Notice of Exemption

Appendix E

To: Office of Planning and Research
P.O. Box 3044, Room 113
Sacramento, CA 95812-3044

County Clerk
County of: San Bernardino
222 West Hospitality Lane
San Bernardino, CA 92415

From: (Public Agency): City of Adelanto
11600 Air Expressway
Adelanto, CA 92301
(Address)

Project Title: 16454 Adelanto Road Warehouse

Project Applicant: Chuck Minyard, Primior Development

Project Location - Specific:

16454 Adelanto Road, Adelanto CA, 92301; APN 3129-231-04

Project Location - City: Adelanto Project Location - County: San Bernardino

Description of Nature, Purpose and Beneficiaries of Project:

The proposed Project involves grading the vacant site and construction and operation of a single-story, 49,798-square-foot (sq. ft.) warehouse distribution facility (proposed Project). The facility would have 27 loading docks; three at level height and 24 at dock height. The proposed Project would also contain offices, four restrooms, two shower rooms, a break room, a guard house, and a trash enclosure. The Project site would contain 43 parking spaces, including two Americans with Disabilities Act (ADA) compliant parking spaces. The majority of the parking and facility would be contained behind a security gate that would be operated by the staff in the guard house. An underground detention system would be used in the drive aisle to help with offsite flows.

Name of Public Agency Approving Project: City of Adelanto Planning Department

Name of Person or Agency Carrying Out Project: Chuck Minyard, Primior Development

Exempt Status: **(check one):**

- ☐ Ministerial (Sec. 21080(b)(1); 15268);
- ☐ Declared Emergency (Sec. 21080(b)(3); 15269(a));
- ☐ Emergency Project (Sec. 21080(b)(4); 15269(b)(c));
- ☒ Categorical Exemption. State type and section number: Class 32; 15332
- ☐ Statutory Exemptions. State code number: _____

Reasons why project is exempt:

See attached 'Applicability of Exempt Status' and Initial Study.

Lead Agency
Contact Person: James Hirsch, AICP Area Code/Telephone/Extension: 760-246-2300 ext. 11190

If filed by applicant:

1. Attach certified document of exemption finding.
2. Has a Notice of Exemption been filed by the public agency approving the project? ▪ Yes No

Signature: _____ Date: 11/16/2022 Title: Contract Planner

▪ Signed by Lead Agency Signed by Applicant

Authority cited: Sections 21083 and 21110, Public Resources Code.
Reference: Sections 21108, 21152, and 21152.1, Public Resources Code.

Date Received for filing at OPR: _____

Applicability of Exempt Status:
The following are findings to support a Class 32 Categorical Exemption (In-Fill Development Project). The Project would be consistent with this exemption and as further described below, no exceptions to this exemption would apply.

> *15332. In-Fill Development Projects*
> *Class 32 consists of projects characterized as in-fill development meeting the conditions described in this section.*
>
> > *(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.*
> > *(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.*
> > *(c) The project site has no value as habitat for endangered, rare or threatened species.*
> > *(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.*

The Project consists of the construction and operation of a warehouse facility located in the Light Manufacturing (LM) zone and land use of the City. The Project would be consistent with the permitted uses as part of the zoning regulations. The Project would require a Location and Development Permit (LDP). An Initial Study was prepared to evaluate all potential impacts associated with implementation of the Proposed Project and concluded that the Project would have no impact, or impacts would be less than significant for all resource areas. The Initial Study is included below for reference. An analysis based on consistency with the conditions listed as part of the Class 32 exemptions is provided below:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

The Project will be located in the LM zone and land use of the City. LM zones allows for limited manufacturing and warehousing. The Project will construct and operate a distribution facility which will be consistent with the permitted uses of the LM zone. Furthermore, existing LM uses are directly east of the Project site in an area of the City known as 'Light Manufacturing District East'. Therefore, the Project will be consistent with applicable general plan and zoning designations.

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

The Project site is approximately a 3.17-acre parcel located within the City limits with urban uses surrounding the site. Immediately north of the site is a single-story self storage facility and immediately south of the site is a single-story self storage facility. US-395 Highway is located directly west. The Project would be in between these existing self-storage facilities.

(c) The project site has no value as habitat for endangered, rare or threatened species.

A Biological Resources Reconnaissance Assessment was prepared for the Project. The results of the assessment show that the Project site does not contain any valuable habitats for endangered, rare, or threatened species. There were no special status species observed during the reconnaissance-level survey and are considered absent due to the lack of suitable habitat within the survey area which consists of a

five-mile radius from the Project site. As concluded in the Initial Study below, the Project site does not have value as habitat for endangered, rare or threatened species.

(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

An Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, and VMT Analysis, were prepared for the Project. Additionally, impacts to noise and water quality were evaluated in the Initial Study. As concluded in the Initial Study below, the Project would not have a significant impact on traffic, noise, air quality, or water quality.

(e) The site can be adequately served by all required utilities and public services.

The Project will connect to existing utility connections along Adelanto Road for water, wastewater, electric power, and natural gas. Development of the warehouse facility would require installation of telecommunication services, including wireless internet service and phone service. This can be accomplished through connection to existing services that are available to the developer at the Project site. As concluded in the Initial Study below, the Project would not have a significant impact on any utilities or public services.

15300.2. Exceptions

(a) ***Location.*** *Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located —a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.*

The Project is not exempt under Class 3, 4, 5, 6, or 11. The Project is conversion of a vacant lot to a warehouse facility. The proposed Project is not located in an area that would impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, or officially adopted pursuant to law by federal, state, or local agencies.

(b) ***Cumulative Impact.*** *All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.*

The Project includes construction of a warehouse facility. The Project would not contribute to a significant cumulative impact because the Project would be consistent with the City's zoning regulations and General Plan. The Project would be required to comply with all applicable City ordinances, regulations, and permitting conditions. Furthermore, since the Project would not contribute to any individual significant impacts, a cumulatively considerable impact would not occur.

(c) ***Significant Effect.*** *A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.*

The Project will construct a warehouse facility on a parcel zoned for LM purposes. The construction and operation of the Project would not create a significant effect due to an unusual

circumstance since the Project would be a permitted use and would be consistent with the proposed land use and zoning surrounding the Project site. The Project site is not located on a property with unique characteristics that could result in a significant impact to the environment based on the discussions above and below related to air quality, threatened or endangered species, historical resources, hazardous wastes, traffic, and availability of utilities and public services.

(d) ***Scenic Highways.*** *A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.*

The Project site does not contain any scenic vistas or scenic features and is not located along a state scenic highway. The proposed Project is in a relatively urbanized area with little development in the immediate vicinity of the Project beyond existing self storage facilities to the north and south of the Project.

(e) ***Hazardous Waste Sites.*** *A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.*

The Project will not be located on a site that is included on a list of hazardous materials sites that are currently under remediation. According to the California State's GeoTracker and Envirostor website (consistent with Government Code Section 65962.5), which provides information regarding Leaking Underground Storage Tanks (LUST), there are no active LUST sites located within the Project site, or within a 1,000-foot radius of the site.

(f) ***Historical Resources****. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.*

A Cultural Resource Survey and Report was prepared for the Project. The assessment included a cultural resources records search, literature review and research, and field survey of the Project site. Results from the survey and records search indicated that no previously recorded historic cultural resources have been documented within the proposed Project site. During the pedestrian survey, no previously undiscovered resources were discovered. As concluded in the Initial Study below, implementation of the Project would not cause a substantial adverse change in the significant of a historical resource.

16454 ADELANTO WAREHOUSE PROJECT

INITIAL STUDY
Adelanto, CA

Prepared for:

CITY OF ADELANTO PLANNING DIVISION
11600 Air Expressway
Adelanto, California, 92301

Prepared by:

CHAMBERS GROUP, INC.
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707
(949) 261-5414

November 2022

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APPENDIX B **Biological Resources Reconnaissance Assessment for the 16454 Adelanto Road Warehouse Distribution Facility Project prepared by Chambers Group, June 6, 2022.**

APPENDIX C **Cultural Resources Study Letter Report for the 16454 Adelanto Road Warehouse Distribution Facility, prepared by Chambers Group, August 25, 2022. Updated October 27, 2022.**

APPENDIX D **Vehicle Miles Traveled (VMT) Analysis – 16454 Adelanto Road Warehouse, prepared by General Technologies and Solutions (GTS), May 16, 2022; Updated October 27, 2022.**

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SECTION 1.0 – PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

1.1 PROJECT TITLE

16454 Adelanto Road Warehouse Distribution Facility

1.2 LEAD AGENCY

City of Adelanto
11600 Air Expressway
Adelanto, California 92301

1.3 CONTACT PERSON AND PHONE NUMBER

James Hirsch, Contract Planner
JHirsch@ci.adelanto.ca.us
760-246-2300 ext. 11190

1.4 PROJECT LOCATION

The Project site is a mostly vacant, 3.17-acre parcel located at 16454 Adelanto Road in the City of Adelanto (City) in San Bernardino County, California (Project site, **Figure 1**). The Project site's Assessor Parcel Number (APN) is 3128-231-04. The site has a land use designation and zoning of Light Manufacturing (LM). Access to the site is currently available via a private driveway along Adelanto Road. Existing on the site is a vacant manufactured commercial building, an iron fence, and two concrete slabs, including a designated parking area. Beginning at the eastern entrance gate, and surrounding the parking slab, is a slightly dispersed layering of 1-4-inch sized rip rap gravel. There are also multiple imported pine trees separating the building and parking slab. Located to the west of the building are two Conex boxes. The site contains minimal vegetation. Photographs of existing conditions on and surrounding the Project site are shown in **Figure 2**. The elevation at the Project site is approximately 2,871 feet above mean sea level (amsl).

1.5 PROJECT SPONSOR'S NAME AND ADDRESS

Applicant: Chuck Minyard
Primior Development
750 North Diamon Bar Boulevard
Diamond Bar, California 91765

1.6 GENERAL PLAN DESIGNATION

Light Manufacturing (LM)

1.7 ZONING

Light Manufacturing (LM)

1.8 DESCRIPTION OF PROJECT

The City of Adelanto is located in the High Desert region of San Bernardino County, just north of the San Gabriel Mountains. The proposed Project involves grading the vacant site and construction and operation of a single-story, 49,798-square-foot (sq. ft.) warehouse distribution facility (proposed Project). The facility would have 27 loading docks; three at level height and 24 at dock height. The proposed Project would also contain offices, four restrooms, two shower rooms, a break room, a guard house, and a trash enclosure. The Project site would contain 43 parking spaces, including two Americans with Disabilities Act (ADA)-compliant parking spaces. The majority of the parking and facility would be contained behind a security gate that would be operated by the staff in the guard house. An underground detention system would be used in the drive aisle to help with offsite flows. The overall site plan is shown in **Figure 3** and the exterior building elevations are shown in **Figure 4**.

The existing mobile building and other various equipment would be removed from the site. The Project is an allowed use under the existing LM zoning, as shown in **Figure 5**.

1.8.1 Building Characteristics

The proposed building would be prefabricated before arriving to the site, utilize approximately 37.6 percent of the site, and occupy approximately 49,798 square feet with a floor to area ratio of 0.37. The Project would have a maximum elevation of 38 feet 4 inches.

1.8.2 Landscaping

Landscaping would be consistent with desert type species and would be low water requirement with minimal irrigation. Landscaping would surround the site and occupy approximately 10.85% of the parcel.

1.8.3 Parking, Circulation and Site Access

Regional access to the Project site is provided by the US-395 Highway at the Project site and Holly Road approximately 0.4 miles south of the Project site. The north-south roadway of Adelanto Road and the east-west roadway of Holly Road provide local circulation. The existing driveway off of Adelanto Road would be utilized as the main entrance for the Project. A minimum driveway width of 50 feet would be provided for throughout the Project site, and a turnaround would be located at the back of the building.

The proposed Project would provide a total of 43 parking spaces, including two accessible spaces.

1.8.4 Utilities

Water and sewer service would be provided to the Project site by Adelanto Water District (AWD). Electricity would be provided by Southern California Edison and gas would be provided by Southwest Gas Company. Utilities would tie into nearby connections along Adelanto Road. Water would be needed for the break room, restrooms, shower rooms, and landscaping.

1.8.5 Construction

Project construction is expected to begin in January 2023 and is assumed to last 6 months. Project construction would include site preparation, grading, building construction, paving, and architectural

coating phases. Expected equipment would include excavators, backhoes, cranes, forklift, and bobcat. The Project would require 1,1,90 cubic yards of cut and 4,850 cubic yards of fill, resulting in an import total of 3,660 cubic yards. The final grading quantities will be confirmed during plan check.

Water during construction would be used for dust suppression and would be brought to the site with a water truck. Up to 30 construction workers per day would be onsite during the construction phase and it is anticipated that they come from the local work force. Construction activities would occur from 7:00 a.m. to dusk, in compliance with the City Municipal Code.

1.8.6 Operation

The facility would likely be staffed 14 hours a day (Monday through Friday) from approximately 7:00 A.M. until 9:00 PM, and would be operated with approximately 20 employees including those in the guard shack provided onsite. LED lighting would be provided at night for security purposes and would comply with the City lighting requirements. Approximately 15 truck trips would be completed per working day.

The site would allow for delivery and export of auto parts, and electrical and fork-lift parts. No cooling or cold storage would be required.

1.9 SURROUNDING LAND USES AND SETTING

Surrounding the Project site are the following uses and designations:

North: Mixed Use land use and zoning designation. Immediately north of the site is a single-story self storage facility followed by vacant land and various commercial uses.

South: Mixed Use land use and zoning designation. Immediately south of the site is a single-story self storage facility followed by vacant land.

East: Light Manufacturing land use and zoning designation. Adelanto Road is bordering the site. Vacant land is on the other side of the Adelanto Road, with manufacturing uses, including northwest pipe company scattered throughout.

West: Medium Density Residential land use and zoning designation. US-395 Highway is located directly west of the Project site, followed by vacant land.

Project Location

Figure 1
Primior 16454 Adelanto Rd Warehouse CEQA
Project Location and Vicinity

N

0 30 60 120

Feet

Name: 21354 PLAN Fig 1 Project Location and Vicinity.Mxd
Print Date: 4/15/2022 9:50:07 AM Author: pcarlos

CHAMBERS GROUP

Figure 2
Primior 16454 Adelanto Rd Warehouse CEQA
Site Photos

Name: 21354 PLAN Fig 2 Site Photos.Mxd
Print Date: 4/20/2022 2:32:37 PM Author: pcarlos

CHAMBERS GROUP

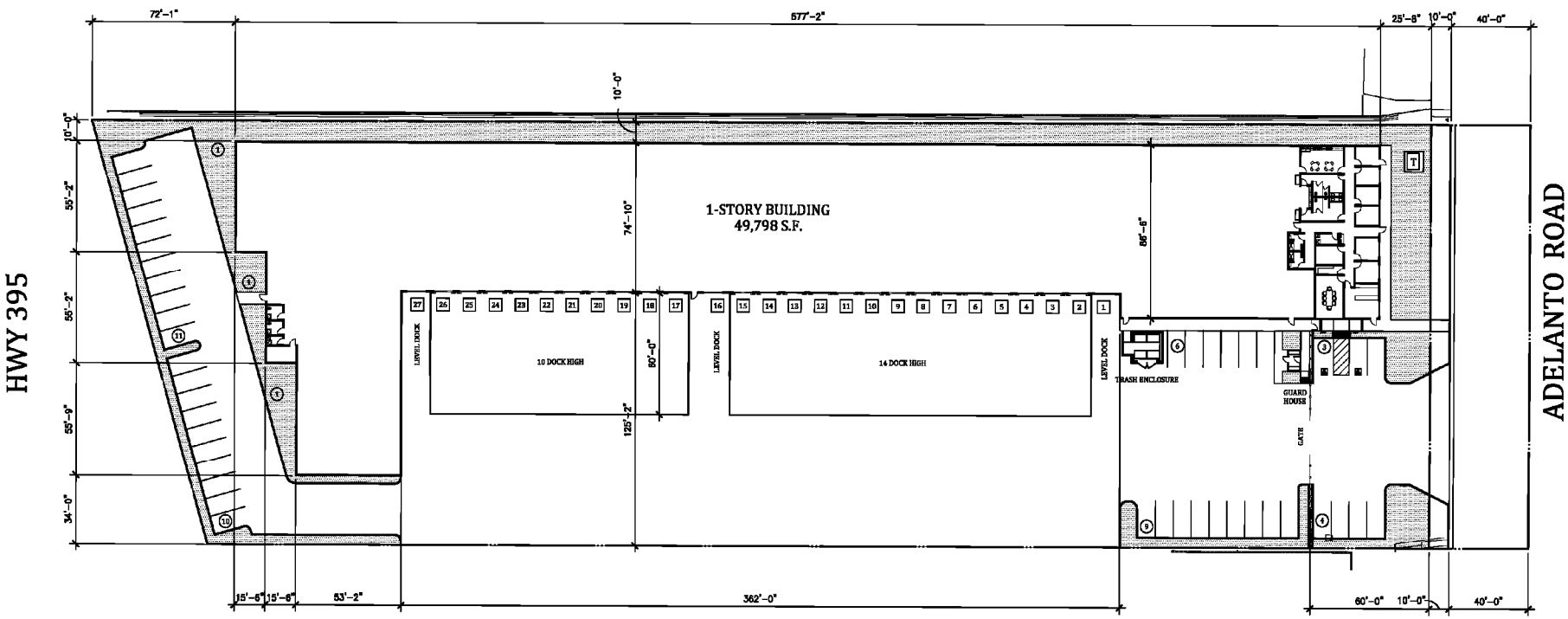

Figure 3
Primior 16454 Adelanto Rd Warehouse CEQA
Overall Site Plan

N

0 40 80 160

Feet

Name: 21354 PLAN Fig 3 Overall Site Plan.Mxd
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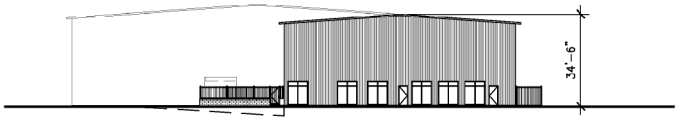
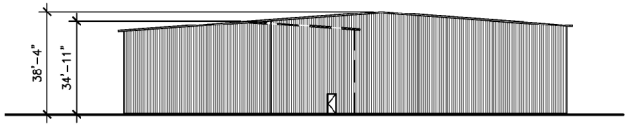
CHAMBERS GROUP

NORTH ELEVATION



EAST ELEVATION



WEST ELEVATION

SOUTH ELEVATION

Figure 4
Primior 16454 Adelanto Rd Warehouse CEQA
Exterior Building Elevations

Name: 21354 PLAN Fig 4 Exterior Building Elevations.Mxd
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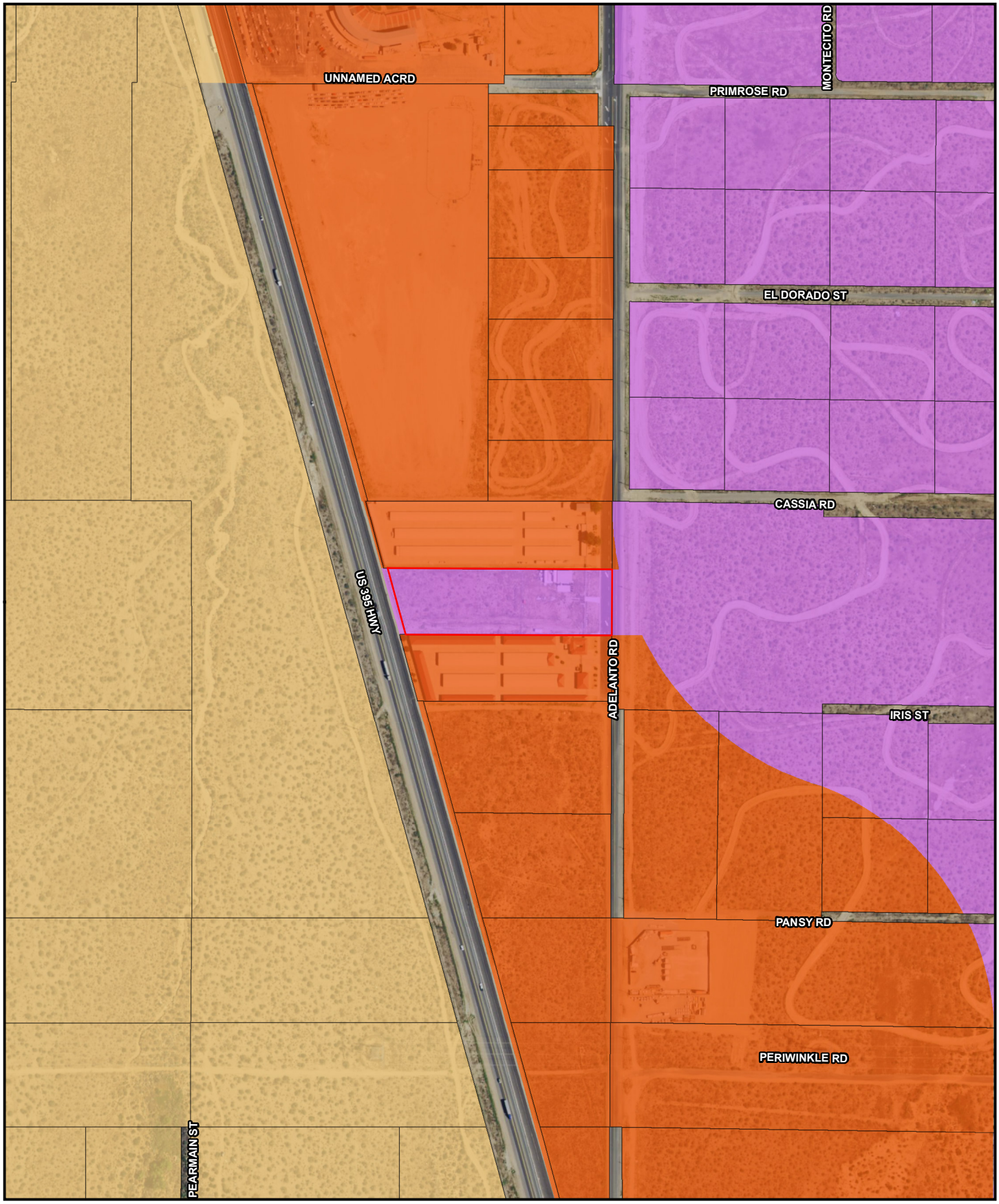
CHAMBERS GROUP



Project Location

Proposed Land Use and Zoning

- Light Manufacturing (LM)
- Mixed Use (MU) (12-18 du/ac)
- R-M12

N

0 150 300 600

Feet

Figure 5

Primior 16454 Adelanto Rd Warehouse CEQA
Existing Land Use and Zoning

Name: 21354 PLAN Fig 5 Existing Land Use and Zoning.Mxd Print Date: 10/27/2022 12:58:35 PM Author: pcarlos

CHAMBERS GROUP

SECTION 2.0– EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2. All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if substantial evidence exists that an effect may be significant. If one or more "Potentially Significant Impact" entries are marked when the determination is made, an EIR is required.

