts by SCAG and/or the City's General Plan. Additionally, a revised EIR must also provide demographic and geographic information on the location of qualified workers to fill these positions in order to provide an accurate environmental analysis. 24

4.2.14 Effects Found Not to Be Significant: Transportation

The EIR states that, "The Los Angeles County Fire Department would review the Project plans to ensure adequate emergency access in and around the Project site as part of the building plan check process. The plans would be adjusted in the event that the fire department identifies any deficiencies in access that could preclude emergency evacuation or emergency response." This does not comply with CEQA's requirements for adequate informational documents and meaningful disclosure (CEQA § 15121 and 21003(b)). The EIR has not provided any details regarding the County requirements for emergency access or meaningful analysis of the project's compliance or noncompliance with these requirements. Deferring this environmental analysis required by CEQA to the construction permitting phase is improper mitigation and does not 25

[23] SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020 https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579
[24] https://ceqanet.opr.ca.gov/2022100279

comply with CEQA's requirement for meaningful disclosure and adequate informational documents. This is especially notable as the EIR states "the plans would be adjusted in the event that the fire department identifies any deficiencies," and these deficiencies and subsequent adjustments would not be available for review by the public and decision makers. A revised EIR must be prepared to include a finding of significance as the EIR has not provided any meaningful evidence to support a less than significant finding. 25

4.4 Significant Irreversible Changes and 4.5 Growth-Inducing Impacts

SCAG's Connect SoCal Demographics and Growth Forecast[25] notes that the City will add 2,800 jobs between 2016 - 2045. Utilizing SCAG's Employment Density Study calculation of 558 employees, the project represents 19.9% of the City's employment growth from 2016 - 2045. A single project accounting for this amount of the projected employment growth over 29 years represents a significant amount of growth. A revised EIR must be prepared to include this analysis, and also provide a cumulative analysis discussion of projects approved since 2016 and projects "in the pipeline" to determine if the project will exceed SCAG's employment growth forecast for the City. For example, other recent industrial projects such as Gardena Industrial Center[26] (251 employees) combined with the proposed project will generate 809 employees, which is 28.9% of the City's growth over 29 years accounted for by only two recent industrial projects. This total increases exponentially when other industrial and commercial development activity is added to the calculation. A revised EIR must be prepared to include this information for analysis, and also provide a cumulative analysis discussion of projects approved since General Plan adoption, 2016 (SCAG), and projects "in the pipeline" to determine if the proposed project will exceed the employment/population growth forecasts by SCAG and/or the City's General Plan. Additionally, a revised EIR must also provide demographic and geographic information on the location of qualified workers to fill these positions in order to provide an accurate environmental analysis. 26

A revised EIR must be prepared to include a cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. The EIR does not include any information regarding the buildout conditions of the City's General Plan in order to provide an adequate and accurate cumulative analysis. The revised EIR must provide the horizon year of the City's current adopted General Plan, the total developable building floor area analyzed within the applicable land use designation, and cumulative development since adoption of the General Plan 27

[25] SCAG Connect SoCal Demographics and Growth Forecast adopted September 3, 2020 https://scag.ca.gov/sites/main/files/file-attachments/0903fconnectsocal_demographics-and-growth-forecast.pdf?1606001579
[26] https://ceqanet.opr.ca.gov/2022100279

to ensure that the proposed project is within the General Plan EIR's analysis, particularly since the EIR tiers from the General Plan EIR and its horizon year is 2025. 27

The EIR relies upon erroneous Energy modeling to determine that the project will meet sustainability requirements. As noted above, the EIR did not model the project's energy consumption in compliance with Title 24 modeling software. The EIR must be revised to include a finding of significance as it has not adequately or accurately analyzed the project's commitment of resources. 28

The EIR does not adequately discuss or and analyze the commitment of resources is not consistent with regional and local growth forecasts. As noted throughout this comment letter, the project represents a significant amount of growth in the City and accounts for a significant amount of the City's employment growth over 29 years (SCAG) and through the City's General Plan horizon year of 2025. The EIR has not provided an adequate or accurate cumulative analysis discussion here to demonstrate the impact of the proposed project in a cumulative setting. The EIR must be revised to include this information for analysis and also include a cumulative development analysis of projects approved since General Plan adoption, 2016 (SCAG), and projects "in the pipeline" to determine if the proposed project exceeds the General Plan buildout scenario and/or SCAG's growth forecasts. 29

5.0 Alternatives

The EIR is required to evaluate a reasonable range of alternatives to the proposed project which will avoid or substantially lessen any of the significant effects of the project (CEQA § 15126.6). The alternatives chosen for analysis include the CEQA required "No Project" alternative and only three others - Reduced Density Alternative, Self-Storage Only Alternative, and Truck-Storage Lot Alternative. The EIR does not evaluate a reasonable range of alternatives as only three alternatives beyond the required No Project alternative are analyzed. The EIR does not include an alternative that meets the project objectives and also eliminates all of the project's significant and unavoidable impacts. The EIR must be revised to include analysis of a reasonable range of alternatives and foster informed decision making (CEQA § 15126.6). This must include alternatives such as development of the site with a project that reduces all of the proposed project's significant and unavoidable impacts to less than significant levels. 30

Conclusion

For the foregoing reasons, GSEJA believes the EIR is flawed and a revised EIR must be prepared for the proposed project and circulated for public review. Golden State Environmental Justice 31

Alliance requests to be added to the public interest list regarding any subsequent environmental documents, public notices, public hearings, and notices of determination for this project. Send all communications to Golden State Environmental Justice Alliance P.O. Box 79222 Corona, CA 92877. 31

Sincerely,

Gary Ho
Blum, Collins & Ho LLP

Attachments:
1. SWAPE Technical Analysis

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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September 11, 2024

Gary Ho
Blum, Collins & Ho LLP
707 Wilshire Blvd, Ste. 4880
Los Angeles, CA 90017

Subject: Comments on the 1450 Artesia Specific Plan Project (SCH No. 2023060263)

Dear Mr. Ho,

We have reviewed the July 2024 Draft Impact Environmental Report ("DEIR") for the 1450 Artesia Specific Plan Project ("Project") located in the City of Gardena ("City"). The Project proposes to construct 268,000-square-feet ("SF") of warehouse space and 124 parking spaces on the 6.33-acre site.

Our review concludes that the DEIR fails to adequately evaluate the Project's air quality and greenhouse gas impacts. As a result, emissions and health risk impacts associated with construction and operation of the proposed Project may be underestimated and inadequately addressed. A revised Environmental Impact Report ("EIR") should be prepared to adequately assess and mitigate the potential air quality and greenhouse gas impacts that the project may have on the environment.

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Air Quality

Failure to Provide Complete CalEEMod Output Files

Land use development projects under the California Environmental Quality Act ("CEQA") typically evaluate air quality impacts and calculate potential criteria air pollutant emissions using the California Emissions Estimator Model ("CalEEMod").[1] CalEEMod provides recommended default values based on site-specific information, such as land use type, meteorological data, total lot acreage, project type and typical equipment associated with project type. If more specific project information is known, the user can change the default values and input project-specific values, but CEQA requires that such changes be justified by substantial evidence. Once all of the values are inputted into the model, the Project's construction and operational emissions are calculated, and "output files" are generated. These output

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[1] "CalEEMod User's Guide." CAPCOA, May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide.

files disclose to the reader what parameters are used in calculating the Project's air pollutant emissions and demonstrate which default values are changed. Justifications are provided for the selected values.

According to the DEIR, CalEEMod Version 2022.1 is relied upon to estimate Project emissions (p. 3.1-1). In the 2022.1 version, the "User Changes to Default Data" table no longer provides the quantitative counterparts to the changes to the default values (see excerpt below) (Appendix B-1, pp. 170, 171):

8. User Changes to Default Data

Screen	Justification
Land Use	Building footprint acreage for Mixed use stacking calls for only the highest default lot acreage and to zero out the other uses. The traffic analysis uses General Light Industry for the industrial use for the Project. However, since CalEEMod limits General Light Industry to 50 ksqft, and trip generation and fleet mixes are manually entered, Unrefrigerated Warehouse was used for this analysis. Landscaped area was put under the parking lot and applies to the whole Project site.
Construction: Construction Phases	per construction questionnaire
Construction: Trips and VMT	Based on client provided information and the near by concrete and asphalt waste and recycling facilities. Exact waste and recycling facilities to be used are not determined yet, so a conservative estimate was used for 30 miles.
Operations: Vehicle Data	All project truck trips (40 trucks/day) placed on General Heavy Industrial (Industrial, 72 KSF) land use. All auto trips (457 daily trips) for daily operations (excluding special events) placed on General Office land use. Special event trips (220 trips) are placed on the parking lot land use and assume the maximum trips on the day of an event.
Operations: Fleet Mix	General Heavy Industrial (72 ksf, first land use in table) represents all truck trips, while General Office Building represents all auto trips for daily operations. Special event trips are placed on the parking lot land use.
Operations: Refrigerants	Added refrigerant for industrial warehouse
Construction: Dust From Material Movement	no export or import will occur as onsite earthwork is balanced

Previous CalEEMod Versions, such as 2020.4.0, include the specific numeric changes to the model's default values (see example excerpt below): 33

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	230.00	167.00
tblConstructionPhase	PhaseEndDate	11/22/2023	8/25/2023
tblConstructionPhase	PhaseEndDate	9/27/2023	6/30/2023
tblConstructionPhase	PhaseEndDate	10/25/2023	7/28/2023
tblConstructionPhase	PhaseStartDate	10/26/2023	7/29/2023
tblConstructionPhase	PhaseStartDate	9/28/2023	7/1/2023
tblLandUse	LandUseSquareFeet	160,000.00	160,371.00
tblLandUse	LandUseSquareFeet	119,000.00	41,155.00
tblLandUse	LotAcreage	3.67	3.68
tblLandUse	LotAcreage	2.73	2.74

The output files associated with CalEEMod Version 2022.1 fail to present the exact parameters used to calculate Project emissions. To remedy this issue, the DEIR should have provided access to the model's ".JSON" output files, which allow third parties to review the model's revised input parameters.[2] Without access to the complete output files, including the specific numeric changes to the default values, we cannot verify that the DEIR's air modeling and subsequent analysis is an accurate reflection of the proposed Project. As a result, a revised EIR should be prepared to include an updated air quality analysis

[2] "Video Tutorials for CalEEMod Version 2022.1." CAPCOA, May 2022, *available at:* https://www.caleemod.com/tutorials.

that correctly provides the complete output files for CalEEMod Version 2022.1, or includes an updated air model using an older release of CalEEMod.[3]

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Unsubstantiated Input Parameters Used to Estimate Project Emissions

When reviewing the Project's CalEEMod output files, provided in the Air Quality Analysis ("AQ Report") as Appendix B-1 to the DEIR, we were able to identify several model inputs that are inconsistent with information disclosed in the DEIR. The Project's construction and operational emissions may consequently be underestimated. A revised EIR should be prepared to include an updated air quality analysis that adequately evaluates the impacts that construction and operation of the Project will have on local and regional air quality.

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Failure to Consider Potential Cold Storage Requirements

Review of the CalEEMod output files demonstrates that the "1450 Artesia" model includes 72,000-SF of the "Unrefrigerated Warehouse-No Rail" land use (see excerpt below) (Appendix B-1, pp. 45).

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
Unrefrigerated Warehouse-No Rail	72.0	1000sqft	0.00	72,000	0.00	—	—	Industrial Warehouse
General Office Building	10.0	1000sqft	0.00	10,000	0.00	—	—	—
Parking Lot	4.88	Acre	4.88	0.00	78,076	—	—	—
Industrial Park	186	1000sqft	0.00	186,000	0.00	—	—	Self Storage

The AQ Report's model does not include any refrigerated warehouse space. Regarding refrigerated warehouse space the DEIR states:

> "Energy consumption consists of emissions from Project consumption of electricity and natural gas. Although the Project is a speculative warehouse, the analysis conservatively assumed a worst-case scenario that total building area of the warehouse would be refrigerated" (p. 3.5-28).

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The DEIR claims to assume a worst-case scenario; however, the AQ Report does not reflect this assumption as it models the entirety of the warehouse space as unrefrigerated. According to the South Coast Air Quality Management District ("SCAQMD"), "CEQA requires the use of 'conservative analyses to afford 'fullest possible protection of the environment.'"[4] The DEIR must account for the use of refrigerated cold storage space on the site. An updated model should be prepared to include the maximum refrigerated space to account for the additional emissions that refrigeration requirements may generate.

Refrigerated warehouses release more criteria air pollutant and GHG emissions when compared to unrefrigerated land uses. Warehouses equipped with cold storage, such as refrigerators and freezers,

[3] "CalEEMod Version 2020.4.0." CAPCOA, May 2021, *available at:* http://www.aqmd.gov/caleemod/download-model.

[4] "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Inland Empire Logistics Council, June 2014, *available at*: http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/final-ielc_6-19-2014.pdf?sfvrsn=2.

are known to consume more energy when compared to warehouses without cold storage.[5] Additionally, warehouses with cold storage typically require refrigerated trucks, which are known to idle for much longer when compared to unrefrigerated hauling trucks.[6] According to a July 2014 *Warehouse Truck Trip Study Data Results and Usage* presentation prepared by the SCAQMD hauling trucks that require refrigeration result in greater truck trip rates when compared to non-refrigerated hauling trucks.[7]

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By failing to account for any potential cold storage requirements, the model may underestimate the Project's operational emissions and should not be relied upon to determine Project significance. A revised EIR should be prepared to account for the additional refrigerated warehouse needs by the Project's future tenants.

Unsubstantiated Changes to Individual Construction Phase Lengths

Review of the CalEEMod output files demonstrates that the "1450 Artesia" model includes changes to the default construction schedule (see excerpt below) (Appendix B-1, pp. 170, 171).

8. User Changes to Default Data

Screen	Justification
Land Use	Building footprint acreage for Mixed use stacking calls for only the highest default lot acreage and to zero out the other uses. The traffic analysis uses General Light Industry for the industrial use for the Project. However, since CalEEMod limits General Light Industry to 50 ksqft, and trip generation and fleet mixes are manually entered, Unrefrigerated Warehouse was used for this analysis. Landscaped area was put under the parking lot and applies to the whole Project site.
Construction: Construction Phases	per construction questionnaire
Construction: Trips and VMT	Based on client provided information and the near by concrete and asphalt waste and recycling facilities. Exact waste and recycling facilities to be used are not determined yet, so a conservative estimate was used for 30 miles.
Operations: Vehicle Data	All project truck trips (40 trucks/day) placed on General Heavy Industrial (Industrial, 72 KSF) land use. All auto trips (457 daily trips) for daily operations (excluding special events) placed on General Office land use. Special event trips (220 trips) are placed on the parking lot land use and assume the maximum trips on the day of an event.
Operations: Fleet Mix	General Heavy Industrial (72 ksf, first land use in table) represents all truck trips, while General Office Building represents all auto trips for daily operations. Special event trips are placed on the parking lot land use.
Operations: Refrigerants	Added refrigerant for industrial warehouse
Construction: Dust From Material Movement	no export or import will occur as onsite earthwork is balanced

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As previously mentioned, the CalEEMod User's Guide requires any changes to model defaults be justified.[8] As stated in the "User Changes to Default Data" table, the justification provided for these changes is:

> "per construction questionnaire" (Appendix B-1, pp. 170).

[5] "Warehouses." Business Energy Advisor, *available at*: https://ouc.bizenergyadvisor.com/article/warehouses.
[6] "Estimation of Fuel Use by Idling Commercial Trucks." Transportation Research Record Journal of the Transportation Research Board, January 2006, p. 8, *available at:* https://www.researchgate.net/publication/245561735_Estimation_of_Fuel_Use_by_Idling_Commercial_Trucks.
[7] "Warehouse Truck Trip Study Data Results and Usage" Presentation. SCAQMD Mobile Source Committee, July 2014, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/high-cube-warehouse-trip-rate-study-for-air-quality-analysis/finaltrucktripstudymsc072514.pdf?sfvrsn=2, p. 7, 9.
[8] "CalEEMod User's Guide." CAPCOA, May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 1, 14.

As a result of these changes, the model includes the following construction schedule (see excerpt below) (Appendix B-1, pp. 152):

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase
Demolition	Demolition	6/1/2024	8/31/2024	5.00	65.0
Site Preparation	Site Preparation	9/1/2024	9/29/2024	5.00	20.0
Grading	Grading	10/2/2024	12/29/2024	5.00	63.0
Building Construction	Building Construction	1/1/2025	10/31/2025	5.00	218
Paving	Paving	12/1/2025	12/31/2025	5.00	23.0
Architectural Coating	Architectural Coating	10/2/2025	12/31/2025	5.00	65.0

Regarding the anticipated construction duration, the DEIR states:

> "Construction of the proposed Project is expected to last approximately 18 months beginning in the Spring of 2024 and ending in the fall of 2025" (p. 2-7).

Furthermore, the DEIR provides the following construction schedule (see excerpt below) (p. 2-7):

Table 2-1. Construction Phasing

Phase Number	Construction Phase	Number of Days
1	Demolition	66
2	Site Preparation	21
3	Grading	65
4	Building Construction	219
5	Architectural Coating (will overlap Phase 4 by approximately 1 month)	65
6	Paving (will overlap Phase 5 by approximately 1 month)	22

Source: Appendix B1.

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However, the changes to the individual construction phase lengths remain unsubstantiated. While the DEIR justifies a total length of Project construction of 18 months, the DEIR fails to provide an adequate source for the individual construction phase lengths outlined in table above. Namely, the DEIR cites its own appendix as the source of these changes. Until a proper source is provided, the model should have included proportionately altered individual phase lengths to match the proposed construction duration of 18 months.[9]

The construction schedule included in the model presents an issue, as the construction emissions are improperly spread out over a longer period of time for some phases, but not for others. According to the CalEEMod User's Guide, each construction phase is associated with different emissions activities (see excerpt below).[10]

[9] See Attachment A for proportionately altered construction schedule.
[10] "CalEEMod User's Guide." CAPCOA, May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 32.

Demolition involves removing buildings or structures.

Site Preparation involves clearing vegetation (grubbing and tree/stump removal) and removing stones and other unwanted material or debris prior to grading.

Grading involves the cut and fill of land to ensure that the proper base and slope is created for the foundation.

Building Construction involves the construction of the foundation, structures and buildings.

Architectural Coating involves the application of coatings to both the interior and exterior of buildings or structures, the painting of parking lot or parking garage striping, associated signage and curbs, and the painting of the walls or other components such as stair railings inside parking structures.

Paving involves the laying of concrete or asphalt such as in parking lots, roads, driveways, or sidewalks.

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By disproportionately altering and extending some of the individual construction phase lengths without proper justification, the model assumes there are a greater number of days to complete the construction activities required by the prolonged phases. As a result, there will be less construction activities required per day and, consequently, less pollutants emitted per day. Until we are able to verify the revised construction schedule, the model may underestimate the peak daily emissions associated with some phases of construction and should not be relied upon to determine Project significance.

Unsubstantiated Changes to Daily Vehicle Trip Rates

Review of the CalEEMod output files demonstrates that the "1450 Artesia" model includes changes to the default operational daily vehicle trip rates (see excerpt below) (Appendix B-1, pp. 170, 171).

8. User Changes to Default Data

Screen	Justification
Land Use	Building footprint acreage for Mixed use stacking calls for only the highest default lot acreage and to zero out the other uses. The traffic analysis uses General Light Industry for the industrial use for the Project. However, since CalEEMod limits General Light Industry to 50 ksqft, and trip generation and fleet mixes are manually entered, Unrefrigerated Warehouse was used for this analysis. Landscaped area was put under the parking lot and applies to the whole Project site.
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Operations: Fleet Mix	General Heavy Industrial (72 ksf, first land use in table) represents all truck trips, while General Office Building represents all auto trips for daily operations. Special event trips are placed on the parking lot land use.
Operations: Refrigerants	Added refrigerant for industrial warehouse
Construction: Dust From Material Movement	no export or import will occur as onsite earthwork is balanced

37

The "User Changes to Default Data" table above shows that the justification provided for these changes is:

> "All project truck trips (40 trucks/day) placed on General Heavy Industrial (Industrial, 72 KSF) land use. All auto trips (457 daily trips) for daily operations (excluding special events) placed on General Office land use. Special event trips (220 trips) are placed on the parking lot land use and assume the maximum trips on the day of an event" (Appendix B-1, pp. 171).

The model claims that According to the Vehicle Miles Traveled Assessment ("VMT Assessment"), provided as Appendix J1 to the DEIR, the Project is expected to generate 351 "General Light Industrial," 266 "Mini-Warehouse," and 108 "General Office Building" daily vehicle trips (see excerpt below) (p. 3, Table 1).

Table 1: Project Trip Generation

ITE Code	Land Use	Size	Units	Daily Trips	AM Peak			PM Peak		
					In	Out	Total	In	Out	Total
Trip Generation Rates*										
110	General Light Industrial	-	KSF	4.870	0.651	0.089	0.74	0.091	0.559	0.65
151	Mini-Warehouse	-	Storage Units (100s)	17.960	0.617	0.593	1.21	0.840	0.840	1.68
710	General Office Building	-	KSF	10.840	1.338	0.182	1.52	0.245	1.195	1.44
Trip Generation Estimates										
110	General Light Industrial	72.00	KSF	351	47	6	53	7	40	47
151	Mini-Warehouse	14.80	Storage Units (100s)	266	9	9	18	12	12	24
710	General Office Building	10.00	KSF	108	13	2	15	2	12	14
Total Proposed Project Trips				**725**	**69**	**17**	**86**	**21**	**64**	**85**
Existing Land Use Trips**				147	3	0	3	9	8	17
Net Proposed Project Trips				**578**	**66**	**17**	**83**	**12**	**56**	**68**

* Source: Institute of Transportation Engineers Trip Generation Manual, 11th Edition.
** Source: Existing counts collected May 2022.

The Project's model should have consequently included trip rates that reflect the estimates calculated in the VMT Assessment. However, review of the CalEEMod output files demonstrates that the "1450 Artesia" model includes unsubstantiated land use distributions for daily vehicle trips (see excerpt below) (Appendix B-1, pp. 158, 159).

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	75.0	75.0	75.0	27,375	3,000	3,000	3,000	1,095,000
General Office Building	650	650	650	237,250	6,027	6,027	6,027	2,199,735
Parking Lot	220	220	220	80,296	2,040	2,040	2,040	744,493
Industrial Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

The VMT Assessment estimates 617 total industrial-related daily trips generated[11] while the model includes 75 daily trips for the "Unrefrigerated Warehouse-No Rail" land use. The industrial vehicle trip rates inputted into the model are underestimated when compared to the VMT Assessment. Consequently, the model is inconsistent with the information provided by the DEIR and associated documents.

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[11] *Calculated:* 351 "General Light Industrial" daily trips + 266 "Mini-Warehouse" daily trips = 617 total industrial-related daily trips.

CalEEMod uses the operational vehicle trip rates to calculate the emissions associated with the operational on-road vehicles.[12] By including underestimated industrial vehicle trips daily vehicle trips, the model fails to match the information provided by the DEIR and its appendices, and it potentially underestimates the Project's mobile-source operational emissions. Until this gap in information is clarified, the model should not be relied upon to determine Project significance.

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Unsubstantiated Changes to Operational Fleet Mix Values

Review of the CalEEMod output files demonstrates that the "1450 Artesia" model includes changes to the default operational vehicle fleet mix percentages (see excerpt below) (Appendix B-1, pp. 170, 171).

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client Provided schedule
Construction: Off-Road Equipment	Client provided equipment list for Site Preparation, Grading, Building Construction and Paving. Off-road truck modeled represents water truck for grading and building construction. Off-road truck for Paving represents cement truck Default CalEEMod equipment used for demolition and Architectural Coating due to lack of client specific equipment.
Construction: Trips and VMT	Export material travel distance is 1-mile Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Architectural Coatings	SCAQMD Rule 1113
Operations: Vehicle Data	Trips taken from Trip Generation Assessment
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle trucks
Operations: Architectural Coatings	SCAQMD Rule 1113
Operations: Energy Use	Per Client data, natural gas will not be utilized
Operations: Water and Waste Water	Client Provided water usage total of 1,720,975 gallons/year
Operations: Refrigerants	Beginning 1 January 2025, all new air conditioning equipment may not use refrigerants with a GWP of 750 or greater

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As stated in the "User Changes to Default Data" table, the justification provided for these changes is:

> "General Heavy Industrial (72 ksf, first land use in table) represents all truck trips, while General Office Building represents all auto trips for daily operations. Special event trips are placed on the parking lot land use" (Appendix B-1, pp. 171).

The changes to the model's operational fleet mix values, however, remain unsubstantiated. The output files for CalEEMod 2022.1 do not present the numeric changes to any model defaults. Changes to fleet mix percentages are not mentioned outside of the "User Changes to Default Data" table. Until the DEIR verifies the breakdown of heavy-heavy duty ("HHD"), medium-heavy duty ("MHD"), light-heavy duty ("LHD1, LDH2") trucks used by the model, we cannot verify that these values are accurate and consistent with the information provided by the DEIR and associated documents.[13]

[12] "CalEEMod User's Guide." CAPCOA, May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 36.
[13] "CalEEMod User's Guide." CAPCOA, May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 38.

CalEEMod uses operational vehicle fleet mix percentages to calculate the Project's operational emissions associated with on-road vehicles.[14] By including several unsubstantiated changes to the default operational vehicle fleet mix percentages, the model may underestimate the Project's mobile-source operational emissions and should not be relied upon to determine Project significance.

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Updated Analysis Indicates a Potentially Significant Air Quality Impact

To more accurately represent the Project's construction-related emissions, we prepared an updated construction CalEEMod model, using the Project-specific information provided by the DEIR. In our updated model, we proportionately altered the construction phase length values and omitted the unsubstantiated changes to the operational vehicle data and fleet mix values. All other changes remained consistent with the DEIR's model. [15]

Our updated analysis estimates that the Project's reactive organic gases ("ROG") emissions exceed the applicable SCAQMD threshold of 75 pounds per day ("lbs/day"), as referenced by the DEIR (p. 3.1-30; Table 3.1-9) (see table below).

SWAPE Criteria Air Pollutant Emissions

Construction	**ROG** (lbs/day)
DEIR	39.29
SWAPE	102
% Increase	160%
SCAQMD Threshold	**75**
Exceeds?	**Yes**

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Construction-related ROG emissions, as estimated by SWAPE, increase by approximately 160% and exceed the applicable SCAQMD significance threshold. Our model demonstrates that the Project would result in a potentially significant air quality impact that was not previously identified or addressed by the DEIR. A revised EIR should be prepared to adequately assess and mitigate the potential air quality impacts that the Project may have on the environment.

Disproportionate Health Risk Impacts of Warehouses on Surrounding Communities

Upon review of the DEIR, we have determined that the development of the proposed Project may contribute to disproportionate health risk impacts that warehouses pose on community members living, working, and going to school within the immediate area of the Project site. According to the SCAQMD:

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[14] "CalEEMod User's Guide." CAPCOA, May 2021, *available at:* https://www.aqmd.gov/caleemod/user's-guide, p. 36.
[15] See Attachment B for SWAPE's updated CalEEMod model.

> "Those living within a half mile of warehouses are more likely to include communities of color, have health impacts such as higher rates of asthma and heart attacks, and a greater environmental burden."[16]

In particular, the SCAQMD found that more than 2.4 million people live within a half mile radius of at least one warehouse, and that those areas not only experience increased rates of asthma and heart attacks, but are also disproportionately Black and Latino communities below the poverty line.[17] Another study similarly indicates that "neighborhoods with lower household income levels and higher percentages of minorities are expected to have higher probabilities of containing warehousing facilities."[18] Additionally, a report authored by the Inland Empire-based People's Collective for Environmental Justice and University of Redlands states: 40

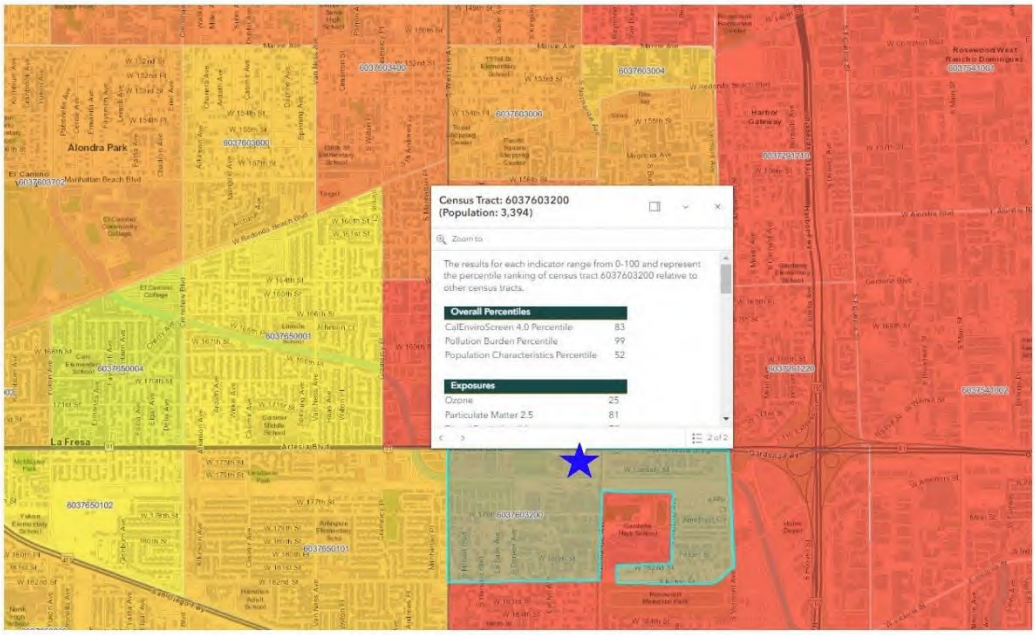
> "As the warehouse and logistics industry continues to grow and net exponential profits at record rates, more warehouse projects are being approved and constructed in low-income communities of color and serving as a massive source of pollution by attracting thousands of polluting truck trips daily. Diesel trucks emit dangerous levels of nitrogen oxide and particulate matter that cause devastating health impacts including asthma, chronic obstructive pulmonary disease (COPD), cancer, and premature death. As a result, physicians consider these pollution-burdened areas 'diesel death zones.'"[19]

It is evident that the continued development of industrial warehouses within these communities poses a significant environmental justice challenge. However, the acceleration of warehouse development is only increasing despite the consequences on public health. The Inland Empire alone is adding 10 to 25 million SF of new industrial space each year.[20]

Los Angeles County, the setting of the proposed Project, has long borne a disproportionately high pollution burden[21]. When using CalEnviroScreen 4.0, CalEPA's screening tool that ranks each census

[16] "South Coast AQMD Governing Board Adopts Warehouse Indirect Source Rule." SCAQMD, May 2021, *available at:* http://www.aqmd.gov/docs/default-source/news-archive/2021/board-adopts-waisr-may7-2021.pdf?sfvrsn=9.
[17] "Southern California warehouse boom a huge source of pollution. Regulators are fighting back." Los Angeles Times, May 2021, *available at:* https://www.latimes.com/california/story/2021-05-05/air-quality-officials-target-warehouses-bid-to-curb-health-damaging-truck-pollution.
[18] "Location of warehouses and environmental justice: Evidence from four metros in California." Metro Freight Center of Excellence, January 2018, *available at:* https://www.metrans.org/assets/research/MF%201.1g_Location%20of%20warehouses%20and%20environmental%20justice_Final%20Report_021618.pdf, p. 21.
[19] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.
[20] "2020 North America Industrial Big Box Review & Outlook." CBRE, 2020, *available at:* https://www.cbre.com/-/media/project/cbre/shared-site/insights/local-responses/industrial-big-box-report-inland-empire/local-response-2020-ibb-inland-empire-overview.pdf, p. 2.
[21] "Equity and Resilience Briefing." Los Angeles Countywide Sustainability Plan, October 2018, *available at:* https://ourcountyla.lacounty.gov/wp-content/uploads/2018/11/Our-County-Equity-and-Resilience-Briefing_For-Web.pdf, p. 23.

tract in the State for pollution and socioeconomic vulnerability, we found that the Project's census tract is in the 99th percentile of most polluted census tracts in the State (see excerpt below).[22]



Furthermore, the Data Visualization Tool for Mates V, a monitoring and evaluation study conducted by SCAQMD, demonstrates that the County already exhibits a heightened residential carcinogenic risk from exposure to air toxics.[23] Specifically, the location of the Project site is in the 87th percentile of highest cancer risks in the South Coast Air Basin, with a cancer risk of 587 in one million (see excerpt below).[24]

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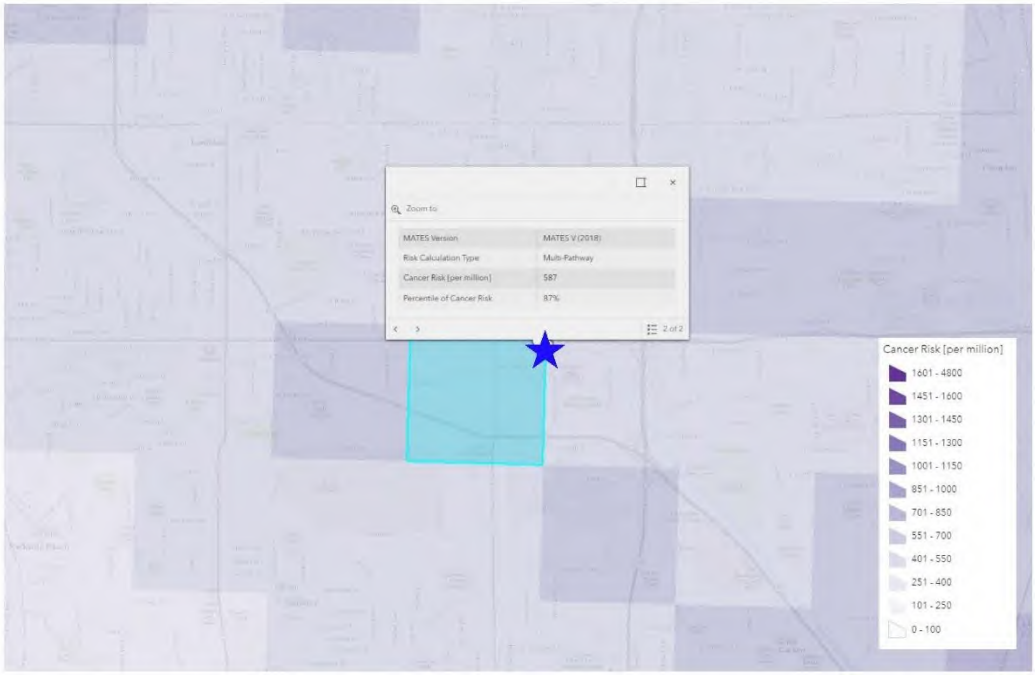
[22] "CalEnviroScreen 4.0." California Office of Environmental Health Hazard Assessment (OEHHA), October 2021, *available at:* https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40, census tract #6071002204.
[23] "Residential Air Toxics Cancer Risk Calculated from Model Data in Grid Cells." MATES V, 2018, *available at:* https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?views=Click-tabs-for-other-data%2CGridded-Cancer-Risk; see also: "MATES V Multiple Air Toxics Exposure Study." SCAQMD, *available at:* http://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v.
[24] "Gridded Cancer Risk." SCAQMD, *available at:* https://experience.arcgis.com/experience/79d3b6304912414bb21ebdde80100b23/page/Main-Page/?data_id=dataSource_112-7c8f2a4db79b4a918d46b4e8985a112b%3A20315&views=Click-tabs-for-other-data%2CGridded-Cancer-Risk.



Additionally, according to CalEnviroScreen's SB 535 Disadvantaged Communities Map, the Project site is located in a designated disadvantaged community (see excerpt below).[25]

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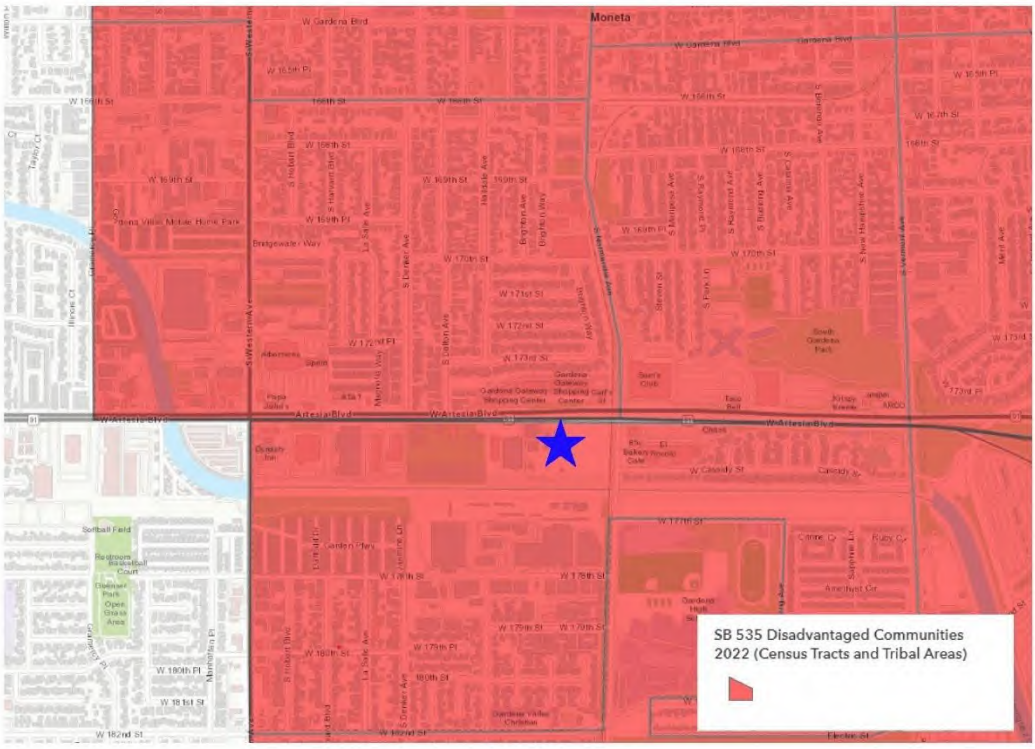
[25] "SB 535 Disadvantaged Communities (2022 Update)." California Environmental Protection Agency, *available at:* https://experience.arcgis.com/experience/1c21c53da8de48f1b946f3402fbae55c/page/SB-535-Disadvantaged-Communities/



SB 535 provides funding for development projects that provide a benefit to disadvantaged communities. CalEPA has been given the responsibility for identifying those communities based on "geographic, socioeconomic, public health, and environmental hazard criteria."[26] As the Project site is within a disadvantaged community, and the Project's census tract exhibits a high cancer risk, the proposed Project would contribute to the disproportionate health impacts warehouses impose on nearby residents.

The proposed Project may exacerbate disproportionate health risks for community members within the immediate area, a concern underscored by the mandates of SB 1000. SB 1000, enacted to address environmental justice considerations, requires local governments to integrate environmental justice elements into their planning processes, particularly focusing on reducing health risks for disadvantaged communities.[27]

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[26] "Final Designation of Disadvantaged Communities." California Environmental Protection Agency, *available at:* https://calepa.ca.gov/wp-content/uploads/sites/6/2022/05/Updated-Disadvantaged-Communities-Designation-DAC-May-2022-Eng.a.hp_-1.pdf?emrc=e05e10.

[27] "Environmental Justice in Local Land Use Planning." CA DOJ, *available at:* https://oag.ca.gov/environment/sb1000.

The DEIR shows that the proposed Project site, which is in an SB 535 zone, is directly adjacent to townhome residences, among other nearby family residences and schools (Appendix B-2, p. 8, Table 1). The Project should therefore comply with the objectives of SB 1000, which aim to address such environmental justice challenges by incorporating policies to reduce the unique health risks faced by disadvantaged communities.