4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less than significant level (mitigation measures from earlier analyses may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and

    b. the mitigation measure identified, if any, to reduce the impact to less than significant.

    *Note: Instructions may be omitted from final document.

SECTION 3.0 – CHECKLIST OF ENVIRONMENTAL ISSUES

3.1 AESTHETICS

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

3.1.1 Impact Analysis

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

Less than Significant Impact. Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by new development. A review of the Project area determined that there are no scenic vistas located internally within the area proposed for the development of the Project. The Project site is located in an area that is sparsely developed, with existing warehouses to the north and south, the US-395 to the west of the site, and no other surrounding development in the immediate vicinity of the Project. The nearest residences are more than a half mile south of the Project site. Therefore, the development of the Project is not expected to impact any important scenic vistas within the Project area.

A scenic vista impact can also occur when a scenic vista can be viewed from the Project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. The City of Adelanto is located in the High Desert, north of the San Bernardino and San Gabriel Mountains and east of the Shadow Mountains. The Adelanto North 2035 Comprehensively Sustainable Plan states the following in regard to scenic corridors and viewsheds:

> *Scenic Corridors and Viewsheds. The Adelanto North 2035 Planning Area is comprised of a vast amount of vacant/open space land that has scenic value. These resources include the beauty of the desert landscape and the views of the Shadow Mountains along the western boundary of the Planning Area. Sensitive design and placement of new development will ensure that these corridors and viewsheds remain as an important aesthetic resource for future residents of the City as well as travelers passing through.*

The proposed Project would construct a pre-fabricated building that would have a maximum height of 38 feet and 4 inches; similar to the developments directly north and south of the Project site. While development of the site may limit views in the area immediately surrounding the site, the existing surrounding development and proposed height of the building would limit any potential impacts. Additionally, given the Project's location—more than 16 miles southeast of the Shadow Mountains, and more than 15 miles north of the San Gabriel Mountains—views to the mountains from the Project area are limited. Therefore, development of the proposed Project would have a less than significant impact on a scenic vista.

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

No Impact. No rock outcroppings, or other scenic features existing on site. According to Caltrans, the proposed Project is not located within a state scenic highway and the City of Adelanto does not identify any locally important scenic roadways (Caltrans 2022). Therefore, the proposed Project will not affect any scenic resources within a state scenic highway corridor. Additionally, based on the site condition and immediate surroundings, the Project site itself does not contain any significant scenic resources, and therefore no impact would occur.

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

Less than Significant Impact. The proposed Project is in a relatively urbanized area with little development in the immediate vicinity of the Project beyond existing self storage facilities to the north and south of the Project. As previously mentioned, the proposed Project would construct a pre-fabricated building that would have a maximum height of 38 feet and 4 inches; similar to the developments directly north and south of the Project site. However, the Project site is located more than 16 miles southeast of the Shadow Mountains, and more than 15 miles north of the San Gabriel Mountains, and as such, public views to these vistas in the area surrounding the Project, are limited. While the visual characteristics of the existing uses would change, it would be largely similar to existing and surrounding uses. Therefore, the Project would not result in the loss of distinct or valuable visual characteristics of the site and surroundings. The Project would result in a less-than significant impact

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

Less than Significant Impact. Implementation of the proposed Project will require LED lighting for security purposes which will create new sources of light during the operational phases of the Project. However, the proposed Project would be located between two similar uses buildings and the freeway, both of which contain existing sources of lighting and glare. Furthermore, the new lighting would be consistent with the lighting policies of the City's zoning code standards by directing all lighting downwards. With compliance with the City's code, potential light and glare will be controlled to a less than significant impact level.

3.2 AGRICULTURE & FORESTRY RESOURCES

2.	**AGRICULTURE & FOREST RESOURCES. (In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or the conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Impact Analysis

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

No Impact. The City of Adelanto does not contain a significant amount of land designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. The Project site is classified as urban and built up land (DOC 2022a). This designation is not related to Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Furthermore, the Project site is not currently used for agricultural purposes. Construction and operation of the proposed warehouse facility, will be

confined to the Project site, and would not convert farmland of any importance to non-agricultural use. No impacts would occur.

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

No Impact. The Project site is currently zoned LM and will not involve agricultural uses. While the DOC no longer hosts Williamson Act enrollment maps and/or data 'due to the lack of up to date city and county reported enrollment data' (DOC 2022b), the City has indicated that no Williamson Act contracts located within the City. Therefore, no potential exists for a conflict between the proposed Project and agricultural zoning or Williamson Act contracts. No impacts would occur.

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

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

No Impact. As previously mentioned, the Project site is currently zoned LM, which does not contain forestry uses. The Project site is not located within forest land, timberland or timberland zoned for Timberland Production and does not contain any commercial trees. Therefore, the proposed Project will not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production or convert any forest land to a non-forest use and no impacts would occur.

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

No Impact. Implementation of the proposed Project will not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of valuable farmland to non-agricultural use or forest to non-forest uses. No forest or agricultural resources or uses occur within the general vicinity of the proposed Project site, and as such no agricultural uses would be impacted by the development or operation of the Project. Therefore, no impacts to agricultural, forest or timberland resources will result from Project implementation.

3.3 AIR QUALITY

3.	**AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐

(c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
(d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

An Air Quality, Energy, and Greenhouse Gas Analysis was prepared for the proposed Project and is included in Appendix A. The results of the analysis are summarized below. The Project site is located within the San Bernardino County portion of the Mojave Desert Air Basin (MDAB), which is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. The Project site is located within the Victor Valley portion of the Mojave Desert. Hot summers, mild winters, infrequent rainfall, moderate afternoon breezes and generally fair weather characterize the climate of the Victor Valley, which is an interior sub-climate of Southern California's Mediterranean climate.

Air Quality Standards

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

The criteria pollutants consist of the following: ozone (O_3), nitrogen oxides (NOx), carbon monoxide (CO), sulfur oxides (SOx), lead (Pb), and particulate matter (PM). The ozone precursors consist of NOx and VOC. These pollutants can harm your health and the environment, and cause property damage. The United States Environmental Protection Agency (USEPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally based criteria for setting permissible levels. Descriptions of each criteria pollutant can be found in Section 2.1 of the Air Quality Technical Report (Appendix A).

As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years.

As indicated below in Table 3.3-1, the Mojave Desert Air Basin (MDAB) has been designated by the USEPA for the national standards as a non-attainment area for ozone and PM10. Currently, the MDAB is in attainment with the national ambient air quality standards for PM2.5, CO, SO_2, and NO_2.

Table 3.3-1. Mojave Desert Air Basin Attainment Status

Pollutant	Federal Designation	State Designation
Ozone (O_3)	Non-attainment*	Non-attainment
Respirable Particulate Matter (PM10)	Non-attainment**	Non-attainment

Fine Particulate Matter (PM2.5)	Unclassified/Attainment	Non-attainment*
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment

* Southwest corner of desert portion of San Bernardino County only;
** San Bernardino County portion only
Source: https://www.mdaqmd.ca.gov/home/showpublisheddocument/1267/636337468837000000

Baseline Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the MDAB as well as from air pollutants that travel from the coastal areas to the MDAB. The MDAQMD operates an extensive monitoring network throughout the County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations. The nearest air monitoring station to the project site is the Victorville Monitoring Station (Victorville Station), which is located approximately 4.8 miles southeast of the Project site at 14306 Park Avenue, Victorville. Baseline air quality data was utilized from this station and can be found in Appendix A.

Thresholds of Significance

The MDAQMD's CEQA and Federal Conformity Guidelines (MDAQMD 2020), outlines significance determination thresholds. The MDAQMD Guidelines state that any project is significant if it triggers or exceed the most appropriate evaluation criteria, and further specifies that the emissions comparison (criteria number 1) is sufficient for most projects:

1. Generate total emissions (direct and indirect) in excess of the threshold given in Table 3.3-2;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) ;
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

The MDAQMD significant emissions thresholds are shown below in Table 3.3-2. According to the MDAQMD Guidelines, a significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value. Since construction of the proposed project is anticipated to take over a year, the annual threshold has been utilized for both short-term construction impact analysis and long-term operational impacts.

Table 3.3-2. MDAQMD Significant Emissions Thresholds

Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137

Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Lead (Pb)	0.6	3

Source: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510

3.3.2 Impact Analysis

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

Less than Significant Impact. The proposed Project would not conflict with or obstruct implementation of the MDAQMD Air Quality Management Plans (AQMPs). The following is the analysis procedure detailed in the MDAQMD Guidelines for Conformity Impacts:

> A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

For this Project, the City's General Plan Land Use Element defines the long range land use assumptions that are represented in the AQMPs. The Project site is currently designated as LM in the General Plan and is zoned LM. The Project would be consistent with the existing zoning and land uses of the City. The proposed warehouse would be adjacent to existing industrial uses to the north and south and would provide employment opportunities in an area that currently has more housing than jobs, which would likely result in a reduction of vehicle miles traveled for the future employees that now have to commute long distances for work. Based on the above, the proposed Project would not result in an inconsistency with the AQMPs. Therefore, a less-than-significant impact would occur in relation to implementation of the AQMP.

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

Less than Significant Impact. The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the MDAQMD criteria pollutant emissions standards detailed above.

Construction Emissions

Construction activities for the proposed Project are anticipated to start early 2023 and would take approximately 13 months to complete. Construction activities for the proposed project are anticipated to include site preparation and grading of the 3.17-acre Project site, building construction of the warehouse facility, paving of the onsite driveways, truck loading area, and parking lots, and application of architectural coatings. The CalEEMod model has been used to calculate the construction-related criteria pollutant emissions from the proposed Project and the input parameters used in this analysis have been detailed in Section 7.1 of Appendix A. The annual construction-related criteria pollutant emissions from the proposed Project are shown below in Table 3.3-3 and the CalEEMod Annual printouts are provided in Appendix A.

Table3.3-3. Construction-Related Air Pollutant Emissions

Construction Year	Pollutant Emissions[1] (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
2023	0.21	1.86	2.08	<0.01	0.16	0.11
2024	0.60	0.09	0.13	<0.01	<0.01	<0.01
MDAMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Construction based on adherence to fugitive dust suppression requirements from MDAQMD Rule 403.2.
Source: CalEEMod Version 2020.4.0.

Table 3.3-3 shows that none of the analyzed criteria pollutants emissions would exceed the MDAQMD annual thresholds during construction of the proposed project. Therefore, a less-than-significant air quality emissions impact would occur from construction of the proposed Project.

Operational Emissions

The operations-related criteria air quality impacts created by the proposed Project have been analyzed through use of the CalEEMod model. The annual operations-related criteria pollutant emissions from the proposed Project are shown below in Table 3.3-4 and the CalEEMod annual printouts are provided in Appendix A.

Table 3.3-4. Operations-Related Air Pollutant Emissions

Emissions Source	Pollutant Emissions (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Area Sources[1]	0.25	<0.01	<0.01	0.00	0.00	0.00
Energy Sources[2]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile Sources[3]	0.06	0.61	0.63	<0.01	0.21	0.06
Off-Road Equipment[4]	<0.01	0.08	1.20	<0.01	<0.01	<0.01
Total Emissions	**0.32**	**0.70**	**1.83**	**<0.01**	**0.21**	**0.06**
MDAMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, hearths, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
[4] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 restricts the operation of diesel-powered forklifts, so forklifts have been analyzed as CNG-powered.

Emissions Source	Pollutant Emissions (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5

Source: CalEEMod Version 2020.4.0.

Table 3.3-4 shows that none of the analyzed criteria pollutants emissions would exceed the MDAQMD annual emissions thresholds during operation of the proposed Project. Therefore, a less-than-significant air quality emissions impact would occur from operation of the proposed Project.

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

Less than Significant Impact. The proposed Project would not expose sensitive receptors to substantial pollutant concentrations. The MDAQMD Guidelines details that sensitive receptor land uses consist of: residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The nearest sensitive receptors to the proposed Project are tract homes located as near as 2,300 feet (0.44 mile) to the south of the Project site.

According to the MDAQMD Guidelines, the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated to determine if it exposes sensitive receptors to substantial pollutant concentrations:

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

The proposed Project would consist of development of a warehouse distribution facility. As mentioned in the Project Description (see Section 1.8), operation of the proposed Project is anticipated to generate 15 truck trips per working day. Because the nearest sensitive receptors are greater than 1,000 feet away (2,300 feet / 0.44 mile away), and because the proposed Project would generate fewer than 40 trucks per day (15 trucks per day), the proposed Project would not exceed thresholds detailed above for new industrial uses. Therefore, the proposed Project would result in a less-than-significant exposure of sensitive receptors to substantial pollutant concentrations.

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

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

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

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints, and solvents, and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as MDAQMD Rule 442 that limits VOC content in solvents, Rule 1103 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the Project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less-than-significant odor impact would occur, and no mitigation would be required.

Operations-Related Odor Impacts

The proposed Project would consist of the development of a warehouse. Operation of the proposed Project may create odors from diesel truck emissions, and from trash storage bins. Pursuant to City regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Diesel truck emissions odors would be generated intermittently from truck loading and unloading activities at the project site and would not likely be noticeable for extended periods of time beyond the project site boundaries. Due to the distance of the nearest receptors from the Project site (2,300 feet away) and through compliance with MDAQMD's Rule 402 and City trash storage regulations, no significant impact related to odors would occur during the on-going operations of the proposed Project. Therefore, a less-than-significant odor impact would occur, and no mitigation would be required.

3.4 BIOLOGICAL RESOURCES

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

3.4.1 Environmental Setting

Chambers Group biologists conducted a Biological Resource Reconnaissance Assessment, comprising a literature review and biological reconnaissance-level survey, in April 2022. The purpose of the survey was to document existing vegetation communities, identify special status species with a potential for occurrence, map habitats that could support special status wildlife species, and evaluate potential impacts of the Project to these resources. The Biological Resources Reconnaissance Assessment Report is provided in Appendix B.

Prior to performing the biological reconnaissance-level survey, Chambers Group biologists conducted a literature review of the latest available literature, publications, mapping and GIS data, and relevant databases for soils, jurisdictional water features that contribute to hydrology, and special status species known to occur within approximately 5 miles of the proposed Project site (Survey Area).

The biological reconnaissance-level survey was conducted on foot within the Project site on April 26, 2022, between the hours of 10:00 a.m. and 12:00 p.m. by Chambers Group biologists Heather Franklin and Alisa Muniz. During the pedestrian survey, the biologists identified and mapped all vegetation communities

observed within the Survey Area. Plant communities were determined in accordance with the Manual of California Vegetation, Second Edition (Sawyer et al. 2009). Plant nomenclature follows that of The Jepson Manual, Vascular Plants of California, Second Edition (Baldwin et al. 2012). Plant and wildlife species observed or detected within the Survey Area were recorded (Appendix B: Attachments 2 and 3), and site photographs were taken to document current site conditions (Appendix B: Attachment 4).

Biological Site Conditions

Literature Review

According to the results from the USDA NRCS Web Soil Survey (USDA 2022), the Project Site is located in the Mojave River Area, CA671 part of the soil map. One soil type is known to occur within and/or adjacent to the Project site: Cajon sand (0 to 2 percent slopes). The Project site is located within the Manzanita Wash Watershed (HUC 180902080503) and does not contain or abut any jurisdictional features (e.g., drainages or swales).

Database searches (CDFW 2022a; CNPS 2022) identified eight federally or state-listed threatened, endangered, or otherwise special-status plant species documented to historically occur within the vicinity of the Survey Area (Appendix B: Figure 3 – CNDDB Occurrences Map). It was determined that all eight plant species identified by the database searches are considered *absent* from the Survey Area due to lack of suitable habitat.

Database searches (CDFW 2022a; USFWS 2022) identified 26 federally or state-listed endangered or threatened, State Species of Concern, or otherwise special-status wildlife species documented to occur within the Survey Area (Appendix B: Figure 3 – CNDDB Occurrences Map). It was determined that all 26 special-status wildlife species identified during the literature review are *absent* due to the lack of suitable habitat present within the Project site. According to the USFWS Critical Habitat WebGIS map, the Project site does not contain or abut any designated Critical Habitat (USFWS 2022). Critical Habitat for the southwestern willow flycatcher occurs approximately 4 miles east of the Project site; however, no connectivity occurs between the Project site and the designated critical habitat.

Biological Reconnaissance-Level Survey

Four vegetation communities or land types were observed within the Survey Area during the biological reconnaissance-level survey: disturbed, ornamental, ruderal, and developed landscape. Most of the Project site is disturbed with some portions of ruderal vegetation occurring along the southern edge of the site, and a small, developed area including a small portable building with ornamental vegetation occurs in the northeast section of the site. Twelve plant species were observed within the Survey Area during the survey and are representative of the existing Study Area conditions; special-status special plant species were not observed. Seven wildlife species were observed within the Survey Area and were characteristic of the existing Survey Area condition; special-status special wildlife species were not observed.

3.4.2 Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as candidate, sensitive or special status species in local or regional plans,

policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant Impact. Existing on the site is a vacant manufactured commercial building, iron fence, and two concrete slabs, including a designated parking area. Beginning at the eastern entrance gate, and surrounding the parking slab, is a slightly dispersed layering of 1-4-inch sized rip rap gravel. There are also multiple imported pine trees separating the building and parking slab, with two Conex boxes located to the west. The site contains minimal vegetation. A search of the CNDDB and USFWS databases identified eight special status plant species and 26 animal species with 5 miles of the Project site; however, no special status species were observed during the biological reconnaissance-level survey and all special status species are considered absent from the Project site due to lack of suitable habitat within the Survey Area. Additionally, the Project site has four vegetation communities present within the Survey Area: Disturbed, Ornamental, Ruderal, and Developed. These communities do not support any special status species or critical habitat, and do not support any local vegetation communities. Therefore, all potential special status plant and animal species are considered absent from the survey area. However, the Project would be required to comply with the MBTA which notes that prior to any ground disturbance, to the greatest extent feasible, construction activities should take place outside nesting season (February 1 to August 31). If construction activities occur during nesting season, preconstruction nesting bird surveys should be conducted. Compliance with the MBTA, and lack of special status species being present at the Project site, impacts would be less than significant.

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

No Impact. As discussed in Section 3.4.1, the proposed Project site does not contain any jurisdictional features, including drainages and swales, or other hydrological features that could support or have the potential to contain riparian habitat (CDFW 2022a; USFWS 2022). The proposed Project is located in a flat rural area with native desert vegetation within and surrounding the site. Furthermore, Chambers Group biologists did not observe riparian habitat or other sensitive natural communities within the proposed Project site during the biological survey. Implementation of the proposed Project does not have the potential to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Therefore, no impacts would occur.

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

No Impact. As discussed above in Sections 3.4.1 and 3.4.2 (b), no jurisdictional features or state or federally protected wetlands occur within or adjacent to the proposed Project site. Therefore, no impacts would occur.

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

Less than Significant Impact. Based on the results of the biological reconnaissance-level survey, the proposed Project would not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites the Project would be required to comply with the MBTA which notes that prior to any ground disturbance, to the greatest extent feasible, construction activities should take place outside nesting season (February 1 to August 31). If construction activities occur during nesting season, preconstruction nesting bird surveys should be conducted. Impacts therefore are less than significant.

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

No Impact. As discussed in Section 3.4.2 (a), no special status species occur within the Project site. The only tree species found on site were ornamental, consisting of cultivated pine trees, which are not protected under any local policies or ordinances. Therefore, no impacts would occur.

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

No Impact. The proposed Project is not located in an area within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (CDFW 2022b). Implementation of the Project would, therefore, not result in impacts to any such plans.

3.5 CULTURAL RESOURCES

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

3.5.1 Environmental Setting

Chambers Group archaeologists prepared a Cultural Resource Survey and Report for the Project in August 2022 (Appendix C). The assessment included a cultural resources records search, literature review and research, and field survey of the Project site.

Chambers Group requested a records search from the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University, Riverside on April 1, 2022. The SCCIC returned the records search results on March 3, 2022, providing information on all documented cultural resources and previous archaeological investigations within 0.5 mile of the Project

site. Resources consulted during a records search conducted by the SCCIC include the NRHP, California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), Caltrans Historic Highway Bridge Inventory, the California State Historic Resources Inventory, local registries of historic properties, and a review of available Sanborn Fire Insurance maps as well as historical photographs, maps, and aerial imagery. Based on the records search conducted by the SCCIC, eight previously recorded cultural resources are recorded within 0.5 mile of the Project site; however, none of these resources are within the Project site boundaries. A list of the previously recorded cultural resources within 0.5 mile of the Project site is provided in Appendix C.

In addition to the SCCIC record search, Chambers Group archaeologists completed research (literature review) to determine if any additional historic properties, landmarks, bridges, or other potentially significant or listed properties are located within the Project footprint or 0.5-mile study area. As a result of the literature review, no previously recorded resources or any other listed or potentially significant properties were identified within the Project site.