The continued expansion of industrial warehouses in these communities presents a significant environmental justice challenge, compounded by San Bernardino County's alarming ozone pollution levels. Ozone pollution, a key concern under SB 1000, poses serious health risks, particularly for children, who are more vulnerable due to their developing lungs and increased outdoor activity.[28]

In accordance with the California Department of Justice ("CA DOJ") guidelines, the effects of greenhouse gas emissions and air pollutants from warehouses should be evaluated cumulatively. The CA DOJ states:[29]

> "When analyzing cumulative impacts, thoroughly considering the project's incremental impact in combination with past, present, and reasonably foreseeable future projects, even if the project's individual impacts alone do not exceed the applicable significance thresholds."

To accurately assess the Project's impact on disadvantaged communities, both existing and anticipated warehouse developments should be considered during the environmental review process.

The Warehouse Cumulative Impact Tool for Community dashboard ("Warehouse CITY"), developed by the Redford Conservancy at Pitzer College and Radical Research LLC, is a tool that visualizes and quantifies existing, potential, and approved warehouse locations across Southern California. Review of Warehouse CITY reveals that there are 22 existing warehouses within the 5.86-square-mile radius of the City (see screenshot below).[30]

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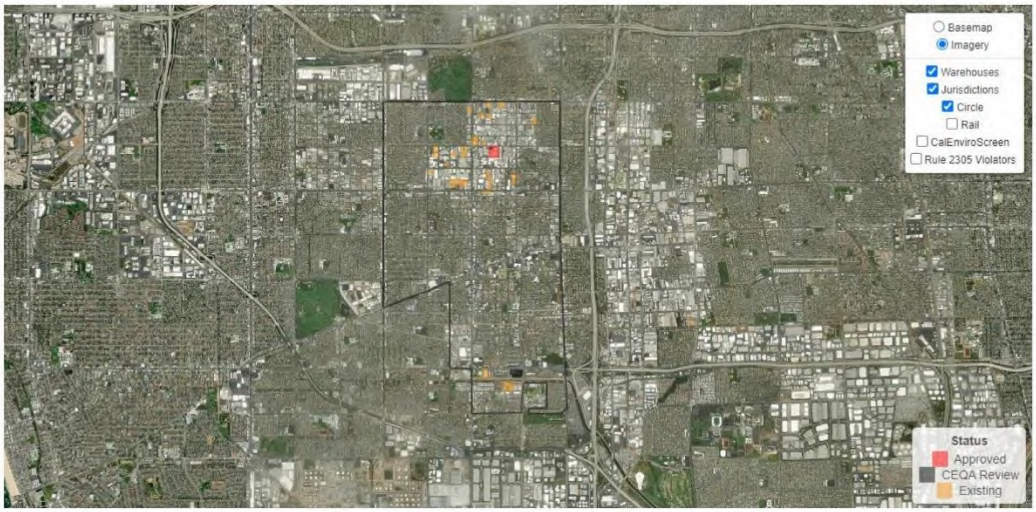
[28] "Health Effects of Ozone Pollution." U.S. EPA, *available at:* https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution

[29] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." CA DOJ, available at: https://oag.ca.gov/sites/all/files/agweb/pdfs/environment/warehouse-best-practices.pdf, p. 6.

[30] "Warehouse and Air Quality Mapping." Pitzer College & Radical Research LLC, *available at*: https://radicalresearch.shinyapps.io/WarehouseCITY/.



As the Project site is located in an SB 535 disadvantaged community, we recommend reevaluating the Project's cumulative health risks to more effectively align with CA DOJ guidelines and SB 1000 environmental justice requirements. 40

In April 2022, the American Lung Association ranked San Bernadino County as the worst for ozone pollution in the nation.[31] This year, the County continues to face the worst ozone pollution, as it has seen the highest recorded Air Quality Index ("AQI") values for ground-level ozone in California.[32] The U.S. Environmental Protection Agency ("EPA") indicates that ozone, the main ingredient in "smog," can cause several health problems, which includes aggravating lung diseases and increasing the frequency of asthma attacks. The U.S. EPA states:

> "Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma."[33]

Regarding the increased sensitivity of early-life exposures to inhaled pollutants, the California Air Resources Board ("CARB") states:

> "Children are often at greater risk from inhaled pollutants, due to the following reasons:
>
> - Children have unique activity patterns and behavior. For example, they crawl and play on the ground, amidst dirt and dust that may carry a wide variety of toxicants. They

[31] "State of the Air 2022." American Lung Association, April 2022, *available at:* https://www.lung.org/research/sota/key-findings/most-polluted-places.
[32] "High Ozone Days." American Lung Association, 2022, *available at:* https://www.lung.org/research/sota/city-rankings/states/california.
[33] "Health Effects of Ozone Pollution." U.S. EPA, May 2021, *available at:* https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

often put their hands, toys, and other items into their mouths, ingesting harmful substances. Compared to adults, children typically spend more time outdoors and are more physically active. Time outdoors coupled with faster breathing during exercise increases children's relative exposure to air pollution.

- Children are physiologically unique. Relative to body size, children eat, breathe, and drink more than adults, and their natural biological defenses are less developed. The protective barrier surrounding the brain is not fully developed, and children's nasal passages aren't as effective at filtering out pollutants. Developing lungs, immune, and metabolic systems are also at risk.

- Children are particularly susceptible during development. Environmental exposures during fetal development, the first few years of life, and puberty have the greatest potential to influence later growth and development."[34]

A Stanford-led study also reveals that children exposed to high levels of air pollution are more susceptible to respiratory and cardiovascular diseases in adulthood.[35] Given that children are more susceptible to the negative health impacts of air pollutants, and that warehouses release more smog-forming pollution than any other sector, it is necessary to evaluate the specific health risk that warehouses pose to children in the nearby community. 40

According to the above-mentioned study by the People's Collective for Environmental Justice and University of Redlands, a half mile radius is more commonly used for identifying sensitive receptors. There are 640 schools in the South Coast Air Basin that are located within half a mile of a large warehouse, most of them in socio-economically disadvantaged areas.[36] Regarding the proposed Project itself, the DEIR identifies that the Gardena Early Education Center is located 465 feet, or 0.09 miles, away from the Project site (Appendix B-2, p. 8, Table 1). A revised EIR should be prepared to evaluate the Project's contribution to the disproportionate impacts that warehouses pose on the surrounding communities, including an analysis of the impact on children and people of color who live and attend school in the surrounding area.

In order to evaluate the cumulative air quality impact from the several warehouse projects proposed or built in a one-mile radius of the Project site, the analysis should prepare a revised cumulative HRA to quantify the adverse health outcome from the effects of exposure to multiple warehouses in the

[34] "Children and Air Pollution." California Air Resources Board (CARB), *available at:* https://ww2.arb.ca.gov/resources/documents/children-and-air-pollution.
[35] "Air pollution puts children at higher risk of disease in adulthood, according to Stanford researchers and others." Stanford, February 2021, *available at:* https://news.stanford.edu/2021/02/22/air-pollution-impacts-childrens-health/.
[36] "Warehouses, Pollution, and Social Disparities: An analytical view of the logistics industry's impacts on environmental justice communities across Southern California." People's Collective for Environmental Justice, April 2021, *available at:* https://earthjustice.org/sites/default/files/files/warehouse_research_report_4.15.2021.pdf, p. 4.

immediate area in conjunction with the poor ambient air quality in the Project's census tract. This recommendation is consistent with guidance provided by SB 1000 and the CA DOJ.[37]

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Greenhouse Gas

Failure to Adequately Evaluate Greenhouse Gas Impacts

The DEIR estimates that the Project construction and operation would generate net annual GHG emissions of 2,993.94 metric tons of carbon dioxide equivalents per year ("MT CO_2e/year") (see excerpt below) (p. 3.5-37, Table 3.5-6).

Table 3.5-6. Operational Project Greenhouse Gas Emissions

Emissions Source	Unmitigated MTCO2e per Year	Mitigated MTCO2e per Year
Existing Conditions	167	167
Proposed		
Construction Amortized Over 30 Years	25.16	25.16
Area Source	5.45	5.45
Energy[1]	972.74	877.38[2]
Mobile[3]	1,875.34	1,875.34
Mobile (Special Events)[2]	26.60	26.60
Refrigerants	0.00	0.00
Stationary – Yard Trucks and Forklifts[4]	656.34	58.22
Stationary – Emergency Generators	10.43	10.43
Waste	96.03	96.03
Water and Wastewater	186.32	186.32
Total Emissions	**3,854.42**	**3,160.94**
Net Emissions (Project –Existing)	*3,687.42*	*2,993.94*

Source: CalEEMod version 2022.1. Refer to Appendix F.

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The DEIR subsequently concludes the Project would not exceed the SCAQMD threshold of 3,000 $MTCO_2e$ per year (p. 3.5-28). The DEIR's analysis, as well as the subsequent less-than-significant impact conclusion, however, is unsupported for three reasons:

(1) The DEIR's quantitative GHG analysis relies upon a flawed air model;
(2) The DEIR's quantitative GHG analysis relies upon an outdated threshold; and
(3) The DEIR's unsubstantiated air model indicates a potentially significant impact.

[37] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." CA DOJ, September 2022, available at: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 6.

1) Incorrect and Unsubstantiated Quantitative Analysis of Emissions

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 2,993.94 MT CO2e/year (p. 3.5-37). The DEIR's quantitative analysis, however, is unsubstantiated. When reviewing the Project's CalEEMod models, provided in Appendix B-1, we found that several of the values inputted into the models are not consistent with information disclosed in the DEIR.[38] As a result, the models may underestimate the Project's emissions, and the DEIR's quantitative analysis should not be relied upon to determine Project significance. A revised EIR should be prepared that adequately assesses the potential GHG impacts that construction and operation of the proposed Project may have on the environment.

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2) Incorrect Reliance on an Outdated Quantitative GHG Threshold

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 2,993.94 MT CO2e/year, which would not exceed the SCAQMD threshold of 3,000 MT CO_2e/year (p. 3.5-37). However, the guidance that provided the 3,000 MT CO_2e/year threshold, the SCAQMD's 2008 *Interim CEQA GHG Significance Threshold for Stationary Sources, Rules, and Plans* report, was developed when the Global Warming Solutions Act of 2006, commonly known as "AB 32", was the governing statute for GHG reductions in California. AB 32 requires California to reduce GHG emissions to 1990 levels by 2020.[39] Furthermore, AEP guidance states:

> "[F]or evaluating projects with a post 2020 horizon, the threshold will need to be revised based on a new gap analysis that would examine 17 development and reduction potentials out to the next GHG reduction milestone."[40]

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As it is currently August 2024, thresholds for 2020 are not applicable to the proposed Project and should be revised to reflect the current GHG reduction target. As such, the SCAQMD bright-line threshold of 3,000 MT CO_2e/year is outdated and inapplicable to the proposed Project, and the DEIR's less-than-significant GHG impact conclusion should not be relied upon. Instead, we recommend that the Project apply the SCAQMD 2035 service population efficiency target of 3.0 metric tons of carbon dioxide equivalents per service population per year ("MT CO_2e/SP/year"), which was calculated by applying a 40% reduction to the 2020 targets.[41]

3) Failure to Identify a Potentially Significant GHG Impact

In an effort to quantitatively evaluate the Project's GHG emissions, we compared the Project's greenhouse gas ("GHG") emissions, as estimated by the DEIR, to the SCAQMD 2035 efficiency target of

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[38] See the section of this letter titled "Unsubstantiated Input Parameters Used to Estimate Project Emissions."
[39] "Health & Safety Code 38550." California State Legislature, January 2007, *available at:* https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC&sectionNum=38550.
[40] "Beyond Newhall and 2020: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California." AEP, October 2016, *available at:* https://califaep.org/docs/AEP-2016_Final_White_Paper.pdf, p. 39.
[41] "Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #15." SCAQMD, September 2010, *available at:* http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-15/ghg-meeting-15-minutes.pdf, p. 2.

3.0 MT CO_2e/SP/year. When applying this threshold, the Project's incorrect and unsubstantiated air model indicates a potentially significant GHG impact.

As previously stated, the DEIR estimates that the Project would generate net annual GHG emissions of 2,993.94 MT CO2e/year. According to California Air Pollution Control Officers Association ("CAPCOA")'s *CEQA & Climate Change* report, a service population ("SP") is defined as "the sum of the number of residents and the number of jobs supported by the project."[42] According to the DEIR, the Project is expected to support 40 employees, and does not mention any future residents (p. 2-7). When dividing the Project's net annual GHG emissions, as estimated by the DEIR, by an SP of 40 people, we find that the Project would emit approximately 74.8 MT CO_2e/SP/year (see table below).[43]

Project Greenhouse Gas Emissions	
Annual Emissions (MT CO_2e/year)	2,993.94
Service Population	40
Service Population Efficiency (MT CO_2e/SP/year)	74.8
SCAQMD 2035 Target	**3.0**
Exceeds?	***Yes***

As demonstrated above, the Project's service population efficiency value exceeds the SCAQMD 2035 efficiency target of 3.0 MT CO_2e/SP/year, indicating a potentially significant impact not previously identified or addressed by the DEIR. As a result, the DEIR's less-than-significant GHG impact conclusion should not be relied upon. A revised EIR should be prepared, including an updated GHG analysis and incorporating additional mitigation measures to reduce the Project's GHG emissions to less-than-significant levels.

Mitigation

Feasible Mitigation Measures Available to Reduce Emissions

According to CEQA Guidelines § 15096(g)(2):

> "When an updated EIR has been prepared for a project, the Responsible Agency shall not approve the project as proposed if the agency finds any feasible alternative or feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment."

The DEIR is consequently required under CEQA to implement all feasible mitigation to reduce the Project's potential impacts. As demonstrated in the sections above, the Project would result in potentially significant air quality and GHG impacts that should be mitigated further.

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[42] "CEQA & Climate Change." CAPCOA, January 2008, *available at:* https://www.ourair.org/wp-content/uploads/CAPCOA-CEQA-and-Climate-Change.pdf, p. 71-72.
[43] Calculated: (2,993.94 MT CO_2e/year) / (40 service population) = (74.8 MT CO_2e/SP/year).

In order to reduce the ROG emissions associated with Project construction, we recommend the DEIR consider incorporating the following mitigation measure from the CA DOJ:[44]

- Require the use of super compliant, low-VOC paints less than 10 g/L during the architectural coating construction phase and during Project maintenance.

Further mitigation used by other land use development projects to address volatile organic compounds ("VOC") /ROG emissions is as follows: [45]

- Recycle leftover paint. Take any leftover paint to a household hazardous waste center; do not mix leftover water-based and oil-based paints.
- Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.
- For water-based paints, clean up with water only. Whenever possible, do not rinse the cleanup water down the drain or pour it directly into the ground or the storm drain
- Use compliant low-VOC cleaning solvents to clean paint application equipment.
- Keep all paint- and solvent-laden rags in sealed containers to prevent VOC emissions.
- Contractors shall construct/build with materials that do not require painting and use pre-painted construction materials to the extent practicable.
- Use high-pressure/low-volume paint applicators with a minimum transfer efficiency of at least 50 percent or other application techniques with equivalent or higher transfer efficiency.

Additionally, Los Angeles County recommends:[46]

- If paints and coatings with VOC content of 0 grams/liter to less than 10 grams/liter cannot be utilized, the developer shall avoid application of architectural coatings during the peak smog season: July, August, and September.

Furthermore, In order to reduce the GHG emissions associated with the Project, we recommend several mitigation measures (see list below).

The CA DOJ recommends: [47]

- Designing all project building roofs to accommodate the maximum future coverage of solar panels and installing the maximum solar power generation capacity feasible.
- Oversizing electrical rooms by 25 percent or providing a secondary electrical room to accommodate future expansion of electric vehicle charging capability.

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[44] "Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act." CA DOJ, September 2022, *available at*: https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf, p. 8 – 10.
[45] "Banning Commerce Center Project." Kimley-Horn and Associates, Inc., June 2024, *available at*: https://ceqanet.opr.ca.gov/2022090102/2; Draft Environmental Impact Report, p. 1-7.
[46] "Mitigation Monitoring and Reporting Program." Los Angeles County Housing Element Update Program EIR. August 2021, *available at*: https://planning.lacounty.gov/wp-content/uploads/2023/07/Housing_final-peir-mitigation-monitoring.pdf.
[47] *Ibid.* p. 9 – 10.

- Constructing zero-emission truck charging/fueling stations proportional to the number of dock doors at the project.
- Running conduit to designated locations for future electric truck charging stations.
- Constructing and maintaining electric light-duty vehicle charging stations proportional to the number of employee parking spaces.
- Running conduit to an additional proportion of employee parking spaces for a future increase in the number of electric light-duty charging stations.
- Requiring facility operators to train managers and employees on efficient scheduling and load management to eliminate unnecessary queuing and idling of trucks.
- Providing meal options onsite or shuttles between the facility and nearby meal destinations.
- Posting signs at every truck exit driveway providing directional information to the truck route.
- Requiring that every tenant train its staff in charge of keeping vehicle records in diesel technologies and compliance with CARB regulations, by attending CARB-approved courses. Also require facility operators to maintain records on-site demonstrating compliance and make records available for inspection by the local jurisdiction, air district, and state upon request.
- Requiring tenants to enroll in the United States Environmental Protection Agency's SmartWay program, and requiring tenants who own, operate, or hire trucking carriers with more than 100 trucks to use carriers that are SmartWay carriers.
- Providing tenants with information on incentive programs, such as the Carl Moyer Program and Voucher Incentive Program, to upgrade their fleets.

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SCAQMD staff recommends: [48]

- Utilizing only Energy Star heating, cooling, and lighting devices and appliances.

CEQA Guidelines 15126.4 (c)(3) include "[o]ffsite measures, including offsets that are not otherwise required, to mitigate a project's emissions" as an option for GHG mitigation.[49] An example of this was in the case of the Oakland Sports and Mixed-Use Project, where off-site reduction measures in the neighboring communities were recommended.[50] We recommend consideration of local carbon offset programs to reduce the Project's GHG impacts as a measure of last result.

As demonstrated above, we have provided several mitigation measures that would reduce Project-related ROG and GHG emissions developed from sources including the CA DOJ, Los Angeles County, and

[48] "Draft Environmental Impact Report (EIR) for the Proposed CADO Menifee Industrial Warehouse Project (Proposed Project)." SCAQMD, April 2024, *available at*: https://www.aqmd.gov/docs/default-source/ceqa/comment-letters/2024/april-2024/RVC240313-05.pdf?sfvrsn=8, p. 3.
[49] "Cal. Code Regs. tit. 14 § 15126.4." CEQA Guidelines, May 2024, *available at*: https://casetext.com/regulation/california-code-of-regulations/title-14-natural-resources/division-6-resources-agency/chapter-3-guidelines-for-implementation-of-the-california-environmental-quality-act/article-9-contents-of-environmental-impact-reports/section-151264-consideration-and-discussion-of-mitigation-measures-proposed-to-minimize-significant-effects.
[50] "Cal. Pub. Resources Code § 21168.6.7." 2023, *available at*: https://casetext.com/statute/california-codes/california-public-resources-code/division-13-environmental-quality/chapter-6-limitations/section-2116867-oakland-sports-and-mixed-use-project-conditions-for-approval-certification-of-project-for-streamlining.

others. These measures offer a cost-effective, feasible way to incorporate lower-emitting design features into the proposed Project, which subsequently reduce emissions released during Project construction and operation.

A revised EIR should be prepared that includes all feasible mitigation measures, as well as updated air quality and GHG analyses to ensure that the necessary mitigation measures are implemented to reduce emissions to the maximum extent feasible. The revised EIR should also demonstrate a commitment to the implementation of these measures prior to Project approval, to ensure that the Project's potentially significant emissions are reduced to the maximum extent possible.

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Disclaimer

SWAPE has received limited discovery regarding this project. Additional information may become available in the future; thus, we retain the right to revise or amend this report when additional information becomes available. Our professional services have been performed using that degree of care and skill ordinarily exercised, under similar circumstances, by reputable environmental consultants practicing in this or similar localities at the time of service. No other warranty, expressed or implied, is made as to the scope of work, work methodologies and protocols, site conditions, analytical testing results, and findings presented. This report reflects efforts which were limited to information that was reasonably accessible at the time of the work, and may contain informational gaps, inconsistencies, or otherwise be incomplete due to the unavailability or uncertainty of information obtained or provided by third parties.

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Sincerely,

Matt Hagemann, P.G., C.Hg.

Paul E. Rosenfeld, Ph.D.

Attachment A: Construction Calculations
Attachment B: CalEEMod Output Files
Attachment A: Matt Hagemann CV
Attachment B: Paul Rosenfeld CV

Attachment A

Construction Schedule Calculations					
Phase	Default Phase Length	Construction Duration	%	Construction Duration	Revised Phase Length
Demolition	20	423	0.0473	578	27
Site Preparation	5	423	0.0118	578	7
Grading	8	423	0.0189	578	11
Construction	230	423	0.5437	578	314
Paving	18	423	0.0426	578	25
Architectural Coating	18	423	0.0426	578	25

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	Total Default Construction Duration	Revised Construction Duration
Start Date	6/1/2024	6/1/2024
End Date	7/29/2025	12/31/2025
Total Days	423	578

Attachment B

1450 Artesia Detailed Report

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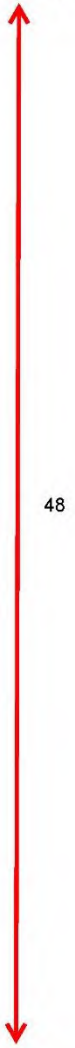

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	1450 Artesia
Construction Start Date	6/1/2024
Operational Year	2026
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	17.4
Location	33.87216176389781, -118.3005279056033
County	Los Angeles-South Coast
City	Gardena
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	4626
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.28

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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
Refrigerated Warehouse-No Rail	72.0	1000sqft	0.00	72,000	0.00	—	—	—

General Office Building	10.0	1000sqft	0.00	10,000	0.00	—	—	—
Parking Lot	4.88	Acre	4.88	4.88	78,076	—	—	—
Industrial Park	186	1000sqft	0.00	186,000	0.00	—	—	—

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.1	8.40	81.3	77.8	0.12	3.52	31.3	34.8	3.24	14.3	17.6	—	14,044	14,044	0.59	0.39	6.57	14,182
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	102	102	18.8	26.1	0.05	0.74	1.13	1.86	0.67	0.28	0.95	—	5,804	5,804	0.24	0.24	0.17	5,881
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.96	7.79	7.46	9.59	0.02	0.30	1.18	1.48	0.28	0.42	0.70	—	2,400	2,400	0.10	0.12	1.34	2,439
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.45	1.42	1.36	1.75	< 0.005	0.06	0.22	0.27	0.05	0.08	0.13	—	397	397	0.02	0.02	0.22	404

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	10.1	8.40	81.3	77.8	0.12	3.52	31.3	34.8	3.24	14.3	17.6	—	14,044	14,044	0.59	0.39	6.57	14,182
2025	3.09	2.65	18.7	26.8	0.05	0.74	1.13	1.86	0.67	0.28	0.95	—	5,847	5,847	0.24	0.24	6.51	5,930
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.74	1.42	13.0	16.4	0.03	0.52	0.87	1.38	0.48	0.22	0.69	—	4,224	4,224	0.17	0.22	0.15	4,293
2025	102	102	18.8	26.1	0.05	0.74	1.13	1.86	0.67	0.28	0.95	—	5,804	5,804	0.24	0.24	0.17	5,881
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.96	0.79	7.46	8.33	0.02	0.30	1.18	1.48	0.28	0.42	0.70	—	1,962	1,962	0.08	0.09	0.97	1,993
2025	7.96	7.79	7.07	9.59	0.02	0.26	0.50	0.76	0.24	0.12	0.36	—	2,400	2,400	0.10	0.12	1.34	2,439
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.18	0.14	1.36	1.52	< 0.005	0.06	0.22	0.27	0.05	0.08	0.13	—	325	325	0.01	0.02	0.16	330
2025	1.45	1.42	1.29	1.75	< 0.005	0.05	0.09	0.14	0.04	0.02	0.07	—	397	397	0.02	0.02	0.22	404

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2.4. Operations 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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.25	8.90	2.58	21.4	0.03	0.17	2.13	2.30	0.17	0.54	0.71	284	12,543	12,827	29.4	0.43	7.99	13,697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.18	6.98	2.54	8.72	0.03	0.15	2.13	2.28	0.15	0.54	0.69	284	12,396	12,680	29.4	0.43	0.23	13,543

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.59	8.29	2.62	17.0	0.03	0.17	2.10	2.27	0.16	0.53	0.70	284	12,456	12,739	29.4	0.43	3.46	13,606
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.57	1.51	0.48	3.10	0.01	0.03	0.38	0.41	0.03	0.10	0.13	46.9	2,062	2,109	4.87	0.07	0.57	2,253

2.5. Operations Emissions by Sector, Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.43	0.66	8.27	0.02	0.01	2.13	2.14	0.01	0.54	0.55	—	2,316	2,316	0.08	0.07	7.97	2,348
Area	8.52	8.36	0.10	11.7	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.9	47.9	< 0.005	< 0.005	—	48.1
Energy	0.20	0.10	1.82	1.53	0.01	0.14	—	0.14	0.14	—	0.14	—	9,562	9,562	0.65	0.06	—	9,596
Water	—	—	—	—	—	—	—	—	—	—	—	118	618	736	12.1	0.29	—	1,125
Waste	—	—	—	—	—	—	—	—	—	—	—	166	0.00	166	16.6	0.00	—	580
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	9.25	8.90	2.58	21.4	0.03	0.17	2.13	2.30	0.17	0.54	0.71	284	12,543	12,827	29.4	0.43	7.99	13,697
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.43	0.72	7.20	0.02	0.01	2.13	2.14	0.01	0.54	0.55	—	2,216	2,216	0.08	0.08	0.21	2,242
Area	6.45	6.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.20	0.10	1.82	1.53	0.01	0.14	—	0.14	0.14	—	0.14	—	9,562	9,562	0.65	0.06	—	9,596
Water	—	—	—	—	—	—	—	—	—	—	—	118	618	736	12.1	0.29	—	1,125
Waste	—	—	—	—	—	—	—	—	—	—	—	166	0.00	166	16.6	0.00	—	580
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	7.18	6.98	2.54	8.72	0.03	0.15	2.13	2.28	0.15	0.54	0.69	284	12,396	12,680	29.4	0.43	0.23	13,543

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.52	0.43	0.74	7.49	0.02	0.01	2.10	2.12	0.01	0.53	0.55	—	2,243	2,243	0.08	0.08	3.44	2,272
Area	7.87	7.76	0.07	7.98	< 0.005	0.01	—	0.01	0.01	—	0.01	—	32.8	32.8	< 0.005	< 0.005	—	32.9
Energy	0.20	0.10	1.82	1.53	0.01	0.14	—	0.14	0.14	—	0.14	—	9,562	9,562	0.65	0.06	—	9,596
Water	—	—	—	—	—	—	—	—	—	—	—	118	618	736	12.1	0.29	—	1,125
Waste	—	—	—	—	—	—	—	—	—	—	—	166	0.00	166	16.6	0.00	—	580
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	8.59	8.29	2.62	17.0	0.03	0.17	2.10	2.27	0.16	0.53	0.70	284	12,456	12,739	29.4	0.43	3.46	13,606
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.10	0.08	0.13	1.37	< 0.005	< 0.005	0.38	0.39	< 0.005	0.10	0.10	—	371	371	0.01	0.01	0.57	376
Area	1.44	1.42	0.01	1.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.45
Energy	0.04	0.02	0.33	0.28	< 0.005	0.03	—	0.03	0.03	—	0.03	—	1,583	1,583	0.11	0.01	—	1,589
Water	—	—	—	—	—	—	—	—	—	—	—	19.5	102	122	2.01	0.05	—	186
Waste	—	—	—	—	—	—	—	—	—	—	—	27.4	0.00	27.4	2.74	0.00	—	96.0
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	1.57	1.51	0.48	3.10	0.01	0.03	0.38	0.41	0.03	0.10	0.13	46.9	2,062	2,109	4.87	0.07	0.57	2,253

3. Construction Emissions Details

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3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Off-Road Equipment	3.12	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	3.47	3.47	—	0.52	0.52	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.23	0.19	1.84	1.61	< 0.005	0.08	—	0.08	0.07	—	0.07	—	253	253	0.01	< 0.005	—	254
Demolition	—	—	—	—	—	—	0.26	0.26	—	0.04	0.04	—	—	—	—	—	—	—
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	0.04	0.04	0.34	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.9	41.9	< 0.005	< 0.005	—	42.1
Demolition	—	—	—	—	—	—	0.05	0.05	—	0.01	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	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

Hauling	0.12	0.03	2.03	0.74	0.01	0.02	0.45	0.47	0.02	0.12	0.14	—	1,694	1,694	0.09	0.27	3.92	1,781
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	< 0.005	0.01	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	15.1	15.1	< 0.005	< 0.005	0.03	15.3
Vendor	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
Hauling	0.01	< 0.005	0.16	0.05	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	125	125	0.01	0.02	0.13	132
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.49	2.49	< 0.005	< 0.005	< 0.005	2.53
Vendor	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
Hauling	< 0.005	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	20.8	20.8	< 0.005	< 0.005	0.02	21.8

3.3. Site Preparation (2024) - Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.34	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.08	0.07	0.69	0.63	< 0.005	0.03	—	0.03	0.03	—	0.03	—	102	102	< 0.005	< 0.005	—	102
Dust From Material Movement	—	—	—	—	—	—	0.38	0.38	—	0.19	0.19	—	—	—	—	—	—	—
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	0.02	0.01	0.13	0.12	< 0.005	0.01	—	0.01	0.01	—	0.01	—	16.8	16.8	< 0.005	< 0.005	—	16.9
Dust From Material Movement	—	—	—	—	—	—	0.07	0.07	—	0.04	0.04	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	1.32	0.00	0.00	0.23	0.23	0.00	0.05	0.05	—	247	247	0.01	0.01	0.97	251
Vendor	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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.56	4.56	< 0.005	< 0.005	0.01	4.62
Vendor	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
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.75	0.75	< 0.005	< 0.005	< 0.005	0.76
Vendor	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
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. Grading (2024) - Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.26	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.07	0.06	0.55	0.57	< 0.005	0.03	—	0.03	0.02	—	0.02	—	89.2	89.2	< 0.005	< 0.005	—	89.5
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.10	0.10	—	—	—	—	—	—	—
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	0.01	0.01	0.10	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	14.8	14.8	< 0.005	< 0.005	—	14.8
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.07	1.13	0.00	0.00	0.20	0.20	0.00	0.05	0.05	—	212	212	0.01	0.01	0.84	215
Vendor	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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.14	6.14	< 0.005	< 0.005	0.01	6.22
Vendor	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
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.02	1.02	< 0.005	< 0.005	< 0.005	1.03
Vendor	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
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

3.7. Building Construction (2024) - Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
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	0.46	0.39	3.62	4.23	0.01	0.16	—	0.16	0.15	—	0.15	—	774	774	0.03	0.01	—	777
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	0.08	0.07	0.66	0.77	< 0.005	0.03	—	0.03	0.03	—	0.03	—	128	128	0.01	< 0.005	—	129
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.19	3.02	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	565	565	0.02	0.02	2.23	573
Vendor	0.10	0.04	1.52	0.75	0.01	0.02	0.34	0.36	0.02	0.09	0.11	—	1,290	1,290	0.05	0.18	3.50	1,348
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.20	0.18	0.23	2.55	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	535	535	0.02	0.02	0.06	542
Vendor	0.10	0.04	1.58	0.76	0.01	0.02	0.34	0.36	0.02	0.09	0.11	—	1,291	1,291	0.05	0.18	0.09	1,345
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	0.06	0.06	0.07	0.87	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	175	175	0.01	0.01	0.31	178
Vendor	0.03	0.01	0.52	0.24	< 0.005	0.01	0.11	0.12	0.01	0.03	0.04	—	417	417	0.02	0.06	0.49	435
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	0.01	0.01	0.01	0.16	0.00	0.00	0.03	0.03	0.00	0.01	0.01	—	29.0	29.0	< 0.005	< 0.005	0.05	29.4
Vendor	0.01	< 0.005	0.09	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	69.0	69.0	< 0.005	0.01	0.08	72.0
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

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3.9. Building Construction (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	0.72	0.61	5.62	7.02	0.01	0.23	—	0.23	0.21	—	0.21	—	1,290	1,290	0.05	0.01	—	1,295
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	0.13	0.11	1.03	1.28	< 0.005	0.04	—	0.04	0.04	—	0.04	—	214	214	0.01	< 0.005	—	214
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

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Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.17	2.78	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	553	553	0.02	0.02	2.02	561
Vendor	0.09	0.04	1.44	0.71	0.01	0.02	0.34	0.36	0.01	0.09	0.10	—	1,269	1,269	0.05	0.18	3.47	1,327
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.19	0.17	0.19	2.36	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	524	524	0.02	0.02	0.05	531
Vendor	0.09	0.04	1.50	0.71	0.01	0.02	0.34	0.36	0.01	0.09	0.10	—	1,270	1,270	0.05	0.18	0.09	1,324
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	0.10	0.09	0.11	1.33	0.00	0.00	0.28	0.28	0.00	0.07	0.07	—	286	286	0.01	0.01	0.47	290
Vendor	0.05	0.02	0.81	0.38	< 0.005	0.01	0.18	0.19	< 0.005	0.05	0.06	—	683	683	0.03	0.10	0.81	713
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	0.02	0.02	0.02	0.24	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	47.4	47.4	< 0.005	< 0.005	0.08	48.0
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	113	113	< 0.005	0.02	0.13	118
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

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3.11. Paving (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road	0.85	0.71	6.52	8.84	0.01	0.29	—	0.29	0.26	—	0.26	—	1,351	1,351	0.05	0.01	—	1,355
Paving	0.51	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	0.71	6.52	8.84	0.01	0.29	—	0.29	0.26	—	0.26	—	1,351	1,351	0.05	0.01	—	1,355
Paving	0.51	0.51	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.06	0.05	0.45	0.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	92.5	92.5	< 0.005	< 0.005	—	92.8
Paving	0.04	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.08	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	15.3	15.3	< 0.005	< 0.005	—	15.4
Paving	0.01	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.09	1.39	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	277	277	0.01	0.01	1.01	281
Vendor	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
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	1.18	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	262	262	0.01	0.01	0.03	265
Vendor	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
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	18.2	18.2	< 0.005	< 0.005	0.03	18.5
Vendor	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
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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.02	3.02	< 0.005	< 0.005	< 0.005	3.06
Vendor	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
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

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3.13. Architectural Coating (2025) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	0.88	1.14	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	102	102	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.15	9.15	< 0.005	< 0.005	—	9.18
Architectural Coatings	6.97	6.97	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.51	1.51	< 0.005	< 0.005	—	1.52
Architectural Coatings	1.27	1.27	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.11	0.09	0.11	1.32	0.00	0.00	0.29	0.29	0.00	0.07	0.07	—	292	292	0.01	0.01	0.03	296
Vendor	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
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	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	20.3	20.3	< 0.005	< 0.005	0.03	20.6
Vendor	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
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	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.37	3.37	< 0.005	< 0.005	0.01	3.41
Vendor	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
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

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,029	2,029	0.13	0.02	—	2,037
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	260	260	0.02	< 0.005	—	261
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	271	271	0.02	< 0.005	—	272
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	4,831	4,831	0.30	0.04	—	4,849
Total	—	—	—	—	—	—	—	—	—	—	—	—	7,391	7,391	0.46	0.06	—	7,419
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,029	2,029	0.13	0.02	—	2,037
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	260	260	0.02	< 0.005	—	261
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	271	271	0.02	< 0.005	—	272
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	4,831	4,831	0.30	0.04	—	4,849
Total	—	—	—	—	—	—	—	—	—	—	—	—	7,391	7,391	0.46	0.06	—	7,419
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Refrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	—	336	336	0.02	< 0.005	—	337
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	43.0	43.0	< 0.005	< 0.005	—	43.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	44.9	44.9	< 0.005	< 0.005	—	45.1
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	—	800	800	0.05	0.01	—	803
Total	—	—	—	—	—	—	—	—	—	—	—	—	1,224	1,224	0.08	0.01	—	1,228

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.05	0.03	0.48	0.41	< 0.005	0.04	—	0.04	0.04	—	0.04	—	578	578	0.05	< 0.005	—	580
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	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
Industrial Park	0.14	0.07	1.27	1.06	0.01	0.10	—	0.10	0.10	—	0.10	—	1,511	1,511	0.13	< 0.005	—	1,515
Total	0.20	0.10	1.82	1.53	0.01	0.14	—	0.14	0.14	—	0.14	—	2,170	2,170	0.19	< 0.005	—	2,176

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.05	0.03	0.48	0.41	< 0.005	0.04	—	0.04	0.04	—	0.04	—	578	578	0.05	< 0.005	—	580
General Office Building	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	81.2	81.2	0.01	< 0.005	—	81.5
Parking Lot	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
Industrial Park	0.14	0.07	1.27	1.06	0.01	0.10	—	0.10	0.10	—	0.10	—	1,511	1,511	0.13	< 0.005	—	1,515
Total	0.20	0.10	1.82	1.53	0.01	0.14	—	0.14	0.14	—	0.14	—	2,170	2,170	0.19	< 0.005	—	2,176
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	0.01	< 0.005	0.09	0.07	< 0.005	0.01	—	0.01	0.01	—	0.01	—	95.7	95.7	0.01	< 0.005	—	96.0
General Office Building	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.4	13.4	< 0.005	< 0.005	—	13.5
Parking Lot	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
Industrial Park	0.03	0.01	0.23	0.19	< 0.005	0.02	—	0.02	0.02	—	0.02	—	250	250	0.02	< 0.005	—	251
Total	0.04	0.02	0.33	0.28	< 0.005	0.03	—	0.03	0.03	—	0.03	—	359	359	0.03	< 0.005	—	360

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4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.75	5.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.70	0.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.07	1.91	0.10	11.7	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.9	47.9	< 0.005	< 0.005	—	48.1
Total	8.52	8.36	0.10	11.7	< 0.005	0.02	—	0.02	0.02	—	0.02	—	47.9	47.9	< 0.005	< 0.005	—	48.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	5.75	5.75	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.70	0.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	6.45	6.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.05	1.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Architectural Coating	0.13	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.26	0.24	0.01	1.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.45
Total	1.44	1.42	0.01	1.46	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.44	5.44	< 0.005	< 0.005	—	5.45

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

48

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	31.9	165	197	3.28	0.08	—	303
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.41	17.6	21.0	0.35	0.01	—	32.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	8.47	8.47	< 0.005	< 0.005	—	8.50
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	82.4	427	509	8.48	0.20	—	782
Total	—	—	—	—	—	—	—	—	—	—	—	118	618	736	12.1	0.29	—	1,125
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Refriger Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	31.9	165	197	3.28	0.08	—	303
General Office Building	—	—	—	—	—	—	—	—	—	—	—	3.41	17.6	21.0	0.35	0.01	—	32.3
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	8.47	8.47	< 0.005	< 0.005	—	8.50
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	82.4	427	509	8.48	0.20	—	782
Total	—	—	—	—	—	—	—	—	—	—	—	118	618	736	12.1	0.29	—	1,125
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	5.28	27.3	32.6	0.54	0.01	—	50.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.56	2.92	3.48	0.06	< 0.005	—	5.35
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	1.40	1.40	< 0.005	< 0.005	—	1.41
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	13.6	70.7	84.3	1.40	0.03	—	129
Total	—	—	—	—	—	—	—	—	—	—	—	19.5	102	122	2.01	0.05	—	186