Chambers Group archaeologist and cross-trained paleontologist Kellie Kandybowicz conducted a cultural resources Phase I intensive pedestrian survey of the Project site on April 14, 2022. The cultural resources survey consisted of systematic surface inspection of all areas with transects walked at 10-meter intervals to ensure that any evidence of surface-exposed cultural materials and/or evidence of paleontological resources could be identified. Chambers Group examined the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), historical artifacts (e.g., metal, glass, ceramics), sediment discoloration that might indicate the presence of a cultural midden, roads and trails, and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes, foundations). No surface evidence of prehistoric or historic archaeological resources or paleontological resources was identified within the Project site.

Additionally, Chambers Group submitted a request to the Native American Heritage Commission (NAHC) on April 1, 2022, to provide a review of the Sacred Land Files (SLF) for the Project site and surrounding vicinity. On May 13, 2022, Chambers Group received a response from the NAHC stating that the search of its Sacred Lands File was negative for the presence of Native American cultural resources within Project site and the record search study area.

3.5.2 Impact Analysis

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

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

Less than Significant Impact. Results from the survey and records search indicated that no previously recorded historic cultural resources have been documented within the proposed Project site. During the pedestrian survey, no previously undiscovered resources were discovered. Various cans and glass bottles were observed, however, none are considered historically significant. The Project site has not been found to contain recorded evidence of historic cultural resources. Additionally, the Project would be required to comply with the City of Adelanto Policy Implementation Program for the potential of undiscovered archaeological resources.

Program OS-13:Disturbances of Archaeological Resources If the archaeological assessment did not identify potentially significant archaeological resources in the proposed planning area but indicates the area to be of medium or high sensitivity for archaeological resources, an archaeologist who meets the PQS shall be retained on an on-call basis. The archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) area exposed during ground disturbing activities, construction activities within a 50-foot radius of the discovery shall be halted while the on-call archaeologist is contacted. If the resource is determined to be significant or unique through significance evaluation, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include an archaeological data recovery program that would be implemented by a qualified archaeologist and performed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR). If the discovery proves to be significant, it shall be curated with a qualified scientific of educational repository, as defined by the Guidelines for the Curation of Archaeological Collections.

Compliance with the City's polocies and local regulations, in addition to the negative results of any resources on the Project site, impacts would be less than significant.

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

Less than Significant Impact. As noted in the discussion above, no available information suggests that human remains may occur within the Project site and the potential for such an occurrence is considered very low. However, if during construction human remains are found on site, the Project is required to comply with the State of California Health and Safety Code Section 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98. This code section states that no further disturbance shall occur until the San Bernardino County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. . Compliance with the State regulations would ensure that impacts would remain less than significant.

3.6 ENERGY

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

3.6.1 Environmental Setting

An Air Quality, Energy, and Greenhouse Gas Analysis was prepared for the proposed Project and is included in Appendix A. The results of the analysis are summarized below. This analysis includes a discussion of the potential energy impacts of the proposed Project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of the energy resources that the Project may use, are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2020, San Bernardino County consumed 15,969 Gigawatt-hours per year of electricity.

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2020, San Bernardino County consumed 527.24 Million Therms of natural gas.

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce VMT. Accordingly, petroleum-based fuel consumption in California has declined. In 2017, 1,377 million gallons of gasoline and 265 million gallons of diesel was sold in San Bernardino County.

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

3.6.2 Impact Analysis

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

Less than Significant Impact. The proposed Project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum-based fuel supplies and distribution systems.

Construction Energy

The construction activities for the proposed Project are anticipated to include site preparation and grading of the 3.17-acre Project site, building construction of the warehouse facility, paving of the onsite driveways, truck loading area, and parking lots, and application of architectural coatings. The proposed Project would consume energy resources during construction in three general forms:

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

Construction-Related Electricity

During construction the proposed Project would consume electricity to construct the proposed warehouse and infrastructure. Electricity would be supplied to the Project site by Southern California Edison and would be obtained from the existing electrical lines on the Project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed Project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

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

Construction-Related Natural Gas

Construction of the proposed Project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since there is currently natural gas service to of the Project site, construction of the proposed Project would be limited to installation of new natural gas connections within the Project site. Development of the proposed Project would likely not require extensive infrastructure improvements to serve the Project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the proposed Project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the Project site and on-road trucks transporting equipment and supplies to the Project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown in Section 8.2 of Appendix A, which found that construction of the proposed project would consume 2,808 gallons of gasoline and 36,590 gallons of diesel fuel. This equates to 0.0002 percent of the gasoline and 0.01 percent of the diesel used annually in San Bernardino County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and MDAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the Project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the proposed Project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The proposed Project would consist of development of a warehouse distribution facility. The on-going operation of the proposed Project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the proposed Project would result in consumption of electricity at the Project site. As detailed in Section 8.3 of Appendix A, the proposed Project would consume 121,831 kilowatt-hours per year of electricity. This equates to 0.0008 percent of the electricity consumed annually in San Bernardino County. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the County.

It should be noted that, the proposed Project would comply with all Federal, State, and City requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structures. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, the Project would not result in the wasteful or inefficient use of electricity and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the proposed Project would result in increased consumption of natural gas at the Project site. As detailed in Section 8.3 of Appendix A the proposed Project would consume 100 MBTU per year of natural gas. This equates to 0.00002 percent of the natural gas consumed annually in San Bernardino County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that, the proposed Project would comply with all Federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed Project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed Project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed Project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the Project site. As detailed in Section 8.2 of Appendix A the proposed Project would consume 10,779 gallons of gasoline and 27,620 gallons of diesel fuel per year from vehicle travel. This equates to 0.0008 percent of the gasoline and 0.01 percent of the diesel consumed annually in San Bernardino County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed Project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed Project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

In conclusion, the proposed Project would comply with regulatory compliance measures outlined by the State and County related to Air Quality, GHG Emissions, Transportation/Circulation, and Water Supply. Additionally, the proposed Project would be constructed in accordance with all applicable City Building and Fire Codes. Therefore, the proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

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

Less than Significant Impact. The proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the proposed Project is the Adelanto North 2035 Comprehensive Sustainable Plan, which was adopted on August 27, 2014. The proposed Project's consistency with the applicable energy-related policies in the Comprehensive Sustainable Plan are shown below in Table 3.6-1.

Table 3.6-1. Proposed Project Compliance with Applicable General Plan Energy Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
Goal LC 4: Sustainability incorporated into land use patterns and development approaches.		
LC 4.3	Create a sustainable community that is responsive to the environmental, water, and energy conservation needs of the region and local area.	**Consistent.** The proposed warehouse will be designed to exceed the 2019 Title 24 Part 6 building standards and CalGreen Building Code design standards that require that new non-residential buildings be designed to conserve energy and water usage.
LC 4.4	Promote the use of solar, wind, and other alternative energy generation systems as part of new planned development.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
Goal LC 7: Passive solar design and green building practices take advantage of Adelanto's solar and wind conditions.		

Policy No.	General Plan Policy	Proposed Project Implementation Actions
LC 7.1	Encourage the design and construction of buildings to go beyond the requirements of the CALGreen Building Code.	**Consistent.** The proposed warehouse will be designed to exceed the CalGreen design standards.
LC 7.2	Orient buildings to take advantage of solar gain, thus allowing the absorption of the sun's heat during colder months, while minimizing the sun's heat during warmer months.	**Consistent.** The proposed warehouse will be oriented with the majority of windows on the east side in order to heat transfer through the windows.
LC 7.3	Encourage long overhangs to screen summer sun and allow for solar gain in the winter.	**Consistent.** The proposed warehouse will include larger overhangs than typical warehouses.
LC 7.4	Orient buildings on an east-west axis to minimize western exposure.	**Consistent.** The proposed warehouse will be oriented in an east-west direction, with the windows concentrated on the east side to minimize sun exposure and associated heat transfer on the windows.
LC 7.5	Take full advantage of the wind to cool buildings in the summer months, and where feasible, generate alternative energy.	**Consistent.** The proposed warehouse will be designed to allow for the truck loading docks to remain open, when weather permits to allow the wind to cool the building.
LC 7.7	Locate windows to maximize daylighting and views. Awnings, landscaping, spectrally selective glass, and controllable blinds should be provided to reduce heat gain through windows.	**Consistent.** The windows have been located primarily on the east side in order to maximize daylighting, while minimizing the heat transfer through the windows.
LC 7.9	Encourage the building envelope to: • Minimize heat loss and gain • Reduce energy demand • Maximize passive heating and cooling • Minimize mechanical HVAC requirements	**Consistent.** The proposed warehouse will be designed to exceed the 2019 Title 24 Part 6 building standards and CalGreen Building Code design standards that through application of these standards will minimize heat loss and gain, reduce energy demand, maximize passive heating and cooling and minimize mechanical HVAC requirements.
LC 7.10	Promote glazing, size, and materials appropriate for window orientation, and promote the use of double or triple glazing wherever possible. Encourage every exterior window to be shaded appropriately for the window orientation.	**Consistent.** All windows installed on the proposed warehouse will exceed the 2019 Title 24 Part 6 building standards that require the use of either double glazing or extra thick glass that provides enhanced insulation. In addition, the windows will be primarily placed on the east side of the structure, in order to minimize the amount of sunlight and associated heat transfer on the windows.
LC 7.11	Encourage the use of energy-efficient heating, ventilation and air conditioning (HVAC) Systems and electrical systems.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 energy efficiency standards, that require installation of energy efficient HVAC systems.
Goal OS 3: Energy conservation and renewable energy production is maximized to reduce natural resources and fossil fuels consumption.		

Policy No.	General Plan Policy	Proposed Project Implementation Actions
OS 3.1	Promote the use of renewable energy and support efforts to develop small-scale, distributed energy (e.g., solar power and wind power) to reduce the amount of electricity drawn from the regional power grid, while providing Adelanto with a greater degree of energy self-sufficiency.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
OS 3.2	Encourage new warehousing, manufacturing, industrial, and large commercial retail buildings to be designed to accommodate future rooftop solar panel systems.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
OS 3.5	Require all new development to provide site design and building orientation that take into account passive solar design to reduce heating and cooling loads through energy-efficiency strategies.	**Consistent.** The proposed warehouse will be oriented in an east-west direction, with the windows concentrated on the east side to minimize sun exposure and associated heat transfer on the windows.
OS 3.8	Conserve energy by promoting efficient and cost-effective lighting that reduces glare and light pollution.	**Consistent.** All lighting on the project site will be required to meet the CalGreen Building Standards, which require the installation of LED or other energy efficient lighting and also requires the use of lighting controls that automatically dim or turn off lights when sensors determine that no people are in the area.

Source: City of Adelanto, 2014.

As shown in Table 3.6-1, the proposed Project would be consistent with all applicable energy-related policies from the Comprehensive Sustainable Plan. Therefore, the proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

3.7 GEOLOGY AND SOILS

7.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii) Strong seismic ground shaking?	☐	☐	☒	☐

7.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☒
	iv) Landslides?	☐	☐	☐	☒
(b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
(c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☒	☐

3.7.1 Environmental Setting

Chambers Group prepared a Cultural Resource Survey and Report for the Project in August 2022 (Appendix C). The assessment included a paleontological resources review of the Project site.

The overall Adelanto area is a portion of the southern extent of the Mojave Desert and western extent of the Colorado Desert. As such, this area is characterized by the presence of decomposing granite derived from the nearby hillsides and windborne or water-borne alluvial deposits. Additional information from California Geological Survey indicates that the Project site is situated atop geological formations of Pleistocene to Holocene age sediments comprising largely non-marine alluvium, lake, playa, and terrace deposits; both unconsolidated and semi-consolidated (Jennings 2010).

Chambers Group requested a paleontological records search from the San Bernardino County Museum (SBCM) on April 1, 2022 and received the results on July 15, 2022. This information was requested with the intent to provide further context related to the paleontological sensitivity of the area based on known fossil locations identified within the Project site or 0.5-mile study area. The paleontological records provide insight into what associated geological formations are more likely to contain fossils as well as the associated depths and placement of the known fossil locals relative to the geological formations in the area.

3.7.2 Impact Analysis

a) *i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on*

other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

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

Less than Significant Impact. Several faults run through the region, and as with much of southern California, the proposed structures will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future. According to the California Department of Conservation the nearest Alquist-Priolo (AP) Fault Hazard Zone is the Helendale Fault zone located over 15 miles northeast of the Project site, followed by the San Andres Fault located over 18 miles southwest of the Project site (DOC 2022c). No fault zones are located directly within the City, however some additional non- AP designated faults are located nearby, the closest one being the Mirage Valley Fault located just over 10 miles northwest of the Project site (DOC 2022c). the Project site and area can be exposed to significant ground shaking during major earthquakes on either of these regional faults. As a result, and like all other development projects in the City and throughout the Southern California Region, the proposed Project will be required to comply with all applicable seismic design standards contained in the current California Building Code (CBC). Compliance with the CBC will ensure that structural integrity will be maintained in the event of an earthquake. Therefore, impacts associated with AP Faults and strong ground shaking will be less than significant.

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

No Impact. Liquefaction is the process in which loose, saturated granular soil loses strength because of cyclic loading. The strength loss is a result of a decrease in granular sand volume and a positive increase in pore pressures. The Department of Conservation shows the nearest liquefaction zone located over 20 miles west of the Project site (DOC 2022c). Additionally, no large water sources are located near the Project site (Google 2022). Therefore, it is not anticipated that the proposed Project would experience seismic-related ground failure including liquefaction, and no impact would occur.

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

No Impact. The elevation at the Project site is approximately 2,871 feet amsl and is not immediately adjacent to any slopes or hillsides that could be potentially susceptible to landslides. As such, risks associated with slope instability should be considered “negligible.” Therefore, no impacts related to landslides would occur.

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

Less than Significant Impact. Erosion is a large-scale impact caused by human activity and disturbance of surface soil, wind, and water. Existing on the site is a vacant manufactured commercial building and two concrete slabs, including a designated parking area. There are also multiple imported pine trees separating the building and parking slab. Located to the west of the building are two Conex boxes. The site contains minimal vegetation. During construction, demolition of the existing structures and

grading of the site would expose soil to wind and water erosion. The developer would be required to comply with the General Construction Activity Storm Water Permit issued by the State Water Resources Control Board (SWRCB) under the National Pollution Discharge Elimination System (NPDES). Construction activity subject to this permit includes clearing, grading and disturbances to the ground such as stockpiling, or excavation. To obtain coverage under this permit, the developer would need to submit a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP would identify potential pollution sources and best management practices (BMPs) to reduce pollutants. Compliance with the SWPPP would reduce impacts related to soil erosions to less than significant.

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

Less than Significant Impact. Potential instability associated with slope stability and liquefaction related to the project was determined to be negligible. As mentioned in Threshold d below, the soil on site is considered a sandy material. The risk for subsidence at the site is considered low because, as mentioned in Threshold d below, the soils on site are of sandy material, and do not contain clay, and as such are not particularly susceptible to subsidence. As such, the Project would not be located on an unstable geologic unit and impacts would be less than significant.

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

Less than Significant Impact. According to the United States Department of Agriculture (USDA) Web Soil Survey map prepared for the Project site, the site is located on Cajon Sand (USDA 2022). Expansive soils are generally of a clay type soil, not a sandy soil such as the Cajon Sands series soils that underlay the Project site. Compliance with the current CBC is sufficient to ensure that the proposed structures will conform to the underlying soils and thereby be constructed safely as habitable structures. Thus, based on the absence of clay-type soils on site, the proposed Project would have a less than significant potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

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

No Impact. The Project would not include use septic tanks or other alternative wastewater treatment methods. Therefore, implementation of the Project would result in no impact associated with soils incapable of supporting septic systems or alternative wastewater treatment methods.

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

Less than Significant Impact. The SBCM records search revealed that the Project site is located most immediately atop recent alluvial surficial deposits of Holocene age (Qa) comprised of unconsolidated mixed sand, silt, and gravel, often covered by soil and these upper deposits appear unlikely to be fossiliferous (Dibblee and Minch, 2008). However, these upper deposits directly overlie approximately 1.8 million- to 11,000-year-old Pleistocene alluvial deposits (Qoa) that are found to be highly fossiliferous in the local area. These Qoa deposits are understood to be present at depths as shallow

as 3 feet below native surface in Adelanto but are exposed to the surface at the Mojave River to the east of the Project site.

Qoa has been shown to contain several fossil localities near the Project site. The SBCM records search indicated that within the requested 0.5-mile study area, three fossil localities (SBCM 1.115.1, 1.115.2, and 1.115.3) were found located at depths of 5 to 14 feet under the surface in middle to late Pleistocene age older alluvium consisting of mixed green to buff colored fine sand, silt, and clay, underlying the surficial younger alluvium. Additionally, the SBCM noted that outside of the 0.5-mile search radius, several other localities are documented in Qoa within a 5-mile radius of the Project site. These include five localities (1.115.4 – 1.115.7 and 1.115.11) within 2 miles of the Project site. Construction monitoring in the 5-mile radius of the Project site uncovered 70 paleontological localities (including SBCM 1.114.56 – 1.114.90, SBCM 1.114.93 – 1.114.97, SBCM 1.114.131 – 1.114.46, SBCM 1.114.160 – 1.114.65, 1.114.206 – SBCM 1.114.208, and SBCM 1.114.290 – 294) situated within Qoa, 3 to 15 feet beneath the surface (Reynolds and Springer 1991).

Overall, the paleontological background research and SBCM records search results indicate that there is a medium paleontological sensitively and potential to encounter intact and fossiliferous soil deposition at and below depths as shallow as three feet below surface within the Project site. However, the proposed Project would be required to comply with the City's Policy Implementation Program (OS-14), which states that in the event paleontological resources are discovered during construction activities, construction shall be halted within 60 feet of the find and shall not resume until the Project Paleontologist can determine the significance of the find. If the Qualified Paleontologist determines that the discovery constitutes a significant resource under CEQA and it cannot be avoided, the City shall implement a paleontological data recovery program.

Program OS-14: Paleontological Resources. Future development proposals subject to environmental review pursuant to the California Environmental Quality Act (CEQA) are subject to the following provisions at the expense of the project proponent, as directed by the Development Services Director.

Paleontological Assessment. In areas containing middle to late Pleistocene era sediments (Qof) where it is unknown if paleontological resources exist, prior to grading an assessment shall be made by a qualified paleontological professional to establish the need for paleontologic monitoring. Should paleontological monitoring be required after recommendation by the professional paleontologist and approval by the Development Services Director, paleontological monitoring shall be implemented.

Paleontological Monitoring. A project that requires grading plans and is located in an area of known fossil occurrence or that has been demonstrated to have fossils present in a paleontological field survey or other appropriate assessment shall have all grading monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Paleontologic monitors shall be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring is not necessary if the

potentially fossiliferous units described for the property in question are not present or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources. Should significant paleontological resources be discovered, paleontological recovery, identification, and curation shall be implemented.

Paleontological Recovery, Identification, and Curation. Qualified paleontologic personnel shall prepare recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Qualified paleontologic personnel shall identify and curate specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum or a similar established, accredited museum repository with permanent retrievable paleontologic storage. The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. This measure is not considered complete until curation into an established museum repository has been fully completed and documented.

Paleontological Findings. Qualified paleontologic personnel shall prepare a report of findings with an appendix of itemized specimens subsequent to implementation of paleontological recovery, identification, and curation. A preliminary report shall be submitted to and approved by the Development Services Director before granting of building permits, and a final report shall be submitted to and approved by the Development Services Director before granting of occupancy permits.

Compliance with the City's policies and local regulations, would ensure that impacts would remain less than significant.

3.8 GREENHOUSE GAS EMISSIONS

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

3.8.1 Environmental Setting

An Air Quality, Energy, and Greenhouse Gas Analysis was prepared for the proposed Project and is included in Appendix A. The results of the analysis are summarized below. Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans)

emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. Descriptions of each greenhouse gas and their global warming potential can be found in Appendix A.

Thresholds of Significance

As previously mentioned, the MDAQMD's CEQA and Federal Conformity Guidelines (MDAQMD 2020), outlines significance determination thresholds. The MDAQMD Guidelines state that any project is significant if it triggers or exceed the most appropriate evaluation criteria, and further specifies that the emissions comparison (criteria number 1) is sufficient for most projects:

1. Generate total emissions (direct and indirect) in excess of the threshold provided in Table 3.8-1;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s) ;
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

The MDAQMD significant emissions threshold for GHGs is shown in Table 3.8-1. Note that the emission thresholds are given as a daily value and an annual value, so that a multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value. Since construction of the proposed Project is anticipated to take over a year, the annual threshold has been utilized for both short-term construction impact analysis and long-term operational impacts.

Table 3.8-1. MDAQMD Significant Emissions Threshold for Greenhouse Gases

Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO_2e)	100,000	548,000

Source: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510

3.8.2 Impact Analysis

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

Less than Significant Impact. The proposed Project would consist of development of a warehouse distribution facility. The proposed Project is anticipated to generate GHG emissions from construction activities and from operational activities that would include area sources, energy usage, mobile sources, off-road equipment, waste disposal, and water usage.

The MDAQMD shares responsibility with CARB for ensuring that all state and federal GHG standards are achieved and maintained within its jurisdiction. The MDAQMD CEQA Guidelines provides a project level significance threshold of 100,000 tons of CO2e per year for both construction and operational activities. The MDAQMD developed this threshold in order to comply with the GHG emission reductions required by AB 32.

The Project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed above. A summary of the results is shown below in Table 3.8-2 and the CalEEMod model run is provided in Appendix A of the Greenhouse Gas Technical Report.