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4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.5	0.00	36.5	3.65	0.00	—	128
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.01	0.00	5.01	0.50	0.00	—	17.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.4	0.00	—	435
Total	—	—	—	—	—	—	—	—	—	—	—	166	0.00	166	16.6	0.00	—	580
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Refrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.5	0.00	36.5	3.65	0.00	—	128
General Office Building	—	—	—	—	—	—	—	—	—	—	—	5.01	0.00	5.01	0.50	0.00	—	17.5
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	124	0.00	124	12.4	0.00	—	435
Total	—	—	—	—	—	—	—	—	—	—	—	166	0.00	166	16.6	0.00	—	580
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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Refrigerated Wareho Rail	—	—	—	—	—	—	—	—	—	—	—	6.04	0.00	6.04	0.60	0.00	—	21.1
General Office Building	—	—	—	—	—	—	—	—	—	—	—	0.83	0.00	0.83	0.08	0.00	—	2.90
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Industrial Park	—	—	—	—	—	—	—	—	—	—	—	20.6	0.00	20.6	2.06	0.00	—	72.0
Total	—	—	—	—	—	—	—	—	—	—	—	27.4	0.00	27.4	2.74	0.00	—	96.0

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.02	0.02
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

General Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	< 0.005	< 0.005

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	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

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Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	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
Demolition	Demolition	6/1/2024	7/9/2024	5.00	27.0	—
Site Preparation	Site Preparation	6/30/2024	7/9/2024	5.00	7.00	—
Grading	Grading	7/8/2024	7/22/2024	5.00	11.0	—
Building Construction	Building Construction	7/20/2024	10/2/2025	5.00	314	—
Paving	Paving	9/5/2025	10/9/2025	5.00	25.0	—
Architectural Coating	Architectural Coating	11/27/2025	12/31/2025	5.00	25.0	—

5.2. Off-Road Equipment

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5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20

Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

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Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	16.7	29.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	30.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	18.5	LDA,LDT1,LDT2

Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	40.0	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	40.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	22.3	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

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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)
Architectural Coating	0.00	0.00	402,000	134,000	12,754

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5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Ton of Debris)	Material Exported (Ton of Debris)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	4,374	—
Site Preparation	0.00	0.00	31.5	0.00	—
Grading	0.00	0.00	60.0	0.00	—
Paving	0.00	0.00	0.00	0.00	4.88

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Refrigerated Warehouse-No Rail	0.00	0%
General Office Building	0.00	0%
Parking Lot	4.88	100%
Industrial Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	75.0	75.0	75.0	27,375	3,000	3,000	3,000	1,095,000

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

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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)
0	0.00	402,000	134,000	12,754

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Refrigerated Warehouse-No Rail	1,392,340	532	0.0330	0.0040	1,803,891
General Office Building	178,203	532	0.0330	0.0040	253,465
Parking Lot	186,214	532	0.0330	0.0040	0.00

Industrial Park	3,314,573	532	0.0330	0.0040	4,714,443

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Refrigerated Warehouse-No Rail	16,650,000	0.00
General Office Building	1,777,337	0.00
Parking Lot	0.00	1,094,983
Industrial Park	43,012,500	0.00

5.13. Operational Waste Generation

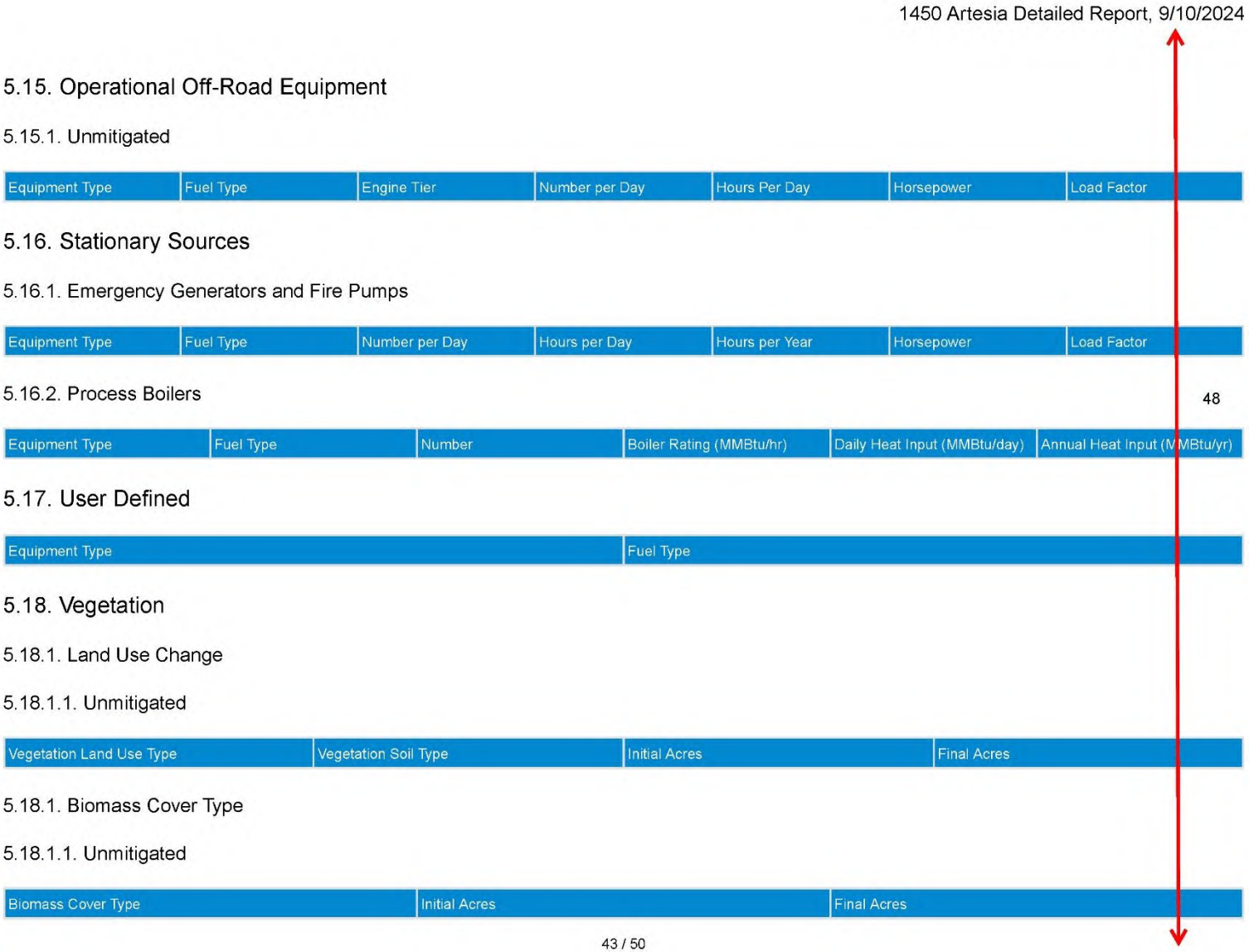
5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Refrigerated Warehouse-No Rail	67.7	—
General Office Building	9.30	—
Parking Lot	0.00	—
Industrial Park	231	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0



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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

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Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

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

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)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

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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	5.08	annual days of extreme heat
Extreme Precipitation	4.20	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. 48
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	24.9
AQ-PM	81.4
AQ-DPM	78.2
Drinking Water	69.1
Lead Risk Housing	45.4
Pesticides	38.0
Toxic Releases	99.2
Traffic	68.5
Effect Indicators	—
CleanUp Sites	89.0
Groundwater	87.3
Haz Waste Facilities/Generators	67.0
Impaired Water Bodies	96.3
Solid Waste	91.0
Sensitive Population	—
Asthma	67.8
Cardio-vascular	66.2
Low Birth Weights	77.0
Socioeconomic Factor Indicators	—
Education	31.4
Housing	16.3
Linguistic	76.6
Poverty	33.2
Unemployment	2.73

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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	74.48992686
Employed	96.16322341
Median HI	44.11651482
Education	—
Bachelor's or higher	57.65430515
High school enrollment	100
Preschool enrollment	51.48209932
Transportation	—
Auto Access	65.16104196
Active commuting	20.26177339
Social	—
2-parent households	79.14795329
Voting	26.57513153
Neighborhood	—
Alcohol availability	33.14513025
Park access	45.65635827
Retail density	75.59348133
Supermarket access	71.26908764
Tree canopy	22.73835493
Housing	—
Homeownership	72.97574747
Housing habitability	93.10920056
Low-inc homeowner severe housing cost burden	82.1891441
Low-inc renter severe housing cost burden	91.4282048

Uncrowded housing	62.10701912
Health Outcomes	—
Insured adults	45.18157321
Arthritis	0.0
Asthma ER Admissions	22.9
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	84.1
Cognitively Disabled	95.5
Physically Disabled	41.1
Heart Attack ER Admissions	23.3
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	67.2
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

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Children	62.5
Elderly	6.3
English Speaking	13.2
Foreign-born	90.3
Outdoor Workers	64.2
Climate Change Adaptive Capacity	—
Impervious Surface Cover	9.7
Traffic Density	57.1
Traffic Access	56.5
Other Indices	—
Hardship	41.8
Other Decision Support	—
2016 Voting	15.7

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	83.0
Healthy Places Index Score for Project Location (b)	67.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
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 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.

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	See comment on: "Failure to Consider Potential Cold Storage Requirements".
Construction: Construction Phases	See comment on: "Unsubstantiated Changes to Individual Construction Phase Lengths"
Construction: Trips and VMT	Consistent with DEIR's model.
Construction: Dust From Material Movement	Consistent with DEIR's model.
Operations: Refrigerants	Consistent with DEIR's model.

Attachment C

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
Industrial Stormwater Compliance
CEQA Review

Education:
M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:
California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

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Professional Experience:
Matt has 30 years of experience in environmental policy, contaminant assessment and remediation, stormwater compliance, and CEQA review. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) and directed efforts to improve hydrogeologic characterization and water quality monitoring. For the past 15 years, as a founding partner with SWAPE, Matt has developed extensive client relationships and has managed complex projects that include consultation as an expert witness and a regulatory specialist, and a manager of projects ranging from industrial stormwater compliance to CEQA review of impacts from hazardous waste, air quality and greenhouse gas emissions.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2104, 2017;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 300 environmental impact reports and negative declarations since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at more than 100 industrial facilities.
- Expert witness on numerous cases including, for example, perfluorooctanoic acid (PFOA) contamination of groundwater, MTBE litigation, air toxins at hazards at a school, CERCLA compliance in assessment and remediation, and industrial stormwater contamination.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

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- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.
- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

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Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted

public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9.

Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific

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principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

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Matt is currently a part time geology instructor at Golden West College in Huntington Beach, California where he taught from 2010 to 2014 and in 2017.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

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Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F.** 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

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Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examinations, 2009-2011.

Attachment D

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

SOIL WATER AIR PROTECTION ENTERPRISE
2656 29th Street, Suite 201
Santa Monica, California 90405
Attn: Paul Rosenfeld, Ph.D.
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Office: (310) 452-5555
Fax: (310) 452-5550
Email: prosenfeld@swape.com

Paul Rosenfeld, Ph.D.

Chemical Fate and Transport & Air Dispersion Modeling

Principal Environmental Chemist

Risk Assessment & Remediation Specialist

Education

Ph.D. Soil Chemistry, University of Washington, 1999. Dissertation on volatile organic compound filtration.

M.S. Environmental Science, U.C. Berkeley, 1995. Thesis on organic waste economics.

B.A. Environmental Studies, U.C. Santa Barbara, 1991. Focus on wastewater treatment.

Professional Experience

Dr. Rosenfeld has over 25 years of experience conducting environmental investigations and risk assessments for evaluating impacts to human health, property, and ecological receptors. His expertise focuses on the fate and transport of environmental contaminants, human health risk, exposure assessment, and ecological restoration. Dr. Rosenfeld has evaluated and modeled emissions from oil spills, landfills, boilers and incinerators, process stacks, storage tanks, confined animal feeding operations, industrial, military and agricultural sources, unconventional oil drilling operations, and locomotive and construction engines. His project experience ranges from monitoring and modeling of pollution sources to evaluating impacts of pollution on workers at industrial facilities and residents in surrounding communities. Dr. Rosenfeld has also successfully modeled exposure to contaminants distributed by water systems and via vapor intrusion.

Dr. Rosenfeld has investigated and designed remediation programs and risk assessments for contaminated sites containing lead, heavy metals, mold, bacteria, particulate matter, petroleum hydrocarbons, chlorinated solvents, pesticides, radioactive waste, dioxins and furans, semi- and volatile organic compounds, PCBs, PAHs, creosote, perchlorate, asbestos, per- and poly-fluoroalkyl substances (PFOA/PFOS), unusual polymers, fuel oxygenates (MTBE), among other pollutants. Dr. Rosenfeld also has experience evaluating greenhouse gas emissions from various projects and is an expert on the assessment of odors from industrial and agricultural sites, as well as the evaluation of odor nuisance impacts and technologies for abatement of odorous emissions. As a principal scientist at SWAPE, Dr. Rosenfeld directs air dispersion modeling and exposure assessments. He has served as an expert witness and testified about pollution sources causing nuisance and/or personal injury at sites and has testified as an expert witness on numerous cases involving exposure to soil, water and air contaminants from industrial, railroad, agricultural, and military sources.

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Professional History:

Soil Water Air Protection Enterprise (SWAPE); 2003 to present; Principal and Founding Partner
UCLA School of Public Health; 2007 to 2011; Lecturer (Assistant Researcher)
UCLA School of Public Health; 2003 to 2006; Adjunct Professor
UCLA Environmental Science and Engineering Program; 2002-2004; Doctoral Intern Coordinator
UCLA Institute of the Environment, 2001-2002; Research Associate
Komex H_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Rosenfeld P. E., Spaeth K., Hallman R., Bressler R., Smith, G., (2022) Cancer Risk and Diesel Exhaust Exposure Among Railroad Workers. *Water Air Soil Pollution.* **233,** 171.

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

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Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

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Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality*. 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

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Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., "The science for Perfluorinated Chemicals (PFAS): What makes remediation so hard?" Law Seminars International, (May 9-10, 2018) 800 Fifth Avenue, Suite 101 Seattle, WA.

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane Sulfonate (PFOS) Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*, Lecture conducted from Tuscon, AZ.

Rosenfeld, P.E. (April 19-23, 2009). Cost to Filter Atrazine Contamination from Drinking Water in the United States" Contamination in Drinking Water From the Use of Aqueous Film Forming Foams (AFFF) at Airports in the United States. *2009 Ground Water Summit and 2009 Ground Water Protection Council Spring Meeting*. Lecture conducted from Tuscon, AZ.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

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Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting*. Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference*. Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference*. Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

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Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

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Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

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California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the Superior Court of the State of California, County of San Bernardino
Billy Wildrick, Plaintiff vs. BNSF Railway Company
Case No. CIVDS1711810
Rosenfeld Deposition 10-17-2022

In the State Court of Bibb County, State of Georgia
Richard Hutcherson, Plaintiff vs Norfolk Southern Railway Company
Case No. 10-SCCV-092007
Rosenfeld Deposition 10-6-2022

In the Civil District Court of the Parish of Orleans, State of Louisiana
Millard Clark, Plaintiff vs. Dixie Carriers, Inc. et al.
Case No. 2020-03891
Rosenfeld Deposition 9-15-2022

In The Circuit Court of Livingston County, State of Missouri, Circuit Civil Division
Shirley Ralls, Plaintiff vs. Canadian Pacific Railway and Soo Line Railroad
Case No. 18-LV-CC0020
Rosenfeld Deposition 9-7-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jonny C. Daniels, Plaintiff vs. CSX Transportation Inc.
Case No. 20-CA-5502
Rosenfeld Deposition 9-1-2022

In The Circuit Court of St. Louis County, State of Missouri
Kieth Luke et. al. Plaintiff vs. Monsanto Company et. al.
Case No. 19SL-CC03191
Rosenfeld Deposition 8-25-2022

In The Circuit Court of the 13th Judicial Circuit Court, Hillsborough County, Florida Civil Division
Jeffery S. Lamotte, Plaintiff vs. CSX Transportation Inc.
Case No. NO. 20-CA-0049
Rosenfeld Deposition 8-22-2022

In State of Minnesota District Court, County of St. Louis Sixth Judicial District
Greg Bean, Plaintiff vs. Soo Line Railroad Company
Case No. 69-DU-CV-21-760
Rosenfeld Deposition 8-17-2022

In United States District Court Western District of Washington at Tacoma, Washington
John D. Fitzgerald Plaintiff vs. BNSF
Case No. 3:21-cv-05288-RJB
Rosenfeld Deposition 8-11-2022

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In Circuit Court of the Sixth Judicial Circuit, Macon Illinois
Rocky Bennyhoff Plaintiff vs. Norfolk Southern
Case No. 20-L-56
Rosenfeld Deposition 8-3-2022

In Court of Common Pleas, Hamilton County Ohio
Joe Briggins Plaintiff vs. CSX
Case No. A2004464
Rosenfeld Deposition 6-17-2022

In the Superior Court of the State of California, County of Kern
George LaFazia vs. BNSF Railway Company.
Case No. BCV-19-103087
Rosenfeld Deposition 5-17-2022

In the Circuit Court of Cook County Illinois
Bobby Earles vs. Penn Central et. al.
Case No. 2020-L-000550
Rosenfeld Deposition 4-16-2022

In United States District Court Easter District of Florida
Albert Hartman Plaintiff vs. Illinois Central
Case No. 2:20-cv-1633
Rosenfeld Deposition 4-4-2022

In the Circuit Court of the 4th Judicial Circuit, in and For Duval County, Florida
Barbara Steele vs. CSX Transportation
Case No.16-219-Ca-008796
Rosenfeld Deposition 3-15-2022

In United States District Court Easter District of New York
Romano et al. vs. Northrup Grumman Corporation
Case No. 16-cv-5760
Rosenfeld Deposition 3-10-2022

In the Circuit Court of Cook County Illinois
Linda Benjamin vs. Illinois Central
Case No. No. 2019 L 007599
Rosenfeld Deposition 1-26-2022

In the Circuit Court of Cook County Illinois
Donald Smith vs. Illinois Central
Case No. No. 2019 L 003426
Rosenfeld Deposition 1-24-2022

In the Circuit Court of Cook County Illinois
Jan Holeman vs. BNSF
Case No. 2019 L 000675
Rosenfeld Deposition 1-18-2022

In the State Court of Bibb County State of Georgia
Dwayne B. Garrett vs. Norfolk Southern
Case No. 20-SCCV-091232
Rosenfeld Deposition 11-10-2021

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In the Circuit Court of Cook County Illinois
Joseph Ruepke vs. BNSF
Case No. 2019 L 007730
Rosenfeld Deposition 11-5-2021

In the United States District Court For the District of Nebraska
Steven Gillett vs. BNSF
Case No. 4:20-cv-03120
Rosenfeld Deposition 10-28-2021

In the Montana Thirteenth District Court of Yellowstone County
James Eadus vs. Soo Line Railroad and BNSF
Case No. DV 19-1056
Rosenfeld Deposition 10-21-2021

In the Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al.cvs. Cerro Flow Products, Inc.
Case No. 0i9-L-2295
Rosenfeld Deposition 5-14-2021
Trial October 8-4-2021

In the Circuit Court of Cook County Illinois
Joseph Rafferty vs. Consolidated Rail Corporation and National Railroad Passenger Corporation d/b/a AMTRAK,
Case No. 18-L-6845
Rosenfeld Deposition 6-28-2021

In the United States District Court For the Northern District of Illinois
Theresa Romcoe vs. Northeast Illinois Regional Commuter Railroad Corporation d/b/a METRA Rail
Case No. 17-cv-8517
Rosenfeld Deposition 5-25-2021

In the Superior Court of the State of Arizona In and For the Cunty of Maricopa
Mary Tryon et al. vs. The City of Pheonix v. Cox Cactus Farm, L.L.C., Utah Shelter Systems, Inc.
Case No. CV20127-094749
Rosenfeld Deposition 5-7-2021

In the United States District Court for the Eastern District of Texas Beaumont Division
Robinson, Jeremy et al vs. CNA Insurance Company et al.
Case No. 1:17-cv-000508
Rosenfeld Deposition 3-25-2021

In the Superior Court of the State of California, County of San Bernardino
Gary Garner, Personal Representative for the Estate of Melvin Garner vs. BNSF Railway Company.
Case No. 1720288
Rosenfeld Deposition 2-23-2021

In the Superior Court of the State of California, County of Los Angeles, Spring Street Courthouse
Benny M Rodriguez vs. Union Pacific Railroad, A Corporation, et al.
Case No. 18STCV01162
Rosenfeld Deposition 12-23-2020

In the Circuit Court of Jackson County, Missouri
Karen Cornwell, Plaintiff, vs. Marathon Petroleum, LP, Defendant.
Case No. 1716-CV10006
Rosenfeld Deposition 8-30-2019

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In the United States District Court For The District of New Jersey
Duarte et al, Plaintiffs, vs. United States Metals Refining Company et. al. Defendant.
Case No. 2:17-cv-01624-ES-SCM
Rosenfeld Deposition 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" Defendant.
Case No. 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No. BC615636
Rosenfeld Deposition 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No. BC646857
Rosenfeld Deposition 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiffs vs. The 3M Company et al., Defendants
Case No. 1:16-cv-02531-RBJ
Rosenfeld Deposition 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, LLC, et al., Defendants
Cause No. 1923
Rosenfeld Deposition 11-17-2017

In The Superior Court of the State of California In And For The County Of Contra Costa
Simons et al., Plaintifs vs. Chevron Corporation, et al., Defendants
Cause No. C12-01481
Rosenfeld Deposition 11-20-2017

In The Circuit Court Of The Twentieth Judicial Circuit, St Clair County, Illinois
Martha Custer et al., Plaintiff vs. Cerro Flow Products, Inc., Defendants
Case No.: No. 0i9-L-2295
Rosenfeld Deposition 8-23-2017

In United States District Court For The Southern District of Mississippi
Guy Manuel vs. The BP Exploration et al., Defendants
Case No. 1:19-cv-00315-RHW
Rosenfeld Deposition 4-22-2020

In The Superior Court of the State of California, For The County of Los Angeles
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC
Case No. LC102019 (c/w BC582154)
Rosenfeld Deposition 8-16-2017, Trail 8-28-2018

In the Northern District Court of Mississippi, Greenville Division
Brenda J. Cooper, et al., Plaintiffs, vs. Meritor Inc., et al., Defendants
Case No. 4:16-cv-52-DMB-JVM
Rosenfeld Deposition July 2017

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In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No. RG14711115
Rosenfeld Deposition September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No. LALA002187
Rosenfeld Deposition August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action No. 14-C-30000
Rosenfeld Deposition June 2015

In The Iowa District Court for Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No. 4980
Rosenfeld Deposition May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case No. CACE07030358 (26)
Rosenfeld Deposition December 2014

In the County Court of Dallas County Texas
Lisa Parr et al, Plaintiff, vs. Aruba et al, Defendant.
Case No. cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., Plaintiffs, vs. Republic Services, Inc., et al., Defendants
Case No. 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition October 2012

In the United States District Court for the Middle District of Alabama, Northern Division
James K. Benefield, et al., Plaintiffs, vs. International Paper Company, Defendant.
Civil Action No. 2:09-cv-232-WHA-TFM
Rosenfeld Deposition July 2010, June 2011

In the Circuit Court of Jefferson County Alabama
Jaeanette Moss Anthony, et al., Plaintiffs, vs. Drummond Company Inc., et al., Defendants
Civil Action No. CV 2008-2076
Rosenfeld Deposition September 2010

In the United States District Court, Western District Lafayette Division
Ackle et al., Plaintiffs, vs. Citgo Petroleum Corporation, et al., Defendants.
Case No. 2:07CV1052
Rosenfeld Deposition July 2009

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Response to Comment Letter O-2

Blum, Collins & Ho LLP
Gary Ho
September 12, 2024

O-2.1 This comment is introductory and nature and does not raise any comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. The comment requests that the commenter be added to the public interest list for future project notifications. This action has been taken.

O-2.2 This comment summarizes the proposed project. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.3 This comment asserts that the Project Description does not include detailed building elevations, a detailed site plan, floor plans, or a conceptual grading plan and that the exclusion of these figures and certain information from Figure 2-4, Site Plan, renders the EIR inadequate as an informational document because meaningful analysis cannot be ascertained based on the information provided in the DEIR. See Response O-2.4 for a discussion of building elevations and grading plans.

The intent of Figure 2-4, Site Plan is to provide the reader with an appropriate level of detail to easily understand the major elements of the proposed project, not to depict every detail of the project. The information cited by the commenter can be found either elsewhere in the EIR or in the Draft Specific Plan, which is incorporated by reference into the EIR. Site coverage is discussed in Section 3.7.4, Impact Analysis, Threshold HYD-1 of Section 3.7, Hydrology and Water Quality. Parking requirements are described in Section 5.7, Vehicle Parking, of the Draft Specific Plan, and Floor Area Ratio (FAR) is described Section 5.3, Development Standards, of the Draft Specific Plan.

O-2.4 The comment states that building elevations were not included in the Draft EIR and that they are vital to review the maximum building heights. The building height is described in Section 2.5.1, Project Components, of the Draft EIR. Additionally, Figure 2-5, Architectural Features provides renderings of the project structure which clearly depict the scale and height of the building in relation to its surroundings. This provides sufficient information for the reader to understand the maximum height of the building.

The comment also states that the Draft EIR does not include grading plans and does not provide information on the quantity of cut/fill material during grading which is necessary to inform the quantity of truck hauling trips during grading. Grading plans were included in the Draft Specific Plan, which is incorporated by reference into the EIR. No haul trips were included during grading because the project site would be balanced.

The comment requests a revised EIR that includes a detailed floorplan, grading plan, building elevations and project narrative. The paragraphs above address the grading plan and building elevations. A detailed floorplan is not necessary to adequately assess and

disclose project impacts. Section 2.5.1 describes the location, square footage and other relevant details of each project use. Chapter 2 of the Draft EIR provides a detailed project narrative with sufficient information for a reader to understand the proposed project and to allow for meaningful analysis throughout the Draft EIR, consistent with the requirements outlined in Section 15124 of the CEQA Guidelines.

O-2.5 The comment states that the Draft EIR excluded the 1450 Artesia Specific Plan and Development Agreement and therefore does not comply with CEQA Guidelines 15121 and California Public Resources Code 21003(b). It further asserts that incorporation by reference, as allowed under CEQA Guidelines Section 15150 (f), is inadequate. It is not common practice nor is it a requirement that subject specific plans and/or development agreements be included as appendices to CEQA documents. The incorporation by reference of the Draft 1450 Artesia Specific Plan is appropriate, as allowed under CEQA Guidelines Section 15150 (f). Additionally, the Draft 1450 Artesia Specific Plan was readily available for review alongside the Draft EIR. The link provided in the Notice of Availability for the Draft EIR directs to a page on the City's website that contains links to both the Draft 1450 Artesia Specific Plan and the DEIR, appendices and associated notices. Additionally, all physical components of the Draft Specific Plan were discussed and analyzed in the Draft EIR and the Development Agreement does not contain any information that requires analysis pursuant to CEQA.

O-2.6 The comment generally states the proposed project would generate air pollution in an area with high pollution burden under existing conditions. As discussed in Draft EIR pages 3.1-30 to 3.1-31, and 3.1-33 to 3.1-35, the proposed project would not exceed any South Coast Air Quality Management District (SCAQMD) regional or localized thresholds of significance for criteria pollutants. The SCAQMD's criteria pollutant emissions thresholds are based on the national ambient air quality standards (NAAQS) and California Ambient Air Quality Standards CAAQS) to protect human health. Thus, projects that do not exceed SCAQMD thresholds are not anticipated to result in human health effects or impacts.

The project's Health Risk Assessment (HRA) also evaluated potential carcinogenic and non-carcinogenic impacts to sensitive receptors in the site vicinity. Impacts at sensitive receptors were determined to be less than significant with implementation of MM AQ-1 (Tier 4 Construction Equipment) and MM AQ-2 (Electric Cargo Handling Equipment). Thus, there would be no health-related impacts from air pollution or other sources as a result of the proposed project.

O-2.7 The comment states that the project's census tract ranks in the 91st percentile for solid waste impacts and the 67th percentile for hazardous waste facility impacts and that these facilities can expose people to hazards and pose a health risk to nearby populations. This comment is noted, and in fact the project, in part, helps redevelop a contaminated site that has been polluting the surrounding land uses and environment. However, the comment does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.8 The comment states that the project's census tract ranks in the 96th percentile for impaired waters and 87th percentile for groundwater threats and that these pollutants can be harmful to wildlife and people. This comment is noted, and in fact the project, in part, helps redevelop a contaminated site that has been polluting the surrounding land uses and environment. However, the comment does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.9 The comment states that the project's census tract ranks in the 89th percentile for cleanup site impacts. It states that these sites should be cleaned up, that they expose nearby populations to chemicals and that some studies have shown that neighborhoods with cleanup sites are generally poorer and have more people of color than other neighborhoods. This comment is noted, and in fact the project, in part, helps redevelop a contaminated site that has been polluting the surrounding land uses and environment. The Draft EIR describes the existing site contamination and the cleanup that would occur prior to implementation of the proposed project under a Department of Toxic Substances Control-approved Final Remedial Action Plan. However, the comment does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.10 The comment states various statistics related to the diversity, education and socioeconomic status of the project's census tract. It states that poor communities are often located in areas with high levels of pollution and that living in poverty can precipitate health impacts. This comment is noted, and in fact the project, in part, helps redevelop a contaminated site that has been polluting the surrounding land uses and environment. However, the comment does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.11 The comment states that the project's census tract, as well as surrounding census tracts, are identified as Disadvantaged Communities. It states that the Draft EIR does not discuss this fact or utilize it in the analysis and that it should be included in a revised EIR. This comment is noted. However, as shown throughout Chapter 3 of the Draft EIR, the proposed project would not cause any significant and unavoidable impacts aside from temporary significant construction noise impacts to immediately adjacent residential receptors. Therefore, there would be no ongoing significant impacts to the surrounding community, regardless of whether it is identified as a Disadvantaged Community. Therefore, the information is not pertinent to the analysis. Additionally, as described in CEQA Guidelines Section 15131, social and economic effects are not treated as significant effects on the environment under CEQA unless they result in a physical change, which is not the case for the proposed project.

O-2.12 The comment questions the validity of the energy calculations and analysis in the Draft EIR and states project energy consumption should be quantified using one of the following approved Title 24 models: CBECC-Com, EnergyPro, and/or IES VE. Project energy consumption was calculated using CalEEMod output files and CARB EMFAC2021 data to analyze potential energy impacts in accordance with the State CEQA Guidelines. The State

CEQA Guidelines do not require energy analyses to utilize Title 24 modeling programs to evaluate environmental impacts. As discussed in Section 3.3, Energy, of the Draft EIR, energy consumption from the project would be nominal and would not cause a wasteful, inefficient, and/or unnecessary consumption of energy during Project construction, operation, and/or maintenance, or preempt future energy development or future energy conservation.

O-2.13 The comment asserts that the Draft EIR cumulative analysis should be revised to include analysis of projects approved since adoption of the City's General Plan and projects "in the pipeline" to assess whether the project would exceed the General Plan buildout scenario. As discussed in Chapter 3, Environmental Analysis, as per CEQA Guidelines Section 15130(b), cumulative analysis can be based on either (A) a list of past, present, and reasonably anticipated future projects producing related or cumulative impacts, including those projects outside the control of the agency; or (B) a summary of projections contained in an adopted general plan or related planning document that is designed to evaluate regional or area wide conditions. Chapter 3, Table 3-1 of the Draft EIR includes a comprehensive list of cumulative projects including past, present, and reasonably anticipated future projects, consistent with CEQA Guidelines Section 15130(b), option (A), which were considered in the cumulative analyses throughout Chapter 3. As such, the cumulative analyses were conducted consistent with the requirements of CEQA Guidelines Section 15130.

O-2.14 The comment asserts that due to modeling errors and unsupported modeling, the consistency analysis for SCAG's 2020-2045 Connect SoCal RTP/SCS is invalid. As discussed in detail in Response O-2.12 and Responses O-2.33 through O-2.39, the modeling in the Draft EIR is adequate and appropriate. Therefore, as supported by the results of the modeling, the consistency analysis in the Draft EIR is accurate, and no changes or revisions to the EIR are required in response to this comment.

O-2.15 The comment asserts that the EIR does not provide substantial or meaningful evidence to support the claim that the project does not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect and lists ten General Plan Policies and Goals whose consistency it claims are not supported. Table 3.8-2, Consistency with Applicable City of Gardena General Plan Policies, includes a consistency analysis of all General Plan Policies that were determined to be applicable to the proposed project. The majority of the Goals and Policies cited in the comment are not applicable to the project. However, in response to this comment, the consistency analysis for LU Goal 2, LU Goal 3, DS Goal 4 and DS 4.5 have been added to Table 3.8-2. The title of Table 3.8-2 has also been revised as shown below. As shown in the revised Table 3.8-2, the additional analysis does not result in any new or different environmental impacts than those already addressed in the Draft EIR.

The following revisions have been made to Table 3.8-2:

Table 3.8-2. Consistency with Applicable City of Gardena General Plan Goals and Policies

LU Goal 2: Develop and preserve high quality commercial centers and clean industrial uses that benefit the City's tax base, create jobs and provide a full range of services to the residents and businesses.	**Consistent.** The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy, including architectural standards, landscaping requirements and maintenance standards.
LU Goal 3: Provide high quality, attractive and well-maintained commercial, industrial, and public environments that enhance the image and vitality of the City.	**Consistent.** The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy, including architectural standards, landscaping requirements and maintenance standards.
DS Goal 4: Achieve high quality design for commercial uses.	**Consistent.** The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy, including architectural standards, landscaping requirements and design principles.
DS 4.5: New or remodeled commercial structures and properties should be designed to reflect the City's architectural diversity, yet be compatible with nearby existing buildings.	**Consistent.** The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy. As stated in the Specific Plan's Summary Statement, "the Project is designed to be compatible with adjacent and anticipated land uses and to redevelop parcels that are underutilized due to impacts from former releases of hazardous substances and waste."

0-2.16 The comment asserts that a conclusion of consistency with General Plan policies based on implementation of the 1450 Artesia Specific Plan is invalid because the Specific Plan was not included as an appendix to the Draft EIR. See Response 0-2.5 for a discussion of the appropriateness of incorporating the Specific Plan by reference.

0-2.17 The comment reiterates the City's VMT Guidelines. No response is required.

0-2.18 The comment states that, because the industrial portion of the project has an FAR of 0.26, it would not screen out from a project-level VMT analysis, as the City's VMT Guidelines state that screening out may not be appropriate if the project's FAR is less than 0.75. Please see below errata for the third paragraph on page 3.10-11 as well as the third full paragraph on page 3.10-12 of the Draft EIR, confirming the project would meet the Project Type screening:

~~The Project's industrial and self-storage land use components (as shown in Appendix J2 and J3) are estimated to generate more than 110 daily vehicle trips; thus, the industrial~~

~~and self-storage uses are not screened out initially based on Project Type screening. The Project's office component is estimated to generate less than 110 daily vehicle trips; hence it will be screened out. Alternatively, this component could be developed as retail use. As mentioned above, local-serving retail use less than 50,000 square feet would screen out of conducting a detailed VMT analysis.~~

Based on the VMT screening, the Project's special events component, along with the office and industrial uses would screen out of a VMT analysis using Project Type Screening criteria and would result in a less-than-significant VMT impact. Only the self-storage components of the Project would not initially screen out based on the three screening criteria and would require a VMT analysis. Therefore, a VMT impact analysis was conducted for the self-storage use.

O-2.19 The comment states that the project's VMT analysis concerning the self-storage component is too speculative and does not provide sufficient evidence that the self-storage use would reduce trip lengths. Adding a new self-storage facility in the region would reduce Vehicle Miles Traveled (VMT) by providing more localized access to storage, minimizing the need for longer trips. Customer-based land uses, like self-storage, are designed to minimize trip distances by being located near the highest demand areas. As shown in the Exhibit 4 of the project's VMT analysis, the project site is located outside the service areas of existing surrounding self-storage facilities, therefore by filling the gap high demand storage facilities the project would shorten trip distances and consolidate visits with other local activities. This also reduces out-of-region travel for those seeking storage elsewhere, especially benefiting local residents and businesses that require convenient storage options. Over time, the proximity of the new facility would encourage more efficient travel patterns, ultimately lowering VMT in the area. Thus, it is appropriate to assume that the project would have a less-than-significant VMT impact.

O-2.20 The comment states that the project's Special Event component VMT analysis lacks evidence that it would result in less-than-significant impacts, and these special events "are not locally-serving activities". The commenter has not provided any substantial evidence that farmers markets, mobile vaccination events, food giveaways, or other types of events listed would attract non-locals. These events are City-organized, City-sponsored, and intended for City residents and residents of nearby communities.

O-2.21 The comment states that the EIR fails to evaluate potential hazards from design features such as truck turning, and that no truck turning exhibits are provided within the EIR. The Specific Plan was posted to the City's website along with the Draft EIR for public review and is incorporated by reference as noted in the Project Description. As provided in the Project Description, Figures 2-8a and 2-8b depict the project's truck/trailer site access and on-site circulation under typical conditions (Figure 2-8a) and special events (Figure 2-8b), in addition to the site's driveway and drive aisle measurements, and turn radii along the on-site truck route. Based on the information contained in those figures, the project has been designed consistent with the City's Standard Plans for driveway spacing (ST-1) and commercial driveway widths (ST-2 and ST-3). The on-site truck turn radii shown on the site plan is consistent with truck turn radii specifications in Table 2-5a – Minimum Turning Radii of Design Vehicles of the American Association of State Highway Transportation

Officials (AASHTO) A Policy on Geometric Design of Highways and Streets, 7th Edition (The Green Book, 2018). During special events, two-way truck traffic would occur along the internal drive aisle. During those times, truck traffic generated by the project would be very low thus allowing trucks to adequately maneuver around each other in the drive aisle without impeding on-site pedestrian and passenger-car traffic.

With regard to project truck traffic on adjacent streets, Artesia Boulevard, Western Avenue, and Vermont Avenue are classified as Arterial roadways in the City's General Plan, Circulation Plan (updated 2020). Per the Circulation Plan, Arterials connect traffic from smaller roadways to freeway interchanges and regional roadway corridors, serve regional bus transit routes, and are the primary truck routes in the community. Therefore, Artesia Boulevard, where the project would have primary truck access, is designed to accommodate truck traffic generated by the project. Regarding the six on-site parking spaces within the gated warehouse truck loading area, those spaces are for the employees of the proposed warehouse use who will have direct access to the warehouse portion of the site. Since access to those six spaces would be gated on both sides, patrons of the self-storage facility would not be able to use those spaces and therefore would not be interacting with on-site truck traffic. Based on the project being consistent with the City's Standards on driveways and access, AASHTO's truck turn radii standards, and the provision of internal gates preventing self-storage patrons entering the warehouse's truck loading area, impacts to truck access and circulation would still be less than significant.

O-2.22 The comment states that the project does not evaluate horizontal and vertical sight distance at project driveways and adjacent streets. As noted in the project's Local Transportation Assessment, the project's trips were analyzed at intersections and roadway segments identified in cooperation with the City through a Traffic Scoping Agreement. The project's Local Transportation Analysis found that the project would not require any roadway improvements. The commenter has not provided substantial evidence that vertical or horizontal sight distances would be impeded by the project such that a significant environmental impact would occur.

O-2.23 The comment asserts that the EIR does not provide a source calculation for the number of employees that would be supported during project operations and suggests a calculation based on SCAG's Employment Density Study. However, the generation rates used in the comment's calculations do not accurately reflect the project's intended operations. Specifically, the use of the Other Retail/Service generation rate is not appropriate for the self-storage use because its use would artificially inflate the number of employees. Self-storage uses generate very few employees and absent a published generation rate for this specific use, the applicant's experience with similar projects was utilized to estimate the number of employees. The applicant's estimate was three employees for 186,000 gross square feet (GSF) of self-storage. Additionally, the use of the Light Manufacturing generation rate is not appropriate for the warehouse uses proposed and its use would artificially inflate the number of employees. The number of employees for 72,000 sf of industrial and 10,000 sf of office/retail was estimated based on the applicant's market estimation and determined to be 37 employees. Section 4.2.11, Population and Housing of Chapter 4, Other CEQA Considerations, includes a detailed

comparison of project's estimated employment to the Demographics and Growth Forecast technical report in SCAG's 2020–2045 RTP/SCS. According to this report, the City had 29,300 jobs in 2016 and is expected to accommodate 32,100 jobs by 2045 (SCAG 2020), an increase of approximately 2,800 jobs. The project is expected to be operational in approximately the fall of 2025. Assuming that the City keeps pace with SCAG's growth projections and that growth is evenly divided across the planning horizon (approximately 96.5 jobs per year), the City is expected to experience an increase of approximately 193 jobs between 2023 and the time of project buildout (2025). The employment provided by the project upon project buildout would fall within these projections. Assuming that the project would accommodate new businesses in the City (as opposed to businesses that relocate from elsewhere in the City), the project's 40 jobs would equate to approximately 1.4% of the total employment growth that is projected to occur between 2020 and 2045 and approximately 21% of the growth that is expected to occur between 2023 and the project's anticipated buildout year (2025).