Table 3.8-2. Project Related Greenhouse Gas Annual Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Construction				
Year 2023	332.88	0.07	<0.01	336.01
Year 2024	18.49	<0.01	<0.01	18.62
Total Construction Emissions	351.37	0.08	<0.01	354.63
Amortized Construction Emissions[1] (30 Years)	**11.71**	**<0.01**	**<0.01**	**11.82**
Operations				
Area Sources[2]	<0.01	0.00	0.00	<0.01
Energy Usage[3]	26.95	<0.01	<0.01	27.09
Mobile Sources[4]	372.44	0.02	0.05	387.29
Off-Road Equipment[5]	22.80	<0.01	0.00	22.99
Solid Waste[6]	9.50	0.56	0.00	23.54
Water and Wastewater[7]	30.25	0.38	<0.01	42.41
Total Operational Emissions	**461.94**	**0.97**	**0.06**	**503.32**
Total Annual Emission (Construction & Operations)	**473.65**	**0.97**	**0.06**	**515.14**
Threshold of Significance				**100,000**
Exceed Thresholds?				**No**

Notes:
[1] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 restricts the operation of diesel-powered forklifts, so forklifts have been analyzed as CNG-powered.
[6] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[7] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
Source: CalEEMod Version 2020.4.0.

The data provided in Table 3.8-2 shows that the construction activities would create a total of 354.63 $MTCO_2e$, which equates to 11.82 $MTCO_2e$ per year, when amortized over 30 years. The table also shows that operational activities would create 503.32 $MTCO_2e$ per year and when combined with the amortized construction emissions, the proposed Project would create a total of 515.14 $MTCO_2e$ per year, which is within the MDAQMD threshold of 100,000 $MTCO_2e$ per year. Therefore, a less than significant generation of greenhouse gas emissions would occur from development of the proposed project. Impacts would be less than significant.

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

Less than Significant Impact. The proposed Project would consist of development of a warehouse distribution facility. As detailed above in Table 3.8-2, the proposed Project is anticipated to create 515.14 $MTCO_2e$ per year, which is well below the MDAQMD threshold of significance of 100,000 $MTCO_2e$ per year. The MDAQMD developed this threshold in order to meet the State GHG emissions reduction regulations that was based on substantial evidence supporting the use of the recommended thresholds. Therefore, the proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

3.9 HAZARDS AND HAZARDOUS MATERIALS

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

(g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Impact Analysis

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

Less than Significant Impact. Construction activities would likely require the use of limited quantities of hazardous materials such as fuels, oils, and lubricants for construction equipment; paints and thinners; and solvents and cleaners. These hazardous materials are typically packaged in consumer quantities and used in accordance with manufacturer recommendations and would be transported to and from the Project site. The improper handling and transport of hazardous materials could result in adverse health effects to workers or the public.

Transportation of hazardous materials is regulated by the U.S. Department of Transportation and Caltrans. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the exposure of hazardous materials. The San Bernardino County Fire Department (SBCFD), as the Certified Unified Program Agency (CUPA), would be responsible for ensuring compliance with these regulations including, but not limited to, the Hazardous Waste Control Act, the Hazardous Waste Generator Program, the Hazardous Materials Release Response Plans and Inventory Program, the California Accidental Release Prevention Program, and the Aboveground Storage Tank Program. Additionally, the Applicant would be required to comply with the City's Local Hazard Mitigation Plan (City 2020).

Therefore, considering the comprehensive set of federal, state, and local laws and regulations that regulate the transportation, management, and disposal of hazardous materials and wastes, the potential for construction of the proposed Project to result in a significant hazard due to exposure of the public or the environment to hazardous materials or wastes during construction would be considered less than significant.

The use of common hazardous materials associated with maintenance activities and workplace functions would occur as part of the operation of the proposed Project. Hazardous chemicals common in similar settings include paints, lubricants, solvents, cleaning supplies and relatively small quantities of fuels, oils, and other petroleum-based products. Activities such as landscaping, can also become sources of releases of hazardous materials with pesticides and herbicides.

The Project would allow for delivery and export of auto parts, and electrical and fork-lift parts, some of which may contain small quantities of hazardous materials. Traditionally common hazards are handled and transported in small quantities, and because health effects associated with them with them are generally not as serious as industrial uses, operation of the new uses on site would not cause a significant impact with the routine use, transport, and disposal of general office and household hazardous materials.

As required by the SBCFD, any storage of hazardous materials and/or waste at the site would be required to submit business information and hazardous materials inventory forms contained in Hazardous Materials Management Plan and Hazardous Materials Business Plan. The SBCFD, as the

CUPA, requires all new businesses to follow applicable regulations and guidelines regarding storage and handling of hazardous waste. All hazardous materials are required to be stored and handled according to manufacturer's directions and local, state and federal regulations including the Hazardous Waste Control Act (California Health and Safety Code Section 25100 et seq.), which is implemented by regulations described in Title 22 CCR. With adherence to existing regulatory requirements, the impact of the routine transport, use or disposal of hazardous materials associated with operation of the Project would be less than significant.

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

Less than Significant Impact. As discussed above in Threshold a), construction activities would require the use of limited quantities of hazardous materials that are normal requirements of the construction process, including fuels, oils, and lubricants for construction equipment; paints and thinners; and solvents and cleaners. These materials would be transported to and from the Project site for use during construction activities. The improper handling and transport of hazardous materials could result in accidental release of hazardous materials, thereby exposing the public or the environment to hazardous materials.

Construction activities would disturb more than one acre and, thus, would be required to implement requirements of the National Pollutant Discharge Elimination System (NPDES) General Construction Permit. This permit requires implementation of best management practices (BMPs) that would include measures to address the safe handling of hazardous materials, and in the unlikely event of an inadvertent release, also requires spill response measures to contain any release of hazardous materials. The use of construction BMPs implemented as part of a Storm Water Pollution Prevention Plan (discussed further in Section 3.10, Hydrology and Water Quality) as required by the NPDES General Construction Permit would minimize the potential adverse effects from accidental release of hazardous materials or wastes. If a spill of hazardous materials on the construction site were to occur, the spilled materials would typically be relatively localized because of the relatively small quantities involved and would be cleaned up in a timely manner in accordance with identified BMPs.

With the required protective measures (including BMPs) and the quantities of hazardous materials typically needed for construction projects, including the proposed Project, the potential hazard or threat to the public or environment from upset and accident conditions during construction hazards would be considered less than significant.

The Project would allow for delivery and export of auto parts, and electrical and fork-lift parts, some of which may contain small quantities of hazardous materials. Additionally, storage of other materials on site may be required and may include fuels, oils, solvents, cleaning products or landscaping pesticides or herbicides. Any use of hazardous materials during the operation of the proposed Project would be required to adhere to the provisions of programs administered by the SBCFD as the CUPA and in compliance with the City's Local Hazard Mitigation Plan (City 2020). With compliance with the existing agencies, and adherence to existing regulations impacts associated with hazardous materials in regards to potential hazards to the public and environment, would be less than significant.

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

No Impact. The closest school to the site is Victoria Magathan Elementary school which is located approximately 0.8 miles southwest of the Project site. No schools are located within a quarter mile of the Project site and as a result there would be no impact related to emissions or handling of hazardous materials within a quarter mile of a school.

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

No Impact. The Project will not be located on a site that is included on a list of hazardous materials sites that are currently under remediation. According to the California State's GeoTracker and Envirostor website (consistent with Government Code Section 65962.5), which provides information regarding Leaking Underground Storage Tanks (LUST), there are no active LUST sites located within the Project site, or within a 1,000-foot radius of the site (SWRCB 2022, DTSC 2022). Therefore, the proposed Project will not create a significant hazard to the population or to the environment. No impacts would occur.

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

Less than Significant Impact. The proposed Project is located just over 2 miles southwest of the Southern California Logistics Airport (SCLA) and is not located within the SCLA boundaries. Additionally, the Project would have a maximum height of 38 feet and 4 inches. Given the proximity from the airport, the proposed building height is not anticipated to interfere with airport operations. Therefore, impacts would be less than significant.

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

Less than Significant Impact. Construction activities would be located within the Project site. Vehicles traveling to and from the Project site would utilize Highway 395 to access the site via Adelanto Road. The City of Adelanto does not identify any evacuation routes within the City, though Highway 395 is the logical north-south regional connecting roadway within the City. No road closures would be required as part of construction of the Project. To ensure adequate circulation during operation, the proposed onsite parking and circulation plans will be reviewed by the local Fire Department and Police Department to ensure that the Project's ingress/egress are adequate for accommodating emergency vehicles. Finally, a construction traffic plan will be required to be submitted to the Fire Department prior to development in order to provide adequate emergency access during construction of the proposed Project. Therefore, the Project would have less than significant impacts on the emergency evacuation plan.

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

Less Than Significant Impact. According to the CAL FIRE, there are no fire hazard zones within the City of Adelanto that are of state responsibility; furthermore, there are no very high fire hazard zones of local responsibility (CalFire 2022). The proposed Project is located in a flat rural area with native desert vegetation within and surrounding the site. This is an area with very little fuel load in the surrounding area that could be susceptible to wildfires. Therefore, because the proposed Project is located outside of the area identified as a high fire hazard zone by CAL FIRE, the proposed Project has a less than significant potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. No mitigation is required.

3.10 HYDROLOGY AND WATER QUALITY

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

3.10.1 Impact Analysis

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

Less than Significant Impact. The proposed Project is located within a developed area within the Mojave River watershed, which is within the Adelanto Planning Area of the Lahontan Regional Water Quality Control Board (RWQCB). The City of Adelanto Water Department (AWD) is responsible for the water supply to the City. The City's water supply comes solely from groundwater production from 15

potable wells in three pressure zones, transmission and distribution pipelines, booster stations and reservoirs. AWD is required to meet potable water quality requirements of the Division of Drinking Water, State Water Resources Control Board (SWRCB), as well as the California Department of Public Health. Typically, the three main sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater, stormwater runoff, and potential discharges of pollutants, such as accidental spills. Municipal wastewater is delivered to AWD, and is processed at the City's activated sludge wastewater treatment facility (WTF) through an operations and maintenance contract with PERC Water Corporation, which meets the waste discharge requirements imposed by the RWQCB.

Project construction would require temporary disturbance of surface soils and removal of vegetative cover through grading and excavation for the Project. Grading activities therefore could potentially result in erosion and sedimentation on site, which may alter the existing drainage pattern. The Project site is relatively flat, so the potential for soil erosion is low, but peak stormwater runoff could result in short-term sheet erosion in areas of exposed soils.

The Project would be required to obtain coverage under a Construction General Permit to comply with NPDES requirements. Compliance with the Construction General Permit would require the development and implementation of a SWPPP and associated BMPs. The BMPs would include measures that would be implemented to prevent discharge of eroded soils from the construction site and sedimentation of surface waters off site. Given the relatively flat topography of the site and implementation of the required SWPPP, construction of the Project would not violate any water quality standards or waste discharge requirements.

Once developed, the Project will increase the imperviousness on the site from its existing conditions with the addition of parking lot and warehouse facility. To prevent significant impacts due to increased runoff at the Project site, stormwater would be collected on site and directed towards two catch basins located in the parking lot area. With implementation of these design features, Project operations would not substantially degrade surface or groundwater quality; impacts would be less than significant.

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

Less than Significant Impact. The Project will be supplied water by the AWD, which utilizes groundwater to supply its customers. As further described in Section 3.19 Utilities and Service Systems below, water demand would be expected to be around 5,944 gallons per day or 6.7 acre feet per year (AFY). The Urban Water Management Plan (UWMP) prepared for the City, notes that by 2025, the City would demand a total of 4,996 AFY of water (City 2021). The proposed Project would represent 0.13 percent of the City's projected water demand by 2025, which is a nominal amount. Furthermore, the 2020 UWMP indicates that AWD's planned water supply meets demand from 2020-2040 (City 2021). Therefore, impacts to groundwater supplies or basins would be less than significant.

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

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

Less Than Significant Impact. Project construction would require temporary disturbance of surface soils and removal of vegetative cover through grading and excavation. Grading activities therefore could potentially result in erosion and sedimentation. The Project site is relatively flat; therefore, the potential for soil erosion is low; however, peak stormwater runoff could result in short-term sheet erosion in areas of exposed soils. Compliance with the Construction General Permit would require the development and implementation of a SWPPP and associated BMPs. Impacts related to erosion and siltation are less than significant.

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

Less than Significant Impact. Implementation of the Project will increase the imperviousness on the site with the addition of the Project on the currently mostly undeveloped land. To prevent significant impacts due to increased runoff at the Project site, stormwater would be collected on site and directed towards two catch basins located in the parking lot area. This system will be designed to capture the peak 100-year flow runoff from the Project site or otherwise be detained on site and discharged in conformance with San Bernardino County requirements. Thus, the implementation of onsite drainage improvements and applicable requirements will ensure that stormwater runoff will not substantially increase the rate or volume of runoff in a manner that would result in flooding on- or off-site. Impacts would be less than significant.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff; or

Less than Significant Impact. As indicated above, the Project will not substantially create or contribute runoff water that would exceed the capacity of existing or planned stormwater capacity, or provide substantial additional sources of polluted water, particularly because the site plan includes catch basins that would be installed in the parking lot area; and other water quality control measures that will collect on-site runoff. The Project will require the implementation of a SWPPP, which will ensure that discharge of polluted material does not occur or is remediated in the event of an accidental spill. At present, the site is mostly pervious and runoff is either retained on site or is directed into adjacent public rights-of-way; thus, with the development of the site as proposed and through development of the planned drainage systems, runoff from the site would be managed more efficiently than that which exists at present. Thus, the implementation of onsite drainage improvements and applicable requirements will ensure that that drainage and stormwater will not create or contribute runoff that would exceed the capacity of existing or planned offsite stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts would be less than significant.

iv) impede or redirect flood flows?

Less than Significant Impact. The Project site does not contain any streams or rivers having the potential to be altered by the Project. In addition, according to Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 06071C5795H, the Project site is designated as Flood Zone X, with a low likelihood of flooding and is not located within a FEMA

100-year flood hazard zone (FEMA 2022). Therefore, impacts associated with impeding or redirecting flood flows would be less than significant.

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

No Impact. The Project would not be susceptible to flood hazards, tsunami, or seiche. Seiche is generally associated with oscillation of enclosed bodies of water typically caused by ground shaking associated with a seismic event; however, the Project site is not located near an enclosed body of water. Flooding from tsunami conditions is not expected since the Project site is located approximately 67 miles from the Pacific Ocean. In addition, the Project site and immediate surrounding area is not located within a flood zone, thus the Project would not risk release of pollutants due to inundation. Therefore, no impacts associated with seiche, tsunami, or flooding would occur.

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

Less than Significant Impact. Please refer to the discussion under issue 3.10.1(b) above. The "2019 Sustainable Groundwater Management Basin Prioritization: Process and Results" document, prepared by the State of California Department of Water Resources, indicates that the Mojave River Basin, which underlies the proposed Project, is under very low priority (SGMA 2020). As stated in the 2019 Basin Prioritization, of the 515 groundwater basins in California, 94 are prioritized as high and medium and 421 are prioritized as low and very low. The Mojave River Basin does not have a sustainable groundwater management plan and the Project will not interfere with the overall water quality of the basin as discussed above. Furthermore, compliance with the State water conservation measures is enforced through AWD visits to operations, such as the proposed Project. As such, the proposed Project would not have a significant potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan and impacts would be less than significant.

3.11 LAND USE AND PLANNING

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

3.11.1 Impact Analysis

a) Would the project physically divide an established community?

Less than Significant. The Project is proposed on a mostly vacant site that is bordered to the north and south by existing industrial uses consisting of self-storage facilities. No other development is

within the vicinity of the Project site. The proposed Project, would infill development between two existing businesses and would not physically divide any existing communities. Impacts would be less than significant.

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

Less than Significant. The Project site has a land use designation and zoning of LM. As shown in Figure 5, existing LM uses are directly east of the Project site and the area in the City known as 'Light Manufacturing District East', which allows for limited manufacturing, warehousing, and solar/wind. Implementation of the Project would not result in a land use or zoning designation that would be surrounded by a different land use or zoning designation, also referred to as 'island' land use or zoning designations.

Additionally, the existing uses north and south of the Project site are largely similar to those of the proposed Project, therefore the proposed uses would be consistent. As shown in Table 3.11-1 below, the Project would be consistent with the applicable land use policies as noted in the Adelanto North 2035 Sustainable Plan.

Table 3.11-1. Land Use and Community Design Policies Consistency Analysis

Land Use and Community Design Policies		Consistency
Goal LC 3: Diverse employment and business opportunities.		
LC 3.1	Establish business and employment land use designations to support employment and economic development.	**Consistent.** The proposed Project would develop a warehouse facility that would employee 20 persons full-time.
LC 3.2	Accommodate industrial, logistics, and warehousing uses to complement the SCLA in the Airport Development District, Business Park District, and Light Manufacturing District East. Ensure the sustainable concepts and practices described in Policy OS 3.2, OS 3.5, OS 4.5, OS 6.1, OS 6.2, OS 6.3, OS 8.2, OS 9.1 are implemented.	**Consistent.** The proposed Project would develop a warehouse facility just over 2 miles from the SCLA. The sustainable concepts listed are analyzed below.
LC 3.3	Provide neighborhood, community and regional commercial services, and retail uses to support the neighborhoods.	**Consistent.** The proposed Project would develop a warehouse facility that would allow for delivery and export of auto parts, and electrical and fork-lift parts that would be used by the City.
LC 3.4	Provide incentives to encourage businesses to locate within the Mixed Use, Business Park, Light Manufacturing, and Manufacturing/Industrial land use designations.	**Consistent.** The proposed Project would be located in the LM land use and zoning designation.
Goal LC 4: Sustainability incorporated into land use patterns and development approaches.		
LC 4.3	Create a sustainable community that is responsive to the environmental,	**Consistent.** The Project would be required to adhere to CalGreen Building Code

	water, and energy conservation needs of the region and local area.	Standards which establish mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. The CALGreen code, includes insulation and design provisions to minimize wasteful energy consumption including low flow toilets, and energy efficient equipment. Compliance with these regulations would improve the efficiency of the overall Project.
Goal LC 5: Adequate infrastructure to meet new development growth.		
LC 5.1	Require new development to pay its fair share of the cost of public facilities, services, and infrastructure, including but not limited to transportation, incremental water supply, sewer and wastewater treatment, solid waste, flood control and drainage, schools, fire and police protection, and parks and recreation.	**Consistent.** As further described in Section 3.15 Public Services, the proposed Project would be require to pay fair share of services where applicable.
Goal LC 6 Natural desert habitat/wildlife and limited residential development/ recreational opportunities are within Open Spaces and Green Belt Corridors.		
LC 6.1	Minimize direct or indirect impacts to sensitive biological resources while optimizing the potential for mitigation.	**Consistent.** As further described in Section 3.4 Biological Resources, the proposed Project would implement mitigation measures for biological resources such that impacts would be less than significant.
Goal LC 7: Passive solar design and green building practices take advantage of Adelanto's solar and wind conditions.		
Consistency analysis with policies LC 7.1-7.11 are in Table 3.6-1.		
LC 7.12	Encourage all plumbing fixtures be certified low water use, and encourage the use of 1/8th gallon urinals (or similar) and dual-flush toilets.	**Consistent.** The Project would be required to adhere to CalGreen Building Code Standards which establish mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. The CALGreen code, includes insulation and design provisions to minimize wasteful energy consumption including low flow toilets, and energy efficient equipment. Compliance with these regulations would improve the efficiency of the overall Project.
LC 7.18	Minimize or eliminate construction waste. Encourage the reduction,	**Consistent.** As further described in Section 3.19 Utilities and Service systems, the

	reusing, and/or recycling of waste materials to minimize disposal to a landfill.	Project would be required to comply with AB 939 and AB 341, which state the City must divert at least 50 percent of its annual waste and set a 75 percent recycling goal for California by 2020.
Goal LC 14: Well-planned and high quality industrial and business parks.		
LC 14.4	Design loading areas with adequate spacing for truck maneuvering without encroaching onto the adjoining street.	**Consistent.** The proposed Project is a warehouse facility that would require deliveries from trucks. The facility would be built to accommodate the trucks without encroaching on the adjoining street.
LC 14.5	Provide the highest level of articulation and architectural features along the front façade.	**Consistent.** The proposed Project would be required to adhere to the City's zoning code and general plan which specifies type and usage for building material and architectural features for all projects.
LC 14.6	Require high quality and well designed signage to direct pedestrians and vehicles to loading and receiving, visitor parking, and other special uses.	**Consistent.** The proposed Project would be required to adhere to the City's zoning code and general plan which specifies type and usage of signage for all projects.
Goal LC 17: A more aesthetically pleasing environments with landscape materials that reflect the Mojave Desert environment		
LC 17.1	Use landscaping to reflect a 'sense of place' that blends in with Mojave Desert and native plant materials.	**Consistent.** Landscaping would be consistent with desert type species and would be low water requirement with minimal irrigation. Landscaping would surround the site and occupy approximately 10.85% of the parcel.
LC 17.2	Provide landscaping plants and materials that complement the Mojave Desert environment and wildlife, lower maintenance requirements, and require low to moderate irrigation requirements.	**Consistent.** Landscaping would be consistent with desert type species and would be low water requirement with minimal irrigation. Landscaping would surround the site and occupy approximately 10.85% of the parcel.
LC 17.4	Use irrigation systems that utilize water conserving methods and incorporate water efficient technologies.	**Consistent.** Landscaping would be consistent with desert type species and would be low water requirement with minimal irrigation. Landscaping would surround the site and occupy approximately 10.85% of the parcel.
LC 17.5	Incorporate sustainable landscaping methods in all new development projects and public realm improvements.	**Consistent.** Landscaping would be consistent with desert type species and would be low water requirement with minimal irrigation. Landscaping would surround the site and occupy approximately 10.85% of the parcel.
Goal OS 3: Energy conservation and renewable energy production is maximized to reduce natural resources and fossil fuels consumption.		
OS 3.1	Promote the use of renewable energy and support efforts to develop small-scale, distributed energy (e.g., solar	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new

	power and wind power) to reduce the amount of electricity drawn from the regional power grid, while providing Adelanto with a greater degree of energy self-sufficiency.	non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
OS 3.2	Encourage new warehousing, manufacturing, industrial, and large commercial retail buildings to be designed to accommodate future rooftop solar panel systems.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
OS 3.5	Require all new development to provide site design and building orientation that take into account passive solar design to reduce heating and cooling loads through energy-efficiency strategies.	**Consistent.** As mentioned previously, the proposed Project would be oriented on an east-west access in order to minimize western sun exposure.
OS 3.8	Conserve energy by promoting efficient and cost-effective lighting that reduces glare and light pollution.	**Consistent.** All lighting on the project site will be required to meet the CalGreen Building Standards, which require the installation of LED or other energy efficient lighting and also requires the use of lighting controls that automatically dim or turn off lights when sensors determine that no people are in the area.
Goal OS 4: Water consumption is reduced through aggressive implementation of conservation policies and programs.		
OS 4.5	Provide for recycled water distribution by requiring recycled water dual piping in new developments, retrofitting existing landscaped areas, and constructing recycled water pumping stations and transmission mains to reach areas far from the treatment plants.	**Consistent.** The City currently does not distribute recycled water, therefore the Project cannot currently plan for recycled water consumption. However, if it does become available, the Applicant will evaluate the possibility of utilizing recycled water for landscaping needs.
Goal OS 6: Local air quality is good; local contributions of airborne pollutants to the air basin is reduced.		
OS 6.1	Pursue efforts to reduce air pollution and greenhouse gas emissions by promoting the use of renewable energy (e.g., solar and wind power), and implement effective energy conservation and efficiency measures.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
OS 6.2	Integrate air quality planning with land use, economic development, and transportation planning.	**Consistent.** The proposed Project would infill development between two existing developments on a parcel otherwise currently underdeveloped. Required utilities including roadways are nearby for easy

		connections and would not require extensive construction to connect to.
OS 6.3	Require projects that generate potentially significant levels of air pollutants and odors to incorporate the most effective air quality mitigation into project design, as feasible.	**Consistent.** As discussed in Section 3.2, Air Quality above, the proposed Project would not have any impacts on air quality or odors.
Goal OS 8: Greenhouse gas emissions are minimized due to the efficient use and management of energy resources.		
OS 8.2	Reduce greenhouse gas emissions caused from the use of electricity and natural gas by residential, commercial, industrial, and municipal buildings.	**Consistent.** The Project would be required to adhere to CalGreen Building Code Standards which establish mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. The CALGreen code, includes insulation and design provisions to minimize wasteful energy consumption including low flow toilets, and energy efficient equipment. Compliance with these regulations would improve the efficiency of the overall Project.
Goal OS 9: Sustainable neighborhood development principles, green infrastructure, and green buildings are found throughout Adelanto North.		
OS 9.1	Encourage and support green building principles in Adelanto	**Consistent.** The Project would be required to adhere to CalGreen Building Code Standards which establish mandatory green building standards for all buildings in California. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality. The CALGreen code, includes insulation and design provisions to minimize wasteful energy consumption including low flow toilets, and energy efficient equipment. Compliance with these regulations would improve the efficiency of the overall Project.