O-2.24 The comment asserts that based on the employee generation of 558 employees the commenter has calculated, the proposed project would represent 19.9% of the City's employment growth from 2016-2045. It then uses this calculated number of employees to argue the need for a revised EIR. As discussed in Response O-2.23 above, the employee generation rates used in the commenter's calculations are not appropriate for the project's proposed uses and the commenter's estimate is therefore highly inflated and not reflective of the proposed project's operations. As stated in the Draft EIR and explained above, the project is estimated to generate 40 employees. As such, the arguments based on the commenter's inaccurate employee generation calculation are not valid. See Response O-2.13 for a discussion of cumulative impact analysis.

O-2.25 The comment asserts that the Draft EIR defers analysis by stating that the Los Angeles County Fire Department would review the project plans to ensure adequate emergency access as part of the building plan check process. Citing compliance with required processes or regulations does not constitute a deferral of analysis under CEQA. In addition, as part of the Project planning process, the plans have already been reviewed by the Los Angeles County Fire Department and the Project was designed to meet its recommendations. Additionally, the commenter's interpretation that any minor changes to design that may come out of a project's plan check process constitute a deferral of analysis would mean that projects could not be assessed pursuant to CEQA until after the plan check process has been completed. This interpretation is not reasonable and is in direct conflict with CEQA Guidelines Section 15004 (b), which states that environmental documents should be prepared as early as feasible in the planning process to enable environmental considerations to influence project program and design and yet late enough to provide meaningful information for environmental assessment. Any minor changes to project design resulting from the plan check process, including review by the Los Angeles County Fire Department, would not change the project such that the information provided in the Draft EIR is not meaningful.

O-2.26 The comment asserts that the proposed project would add 588 employees, which constitutes 19.9% of the City's employment growth from 2016-2045. The calculations and conclusions in the comment rely on the commenter's inaccurate and inflated calculation of the proposed project's operational employment. See Response O-2.23 for a detailed discussion of the project's operational employment. The comment also asserts that the cumulative analysis should include projects approved since General Plan adoption and projects "in the pipeline." See Response O-2.13 for a discussion of the project's cumulative impact analysis. Lastly, the comment asserts that the EIR should be revised to include demographic and geographic information on the location of qualified workers. As discussed in Section 4.2.11, Population and Housing of Chapter 4, Other CEQA Considerations, because the project would be located in a developed area within Los Angeles County that has close access to major freeways, it is anticipated that jobs created by the Project would be filled by existing City residents or by residents of neighboring cities. Additional detail on potential employees would be speculative.

O-2.27 The comment states that the EIR must include a cumulative analysis discussion as it related to the City's General Plan, particularly because the Project EIR tiers form the General Plan EIR. The commenter is incorrect that the 1450 Artesia Specific Plan EIR tiers from the General Plan EIR. The EIR for the Project is a standalone, project-level EIR which refers to the General Plan as necessary for the analysis contained therein. Tiering, as described in CEQA Guidelines Section 15152, is limited to situations where the project is consistent with general plan and zoning of the city or county in which the project is located (15152 (e)), which is not the case for the project. See Response O-2.13 for a discussion of the project's cumulative impact analysis.

O-2.28 The comment asserts that the energy modeling for the Project is erroneous because energy consumption was not modeled in compliance with Title 24 modeling software. See response to comment O-2.12 above.

O-2.29 The comment asserts that the EIR does not adequately discuss or analyze the commitment of resources or cumulative analysis, basing the assertion on the commenter's inaccurate and inflated calculation of the project's operational employment. Section 4.4.1, Large Commitment of Nonrenewable Resources, assesses the project's commitment of resources based on the assumptions and calculations used for the analysis contained in the EIR. See Response O.2-23 for a detailed discussion of the project's operational employment. See Response O-2.13 for a discussion of cumulative impact analysis.

O-2.30 The comment asserts that the EIR does not analyze a reasonable range of alternatives and that it must include an alternative that that reduces all significant and unavoidable impacts to less than significant levels. Section 5.2, Alternatives Considered but Rejected includes a detailed discussion of why there is no feasible alternative that could reduce the significant an unavoidable impact to less than significant under Section 5.2.2, Avoid Significant Construction Noise Impact. Construction of any project on the western side of the project site would trigger significant and unavoidable construction noise impacts due to the presence of residential receptor immediately (15 feet) west of the project site. The only way to potentially reduce noise impacts at the adjacent receptors would be to move construction farther from the receptors, to the eastern side of the project site and to leave

the existing dilapidated structures in place. However, the Final RAP prohibits the construction of buildings on the eastern side of the project site (Cooper Sump area) due to the location of the former sump and the engineered cap that ARC will install in this area as such construction could damage the cap and impede access to it needed for its operation, maintenance and repair. Therefore, developing the project building on the eastern side of the project site is not allowed and is therefore infeasible. Additionally, the Final RAP also includes a provision for a legal land use covenant to limit future uses of the project site to be recorded on the property, which will limit futures uses to commercial and industrial uses and bar residential and other sensitive uses. The alternatives carried forward for analysis, as assessed in detail in Section 5.3, represent a reasonable range of alternatives which take into account the constraints of developing the project site.

O-2.31 The comment is a conclusionary statement which broadly restates the commenter's assertion that a revised EIR must be prepared. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.32 The comment is the introductory statement of Attachment A of the comment letter, which consists of an assessment by SWAPE of the air quality and greenhouse gas analysis conducted for the project. The comment asserts broadly that the EIR fails to adequately evaluate the project's air quality and greenhouse gas impacts. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.33 The comment states there is not enough information provided in the Draft EIR regarding CalEEMod inputs and requests the project's JSON files for CalEEMod. All CalEEMod output files are provided in the Draft EIR, which show project-specific data to quantify air quality and GHG emissions. In addition, the methodology and inputs to CalEEMod are described in detail in the methodology sections of the Air Quality and Greenhouse Gas Draft EIR Sections (Sections 3.1 and 3.5, respectively).

O-2.34 The comment states that CalEEMod inputs and project information are inconsistent and that the project's construction/operational emissions are underestimated. However, the commenter does not provide specific detail on any inconsistencies. Construction and operational emissions were modeled in CalEEMod based on applicant-provided information regarding construction schedule, site design, and general project operations, as well as the project tip generation analysis.

O-2.35 The comment suggests the Draft EIR should include air quality and GHG emissions for cold storage facilities. The project does not include any cold storage facilities. The Draft EIR incorrectly states on page 3.5-28 that the energy analysis conservatively assumes the total building area of the warehouse would be refrigerated. This is a typo and will be corrected in the Errata. Additionally, the Specific Plan prohibits refrigerated uses. No further response is required.

O-2.36 The comment questions the validity of the construction schedule and phasing used in CalEEMod. Construction emissions were calculated based on the estimated construction schedule and general construction information (e.g., disturbance acreage, demolition volumes, etc.) provided by the Applicant. As discussed in the Draft EIR, the project's construction air quality emissions are well below the SCAQMD's regional and localized thresholds of significance and would not result in any significant impacts. The commenter's request to adjust the construction schedule are unjustified, would likely result in minimal changes (if any) and would not change the significance findings of the EIR.

O-2.37 The comment states that the vehicle trips used in CalEEMod are incorrect and underestimate the project's mobile emissions. The trip generation data modeled in CalEEMod was taken directly from the project's Local Transportation Assessment (LTA). The project's daily trips were intentionally separated by vehicle type and modeled on separate land use types in CalEEMod to quantify mobile emissions by vehicle type, trip purpose, trip length, and fleet mix. The trips modeled in CalEEMod (945 daily trips) represent the maximum daily trips generated by the project (725 daily trips + 220 trips for a special event = 945 maximum daily trips) and associated air quality emissions. The project's mobile emissions comprise most of total operational air emissions, which are well below SCAQMD regional and localized thresholds. Any adjustments to the mobile traffic inputs in CalEEmod would likely result in nominal changes (if any) to the project's operational mobile emissions and would not change the significance findings of the EIR.

O-2.38 The comment states that there are unsubstantiated changes to the default operational fleet mix percentages in the CalEEMod model. See response to comment O-2.37 above.

O-2.39 The comment presents a commenter-prepared construction CalEEMod model output for a hypothetical change to the project construction schedule. There is no evidence or basis for the changes to the project construction schedule/phasing, and no further response is required.

O-2.40 The comment states the project would contribute to disproportionate health risk impacts for residents surrounding the site and environmental justice communities. As discussed in the Draft EIR, a Health Risk Assessment (HRA) was prepared for the project. Health risk impacts were assessed for the nearest residents and students (children) to the project site. According to the HRA, the maximum mitigated cancer risk would be approximately 6.71 in one million for residents and 0.66 in one million for students and would not exceed SCAQMD's cancer risk threshold of 10 in one million. SCAQMD does not currently have a separate methodology or threshold to evaluate a project's contribution to cumulative cancer risk. Instead, projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. It should also be noted that per data published by the SCAQMD in the Multiple Air Toxics Exposure Study (MATES V), the average cancer risk in the South Coast Air Basin (SCAB) continues to decline despite consistent cumulative growth in Southern California.

0-2.41 The comment states that the project's GHG emissions are incorrectly modeled, uses an outdated threshold, and the project may result in a potentially significant impact. See response to comments 0-2.33 and34 and 0-2.36 and37 above. Given that neither the City, CARB, nor SCAQMD have adopted a numerical threshold of significance for GHG emissions within the City or region, the approach for evaluating the Project's impacts related to GHG emissions relies on compliance with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs, which includes CARB's Scoping Plan, SCAG's RTP/SCS, and statewide 2030 and 2050 GHG reduction targets identified in SB 32 and EO S-3-05. The compliance evaluation is the sole basis for determining the significance of the project's GHG-related impacts on the environment. Analysis to the SCAQMD's recommended 3,000 MTCO2e/year threshold utilized in the Draft EIR is to illustrate compliance with the applicable plans, policies, and regulations. The SCAQMD's recommended threshold is based on the supporting analysis outlined in SCAQMD's draft GHG guidance and meeting notes and would capture 90 percent of GHG emissions from projects in the region. This type of market capture analysis captures a substantial fraction of the GHG emissions from future development to accommodate for future population and job growth and excludes small development projects that would contribute a relatively small fraction of the cumulative statewide GHG emissions. The 3,000 MTCO2e/year threshold was used to evaluate the potential for the project to result in a significant GHG emissions impact under CEQA because it has been recommended by SCAQMD and SCAQMD is an expert agency in the Southern California region. Further, the SCAQMD provides substantial evidence that the thresholds are consistent with policy goals and 2050 GHG emissions reduction targets set by the State. Specifically, the thresholds were set at levels that capture 90 percent of the GHG emissions from the above-described uses, consistent with EO S-3-05 target of reducing GHGs to 80 percent below 1990 levels by 2050. Mitigation measures were imposed to bring the project below the threshold.

0-2.42 The comment states that the DEIR's GHG analysis is unsubstantiated. See response to comments 0-2.33 and 34 and 0-2.36 and 37 above.

0-2.43 The comment states the Draft EIR utilizes an outdated GHG emissions threshold and that a service population threshold is more appropriate to evaluate the project's potential GHG impacts. See response to comment 0-2.41 above. The service population threshold as recommended in the comment is based on statewide population and emissions data and has been invalidated by the Golden Door Properties, LLC v. County of San Diego case in 2018[1]. In addition, as discussed in Draft EIR pages 3.5-31 to 3.5-40, the proposed project would comply with the local and state GHG reductions plans with implementation of mitigation. Since the project would not conflict with any GHG reduction plans, a less than significant impact would occur.

0-2.44 The comment states the project should result in a potentially significant GHG impact and identifies a potential service population GHG threshold. See response to comment 0-2.43 above.

[1] Golden Door Properties v. County of San Diego, 27 Cal. App. 5th 892 (2018).

O-2.45 The comment provides a list of potential mitigation measures to further reduce the project's air quality and GHG emissions. The Draft EIR identifies numerous air quality and GHG mitigation measures to reduce potential project impacts. The air quality and GHG mitigation measures identified in the Draft EIR effectively reduce project emissions below thresholds and reduce impacts to a less than significant level, and thus, no additional mitigation measures are necessary.

O-2.46 This comment is a disclaimer regarding the information contained in the comment letter. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.47 This comment is an attachment to the comment letter which contains construction emission calculations for the project completed by the commenter. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.48 This comment is an attachment to the comment letter which contains CalEEMod output files for a model run conducted by the commenter. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.49 This comment is an attachment to the comment letter which consists of the professional resume of Matthew F. Hagemann, P.G., C.Hg., QSD, QSP. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

O-2.50 This comment is an attachment to the comment letter which consists of the professional resume of Paul Rosenfeld, Ph.D. It does not raise any specific or concrete comments, questions or concerns about the adequacy of the environmental analysis included in the EIR. As such, no further response is required.

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3 Errata

The comments received by the City during the public review period for the Draft EIR included information that has resulted in several minor revisions to the text of the Draft EIR. These revisions are shown below and are categorized by section number and page number. Text from the Draft EIR that has been removed is shown in strikethrough (i.e., ~~strikethrough~~), and text that has been added as part of the Final SEIR is shown as double underlined (i.e., underline). Revisions are shown with surrounding sentences for context. These errata merely clarify and corrects minor facts and does not constitute "substantial revisions" requiring recirculation of the Draft EIR, as set forth in CEQA Guidelines, Section 15073.5.

Chapter 2, Project Description

First paragraph on Page 2-6:

Per Los Angeles County Fire Department requirements, a ~~26-foot~~ 28-foot-wide fire access lane would surround the property structure with direct access to Artesia Boulevard.

Section 3.5, Greenhouse Gas Emissions

Last bullet on Page 3.5-28:

- **Energy Consumption**. Energy consumption consists of emissions from Project consumption of electricity and natural gas. ~~Although the Project is a speculative warehouse, the analysis conservatively assumed a worst-case scenario that total building area of the warehouse would be refrigerated.~~ The Project would result in approximately 973 $MTCO_2e$/yr from energy consumption (refer to Table 3.5-6).

Section 3.8, Land Use and Planning

Table 3.8-2:

Table 3.8-2. Consistency with Applicable City of Gardena General Plan Goals and Policies

LU Goal 2: Develop and preserve high quality commercial centers and clean industrial uses that benefit the City's tax base, create jobs and provide a full range of services to the residents and businesses.	**Consistent.** The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy, including architectural standards, landscaping requirements and maintenance standards.
LU Goal 3: Provide high quality, attractive and well-maintained commercial, industrial, and public environments that enhance the image and vitality of the City.	**Consistent.** The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy, including architectural standards, landscaping requirements and maintenance standards.

Table 3.8-2. Consistency with Applicable City of Gardena General Plan Goals and Policies

DS Goal 4: Achieve high quality design for commercial uses.	Consistent. The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy, including architectural standards, landscaping requirements and design principles.
DS 4.5: New or remodeled commercial structures and properties should be designed to reflect the City's architectural diversity, yet be compatible with nearby existing buildings.	Consistent. The Project's Specific Plan includes Development Standards and Design Guidelines that support this policy. As stated in the Specific Plan's Summary Statement, "the Project is designed to be compatible with adjacent and anticipated land uses and to redevelop parcels that are underutilized due to impacts from former releases of hazardous substances and waste."
Noise Plan	
N 2.4: Require mitigation of all significant noise impacts as a condition of project approval.	Consistent. Construction noise impacts are significant and unavoidable yet mitigated to the extent feasible. ~~With the incorporation of MM-NOI-1 during Special Events on the Project site, noise impacts during both construction and operation would be less than significant~~.

Section 3.10, Transportation

Second paragraph on Page 3.10-11 and third full paragraph on Page 3.10-12:

~~The Project's industrial and self-storage land use components (as shown in Appendix J2 and J3) are estimated to generate more than 110 daily vehicle trips; thus, the industrial and self-storage uses are not screened out initially based on Project Type screening. The Project's office component is estimated to generate less than 110 daily vehicle trips; hence it will be screened out. Alternatively, this component could be developed as retail use. As mentioned above, local-serving retail use less than 50,000 square feet would screen out of conducting a detailed VMT analysis.~~

Based on the VMT screening, the Project's special events component, along with the office and industrial uses would screen out of a VMT analysis using Project Type Screening criteria and would result in a less-than-significant VMT impact. Only the self-storage components of the Project would not initially screen out based on the three screening criteria and would require a VMT analysis. Therefore, a VMT impact analysis was conducted for the self-storage use.

Section 3.12, Utilities and Service Systems

First full paragraph on page 3.12-3:

~~Both sewer lines are~~The 21-inch sewer line in Artesia Boulevard is owned and maintained by the LACSD, while the 8-inch sewer line in South Normandie Avenue is owned and maintained by the City. The site currently connects to the 21-inch sewer main in Artesia Boulevard via a lateral connection.

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4 Mitigation Monitoring and Reporting Program

California Public Resources Code Section 21081.6 requires that, upon certification of an EIR, "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation."

This chapter contains the mitigation monitoring and reporting program (MMRP) that has been developed for the 1450 Artesia Specific Plan Project (Project or proposed Project). This MMRP has been developed in compliance with Public Resources Code Section 21081.6 and Section 15097 of the CEQA Guidelines. The Project Design Features and Mitigation Measures in the table are coded by alphanumeric identification consistent with the EIR. The following items are identified for each Project Design Feature and Mitigation Measure:

> **Monitoring.** This section of the MMRP lists the stage of the proposed Project during which the Project Design Feature or Mitigation Measure would be implemented and the stage during which proper implementation would be monitored and verified. It also lists the agency that is responsible for ensuring that the Project Design Feature or Mitigation Measure is implemented and that it is implemented properly.
>
> **Verification of Compliance.** This section of the MMRP provides a location for the implementing party and/or enforcing agency to make notes and to record their initials and the compliance date for each Project Design Feature and Mitigation Measure.

This MMRP shall be enforced throughout all phases of the Project. The Applicant or its successor shall be responsible for implementing each Project Design Feature and Mitigation Measure and shall maintain records demonstrating compliance with each Project Design Feature and Mitigation Measure.

After review and approval of the final MMRP by the Lead Agency, minor changes and modifications to the MMRP are permitted, but can only be made by the Applicant or its successors subject to Lead Agency approval. The Lead Agency, in conjunction with any appropriate agencies or departments, will determine the adequacy of any proposed change or modification. This flexibility is necessary in light of the nature of the MMRP and the need to protect the environment with a workable program. No changes will be permitted unless the MMRP continues to satisfy the requirements of CEQA, as determined by the Lead Agency.

Project Design Features (PDFs) are listed first for each environmental topic, with mitigation measures (MMs) related to each specific threshold following the PDFs.

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
Air Quality						
Mitigation Measures						
MM-AQ-1. Clean Construction Equipment. Prior to issuance of grading permits, the Applicant shall prepare and submit documentation to the City of Gardena that demonstrate the following: • All off-road diesel-powered construction equipment greater than 50 horsepower meets California Air Resources Board (CARB) Tier 4 Final off-road emissions standards or, if not commercially available, meet Tier 4 Interim off-road emission standards (as shown in CARB's 2017 Off-Road Diesel Emission Factor Update for NO_x and PM). A copy of each unit's Best Available Control Technology (BACT) documentation (certified tier specification or model year	Prior to issuance of grading permits	Review and approval of plans and specifications	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
specification), and CARB or South Coast Air Quality Management District operating permit (if applicable) shall be provided to the City at the time of mobilization of each applicable unit of equipment. • Construction equipment shall be properly maintained according to manufacturer specifications. • All construction equipment and delivery vehicles shall be turned off when not in use, or limit on-site idling for no more than 5 minutes in any 1 hour. • On-site electrical hook ups to a power grid shall be provided for electric construction tools including saws, drills, and compressors, where feasible, to reduce the need for diesel powered electric generators.						