Since the Project would be consistent with the applicable land use policies and the proposed uses would be consistent with the LM land use designation and zoning, impacts would be less than significant.

3.12 MINERAL RESOURCES

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

3.12.1 Impact Analysis

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

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

No Impact. The proposed site for the project is located within land designated for mixed use, which is a designation that does not include mining operations as a permitted use. According to the Adelanto North Sustainable Plan, the only designation in which mineral resource mining is permitted, are in Open Space uses (City 2014). Additionally, CalGem Well Finder shows no wells on the Project site or in the area (CalGem 2022). Given that the Project site does not have an open space designation, and does not currently extract any minerals on site, , the development of the Project will not cause any loss of mineral resource values to the region or residents of the state, nor would it result in the loss of any locally important mineral resources identified in the City's General Plan. No impacts would occur.

3.13 NOISE

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

3.13.1 Environmental Setting

Noise is generally described as unwanted sound. The Project has two storage facilities located to the north and south of the Project site, with the US-395 to the west, and vacant land to the east.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called "A-weighting," written as "dBA."

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

3.13.2 Impact Analysis

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

Less than Significant Impact.

Construction

Short-term construction noise impacts associated with the proposed Project will occur in phases as the Project site is developed. The earth-moving sources are the noisiest type of equipment typically ranging from 82 to 85 dB at 50 feet from the source. Construction equipment generates noise that ranges between approximately 75 and 90 dBA at a distance of 50 feet. Table 3.13-1 shows construction equipment noise levels at 25, 50 and 100 feet from the noise source. Section 17.90.020 of the Adelanto Municipal Code limits the hours of construction as follows:

To reduce potential noise and air quality nuisances, the following items shall be listed as "General Notes" on the construction drawings:

Construction activity and equipment maintenance is limited to the hours between 7:00 a.m. to dusk on weekdays. Construction may not occur on weekends or State holidays, without prior consent of the Building Official. Non-noise generating activities (e.g. interior painting) are not subject to these restrictions. City and State construction projects, such as road re-building or resurfacing, and any construction activity that is in response to an emergency, shall be exempt from this requirement.

Table 3.13-1. Noise Levels of Construction Equipment at 25, 50, and 100 Feet (in dBA Leq) from the Source

Equipment	Noise levels at 25 feet	Noise Levels at 50 Feet	Noise Levels at 100 Feet
Earth Moving			
Front Loader	85	79	73
Backhoes	86	80	74
Dozers	86	80	74
Tractors	86	80	74
Scrapers	91	85	79
Trucks	91	85	79
Material Handling			
Concrete Mixer	91	79	70
Concrete Pump	84	78	72
Crane	89	83	77
Derrick	94	88	82
Stationary Sources			
Pumps	82	79	70
Generator	84	78	72
Compressors	87	81	75
Other			
Saws	84	78	72
Vibrators	82	76	70

Source: U. S. Environmental Protection Agency "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances" December 31, 1971

The Adelanto Municipal Code also limits stationary construction equipment from exceeding 65 dBA at the nearest residence, and enforces that all construction related truck trips must be limited to the Adelanto designated truck routes. The proposed Project would be constructed in compliance with the City's Noise Performance Standards, and therefore construction of the Project would be less than significant.

Operations

Noise generated as a result of the Project would attenuate to a less than significant level, or an inaudible level by the time it reached the residences approximately 2,500 feet to the south. The primary source of noise generated as a result of the operation of the warehouse facility will be vehicular traffic entering, exiting and accessing the site, maintenance equipment that may be required

as needed, heating, ventilation and air conditioning units. The City of Adelanto does not identify exterior noise standards for industrial land uses; but indicates that, unless a sensitive use in proximity to a site would be impacted, industrial uses do not have a CNEL limit within which to operate. Noise attenuates at a rate of approximately 6 to 7 decibels per doubling of distance, and much like construction noise, equipment required to operate the warehouse facility will generate some noise, it would be consistent with noise produced by the adjacent storage facilities. Given the distance from the nearest residence to the Project site—about 2,500 feet to the south—the noise environment at the nearest residence will be well within the levels deemed acceptable by the City. With no sensitive receptors nearby, the proposed Project would not expose of persons to or generation of noise levels in excess of established standards. Thus, based on the existing noise environment within this industrial corridor, neither operation or construction of the proposed Project would violate noise standards outlined in the City of Adelanto Development Code. Impacts would be less than significant.

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

Less than Significant Impact. Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne vibrations include natural phenomena (e.g. earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g. explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The Federal Transit Authority (FTA) Noise and Vibration Assessment states that in contrast to airborne noise, ground-borne vibration is not a common environmental problem (FTA 2006). Although the motion of the ground may be noticeable to people outside structures, without the effects associated with the shaking of a structure, the motion does not provoke the same adverse human reaction to people outside. Within structures, the effects of ground-borne vibration include noticeable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. The FTA Assessment further states that it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. However, some common sources of vibration are trains, trucks on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment. The FTA guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential Project related vibration impacts.

Due to the relatively compact size of the Project site, and the lack of any sensitive receptors within a reasonable distance of the Project site, the proposed Project will not expose people to generation of excessive groundborne vibration or groundborne noise levels. During construction, certain construction activities have some potential to create vibration, but due to the size of the site and lack of sensitive receptors, any impacts are considered less than significant. Furthermore, the City of Adelanto Municipal Code Section 17.90.030 places restrictions on vibration such that no ground vibration shall be allowed which can be felt without the aid of instruments at or beyond the subject property line. The proposed Project would comply with this restriction because no sensitive receptors exist within the vicinity of the Project that would be impacted by project related vibration. Additionally, because the rubber tires and suspension systems of heavy trucks and other on-road

vehicles provide vibration isolation and reduced noise, it is unusual for on-road vehicles to cause noticeable groundborne noise or vibration impact. Most problems with on-road vehicle-related noise and vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. The proposed Project would be constructed with smooth new pavement throughout the Project and would not result in significant groundborne noise or vibration impacts from vehicular traffic. Thus, any impacts under this issue are considered less than significant

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

No Impact. The proposed Project is located over two miles from the nearest airport, SCLA, and is not located within any airport plan boundaries. No impact regarding noise levels adjacent to an airport would occur.

3.14 POPULATION AND HOUSING

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

3.14.1 Impact Analysis

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

Less Than Significant Impact. The proposed Project will employ about 20 persons in support of Project operations, and about 30 persons in support of construction of the proposed Project. Implementation of the Project would not result in the construction of new homes or result in the extension of roads or other infrastructure. Construction of the Project would result in the generation of temporary construction jobs; however, the additional jobs are expected to be filled by residents who currently live in the area. In addition, new jobs generated by the operation of the facility are also expected to be filled by nearby residents; therefore, the jobs would not result in the relocation of any population. The Project would not directly or indirectly induce substantial population growth through the creation of new homes or businesses, and impacts would be less than significant.

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

No Impact. No occupied structures exist within the Project site and as such, no residences or persons are located on the Project site; therefore, implementation of the proposed Project will not displace substantial numbers of existing housing or persons, necessitating the construction of replacement housing elsewhere. No impacts will occur.

3.15 PUBLIC SERVICES

15.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
	i) Fire Protection?	☐	☐	☒	☐
	ii) Police Protection?	☐	☐	☒	☐
	iii) Schools?	☐	☐	☐	☒
	iv) Parks?	☐	☐	☐	☒
	v) Other public facilities?	☐	☐	☒	☐

3.15.1 Impact Analysis

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

Less Than Significant Impact. The San Bernardino County Fire Department (SBCFD) provides fire protection and emergency medical services for the City. It would take approximately 5 minutes for SBCFD to reach the site from Station #322 (Google 2022). Emergency access to the Project site will be provided by the entrance on Adelanto Road. The proposed Project will incrementally add to the existing demand for fire protection services. Cumulative impacts are mitigated through the payment of a Fire Impact Fee, which is intended to provide funds directed towards fire protection. Additionally standard conditions will be imposed by the City and the Fire Department to ensure adequate fire flow at the proposed Project. Therefore, impacts are expected to be less than significant.

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

Less Than Significant Impact. The City of Adelanto receives police services through the San Bernardino County Sheriff Department. The Department enforces local, state, and federal laws; performs investigations and makes arrests; administers emergency medical treatment; and responds to County

emergencies. The Victor Valley Patrol Station is located at 11613 Bartlett Avenue, Adelanto, California 92301. The Victor Valley Station has one captain, one lieutenant, eight sergeants, seven detectives, fifty eight patrol deputies, three sheriff's service specialist, seven office specialists, two office assistants, one secretary and one automotive officer. The proposed Project will result in a marginal increase in demand for police services. Access to the site for Police protection services will be provided at the entrance to the Project site on Adelanto Road. These incremental impacts are mitigated through the contribution to the City's General Fund through revenues generated by the Project. Therefore, impacts are expected to be less than significant.

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

No Impact. The proposed Project is a warehouse facility that as discussed in Section 3.14 Population and Housing, is not expected to result in an increase to the existing population, and would therefore, not result in an increase in students or need for schools. The Adelanto Elementary School District and the Victor Valley Union High School District requires residential and commercial developments to pay School District Fees. Industrial projects such as the proposed Project are not required to pay these fees. Therefore, no impacts would occur.

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

No Impact. As previously mentioned, the proposed Project is not expected to result in an increase to the existing population, and would therefore, not result in an increase to park usage. The proposed Project will not directly add to the existing demand on local recreational facilities. The City of Adelanto collects a park and recreation impact fee from residential projects. At present, the City does not require industrial projects such as the proposed Project, to contribute fees to parks and recreation. Therefore, no impacts on parks and recreation facilities would occur.

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

Less Than Significant Impact. Other public facilities include library and general municipal services. Since the Project will not directly induce substantial population growth, it is not forecast that the use of such facilities will substantially increase as a result of the proposed Project. The Adelanto North 2035 Sustainable Plan states the following Policy, "Use development impact fees to fund library facilities, equipment, and programs that are needed as a result of new development projects." These fees are not currently enforced by the City; however, the Project will contribute to the City's General Fund through revenues generated by the Project, which may be used in support of Library services, and which are considered sufficient to offset any impacts to other public facilities as a result of implementing the Project. Therefore, impacts are expected to be less than significant.

3.16 RECREATION

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

3.16.1 Impact Analysis

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

No Impact. The Project involves creation of a new warehouse and, therefore, use of the site would be substantially similar to adjacent uses of the facilities to the north and south of the site. As previously mentioned, additional jobs generated by the Project are expected to be filled by residents who currently live in the area; and jobs would not result in the relocation of any population. Thus, the Project would not increase the use of the existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would be accelerated. No impact would occur.

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

No Impact. The Project is a warehouse project and does not involve construction or expansion of recreational facilities; no impact would occur.

3.17 TRANSPORTATION

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

3.17.1 Environmental Setting

A VMT Analysis was prepared for the Project by General Technologies and Solutions (GTS). This memo is provided as Appendix D. The Project VMT analysis was conducted using the City of Adelanto's "Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS)" (Guidelines), dated July 2020. The guidelines included project screening criteria which was reviewed for the Project evaluation. The Project doesn't qualify for VMT screening under any of the established screening criteria. A full VMT analysis was conducted using San Bernardino County Transportation Analysis Model (SBTAM), as recommended in the City's guidelines.

SBTAM model is a socioeconomic data-based model and so the Project land use was converted into model employment categories using conversion factors that were developed from the ITE Trip Generation Manual trip rate data. The land use conversion yielded a total of 17 employees, however, the operational statement for the Project included a total of 20 employees at the Project site. Number of employees from the operational statement was used in the VMT analysis for a conservative scenario.

3.17.2 Impact Analysis

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

Less than Significant Impact. The proposed Project is located off of Adelanto Road between of Rancho Road and Holly Road. According to the Adelanto North 2035 Sustainable Plan, Adelanto Road is intended to be a Major Boulevard (4 lanes, pedestrian oriented with Class II bike lanes). Traffic along this roadway is minimal at present, as this corridor consists mostly of vacant lots from Highway 395 between Holly Road and Rancho Road, but experiences higher levels of traffic from events at Adelanto Plaza and Event Center.

It is anticipated that the volume of traffic generated by the proposed Project will average at 101 trips per day. This is inclusive of 13 A.M. trips per day and 14 P.M. trips per day. Deliveries and truck trips related to operations of the proposed Project are anticipated to have a potential to occur on a weekday basis, with an estimated average of 15 round trips per day. Based on the planned capacities of the adjacent roadways, and that the Project will contribute a minimal amount of traffic to the surrounding roadways, the proposed Project has a less than significant potential to conflict with a program, plan, ordinance or policy addressing the roadway circulation system.

The Adelanto North 2035 Sustainable Plan states that "the [Victor Valley Transit Authority] VVTA's Comprehensive Transit Plan proposes the following service improvements and addresses general changes that can benefit the entire VVTA network." At present, no bus service is provided in the immediate vicinity of the Project site; however, the nearest route (Route 33) stops about 5,000 feet southeast of the Project site at Cactuc Road and Caliente Road/Highway 395. As stated above, Adelanto Road is planned to eventually accommodate a Class II Bikeway (bike lane) and eventually will include sidewalks to accommodate pedestrians, but at present, the roadway adjacent to the Project site is not paved, and it is unknown when in the future the planned infrastructure will be installed in this area. Given the lack of available alternative modes of transportation in the Project area, the proposed Project has a less than significant potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

In addition, during construction of the Project, activities would be restricted to the Project site and would not interfere with roadway traffic. All construction equipment would be stored on site and would also not block the roadway. Therefore, the Project would not conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities and would not otherwise substantially reduce the performance or safety features of such facilities.

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

Less than Significant Impact. Both baseline (2016) and horizon year (2040) model runs were used to estimate Project's VMT impacts. SBTAM socioeconomic databases for the scenarios were updated with the project land use to calculate Project VMT. Typically, Project VMT is calculated by isolating the project in a new TAZ or multiple TAZs depending on the diversity of project land uses and project size. Since, SBTAM does not allow addition of new TAZs, one TAZ was borrowed for this Project. The Project TAZ was utilized to calculate Project specific VMT per service population.

The Project and Roadway VMT analysis for both 2016 and 2040 at both the Project and County levels, is provided in Table 3.17-1.

Table 3.17-1. VMT Analysis Results

Year	Project	County
Project Level Analysis		
2016	16.9	26.4
2040	14.1	27.5
Roadway Level Analysis		
2016	19.6	19.6
2040	23.6	23.7

As shown in Table 3.17-1, for both 2016 and 2040 conditions, the Project's VMT per service population is less the County's per service population. Based off the VMT results, the Project would not constitute a significant impact for both Project generated VMT and the Project's effects on VMT. Therefore, a less than significant impact would occur.

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

Less than Significant Impact. The Project consists of a new warehouse facility with parking, landscaping, and other associated improvements. The Project does not include any hazardous design features such as sharp curves or dangerous intersections and is compatible with surrounding uses, which are mainly industrial. Impacts would be less than significant.

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

Less than Significant Impact. The proposed Project consists of activities that would take place along Adelanto Road. Vehicles traveling to and from the Project site would utilize Highway 395 to access the site via Adelanto Road. The City of Adelanto does not identify any evacuation routes within the City, though Highway 395 is the logical north-south regional connecting roadway within the City.

Additionally, to ensure adequate circulation during operation, the proposed onsite parking and circulation plans will be reviewed by the local Fire Department and Police Department to ensure that the Project's ingress/egress are adequate for accommodating emergency vehicles. Finally, a construction traffic plan will be required to be submitted to the Fire Department prior to development in order to provide adequate emergency access during construction of the proposed Project. As such, the proposed Project would not result in inadequate emergency access and impacts would be less than significant.

3.18 TRIBAL CULTURAL RESOURCES

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

3.18.1 Environmental Setting

On April 1, 2022, Chambers Group requested that the Native American Heritage Commission (NAHC) conduct a search of its Sacred Lands File (SLF) to determine if Tribal Cultural Resources (TCR) important to Native Americans have been recorded in the Project site and 0.5-mile study area. PRC Section 21074 defines a resource as a TCR if it meets either of the following criteria:

1. sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources; or
2. a resource that the lead agency determines, in its discretion, is a tribal cultural resource

On May 13, 2022, Chambers Group received a response from the NAHC stating that the search of its Sacred Lands File was negative for the presence of Native American cultural resources within Project site and the record search study area.

The Project site is located within the City of Adelanto, which has been contacted pursuant to Public Resources Code Section 21080.3.1 by the following California Native American tribes traditionally and

cultural affiliated with the City of Adelanto: Torres Martinez Desert Cahuilla Indians, San Manuel Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians.

The proposed Project does not require AB 52 or SB 18 consultation. Nonetheless, as a good faith effort, the City of Adelanto initiated tribal consultation for the Project on July 13, 2022, reaching out to the Native American tribes, which included six tribal groups, to discuss their knowledge of the Project area. Only two tribes have responded: the Agua Caliente Band of Cahuilla Indians (ACBCI) and the Yuhaaviatam of San Manuel Nation (YSMN).

3.18.2 Impact Analysis

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

Less Than Significant Impact. As previously mentioned, as of the date of this document, only two tribes have responded to the City's outreach. The ACBCI responded via e-mail on July 14, 2022, stating that the Project site is outside their Tribal Traditional Use Area, and deferring to more local tribal groups. The YSMN (formerly known as the San Manuel Band of Mission Indians) responded via e-mail on August 11, 2022 and again on August 25, 2022, noting that the Proposed Project area exists within Serrano ancestral territory and, therefore, is of interest to YSMN. The YSMN stated that YSMN does not have any concerns with the Project's implementation, as planned, at this time; however, they did request that additional language be provided as part of the Project. These recommendations have been included as best management practices (BMPs) to ensure that any inadvertent discoveries of cultural resources are addressed, assessed, and protected appropriately, as well as verifying that the Tribe is notified appropriately of any cultural resources discovered throughout the Project. These practices (previously mentioned OS-13 and OS-14 in Section 3.5 and 3.7, respectively), and BMP-TCR-1 and BMP-TCR-2 are intended to ensure that any inadvertent discoveries of TCRs are addressed, assessed, and protected appropriately, as well as verifying that the Tribe is notified appropriately of any cultural resources discovered throughout the Project.

As previously stated, the Project site consists of a trailer, concrete pads, storage boxes, and fence, with scattered native vegetation covering the site. During earth moving activities, implementation of the following BMPs shall be included as part of the construction process.

BMP-TCR-1: The YSMN Cultural Resources Department shall be contacted, as detailed in CUL-1, of any pre-contact cultural resources discovered during Project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resource Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the Project, should YSMN elect to place a monitor on-site.

BMP-TCR-2: Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the Project.

Therefore, the Project would not create a substantial adverse change to the significance of a tribal resources with compliance with the City's policies and BMPs. Impacts would be less than significant.

b) *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?*

Less Than Significant Impact. The Project is subject to compliance with the City's Policy Implementation Program in addition to onsite BMPs. A good faith effort was conducted by the City to communicate with the California Native American Tribal representatives with regard to the Project. No TCRs were identified during the outreach, and the City has not identified any TCRs within the Project site. Furthermore, results from the field survey and records search indicated that no previously recorded historic cultural resources have been documented within the proposed Project site. Impacts therefore are less than significant with regard to resources of significance to a California Native American tribe. To address any unanticipated tribal cultural resources that may be discovered on the Project site during ground disturbing activities associated with Project construction, compliance with the City's Policy Implementation Program in addition to onsite BMP-TCR-1, BMP-TCR-2 would ensure impacts to be less than significant to undiscovered resources.

3.19 UTILITIES AND SERVICE SYSTEMS

19.	UTILITIES/SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
(b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
(c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐

19.	UTILITIES/SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
(e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid wastes?	☐	☐	☒	☐

3.19.1 Impact Analysis

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

Less Than Significant Impact. Impacts on utilities and service systems would be less than significant as further described below.

Water

Potable water required by the Project would be supplied by the City. The City of Adelanto's AWD is responsible for the water supply for the City. The City's water supply comes solely from groundwater production from 15 potable wells. The City projected water supplies and demand in the 2020 Urban Water Management Plan (UWMP) and noted adequate supply through the year 2045 (City 2021). Construction activities associated with the Project are not expected to require a large amount of water due to the small amount of paving and water from the fire hydrant would be utilized as needed. The Project would connect to existing pipelines located along Adelanto Road. The installation of this pipeline underground would not cause any significant environmental effects and, as discussed under Threshold b below, the water system will not require expansion of existing water facilities beyond the construction of the conveyance pipeline to the proposed Project. Therefore, development of the Proposed Project would not result in a significant environmental effect related to the relocation or construction of new or expanded water facilities.

Wastewater

The City operates an upgraded 4.0 million gallons per day (MGD) activated sludge wastewater treatment facility through an operations and maintenance contract with PERC Water Corporation. All wastewater generated by the Project, once developed, will be delivered to AWD. The AWD Wastewater Treatment Plant treats approximately 1.5 MGD of wastewater at present, which leaves approximately 2.5 MGD of capacity remaining (City 2022).Based on the wastewater generation rates calculated under Threshold c below, the Project would represent a nominal increase in available capacity. The Project would connect to existing facilities along Adelanto Road. Therefore, development of the Project would not result in a significant environmental effect related to the relocation or construction of new or expanded wastewater facilities.

Stormwater

Stormwater would flow to catch basins which would be installed in the parking lot area. The drainage would be designed to capture the incremental increase in runoff from the Project site associated with Project development. This system will be designed to intercept the peak 100-year flow rate from the Project site. The downstream drainage system will not be altered and given the control of future surface runoff from the Project site; therefore, surface water will be adequately managed on site and as such, development of the Project would not result in a significant environmental effect related to the relocation or construction of new or expanded stormwater facilities. A full discussion of potential impacts to Hydrology and Water quality is provided under Section 3.10 of this document.

Electric Power

Electric power would be provided by SoCal Edison with nearby power delivery lines along Adelanto Road. Therefore, development of the warehouse facility would not result in a significant environmental effect related to the relocation or construction of new or expanded electrical power facilities.

Natural Gas

Natural gas will be supplied by Southwest Gas Company. The site will connect to the existing natural gas line along Adelanto Road. This effort to connect the site to natural gas is not anticipated to result in significant impacts, as evidenced by the discussions in preceding sections. Therefore, development of the warehouse facility would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities.

Telecommunications

Development of the warehouse facility would require installation of telecommunication services, including wireless internet service and phone service. This can be accomplished through connection to existing services that are available to the developer at the Project site. Therefore, development of the facility would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunications facilities.

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

Less Than Significant Impact. The City of Adelanto's AWD is responsible for the water supply for the City. The City's water supply comes solely from groundwater production from 15 potable wells. The City's water system delivers water to three pressure zones and consists of the aforementioned wells, transmission and distribution pipelines, booster stations and reservoirs. As mentioned in Threshold c below, the Project is expected to generate approximately 4,755 gallons of wastewater per day. Typically, water demand is 125 percent of wastewater generation, which would mean that water demand would be expected to be around 5,944 gallons per day or 6.7 acre feet per year (AFY). The Urban Water Management Plan (UWMP) prepared for the City, notes that by 2025, the City would demand a total of 4,996 AFY of water (City 2021). The proposed Project would represent 0.13 percent of the City's projected water demand by 2025, which is a nominal amount. Furthermore, the 2020 UWMP indicates that AWD's planned water supply meets demand from 2020-2040 (City 2021). Through the payment of water standby charges, hookup and connection fees, the impact of implementing the proposed Project on water systems would be less than significant.

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

Less Than Significant Impact. The AWD Wastewater Treatment Plant has a capacity of 4.0 MGD. The AWD Wastewater Treatment Plant treats approximately 1.5 MGD of wastewater at present, which leaves approximately 2.5 MGD of capacity remaining (City 2022). According to the San Bernardino Countywide Plan EIR, light industrial uses would generate approximately 1,500 gallons per acre per day (Countywide 2019). Based on this information, the Project would be expected to generate approximately 4,755 gallons per day or 0.0005 MGD which represents about 0.019 percent of the total remaining capacity at the Wastewater Treatment Plant. This would be considered a nominal amount. Thus, the proposed Project will consume some capacity of the existing AWD Wastewater Treatment Plant, but not a significant amount such that it would result in a determination by the wastewater treatment provider which serves or may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments. Impacts would be less than significant.

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

Less Than Significant Impact. The proposed Project will generate demand for solid waste service system capacity and has a potential to contribute to potentially significant cumulative demand impacts on the solid waste system. Solid waste generation rates shown on CalRecycle are segregated by sector, and state that warehouse uses such as that which this Project proposes can produce 13.82 pounds per employee per day (lbs/employee/day) (CalRecycle 2019). According to the applicant provided data, approximately 20 employees would be onsite during operations, which would equate to approximately 276.4 pounds of solid waste per day, 0.13 tons per day, or 50.44 tons of solid waste per year. The Victorville Sanitary Landfill has adequate capacity to handle the waste generated associated with construction and operations of the proposed Project. According to the CalRecycle, the maximum permitted capacity of Victorville Sanitary Landfill is 93,400,000 Cubic Yards (CY), while its remaining capacity is 79,400,000 CY; the Victorville Sanitary Landfill can accept 3,000 tons per day (CalRecycle 2022). The proposed Project would represent 0.13 tons per day of the allowed 3,000 tons per day, which is a nominal increase.

The City of Adelanto contracts with Burrtec Waste and Recycling Services to provide commercial trash services. It is not anticipated that the Project will generate a significant amount of construction waste, as the Project site has minimal existing materials on site. Additionally, the Project would require 1,190 cubic yards of cut and 4,850 cubic yards of fill, resulting in an import total of 3,660 cubic yards so no soil would be required to be removed from the site. Therefore, impacts would be less than significant.

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

Less Than Significant Impact. The Project consists of creation of a new warehouse and associated utilities; therefore, no major demolition is anticipated for the Project. Project operations would receive raw materials, resulting in minimal waste. Additionally, the Project would be required to comply with AB 939 and AB 341, which state the City must divert at least 50 percent of its annual

waste and set a 75-percent recycling goal for California by 2020. Compliance with these measures would ensure that impacts would remain less than significant.

3.20 WILDFIRE

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

3.20.1 Impact Analysis

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

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

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

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

No Impact. According to the CAL FIRE, there are no fire hazard zones within the City of Adelanto that are of state responsibility; furthermore, there are no very high fire hazard zones of local responsibility (CalFire 2022). The Project area is located within an area with very little fuel load in the surrounding area that could be susceptible to wildfires and is located within an area removed from the high fire hazard areas that are located adjacent to the San Bernardino Mountains to the south. The Project area is located within an area in a low-lying flat area of the City with very little fuel load and minimal chance for flooding or landslides, and is located within an area removed from the high fire hazard areas that are located adjacent to the San Bernardino Mountains to the south.

Additionally, as previously discussed, the City of Adelanto does not identify any evacuation routes within the City, though Highway 395 is the logical north-south regional connecting roadway within the City. No road closures would be required as part of construction of the Project. To ensure adequate circulation during operation, the proposed onsite parking and circulation plans will be reviewed by the local Fire Department and Police Department to ensure that the Project's ingress/egress are adequate for accommodating emergency vehicles.

Since there are no state or local responsibility areas for very high fire hazard zones on or near the Project site, no impacts would occur.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

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

3.21.1 Impact Analysis

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

Less Than Significant Impact. As described in Section 3.4 Biological Resources and Section 3.5 Cultural Resources, impacts to both biological resources and cultural resources would remain less than significant with adherence to regulatory compliance measures. Implementation of the proposed Project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range

of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory. Therefore, impacts would be less than significant.

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

Less Than Significant Impact. The potential for cumulative impacts occurs when the independent impacts of the Project are combined with the impact of related projects in proximity to the Project such that impacts occur that are greater than the impacts of the Project alone. As discussed above, it has been determined that the Project would have no impact, or impacts would be less than significant. Since these impacts associated with the proposed Project would not be significant when compared to applicable thresholds, none of the impacts associated with the proposed Project would make cumulatively considerable, incremental contributions to significant cumulative impacts. Impacts would be less than significant.

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

Less than Significant Impact. Effects to human beings are generally associated with air quality, noise, traffic safety, geology/soils, and hazards/hazardous materials. As discussed in the previous environmental topic areas, the Project would not result in significant impacts to human beings because the Proposed Project would not cause significant impacts to air quality, noise, hazards, and traffic that would impact humans in the area. The impacts to human beings as a result of the Project would be less than significant.

SECTION 4.0– REFERENCES

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APPENDIX B **Biological Resources Reconnaissance Assessment for the 16454 Adelanto Road Warehouse Distribution Facility Project prepared by Chambers Group, June 6, 2022.**

APPENDIX C **Cultural Resources Study Letter Report for the 16454 Adelanto Road Warehouse Distribution Facility, prepared by Chambers Group, August 25, 2022. Updated October 27, 2022.**

APPENDIX D **Vehicle Miles Traveled (VMT) Analysis – 16454 Adelanto Road Warehouse, prepared by General Technologies and Solutions (GTS), May 16, 2022; Updated October 27, 2022.**

APPENDIX A – Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis for 16454 Adelanto Road Warehouse Distribution Facility Project prepared by Vista Environmental, August 17, 2022. Revised October 28,2022.

AIR QUALITY, ENERGY, AND GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

16454 ADELANTO ROAD WAREHOUSE DISTRIBUTION FACILITY PROJECT

CITY OF ADELANTO

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Project No. 22017

August 17, 2022
Rev. October 28, 2022

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BSFC	Brake Specific Fuel Consumption
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
Cf_4	tetrafluoromethane
C_2F_6	hexafluoroethane
CH_4	Methane
City	City of Adelanto
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
ºF	Fahrenheit
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
GWP	Global warming potential
HAP	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
kWhr	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds

MATES	Multiple Air Toxics Exposure Study
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NO_x	Nitrogen oxides
NO_2	Nitrogen dioxide
OPR	Office of Planning and Research
Pfc	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PPM	Parts per million
PPB	Parts per billion
PPT	Parts per trillion
RTIP	Regional Transportation Improvement Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SBCOG	San Bernardino Council of Governments
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SF_6	Sulfur Hexafluoride
SIP	State Implementation Plan
SO_x	Sulfur oxides
TAC	Toxic air contaminants
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile organic compounds

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Air Quality, Energy, and Greenhouse Gas (GHG) Emissions Impact Analysis has been completed to determine the air quality, energy, and GHG emissions impacts associated with the proposed 16454 Adelanto Road Warehouse Distribution Facility project (proposed project). The following is provided in this report:

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

1.2 Site Locations and Study Area

The project site is located at 16454 Adelanto Road in the City of Adelanto (City). The approximately 3.17-acre project site is currently mostly vacant other than a mobile home and various pieces of equipment. The project site is bounded by a self storage facility to the north, Adelanto Road and vacant land to the east, a self storage facility to the south, and Highway 395 and vacant land to the west. The project local study area is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are tract homes located as near as 2,300 feet (0.44 mile) to the south of the project site. The nearest school is Victoria Magathan Elementary School, which is located as near as 0.8 mile southwest of the project site.

1.3 Proposed Project Description

The proposed project consists of grading the vacant site (current owner will remove mobile home and various equipment) and construction and operation of a one story, 49,798 square foot (sq. ft.) warehouse distribution facility (proposed project). The facility would have 27 loading docks; three at level height and 24 at dock height. The proposed project would also contain offices, two restrooms, a break room, a guard house, and a trash enclosure. The project site would contain 43 parking spaces and two ADA compliant

parking spaces. The majority of the parking and facility would be contained behind a security gate that would be operated by the staff in the guard house. An underground detention system would be used in the drive aisle to help with offsite flows. The proposed site plan is shown in Figure 2.

The facility would likely be staffed 14 hours a day (Monday through Friday) from approximately 7:00 A.M. until 9:00 PM, and would be operated with approximately 20 employees including those in the guard shack provided onsite. LED lighting would be provided at night for security purposes and would comply with the City lighting requirements. Approximately 15 truck trips would be completed per working day. The site would allow for delivery and export of auto parts, and electrical and fork-lift parts. No cooling or cold storage would be required.

1.4 Executive Summary

Standard Air Quality, Energy, and GHG Regulatory Conditions

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

MDAQMD Rules

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

- Rule 401 Visible Emissions – Limits fugitive dust emissions;
- Rule 402 Nuisance – Controls the emissions of odors and other air contaminants;
- Rule 403 and 403.2 Fugitive Dust – Controls the emissions of fugitive dust;
- Rule 442 Solvents – Establishes VOC content limits in solvents;
- Rules 1103 Cutback and Emulsified Asphalt – Controls the VOC content in asphalt; and
- Rule 1113 Architectural Coatings - Controls the VOC content in paints and solvents.

State of California Rules

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

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

Summary of Analysis Results

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

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

Less than significant impact.

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

Less than significant impact.

Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact.

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

Less than significant impact.

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

Less than significant impact.

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

Less than significant impact.

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

Less than significant impact.

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

Less than significant impact.

1.5 Project Design Features Incorporated into the Proposed Project

This analysis was based on implementation of the following project design features that the project applicant has committed to implementing. According to *Forklift Market Analysis, 2016-2027,* prepared by Grand View Research, 2019, currently two-thirds of all new forklifts sold will be electric-powered and by 2027 three-quarter of all new forklifts will be electric-powered. As such Project Design Feature 1 is based on current market trends, as it would not be cost-effective to install the diesel tanks onsite for the limited duration of use of diesel-powered equipment onsite.

Project Design Feature 1:
All off-road equipment (non-street legal), such as forklifts and street sweepers, used onsite for warehouse operations shall be powered by alternative fuels, electrical batteries or other alternative/non-diesel fuels (e.g., propane or compressed natural gas (CNG)) that do not emit diesel particulate matter, and that are low or zero emission.

1.6 Mitigation Measures for the Proposed Project

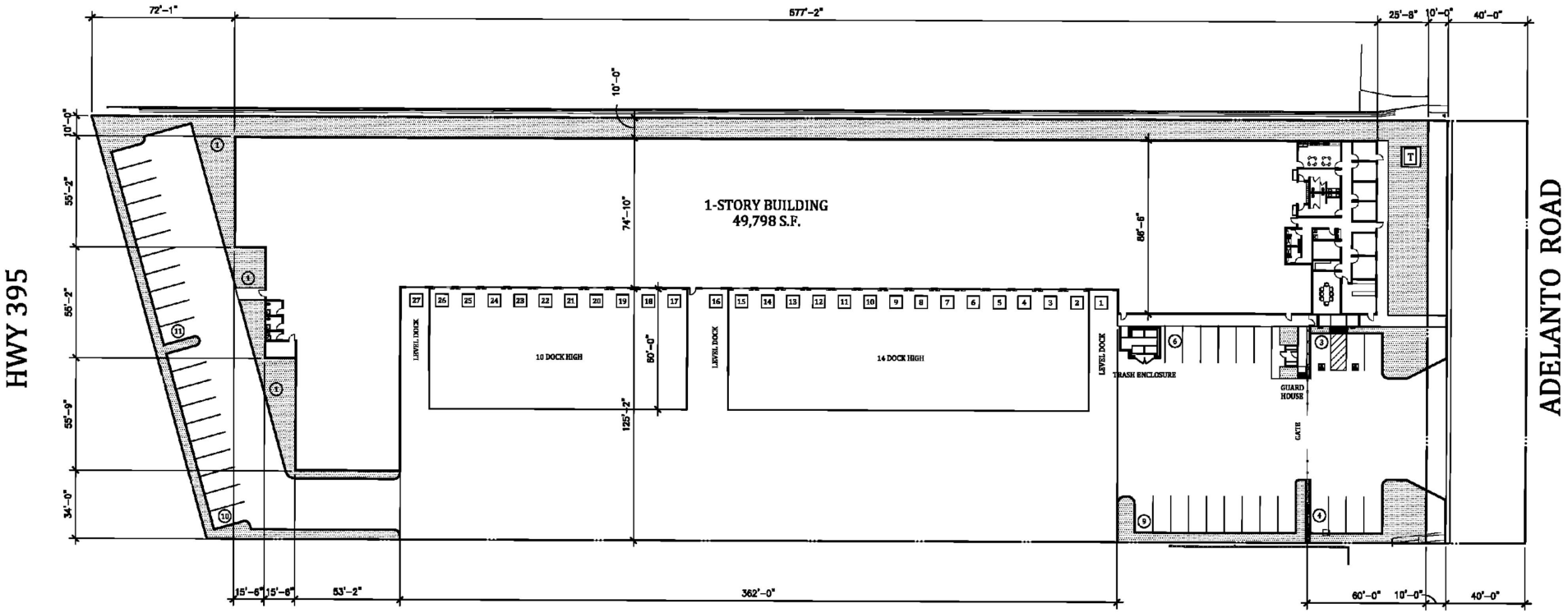
This analysis found that implementation of the State and MDAQMD air quality, energy, and GHG emissions reductions regulations were adequate to limit criteria pollutants, toxic air contaminants, odors, and GHG

emissions from the proposed project to less than significant levels. No mitigation measures are required for the proposed project with respect to air quality, energy, and GHG emissions.

SOURCE: Google Maps.

VISTA ENVIRONMENTAL

Figure 1
Project Local Study Area



SOURCE: Chambers Group.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 AIR POLLUTANTS

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

2.1 Criteria Pollutants and Ozone Precursors

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

Nitrogen Oxides

NOx is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

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

Carbon Monoxide

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

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

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

Sulfur Oxides

SOx gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SOx dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

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

Particulate Matter

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

Volatile Organic Compounds

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of ozone are referred to and regulated as VOCs (also

referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

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

2.2 Other Pollutants of Concern

Toxic Air Contaminants

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

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

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is DPM. DPM is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by CARB and as a HAP by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release

asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. The nearest likely locations of naturally occurring asbestos, as identified in the *General Location Guide for Ultramafic Rocks in California*, prepared by the California Division of Mines and Geology, is located in Santa Barbara County. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

3.0 GREENHOUSE GASES

3.1 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

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

Carbon Dioxide

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This

could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is also commonly used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and race cars).

Chlorofluorocarbons

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

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6).

Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

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

3.2 Global Warming Potential

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. The GHGs listed by the IPCC and the CEQA Guidelines are discussed in this section in order of abundance in the atmosphere. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. To simplify reporting and analysis, GHGs are commonly defined in terms of their GWP. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2 equivalent (CO_2e). As such, the GWP of CO_2 is equal to 1. The GWP values used in this analysis are based on the 2007 IPCC Fourth Assessment Report, which are used in CARB's 2014 Scoping Plan Update and the CalEEMod Model Version 2020.4.0 and are detailed in Table A. The IPCC has updated the Global Warming Potentials of some gases in their Fifth Assessment Report, however the new values have not yet been incorporated into the CalEEMod model that has been utilized in this analysis.

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

Gas	Atmospheric Lifetime (years)[1]	Global Warming Potential (100 Year Horizon)[2]	Atmospheric Abundance
Carbon Dioxide (CO_2)	50-200	1	379 ppm
Methane (CH_4)	9-15	25	1,774 ppb
Nitrous Oxide (N_2O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF_4)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF_6)	3,200	22,800	5.6 ppt

Notes:

[1] Defined as the half-life of the gas.
[2] Compared to the same quantity of CO_2 emissions and is based on the Intergovernmental Panel On Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2020.4.0),that is used in this report (CalEEMod User Guide, May 2021).
Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion
Source: IPCC 2007, EPA 2015

3.3 Greenhouse Gas Emissions Inventory

According to the Carbon Dioxide Information Analysis Center[1], 9,855 million metric tons (MMT) of CO_2e emissions were created globally in the year 2014. According to the Environmental Protection Agency (EPA), the breakdown of global GHG emissions by sector consists of: 25 percent from electricity and heat production; 21 percent from industry; 24 percent from agriculture, forestry and other land use activities; 14 percent from transportation; 6 percent from building energy use; and 10 percent from all other sources of energy use[2].

According to *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2019,* prepared by EPA, in 2019 total U.S. GHG emissions were 6,558 million metric tons (MMT) of CO_2e emissions. Total U.S. emissions have increased by 4 percent between 1990 and 2016 and GHG emissions decreased by 13 percent between 2005 and 2019. The recent decrease in GHG emissions was a result of multiple factors, including population, economic growth, energy markets, and technological changes the include energy efficiency and energy fuel choices. Between 2018 and 2019, GHG emissions decreased by almost 2 percent due to multiple factors, including a one percent decrease in total energy use.

According to *California Greenhouse Gas Emissions for 2000 to 2019 Trends of Emissions and Other Indicators*, prepared by CARB, July 28, 2021, the State of California created 418.2 million metric tons of carbon dioxide equivalent ($MMTCO_2e$) in 2019. The 2019 emissions were 7.2 $MMTCO_2e$ lower than 2018 levels and almost 13 $MMTCO_2e$ below the State adopted year 2020 GHG limit of 431 $MMTCO_2e$. The breakdown of California GHG emissions by sector consists of: 39.7 percent from transportation; 21.1 percent from industrial; 14.1 percent from electricity generation; 7.6 percent from agriculture; 10.5 percent from residential and commercial buildings; 4.9 percent from high global warming potential sources, and 2.1 percent from waste.