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
MM-AQ-2. Electric Cargo Handling Equipment. All outdoor cargo handling equipment (such as yard trucks, hostlers, yard goats, pallet jacks, and forklifts) shall be zero emission (i.e., powered by electricity or other alternative fuels). The warehouse building shall include the necessary charging stations for cargo handling equipment. The building manager or their designee shall be responsible for enforcing these requirements.	Prior to issuance of a building permit	Review and approval of plans and specifications	Building manager or designee			
Cultural Resources						
Mitigation Measures						
MM-CUL-1. Workers Environmental Awareness Program. Prior to the start of construction activities, all construction personnel and monitors shall be trained regarding identification and treatment protocol for inadvertent discoveries of cultural resources (archaeological and tribal) and human remains. A basic	Prior to start of construction activities	Documentation of WEAP Training presentation and handout or pamphlet	City of Gardena, Consulting Tribe(s)			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
presentation and handout or pamphlet shall be prepared in order to ensure proper identification and treatment of inadvertent discoveries of cultural resources and human remains. The purpose of the Workers Environmental Awareness Program (WEAP) training is to provide specific details on the kinds of materials that may be identified during ground disturbing activities and explain the importance of and legal basis for the protection of human remains and significant cultural resources. Each worker shall also be trained in the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground disturbing activities. These procedures include but are not limited to work curtailment or redirection, and the immediate contact of the site supervisor and archaeological monitoring staff.						

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
MM-CUL-2. Retention of an On-Call Qualified Archaeologist. A qualified archaeologist shall be retained and on-call to respond and address any inadvertent discoveries identified Project implementation. Additionally, in consideration of the potential to encounter intact cultural deposits beneath fill soils, the qualified archaeologist shall survey the proposed Project site once fill soils have been removed to ensure no cultural deposits underly the fill layer. If is determined, based on the aforementioned survey, that cultural resources are present or may be present and may be impacted during Project construction, monitoring may be warranted. Additionally, any identified cultural resources shall be assessed and evaluated pursuant to CEQA. If it is determined that monitoring is warranted, a qualified archaeological principal investigator, meeting the Secretary of the Interior's	Prior to and during construction activities	Presence of a qualified archaeologist; Consultation between the City of Gardena and the Project Archaeologist as applicable in the event of an unanticipated discovery; Daily monitoring logs	March JPA, Consulting Tribe(s)			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
Professional Qualification Standards, shall oversee and adjust monitoring efforts as needed (increase, decrease, or discontinue monitoring frequency) based on the observed potential for construction activities to encounter cultural deposits or material. The archaeological monitor will be responsible for maintaining daily monitoring logs.						
MM-CUL-3. Inadvertent Discovery Clause. In the event that potential archaeological resources (sites, features, or artifacts) are exposed during ground disturbing, all construction work occurring not less than 100 feet of the find shall immediately stop and the qualified archaeologist that has been retained on call must be notified immediately to assess the significance of the find and determine whether or not additional study is warranted. Depending upon the significance of the find under the	During ground disturbing activities	Consultation with and/or monitoring by a tribal representative as applicable in the event of an unanticipated discovery	City of Gardena, Consulting Tribe(s)			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
CEQA, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work (e.g., preparation of an archaeological treatment plan, testing, data recovery, or monitoring) may be warranted if the resource cannot be feasibly avoided. If the discovery is Native American in nature, consultation with and/or monitoring by a tribal representative may be necessary.						
Geology and Soils						
Mitigation Measures						
MM-GEO-1. Inadvertent Discovery. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the	During ground disturbing activities	Presence of a paleontological monitor; Review of documentation and collection of the find	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Salvaged fossils deemed to be significant shall be donated to an accredited repository with retrievable storage such as a museum. Costs for preparing the fossils for accessioning into the accredited repository and any associated curation fees shall be paid by the Project Applicant.						
Greenhouse Gas Emissions						
Project Design Features						
PDF-GHG-1. The Project shall be designed to be all-electric and prohibit connection to natural gas infrastructure. Using electric instead of natural gas-powered appliances replaces a more emissions-intensive fossil fuel source of energy with a less emissions-intensive source of energy as electricity from the grid is increasingly transitioning to renewable sources.	Prior to issuance of a grading and/or building permit	Review and approval of plans and specifications	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
Mitigation Measures						
MM-GHG-1. Establish On-Site Solar Power. Prior to the issuance of a Building permit, the Project Applicant shall provide written proof to the City of Gardena Community Development Director that the total annual electricity demand from on-site operations does not exceed 2,226,107 kWh/year. On-site electrical demand exceeding 2,226,107 kWh/year shall be supplied by on-site renewable sources (e.g., solar photovoltaic panels). Further, the Project will be designed in accordance with the applicable Title 24 Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6). These standards are updated, nominally every 3 years, to incorporate improved energy efficiency technologies and methods. The Building Official, or designee shall	Prior to issuance of a building permit	Review and approval of plans and specifications	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
ensure compliance prior to the issuance of each building permit. The Title 24 Energy Efficiency Standards (Section 110.10) require buildings to be designed to have 15% of the roof area "solar ready" that will structurally accommodate later installation of rooftop solar panels. If future building operators pursue providing rooftop solar panels, they will submit plans for solar panels prior to occupancy.						
Hazards and Hazardous Materials						
Project Design Features						
PDF-HAZ-1. Remedial Action of the Gardena Sumps Site. ARC will coordinate with the Applicant to implement the Final RAP. The Final RAP includes: (a) excavation of degraded and soil-sludge mixture; (b) consolidation of this excavated mixture above the Cooper North and Cooper South Sumps; (c) grading for excavated areas; (d) grading and installation, maintenance, and repair	Prior to the start of construction activities	Review and approval of plans and specifications; Implementation of the RAP	ARC, California Department of Toxic Substances Control, City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
of an engineered cap over the Cooper North and Cooper South sumps, including stabilization, foundation, low hydraulic conductivity and erosion resistance layers; (e) installation of a retaining wall system along the north side of the Haack sump; (f) installation, operation, maintenance and repair of a soil vapor control and monitoring system that will include soil vapor probes and associated infrastructure; (g) installation, operation, maintenance and repair of a groundwater monitoring system; and (h) restoration of vegetation and site conditions. The Final RAP will be implemented before the Applicant commences construction of the proposed Project. The portion of the proposed Project site that overlaps the sump areas and the top of the engineered cap will be paved and utilized as a parking lot. The Applicant will undertake measures to protect the remedy during site operation. As part of the Final RAP, a land use covenant						

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
will be established for the site to prohibit sensitive uses thereon, such as residential uses, but will permit the proposed Project's commercial and industrial uses, as well as the City's temporary uses. The Applicant will comply with all institutional controls that DTSC may require as part of the ongoing use of the site, except for those assigned to ARC as part of its Final RAP.						
PDF-HAZ-2. Vapor Intrusion Mitigation. The Applicant will install a soil vapor barrier and ventilation systems beneath the proposed structure to protect building occupants against indoor soil vapor intrusion. Vapor barrier systems will meet guidelines described in the Vapor Intrusion Mitigation Advisory published by DTSC and CalEPA in 2011 (VIMA). Vapor barriers will be designed to meet the standards outlined in the VIMA and will be in general conformance with	Prior to issuance of certificate of occupancy	Monitoring probes; Review and approval of the OM&M Plan	ARC, California Department of Toxic Substances Control, City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
General Construction, Membrane Installation, and Ventilation Trench for Passive Gas Control System Requirements of the Los Angeles County Methane Gas Mitigation Standards. The system will include a vapor barrier membrane and passive sub-slab venting system. The system will be designed by a California-licensed engineer. Monitoring probes will be installed below the barrier system, to evaluate the effectiveness of the system. An OM&M Plan will be prepared to define the ongoing sampling required to confirm the vapor intrusion mitigation system (VIMS) is operating as designed. The OM&M Plan will include a decision tree and contingency plans in the event unexpected conditions are identified.						
Mitigation Measures						
MM-HAZ-1. Pre-Demolition Hazardous Materials Abatement.	Prior to demolition activities	Review and approval of plans and specifications	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
Demolition or renovation plans and contract specifications shall incorporate abatement procedures for the survey and removal of materials containing asbestos, lead, polychlorinated biphenyls, hazardous materials, hazardous wastes, and universal waste items. All abatement work shall be done in accordance with federal, state, and local regulations, including those of the U.S. Environmental Protection Agency (which regulates disposal), Occupational Safety and Health Administration, U.S. Department of Housing and Urban Development, California Occupational Safety and Health Administration (which regulates employee exposure), and the South Coast Air Quality Management District.						
MM-HAZ-2. Soil Management Plan. Prior to commencement of any earthmoving activities, a Soil Management Plan (SMP) shall be developed that addresses potential	Prior to commencement of any earthmoving activities	Review and approval of the SMP	California Department of Toxic Substances			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
impacts in soil and soil vapor from releases on or near the Project site. The SMP shall include training procedures for identification of contamination. The SMP shall describe procedures for assessment, characterization, management, and disposal of contaminated soils in accordance with all applicable state and local regulations, including SCAQMD Rules 1466, 403, and 1166. The SMP shall include health and safety measures, which may include but are not limited to periodic work breathing zone monitoring and monitoring for volatile organic compounds using a handheld organic vapor analyzer in the event impacted soils are encountered during excavation activities. The Applicant or its designee shall implement the SMP during construction activities for the proposed Project. As the site is currently under regulatory oversight by DTSC and shall likely have a land use covenant in place at the time of construction, the SMP shall be			Control, City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
submitted to DTSC for review and approval prior to earthmoving activities.						
Noise						
Mitigation Measures						
MM-NOI-1. Construction Noise. Prior to issuance of a Demolition Permit, the Applicant shall demonstrate, to the satisfaction of the City of Gardena Building Official, that the construction contracts include at least an 8-foot-high temporary noise barrier along the western Project boundary. The temporary noise barrier shall have a sound transmission class (STC) of 25 or greater in accordance with the ASTM Test Method E90, or at least 2 pounds per square foot to ensure adequate transmission loss characteristics. To achieve this, the barrier may consist of steel tubular framing, welded joints, a layer of 18-ounce tarp, a 2-inch thick fiberglass blanket, a 1/2-inch thick weatherwood asphalt sheathing, and 7/16-inch	Prior to issuance of a Demolition Permit	Review and approval of plans and specifications	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
sturdy board siding. The barrier must be free of degrading holes or gaps and shall be designed to prevent structural failure due to factors such as wind, shear, shallow soil failure, earthquakes, and erosion.						
MM-NOI-2. Special Event Noise. All City-sponsored special events shall be subject to the following requirements: ▪ Special Events shall be restricted to the hours of 7:00 a.m. to 10:00 p.m. ▪ Amplified noise sources (e.g., speakers, bandstands) shall be directed away from the nearest noise-sensitive receptors. ▪ Amplification systems will be positioned so that the tilt of the systems is downwards slightly to focus sound on the ground and prevent it from traveling up towards noise-sensitive receptors. Amplification systems will also be	Prior to issuance of a certificate of occupancy	Review and approval of plans and specifications	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
distributed to minimize sound levels closest to individual sources.						
MM-NOI-3. Construction Vibration. The Project Applicant will require contractor(s) to comply with a Vibration Management Plan and implement minimum allowable setbacks from nearby buildings/structures to the west for heavy machinery. For all new construction, the contractor(s) will not use pile drivers, pavement breakers, or blasting equipment. In addition, when construction is required in direct proximity to the residences immediately west of the Project site, the contractor(s) will observe the following minimum allowable setbacks for specified construction equipment: ▪ Small bulldozer/tractors shall not be used within 11 feet of buildings to the west; ▪ Jackhammers shall not be used within 54 feet of any buildings to the west;	Prior to issuance of a building permit	Review and approval of a Vibration Management Plan	City of Gardena			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
▪ Loaded trucks shall not be used within 95 feet of buildings to the west; and ▪ Large bulldozers shall not be used within 105 feet of any buildings to the west.						
Tribal Cultural Resources						
Mitigation Measures						
MM-TCR-1. Native American Monitoring. A. Prior to commencement of ground-disturbing activities, the Project Applicant/lead agency shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of any "ground-disturbing activity" for the subject Project at all Project locations (i.e., both on-site and any off-site locations that are included in the Project	Prior to commencement of ground-disturbing activities	Presence of a Native American Monitor; Submission of a copy of the monitoring agreement; Daily monitoring logs; Consultation between the Monitor and the Project Applicant	City of Gardena, Consulting Tribe(s)			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
	Monitoring/ Reporting Phase	Monitoring/ Reporting Method	Enforcing Agency and Responsible Agency	Initial	Date	Comments
Description/definition and/or required in connection with the Project, such as public improvement work). "Ground-disturbing activity" shall include, but is not limited to, demolition, pavement removal, potholing, auguring, grubbing, tree removal, boring, grading, excavation, drilling, and trenching. B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the earlier of the commencement of any ground-disturbing activity or the issuance of any permit necessary to commence a ground-disturbing activity. C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities						

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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performed, locations of ground disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the tribe. Monitoring logs will identify and describe any discovered Tribal Cultural Resources (TCRs), including, but not limited to, Native American cultural and historical artifacts, remains, and places of significance, as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitoring logs will be provided to the Project Applicant/lead agency upon written request to the tribe. D. On-site tribal monitoring shall conclude upon the latter of the following: (1) written confirmation to the monitor from a designated point of						

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Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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contact for the Project Applicant/lead agency that all ground-disturbing activities and phases that may involve ground-disturbing activities on the Project site or in connection with the Project are complete; or (2) a determination and written notification by the monitor to the Project Applicant/lead agency that no future planned construction activity and/or development/construction phase at the Project site possesses the potential to impact TCRs.						
MM-TCR-2. Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial). Management strategies stipulated in MM-CUL-1 through MM-CUL-3 shall be implemented in the event that Project activities encounter cultural resources. In addition, the following TCR-specific	During ground disturbing activities	Consultation with Consulting Tribe(s) and Tribal Monitor as applicable in the event of an unanticipated discovery; Review and approval of a treatment plan as	City of Gardena, Consulting Tribe(s)			

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Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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measures shall be implemented. Upon discovery of any TCRs or archaeological resources, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and shall not resume until the discovered TCR has been fully assessed by the monitor and an archaeologist meeting the Secretary of the Interior's Professional Qualification Standards for archaeology (National Park Service 1983). A. If the resources are Native American in origin, the Kizh will recover and retain all discovered TCRs in the form and/or manner the tribe deems appropriate, in the tribe's sole discretion, and for any purpose the tribe deems appropriate, including for educational, cultural and/or historic purposes. B. If the archaeologist determines that the resource meets the		applicable in the event of an unanticipated discovery				

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Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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criteria as a "historical resource" or "unique archaeological resource" under CEQA, time allotment and funding sufficient to allow for the implementation of avoidance measures or appropriate mitigation shall be made available. The treatment plan shall be in accordance with CEQA Guidelines § 15064.5(f) for historical resources and Public Resources Code § 21083.2(b) for unique archaeological resources. If not left in place, any historic or archaeological material that is not Native American in origin shall be curated at a public, nonprofit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County or the Fowler Museum at the University of California						

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Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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Los Angeles, if such an institution agrees to accept the material. If no institution accepts the archaeological material, they shall be offered to a local school or historical society for educational purposes.						
MM-TCR-3. Unanticipated Discovery of Human Remains and Associated Funerary Objects. A. Native American human remains are defined in California Public Resources Code (PRC) Section 5097.98(d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in PRC Section 5097.98, are also to be treated according to this statute.	During ground disturbing activities	Consultation with the County Coroner, the Project Archaeologist, and Consulting Tribe(s) as applicable in the event of an unanticipated discovery of human remains	City of Gardena, Los Angeles County Coroner, Consulting Tribe(s)			

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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B. If human remains and/or grave goods are discovered or recognized on the Project site, then all construction activities shall immediately cease within 200 feet of the discovery and PRC Section 5097.9 and California Health and Safety Code Section 7050.5 shall be followed. This includes among other required measures, the immediate contact of the County Coroner, the principal archaeologist retained for the Project and if the remains are potentially Native American in origin, the Gabrieleno Band of Mission Indians-Kizh Nation. C. Human remains and grave/burial goods found with such remains shall be treated alike per PRC Sections 5097.98(d)(1) and (2). D. Construction activities may resume in other parts of the						

Table 4-1. Mitigation Monitoring and Reporting Program for 1450 Artesia Specific Plan Project

Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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Project site at a minimum of 200 feet away from discovered human remains and/or burial goods. This determination will be made by the construction monitor in consultation with the principal archaeologist and if the remains are potentially Native American in origin, the Gabrieleno Band of Mission Indians-Kizh Nation. No further constriction shall occur until the construction monitor and/or principal archaeologist has given expressed consent of that determination (along with any other mitigation measures the monitor and/or archaeologist deems necessary). (CEQA Guidelines Section 15064.5[f]). E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.						

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MM-TCR-4. Unanticipated Discovery of Human Remains and Associated Funerary Objects. This mitigation measure shall only apply if the Gabrieleno Band of Mission Indians-Kizh Nation is designated as the Most Likely Descendant ("MLD") by the NAHC. A. The Koo-nas-gna Burial Policy shall be implemented. To the tribe, the term "human remains" encompasses more than human bones. In ancient as well as historic times, tribal traditions included, but were not limited to, the preparation of the soil for burial, the burial of funerary objects with the deceased, and the ceremonial burning of human remains. B. If the discovery of human remains includes four or more burials, the discovery location shall be treated as a cemetery	During ground disturbing activities	Consultation with the Project Archaeologist and Consulting Tribe(s) as applicable in the event of an unanticipated discovery of human remains; Review and approval of submitted documentation relating to the find including a Final Report submitted to NAHC and the Tribe	City of Gardena, Consulting Tribe(s), NAHC			

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Project Design Feature/ Mitigation Measure	Monitoring/Reporting			Verification of Compliance		
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and a separate treatment plan shall be created. C. The prepared soil and cremation soils are to be treated in the same manner as bone fragments that remain intact. Associated funerary objects are objects that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later; other items made exclusively for burial purposes or to contain human remains can also be considered as associated funerary objects. Cremations will either be removed in bulk or by means as necessary to ensure complete recovery of all sacred materials. D. In the case where discovered human remains cannot be fully documented and recovered on						

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the same day, the remains will be covered with muslin cloth and a steel plate that can be moved by heavy equipment placed over the excavation opening to protect the remains. If this type of steel plate is not available, a 24-hour guard should be posted outside of working hours. The tribe will make every effort to recommend diverting the Project and keeping the remains in situ and protected. If the Project cannot be diverted, it may be determined that burials will be removed. E. In the event preservation in place is not possible despite good faith efforts by the Project Applicant/developer and/or landowner, before ground-disturbing activities may resume on the Project site, the landowner shall arrange a						

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designated site location within the footprint of the Project for the respectful reburial of the human remains and/or ceremonial objects. F. Each occurrence of human remains and associated funerary objects will be stored using opaque cloth bags. All human remains, funerary objects, sacred objects and objects of cultural patrimony will be removed to a secure container on site if possible. These items should be retained and reburied within 6 months of recovery. The site of reburial/repatriation shall be on the Project site but at a location agreed upon between the tribe and the landowner at a site to be protected in perpetuity. There shall be no publicity regarding any cultural materials recovered						

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G. The tribe will work closely with the Project's qualified archaeologist to ensure that the excavation is treated carefully, ethically and respectfully. If data recovery is approved by the tribe, documentation shall be prepared and shall include (at a minimum) detailed descriptive notes and sketches. All data recovery data recovery related forms of documentation shall be approved in advance by the tribe. If any data recovery is performed, once complete, a final report shall be submitted to the tribe and the NAHC. The tribe does NOT authorize any scientific study or the utilization of any invasive and/or destructive diagnostics on human remains.						

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