1 Obtained from: https://cdiac.ess-dive.lbl.gov/trends/emis/tre_glob_2014.html
2 Obtained from: https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data

4.0 AIR QUALITY MANAGEMENT

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

4.1 Federal – United States Environmental Protection Agency

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

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

Table B – State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone	0.09 ppm / 1-hour 0.07 ppm / 8-hour	0.070 ppm, / 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm / 1-hour 9.0 ppm / 8-hour	35.0 ppm / 1-hour 9.0 ppm / 8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm / 1-hour 0.030 ppm / annual	100 ppb / 1-hour 0.053 ppm / annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM_{10})	50 µg/m^3 / 24-hour 20 µg/m^3 / annual	150 µg/m^3 / 24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in elderly.

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3 / 24-hour 12 µg/m^3 / annual	
Sulfates	25 µg/m^3 / 24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Lead	1.5 µg/m^3 / 30-day	0.15 µg/m^3 /3-month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf .

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years.

As indicated below in Table C, the Mojave Desert Air Basin (MDAB) has been designated by EPA for the national standards as a non-attainment area for ozone and PM10. Currently, the MDAB is in attainment with the national ambient air quality standards for PM2.5, CO, SO_2, and NO_2.

Table C – Mojave Desert Air Basin Attainment Status

Pollutant	Federal Designation	State Designation
Ozone (O_3)	Non-attainment*	Non-attainment
Respirable Particulate Matter (PM10)	Non-attainment**	Non-attainment
Fine Particulate Matter (PM2.5)	Unclassified/Attainment	Non-attainment*
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment

* Southwest corner of desert portion of San Bernardino County only;
** San Bernardino County portion only
Source: https://www.mdaqmd.ca.gov/home/showpublisheddocument/1267/636337468837000000

4.2 State – California Air Resources Board

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

The Air Basin has been designated by the CARB as a non-attainment area for ozone, PM10 and PM2.5. Currently, the Air Basin is in attainment with the ambient air quality standards for CO, NO_2, SO_2, lead, and sulfates and is unclassified for visibility reducing particles and Hydrogen Sulfide.

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

Assembly Bill 2588

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

CARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted CCR Title 13, Article 4.8, Chapter 9, Section 2449 to reduce DPM and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less). Currently, no commercial operation in California may add any equipment to their fleet that has a Tier 0 or Tier 1 engine. By January 1, 2018 medium and large fleets will be restricted from adding Tier 2 engines to their fleets and by January 2023, no commercial operation will be allowed to add Tier 2 engines to their fleets. It should be noted that commercial fleets may continue to use their existing Tier 0 and 1 equipment, if they can demonstrate that the average emissions from their entire fleet emissions meet the NOx emissions targets.

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

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of

Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. In the interim period, this regulation provides annual interim targets for fleet owners to meet. By January 1, 2014, 50 percent of a truck fleet is required to have installed Best Available Control Technology (BACT) for NOx emissions and 100 percent of a truck fleet installed BACT for PM10 emissions. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks utilized during construction of the proposed project will be required to comply with Resolution 08-43.

4.3 Regional – Mojave Desert Air Basin

The MDAQMD is the agency principally responsible for comprehensive air pollution control in the San Bernardino County portion of the MDAB. To that end, as a regional agency, the MDAQMD works directly with the County and incorporated communities as well as the military bases within the MDAB to control air emissions within the MDAB. The MDAQMD has adopted a variety of attainment plans for a variety of non-attainment pollutants, which are detailed in Table D.

Table D – MDAQMD Attainment Plans

Name of Plan	Date of Adoption	Standard(s) Targeted	Applicable Area	Pollutant(s) Target	Attainment Date*
70 ppb Ozone Standard Implement Evaluation	28-Oct-19	Federal eight hour ozone	Entire District	NOx and VOC	N/A
MDAQMD Federal 75 ppb Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)	27-Feb-17	Federal eight hour ozone (75 ppb)	Western Mojave Desert Non-attainment Area	NOx and VOC	2027
Federal 8-Hour Ozone Attainment Plan (Western Mojave Desert Non-attainment Area)	9-Jun-08	Federal eight hour ozone (84 ppb)	Western Mojave Desert Non-attainment Area	NO_x and VOC	2021
2004 Ozone Attainment Plan (State and Federal)	26-Apr-04	Federal one hour ozone	Entire District	NO_x and VOC	2007
Attainment Demonstration Maintenance Plan, and Redesignation Request for the Trona Portion of the Searles Valley PM_{10} Non-attainment Area	25-Mar-96	Federal daily and annual PM_{10}	Searles Valley Planning Area	PM_{10}	N/A
Triennial Revision to the 1991 Air Quality Attainment Plan	22-Jan-96	State one hour ozone	Entire District	NO_x and VOC	2005
Mojave Desert Planning Area Federal Particulate Matter Attainment Plan	31-Jul-95	Federal daily and annual PM_{10}	Mojave Desert Planning Area	PM_{10}	2000
Searles Valley PM_{10} Plan	28-Jun-95	Federal daily and annual PM_{10}	Searles Valley Planning Area	PM_{10}	1994
Post 1996 Attainment Demonstration and Reasonable Further Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO_x and VOC	2007
Reasonable Further Progress Rate-Of-Progress Plan	26-Oct-94	Federal one hour ozone	Southeast Desert Modified AQMA	NO_x and VOC	2007
1991 Air Quality Attainment Plan	26-Aug-91	State one hour ozone	San Bernardino County portion	NO_x and VOC	1994

*Note: A historical attainment date given in an attainment plan does not necessarily mean that the affected area has been re-designated to attainment; please refer to Table C.

In addition to the above attainment plans, the MDAQMD has adopted the following rules that are applicable to the proposed project.

Rule 401 – Visible Emissions

Rule 401 limits the discharge of any emissions source, including fugitive dust, for a period of more than three minutes in any hour, which creates an observable opacity of 20 percent or more (as dark in shade as No. 1 on the Ringelmann Chart).

Rule 402 - Nuisance

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

Rules 403 and 403.2 - Fugitive Dust

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

- Do not allow any track out of material onto public roadways and remove all track out at the end of each workday.
- Cover loaded haul vehicles while operating on public roads.
- Use periodic watering on active sites and pre-water all areas prior to clearing and soil moving activities.
- Apply nontoxic chemical stabilizers according to manufacturer specifications to all construction areas.
- Replant all disturbed area as soon as practical.
- Suspend all grading activities during high wind conditions.

Rule 442 – Usage of Solvents

Rule 442 governs the use manufacturing of paint thinners and multi-purpose solvents that are used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations. This rule regulates the VOC content of solvents used during construction. Solvents used during construction and operation of the proposed project must comply with MDAQMD Rule 442.

Rules 1103 – Cutback and Emulsified Asphalt

Rule 1103 governs the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt. This rule regulates the VOC contents of asphalt used during construction as well as any on-going maintenance during operations. Therefore, all asphalt used during construction and operation of the proposed project must comply with MDAQMD Rule 1103.

Rule 1113 – Architectural Coatings

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

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal), adopted September 3, 2020 and the *2019 Federal Transportation Improvement* Program (2019 FTIP), adopted September 2018, which addresses regional development and growth forecasts. Although the Connect SoCal and 2019 FTIP are primarily planning documents for future transportation projects a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans will be utilized to form the basis for the land use and transportation components for the next update of the AQMP. However, it should be noted that the current 2016 AQMP, utilized the prior *2016-2040 Regional Transportation Plan/Sustainable Communities Strategy* (2016 RTP/SCS), adopted April, 2016 and the *2015 Federal Transportation Improvement* Program (2015 FTIP), adopted October 2013 in the preparation of air quality forecasts and in the consistency analysis included in the AQMP. The 2016 RTP/SCS, 2015 FTIP, Connect SoCal, and 2019 FTIP are based on projections originating within the City and County General Plans.

5.0 ENERGY CONSERVATION MANAGEMENT

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

5.1 State

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

California Code of Regulations (CCR) Title 20

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

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

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

The Title 24 standards are updated on a three-year schedule and since 2008 the standards have been incrementally moving to the 2020 goal of the zero-net-energy use. On January 1, 2020 the 2019 standards went into effect, that have been designed so that the average new home built in California will now use zero-net-energy and that non-residential buildings will use about 30 percent less energy than the 2016 standards due mainly to lighting upgrades. The 2019 standards also encourage the use of battery storage and heat pump water heaters, require the more widespread use of LED lighting, as well as improve the building's thermal envelope through high performance attics, walls and windows. The 2019 standards also require improvements to ventilation systems by requiring highly efficient air filters to trap hazardous air particulates as well as improvements to kitchen ventilation systems.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CalGreen) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CalGreen Building

Standards are also updated every three years and the current version is the 2019 California Green Building Standard Code that become effective on January 1, 2020.

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

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

Some of the notable changes in the 2019 CALGreen Code over the prior 2016 CALGreen Code include: an alignment of building code engineering requirements with the national standards that include anchorage requirements for solar panels, provides design requirements for buildings in tsunami zones, increases Minimum Efficiency Reporting Value (MERV) for air filters from 8 to 13, increased electric vehicle charging requirements in parking areas, and sets minimum requirements for use of shade trees.

Executive Order N-79-20

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

Senate Bill 100 and Executive Order B-55-18

Senate Bill 100 (SB 100) was adopted September 2018 and the California Governor issued Executive Order B-55-18 in September 2018, shortly before the Global Climate Action Summit started in San Francisco. SB 100 and Executive Order B-55-18 requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity. SB 100 supersedes the renewable energy requirements set by SB 350, SB 1078, SB 107, and SB X1-2. However, the interim renewable energy thresholds from the prior Bills of 44 percent by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, will remain in effect.

Executive Order B-48-18 and Assembly Bill 2127

The California Governor issued Executive Order B-48-18 on January 26, 2018 that orders all state entities to work with the private sector to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025. Currently there are approximately 350,000 electric vehicles operating in California, which represents approximately 1.5 percent of the 24 million vehicles total currently operating in California. Implementation of Executive Order B-48-18 would result in approximately 20 percent of all vehicles in California to be zero emission

electric vehicles. Assembly Bill 2127 (AB 2127) was codified into statute on September 13, 2018 and requires that the California Energy Commission working with the State Air Resources Board prepare biannual assessments of the statewide electric vehicle charging infrastructure needed to support the levels of zero emission vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030.

Assembly Bill 1109

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

Assembly Bill 1493

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

The second set of regulations "Pavley II" was developed in 2010, and is being phased in between model years 2017 through 2025 with the goal of reducing GHG emissions by 45 percent by the year 2020 as compared to the 2002 fleet. The Pavley II standards were developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the "LEV III" (third stage of the Low Emission Vehicle standards) into a single regulatory framework. The new rules reduce emissions from gasoline-powered cars as well as promote zero-emissions auto technologies such as electricity and hydrogen, and through increasing the infrastructure for fueling hydrogen vehicles. In 2009, the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles and these GHG emissions standards are currently being implemented nationwide. However, EPA has performed a midterm evaluation of the longer-term standards for model years 2022-2025, and based on the findings of this midterm evaluation, the EPA proposed The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026 that amends the corporate average fuel economy (CAFE) and GHG emissions standards for light vehicles for model years 2021 through 2026. The EPA's proposed amendments do not include any extension of the legal waiver granted to California by the 1970 Clean Air Act and which has allowed the State to set tighter standards for vehicle pipe emissions than the EPA standards. On September 20, 2019, California filed suit over the EPA decision to revoke California's legal waiver that has been joined by 22 other states.

5.2 Local – City of Adelanto

The applicable energy plan for the proposed project is the *Adelanto North 2035 Comprehensive Sustainable Plan,* adopted August 27, 2014. The applicable energy-related goals and policies in the Sustainable Plan for the proposed warehouse are shown below.

Goal LC 4: Sustainability incorporated into land use patterns and development approaches.

Policy LC 4.3: Create a sustainable community that is responsive to the environmental, water, and energy conservation needs of the region and local area.

Policy LC 4.4: Promote the use of solar, wind, and other alternative energy generation systems as part of new planned development.

Goal LC 7: Passive solar design and green building practices take advantage of Adelanto's solar and wind conditions.

Policy LC 7.1: Encourage the design and construction of buildings to go beyond the requirements of the CALGreen Building Code.

Policy LC 7.2: Orient buildings to take advantage of solar gain, thus allowing the absorption of the sun's heat during colder months, while minimizing the sun's heat during warmer months.

Policy LC 7.3: Encourage long overhangs to screen summer sun and allow for solar gain in the winter.

Policy LC 7.4: Orient buildings on an east-west axis to minimize western exposure.

Policy LC 7.5: Take full advantage of the wind to cool buildings in the summer months, and where feasible, generate alternative energy.

Policy LC 7.7: Locate windows to maximize daylighting and views. Awnings, landscaping, spectrally selective glass, and controllable blinds should be provided to reduce heat gain through windows.

Policy LC 7.9: Encourage the building envelope to:

- Minimize heat loss and gain
- Reduce energy demand
- Maximize passive heating and cooling
- Minimize mechanical HVAC requirements

Policy LC 7.10: Promote glazing, size, and materials appropriate for window orientation, and promote the use of double or triple glazing wherever possible. Encourage every exterior window to be shaded appropriately for the window orientation.

Policy LC 7.11: Encourage the use of energy-efficient heating, ventilation and air conditioning (HVAC) Systems and electrical systems.

Goal OS 3: Energy conservation and renewable energy production is maximized to reduce natural resources and fossil fuels consumption.

Policy OS 3.1: Promote the use of renewable energy and support efforts to develop small-scale, distributed energy (e.g., solar power and wind power) to reduce the amount of electricity drawn from the regional power grid, while providing Adelanto with a greater degree of energy self-sufficiency.

Policy OS 3.2: Encourage new warehousing, manufacturing, industrial, and large commercial retail buildings to be designed to accommodate future rooftop solar panel systems.

Policy OS 3.5: Require all new development to provide site design and building orientation that take into account passive solar design to reduce heating and cooling loads through energy-efficiency strategies.

Policy OS 3.8: Conserve energy by promoting efficient and cost-effective lighting that reduces glare and light pollution.

6.0 GLOBAL CLIMATE CHANGE MANAGEMENT

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

6.1 International

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

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

6.2 Federal – United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce U.S. GHG intensity. These programs focus on energy efficiency, renewable energy, methane, and other non-CO_2 gases, agricultural practices and implementation of technologies to achieve GHG reductions. EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

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

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions did not impose any requirements on industry or other entities, however, since 2009 the EPA has been providing GHG emission standards for vehicles and other stationary sources of GHG emissions that are regulated by the EPA. On September 13, 2013 the EPA Administrator signed 40 CFR Part 60, that limits emissions from new sources to 1,100 pounds of CO_2 per mega-watt hour (MWh) for fossil fuel-fired utility boilers and 1,000 pounds of CO_2 per MWh for large natural gas-fired combustion units.

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

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

6.3 State

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

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

regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary actions; market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB, 2014) that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017 CARB adopted the California's 2017 Climate Change Scoping Plan, November 2017 (CARB, 2017) that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. In addition, the State has passed the following laws directing CARB to develop actions to reduce GHG emissions, which are listed below in chronological order, with the most current first.

Executive Order N-79-20

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

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

The Title 24 Part 6 standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the Title 24 Part 6 building standards would also reduce GHG emissions, since as detailed above in Section 3.3 Greenhouse Gas Emissions Inventory, energy use for residential and commercial buildings creates 9.7 percent of the GHG emissions in the State.

California Code of Regulations (CCR) Title 24, Part 11

The CalGreen Building standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the CalGreen Building standards would also reduce GHG emissions, since as detailed above under Title 24, Part 6, energy usage from buildings creates 9.7 percent of GHG emissions in the State.

Senate Bill 100

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

Executive Order B-48-18 and Assembly Bill 2127

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

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

The California Governor issued Executive Order B-30-15 on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. This executive order aligns California's GHG reduction targets with those of other international governments, such as the European Union that set the same target for 2030 in October, 2014. This target will make it possible to reach the ultimate goal of reducing GHG emissions 80 percent under 1990 levels by 2050 that is based on scientifically established levels needed in the U.S.A to limit global warming below 2 degrees Celsius – the warming threshold at

which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. Assembly Bill 197 (AB 197) (September 8, 2016) and Senate Bill 32 (SB 32) (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in Executive Order B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-29-15

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

Assembly Bill 341 and Senate Bills 939 and 1374

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

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 in order to support the State's climate action goals to reduce GHG emissions from transportation sources through coordinated regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each Metropolitan Planning Organizations (MPO) within the State. It was up to each MPO to adopt a sustainable communities strategy (SCS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP) to meet CARB's 2020 and 2035 GHG emission reduction targets. These reduction targets are required to be updated every eight years and the most current targets are detailed at: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets, which provides GHG emissions reduction targets for SCAG of 8 percent by 2020 and 19 percent by 2035.

The Connect SoCal (SCAG, 2020) provides a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal include new initiatives of land use, transportation and technology to meet the 2035 new 19 percent GHG emission reduction target for 2035. CARB is also charged with reviewing SCAG's RTP/SCS for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS. However, new provisions of CEQA incentivize, through streamlining and other

provisions, qualified projects that are consistent with an approved SCS and categorized as "transit priority projects."

Assembly Bill 1109

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

Executive Order S-1-07

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

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

Senate Bill 97

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

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

- Climate Action Plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project

complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.

- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports must specifically consider a project's energy use and energy efficiency potential.

Assembly Bill 32

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

In 2007 CARB released the calculated Year 1990 GHG emissions of 431 $MMTCO_2e$. The 2020 target of 431 $MMTCO_2e$ requires the reduction of 78 $MMTCO_2e$, or approximately 16 percent from the State's projected 2020 business as usual emissions of 509 $MMTCO_2e$ (CARB, 2014). Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO_2 in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources, all of which became enforceable on or before January 1, 2010.

CARB's Scoping Plan that was adopted in 2009, proposes a variety of measures including: strengthening energy efficiency and building standards; targeted fees on water and energy use; a market-based cap-and-trade system; achieving a 33 percent renewable energy mix; and a fee regulation to fund the program. The 2014 update to the Scoping Plan identifies strategies moving beyond the 2020 targets to the year 2050.

The Cap-and-Trade Program established under the Scoping Plan sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, and has established a market for long-term investment in energy efficiency and cleaner fuels since 2012.

Executive Order S-3-05

In 2005 the California Governor issued Executive Order S 3-05, GHG Emission, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels;
- 2020: Reduce greenhouse gas emissions to 1990 levels;
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs. The State achieved its first goal of reducing GHG emissions to 2000 levels by 2010.

Assembly Bill 1493

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

6.4 Regional – Mojave Desert Air Quality Management District

The MDAQMD is the agency principally responsible for comprehensive air pollution control that includes GHG emissions in the San Bernardino County portion of the MDAB. To that end, as a regional agency, the MDAQMD works directly with the County and incorporated communities as well as the military bases within the MDAB to control GHG emissions within the MDAB.

7.0 ATMOSPHERIC SETTING

7.1 Regional Climate

The project site is located within the San Bernardino County portion of the MDAB. The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains which dot the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in southern California by differential heating are channeled through the MDAB. The MDAB is separated from the southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet), whose passes form the main channels for these air masses.

The Mojave Desert is bordered in the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet). A lesser channel lies between the San Bernardino Mountains and the Little San Bernardino Mountains (the Morongo Valley).

7.2 Local Climate

The project site is located within the Victor Valley portion of the Mojave Desert. Hot summers, mild winters, infrequent rainfall, moderate afternoon breezes and generally fair weather characterize the climate of the Victor Valley, an interior sub-climate of Southern California's Mediterranean climate. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Victorville. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through El Cajon Pass into the upper desert to the northeast of the heavily developed portions of the Los Angeles Basin. This daily airflow brings polluted air into the area late in the afternoon from late spring to early fall. This transport pattern creates both unhealthful air quality as well as destroying the scenic vistas of the mountains surrounding the Victor Valley.

The temperature and precipitation levels for the Victorville Pump PT Monitoring Station, which is the nearest weather station to the project sites with historical data are shown below in Table E. Table E shows that July is typically the warmest month and January is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Most of the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being mostly dry.

Table E – Monthly Climate Data

Month	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)	Average Total Precipitation (inches)	Average Total Snow Depth (inches)
January	58.8	29.8	0.95	0.9
February	62.1	33.1	1.05	0.0
March	67.0	36.6	0.80	0.1
April	74.2	41.5	0.36	0.0
May	82.7	47.9	0.13	0.0
June	91.6	54.3	0.04	0.0
July	98.1	60.8	0.14	0.0
August	97.2	60.2	0.21	0.0
September	91.3	54.1	0.23	0.0
October	80.2	44.4	0.32	0.0
November	67.3	34.5	0.50	0.2
December	59.4	29.2	0.79	0.1
Annual	**77.5**	**43.9**	**5.52**	**1.4**

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca9325

7.3 Monitored Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the MDAB as well as from air pollutants that travel from the coastal areas to the MDAB. The MDAQMD operates an extensive monitoring network throughout the County that continuously monitor ambient levels of criteria pollutants in compliance with federal monitoring regulations. The nearest air monitoring station to the project site is the Victorville Monitoring Station (Victorville Station), which is located approximately 4.8 miles southeast of the project site at 14306 Park Avenue, Victorville. The monitoring data is presented in Table F and shows the most recent three years of monitoring data from CARB. CO measurements have not been provided, since CO is currently in attainment in the MDAB and monitoring of CO within the Air Basin ended on March 31, 2013.

Table F – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year[1] 2018	2019	2020
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.107	0.104	0.112
Days > CAAQS (0.09 ppm)	5	3	4
Maximum 8-Hour Concentration (ppm)	0.096	0.081	0.094
Days > NAAQS (0.070 ppm)	**55**	**29**	**35**
Days > CAAQs (0.070 ppm)	**56**	**34**	**38**
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppb)	51.4	56.0	59.4
Days > NAAQS (100 ppb)	0	0	0
Inhalable Particulates (PM10) :			
Maximum 24-Hour National Measurement (ug/m^3)	165.2	170.0	261.4
Days > NAAQS (150 ug/m^3)	1	2	2
Days > CAAQS (50 ug/m^3)	ND	ND	ND
Annual Arithmetic Mean (AAM) (ug/m^3)	29.8	27.2	34.0
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	**Yes**	**Yes**	**Yes**
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour National Measurement (ug/m^3)	32.7	17.8	48.4
Days > NAAQS (35 ug/m^3)	0	0	4
Annual Arithmetic Mean (AAM) (ug/m^3)	7.9	7.0	9.7
Annual > NAAQS and CAAQS (12 ug/m^3)	No	No	No

Notes: Exceedances are listed in **bold.** CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.
[1] Data obtained from the Victorville Station.
Source: http://www.arb.ca.gov/adam/

Ozone

The State 1-hour concentration standard for ozone been exceeded between 3 and 5 days each year over the past three years at the Victorville Station. The State 8-hour ozone standard has been exceeded between 34 and 56 days each year over the past three years at the Victorville Station. The Federal 8-hour ozone standard has been exceeded between 29 and 55 days each year over the past three years at the Victorville Station.

Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the ozone levels experienced at this monitoring station, with the more significant areas being those directly upwind.

Nitrogen Dioxide

The Victorville Station has not exceedance of the Federal 1-hour NO_2 standard for the last three years.

Particulate Matter

The Federal 24-hour concentration standards for PM10 have been exceeded between 1 and 2 days each year over the past three years at the Victorville Station. No data was available for the State 24-hour concentration standards at the Victorville Station. The annual PM10 concentration at the Victorville Station has not exceeded the Federal standards for the past three years. The annual PM10 concentration at the Victorville Station has exceeded the State standards for the last three years.

Over the past three years the 24-hour concentration standard for PM2.5 has been exceeded between 0 and 4 days over the past three years at the Victorville Station. The annual PM2.5 concentration did not exceed either the State or Federal standard over the past three years. There does not appear to be a noticeable trend for PM10 or PM2.5 in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

8.0 MODELING PARAMETERS AND ASSUMPTIONS

8.1 CalEEMod Model Input Parameters

The criteria air pollution and GHG emissions impacts created by the proposed project have been analyzed through use of CalEEMod Version 2020.4.0. CalEEMod is a computer model published by the SCAQMD for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the Mojave Desert portion of San Bernardino County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The project characteristics in the CalEEMod model were set to a project location of the Mojave Desert portion of San Bernardino County, a Climate Zone of 10, utility company of Southern California Edison, and an opening year of 2023 was utilized in this analysis. In addition, the EMFAC off-model adjustment factors for gasoline light duty vehicle to account for the SAFE Vehicle rule was selected in the CalEEMod model run.

Land Use Parameters

The proposed project consists of development of a one story, 49,798 sq. ft. warehouse distribution facility with 45 parking spaces. The proposed project's land use parameters that were entered into the CalEEMod model are shown in Table G.

Table G – CalEEMod Land Use Parameters

Proposed Land Use	Land Use Subtype in CalEEMod	Land Use Size[1]	Lot Acreage[2]	Building/Paving[3] (square feet)
Warehouse Building	Unrefrigerated Warehouse No Rail	49.798 TSF	1.46	49,798
Paved Area (Truck Loading Area, Driveways, and Parking Lots)	Parking Lot	45 PS	1.71	18,000

Notes:
[1] TSF = Thousand Square Feet; PS = Parking Space
[2] Lot acreage calculated based on a total project site of 3.17 acres.
[3] Building/Paving square feet represent area where architectural coatings will be applied. Paved area based on CalEEMod default values.

Construction Parameters

According to the project applicant, construction is anticipated to commence in January 2023. The construction durations of each phase of construction was analyzed based on the CalEEMod default timing, that found construction would take 13 months to complete. The phases of construction activities that have been analyzed are detailed below and include: 1) Site Preparation; 2) Grading, 3) Building Construction, 4) Paving, and 5) Application of Architectural Coatings.

The CalEEMod model provides the selection of "mitigation" to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this "mitigation" may represent regulatory requirements. This includes the required to adherence to MDAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Site Preparation

The site preparation phase would consist of removing any vegetation, tree stumps, and stones onsite prior to grading. The site preparation phase was modeled as starting January 2023 and occurring over one week, which is based on the CalEEMod default timing. The site preparation activities would generate 18 worker trips per day. In order to account for water truck emissions, six vendor truck emissions were added to the site preparation phase. The onsite equipment would consist of three rubber tired dozers, and four of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix. The mitigation of applying water to all exposed areas two times per day was chosen in order to account for the fugitive dust reduction that would occur through adhering to MDAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Grading

The grading phase would occur after completion of the site preparation phase and was modeled as occurring over eight work days, which is based on the CalEEMod default timing. The proposed grading is anticipated to require approximately 1,525 cubic yards of cut and 2,250 cubic yards of fill, resulting in a net import of 725 cubic yards of dirt. The import of dirt would require a total of 91 haul truck trips (average 11.4 haul truck trips per day over 8 workdays for the grading phase).

The onsite equipment would consist of one excavator, one grader, one rubber-tired dozer, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix. The grading activities would generate 15 worker trips per day. The mitigation of water all exposed areas three times per day was chosen in order to account for the fugitive dust reduction that would occur through adhering to MDAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Building Construction

The building construction would occur after the completion of the grading phase and was modeled as occurring over 230 workdays (10 months). The building construction phase would generate 28 worker trips and 11 vendor trips per day. The onsite equipment would consist of the simultaneous operation of one crane, three forklifts, one generator, one welder, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix.

Paving

The paving phase would consist of paving the onsite driveways, truck loading area, and parking lots. The paving phase would occur after the completion of the building construction phase and was modeled as occurring over 18 workdays. The paving phase would generate 20 worker trips per day. The onsite equipment would consist of the simultaneous operation of two cement and mortar mixers, one paver, two paving equipment, two rollers, and one of either a tractor, loader, or backhoe, which is based on the CalEEMod default equipment mix.

Architectural Coating

The application of architectural coatings would occur after completion of the paving phase. The architectural coating phase was modeled based on covering 74,697 square feet of non-residential interior area, 24,899 square feet of non-residential exterior area, and 1,080 square feet of parking area. The

architectural coating phase would generate six worker trips per day. The onsite equipment would consist of one air compressor, which is based on the CalEEMod default equipment mix.

Operational Emissions Modeling

The operations-related criteria air pollutant emissions and GHG emissions created by the proposed project have been analyzed through use of the CalEEMod model. The proposed project was analyzed in the CalEEMod model based on the land use parameters provided above.

Mobile Sources

Mobile sources include emissions the additional vehicle miles generated from the proposed project. The vehicle trips associated with the proposed project have been analyzed through use of trip rates obtained from the Vehicle Miles Traveled (VMT) analysis prepared for the proposed project, which found that the proposed project would generate 101 daily automobile trips. In addition, the Project Description (see Section 1.3, above) details that operation of the proposed project would generate 15 truck trips per day.

Since the MDAQMD does not provide any specific recommendations for analyzing truck trips, this analysis has utilized the SCAQMD methodology detailed in the *Review of SCAQMD Staff Comments and Testimony on Warehouse Projects*, prepared by Southern California Leadership Council, March 14, 2014, that recommends that truck trip length to be set to 40 miles in CalEEMod. In order to account for the longer truck trip length in CalEEMod, the 15 daily truck trips were analyzed under the "Parking Lot" land use because the parking lot use generates no vehicle trips on its own (the row's default are "zeros") so it was an available placeholder allowing analysis solely of the project's trucks without mixing the trucks with any other trip-generating use. The automobile trip lengths were based on the default trip lengths. The vehicle trips rates utilized for each land use are provided in Table H.

Table H – Inventory of Vehicle Trips During Full Operation of Proposed Project

Land Use Type in CalEEMod	Land Use Size[1]	Daily Trip Generation Rates	
		Trips Rates[2]	Total Daily Trips
Unrefrigerated Warehouse No Rail (Autos)	49.798 TSF	2.03 per TSF	101
Parking Lot (Trucks)	45 PS	0.33 per PS	15

Notes:
[1] TSF = Thousand Square Foot, PS = Parking Space
[2] Daily Trip rates obtained from the VMT Analysis and Project Description.

The vehicle mix utilized in the CalEEMod model for the Parking Lot land use was adjusted to consist of 100 percent heavy-heavy duty trucks. In addition, the vehicle mix for the Unrefrigerated Warehouse was also adjusted to remove the truck trips from this land use, since all truck trips generated from the proposed project were analyzed under the Parking Lot land use. The vehicle mixes utilized in the CalEEMod model are shown in Table I. No other changes were made to the CalEEMod default mobile source parameters.

Table I – Fleet Mix During Full Operation of Proposed Project

Land Use	LDA	LDT1	LDT2	MDV	HHD	MCY
Unrefrigerated Warehouse No Rail (Autos)	0.579	0.059	0.185	0.150	0	0.027
Parking Lot (Trucks)	0	0	0	0	1.0	0

Notes:
LDA = Light Duty Auto; LDT1 = Light-Duty Trucks (less than 3,750 pounds gross vehicle weight rating [GVWR]); LDT2 = Light-Duty Trucks (3,751 to 6,000 pounds GVWR); MDV = Medium-Duty Trucks (6,000 to 8,500 pounds GVWR); HHD = Heavy-Heavy-Duty Trucks (GVWR 33,000+ pounds); and MCY = motorcycles.

Area Sources

Area sources include emissions from consumer products, landscape equipment, and architectural coatings. The area source emissions were based on the on-going use of the proposed project in the CalEEMod model. No changes were made to the default area source parameters in the CalEEMod model.

Energy Usage

Energy usage includes emissions from electricity and natural gas used onsite. The energy usage was based on the ongoing use of the proposed project in the CalEEMod Model. No changes were made to the default energy usage parameters in the CalEEMod model.

Solid Waste

Waste includes the GHG emissions associated with the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. The analysis was based on the default CalEEMod waste generation rate of 47 tons of solid waste per year from the proposed project. No changes were made to the default solid waste parameters or mitigation measures in the CalEEMod model.

Water and Wastewater

Water includes the water used for the interior of the buildings as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. The analysis was based on the default CalEEMod water usage rate of 11,516,200 gallons per year of water use. No changes were made to the default water and wastewater parameters in the CalEEMod model.

The CalEEMod "mitigation" of the use of low flow faucets and toilets and use of smart irrigation system controllers were selected to account for the implementation of the 2019 CCR Title 24 Part 11 (CalGreen) requirements, which lowered the calculated water use for the proposed project to 9,719,700 gallons per year.

Off-Road Equipment

The primary activity that would require the use of off-road equipment would be associated with a forklift unloading/loading of truck deliveries. The CalEEMod analyzed one forklift operating 8 hours per day. In order to account for Project Design Feature 1, that restricts the operation of diesel-powered off-road equipment on the project site during long-term operations of the project, the forklift was analyzed as being powered with compressed natural gas (CNG).

8.2 Energy Use Calculations

The proposed project is anticipated to consume energy during construction of the proposed project. As detailed above, operation of the proposed project is anticipated to use less energy, when compared to existing conditions. As such, no operational energy use calculations have been included in this analysis. The parameters utilized to calculate energy use from construction of the proposed project are detailed below.

Construction-Related Energy Use

Construction of the proposed project is anticipated to use energy in the forms of petroleum fuel for both off-road equipment as well as from the transport of workers and materials to and from the project site and the calculations for each source are described below.

Off-Road Construction Equipment

The off-road construction equipment fuel usage was calculated through use of the CalEEMod model's default off-road equipment assumptions detailed above in Section 8.1. For each piece of off-road equipment, the fuel usage was calculated through use of the *2017 Off-road Diesel Emission Factors* spreadsheet, prepared by CARB (https://ww3.arb.ca.gov/msei/ordiesel.htm). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table J shows the off-road construction equipment fuel calculations based on the above formula. Table J shows that the off-road equipment utilized during construction of the proposed project would consume 33,925 gallons of diesel fuel.

Table J – Off-Road Equipment and Fuel Consumption from Construction of the Proposed Project

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Site Preparation						
Rubber-Tired Dozers	3	247	0.4	8	120	612
Tractors/Loaders/Backhoes	4	97	0.37	8	160	330
Grading						
Excavator	1	158	0.38	8	64	198
Grader	1	187	0.41	8	64	253
Rubber-Tired Dozer	1	247	0.4	8	64	326
Tractors/Loaders/Backhoes	3	97	0.37	8	192	395
Building Construction						
Crane	1	231	0.29	7	1,610	5,568
Forklifts	3	89	0.20	8	5,520	5,639
Generator	1	84	0.74	8	1,840	6,564
Tractors/Loaders/Backhoes	3	97	0.37	7	4,830	9,949
Welder	1	46	0.45	8	1,840	2,186
Paving						
Cement and Mortar Mixers	2	9	0.56	6	216	62
Paver	1	130	0.42	8	144	406
Paving Equipment	2	132	0.36	6	216	530
Rollers	2	80	0.38	6	216	377
Tractors/Loaders/ Backhoes	1	97	0.37	8	144	297
Architectural Coatings						

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Air Compressor	1	78	0.48	6	108	232
Total Off-Road Equipment Diesel Fuel Used during Construction (gallons)						**33,925**

Notes:
[1] Based on: 5 days for Site Preparation, 8 days for Grading; 230 days for Building Construction; 18 days for Paving, and 18 days for Architectural Coatings.
Source: CalEEMod Version 2020.4.0 (see Appendix A); CARB, 2017.

On-Road Construction-Related Vehicle Trips

The on-road construction-related vehicle trips fuel usage was calculated through use of the construction vehicle trip assumptions from the CalEEMod model run as detailed above in Section 8.1. The calculated total construction miles were then divided by the fleet average for the San Bernardino County portion of the MDAB for the year 2023 that was calculated through use of the EMFAC2017 model (https://www.arb.ca.gov/emfac/2017/) and the EMFAC2017 model printouts are shown in Appendix B. The worker trips were based on the entire fleet average miles per gallon rate for gasoline powered vehicles and the vendor trips were based on the Heavy-Heavy Duty Truck (HHDT), Medium Duty Vehicle (MDV), and Medium Heavy Duty Vehicle (MHDV) fleet average miles per gallon rate for diesel-powered vehicles. Table K shows the on-road construction vehicle trips modeled in CalEEMod and the gasoline and diesel fuel usage calculations.

Table K – On-Road Vehicle Trips and Fuel Consumption from Construction of the Proposed Project

Vehicle Trip Types/Fuel Type	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase[1]	Fleet Average Miles per Gallon[2]	Fuel Used (gallons)
Site Preparation						
Worker (Gasoline)	18	10.8	194	972	27.4	35
Vendor Truck (Diesel)	6	7.3	44	219	7.8	28
Grading						
Worker (Gasoline)	15	10.8	162	1,296	27.4	47
Vendor Truck (Diesel)	6	7.3	44	350	7.8	45
Haul Truck (Diesel)	11.4	20	228	1,820	7.8	232
Building Construction						
Worker (Gasoline)	28	10.8	302	69,552	27.4	2,540
Vendor Truck (Diesel)	11	7.3	80	18,469	7.8	2,359
Paving						
Worker (Gasoline)	18	10.8	216	3,888	27.4	142
Architectural Coatings						
Worker (Gasoline)	18	10.8	65	1,166	27.4	43
Total Gasoline Fuel Used from On-Road Construction Vehicles (gallons)						**2,808**
Total Diesel Fuel Used from On-Road Construction Vehicles (gallons)						**2,664**

Notes:
[1] Based on: 5 days for Site Preparation, 8 days for Grading; 230 days for Building Construction; 18 days for Paving, and 18 days for Architectural Coatings.
[2] From EMFAC 2017 model (see Appendix B). Worker trips based on entire fleet of gasoline vehicles. Haul truck and vendor truck trips based on only truck fleet of diesel vehicles.
Source: CalEEMod Version 2020.4.0; CARB, 2018.

Table K shows that the on-road construction-related vehicle trips would consume 2,808 gallons of gasoline and 2,664 gallons of diesel fuel. As detailed above, Table J shows that the off-road construction equipment would consume 33,925 gallons of diesel fuel. This would result in the total consumption of 2,808 gallons of gasoline and 36,590 gallons of diesel fuel from construction of the proposed project.

Operations-Related Energy Use

The operation of the proposed project is anticipated to use energy in the forms of petroleum fuel, electricity, and natural gas, and the calculations for each source are described below.

Operational Petroleum Fuel

The on-road operations-related vehicle trips fuel usage was calculated through use of the total annual vehicle miles traveled assumptions from the CalEEMod model run as detailed above in Section 8.1, which found that operation of the proposed project would generate 295,145 vehicle miles traveled per year from automobiles and would generate 216,216 vehicle miles traveled per year from trucks. The calculated total operational miles were then divided by the San Bernardino County portion of the MDAB fleet average rates of 27.4 miles per gallon for automobiles and the fleet average rate of 7.8 miles per gallon for trucks, which was calculated through use of the EMFAC2017 model and based on the year 2023. The EMFAC2017 model printouts are shown in Appendix B. Based on the above calculation methodology, the operation of automobiles would consume 10,779 gallons of gasoline per year and from trucks would consume 27,620 gallons of diesel fuel per year.

Operational Electricity Use

The operations-related electricity usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that depicts the electricity use from each land use that are shown below in kilo-watt hours (kWh) per year:

- Parking Lot (Truck Loading Area, Driveway, and Parking Lots) – 6,300 kWh/year
- Unrefrigerated Warehouse – 115,531 kWh/year

Based on the above, it is anticipated that the proposed project would utilize 121,831 kWh per year of electricity.

Operational Natural Gas Use

The operations-related natural gas usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that depicts the natural gas use from each land use that are shown below in kilo British Thermal Units (kBTU) per year (CalEEMod land use shown in brackets):

- Parking Lot (Truck Loading Area, Driveway, and Parking Lots) – 0 kBTU/year
- Unrefrigerated Warehouse – 100,094 kBTU/year

Based on the above, it is anticipated that the proposed project will use 100,094 kBTU per year, which is equivalent to 100 mega-British Thermal units (MBTU) per year of natural gas.

9.0 THRESHOLDS OF SIGNIFICANCE

9.1 MDAQMD Air Quality and GHG Emissions Significance Thresholds

The MDAQMD's CEQA and Federal Conformity Guidelines (MDAQMD, 2020), outlines significance determination thresholds. The MDAQMD Guidelines state that any project is significant if it triggers or exceed the most appropriate evaluation criteria, and further specifies that the emissions comparison (criteria number 1) is sufficient for most projects:

1. Generate total emissions (direct and indirect) in excess of the threshold given in Table L;
2. Generates a violation of any ambient air quality standard when added to the local background;
3. Does not conform with the applicable attainment or maintenance plan(s)3;
4. Exposes sensitive receptors to substantial pollutant concentrations, including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1.

The MDAQMD significant emissions thresholds are shown in Table L. According to the MDAQMD Guidelines, A significant project must incorporate mitigation sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation. Note that the emission thresholds are given as a daily value and an annual value, so that multi-phased project (such as project with a construction phase and a separate operational phase) with phases shorter than one year can be compared to the daily value. Since construction of the proposed project is anticipated to take over a year, the annual threshold has been utilized for both short-term construction impact analysis and long-term operational impacts.

Table L – MDAQMD Significant Emissions Thresholds

Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Greenhouse Gases (CO_2e)	100,000	548,000
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_X)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_X)	25	137
Particulate Matter (PM_{10})	15	82
Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

Source: https://www.mdaqmd.ca.gov/home/showpublisheddocument?id=8510

3 A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments and similar land use plan changes which do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

9.2 Odor Impacts

MDAQMD Rule 402 states:

> "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
>
> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

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

9.3 Energy Conservation

The *2020 CEQA California Environmental Quality Act Statutes & Guidelines* (2020 CEQA Guideline) now include an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Appendix F of the 2020 CEQA Statute and Guidelines, states the following:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, Appendix F, Subsection II.C of the 2018 CEQA Guidelines provides the following criteria for determining significance.

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
2. The effects of the project on local and regional energy supplies and on requirement for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

10.0 IMPACT ANALYSIS

10.1 CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality, energy, and GHG emissions would occur if the proposed project is determined to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

10.2 Air Quality Compliance

The proposed project would not conflict with or obstruct implementation of the MDAQMD Air Quality Management Plans (AQMPs). The following is the analysis procedure detailed in the MDAQMD Guidelines for Conformity Impacts:

> A project is non-conforming if it conflicts with or delays implementation of any applicable attainment or maintenance plan. A project is conforming if it complies with all applicable District rules and regulations, complies with all proposed control measures that are not yet adopted from the applicable plan(s), and is consistent with the growth forecasts in the applicable plan(s) (or is directly included in the applicable plan). Conformity with growth forecasts can be established by demonstrating that the project is consistent with the land use plan that was used to generate the growth forecast. An example of a non-conforming project would be one that increases the gross number of dwelling units, increases the number of trips, and/or increases the overall vehicle miles traveled in an affected area (relative to the applicable land use plan).

For this project, the City of Adelanto General Plan's Land Use Plan defines the long range land use assumptions that are represented in the AQMPs. The project site is currently designated as Light Manufacturing (LM) in the General Plan and is zoned Light Manufacturing (LM). Development of the proposed project would be consistent with the existing land use and zoning. Additionally, the proposed warehouse would be adjacent to existing industrial uses to the north and south and would provide employment opportunities in an area that currently has more housing than jobs, which would likely result

in a reduction of vehicle miles traveled for the future employees that now have to commute long distances for work. Based on the above, the proposed project will not result in an inconsistency with the AQMPs. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

Level of Significance

Less than significant impact.

10.3 Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard. The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the MDAQMD criteria pollutant emissions standards detailed above in Section 8.1.

Construction Emissions

Construction activities for the proposed project are anticipated to start early 2023 and would take approximately 13 months to complete. Construction activities for the proposed project are anticipated to include site preparation and grading of the 3.17-acre project site, building construction of the warehouse facility, paving of the onsite driveways, truck loading area, and parking lots, and application of architectural coatings. The CalEEMod model has been utilized to calculate the construction-related criteria pollutant emissions from the proposed project and the input parameters utilized in this analysis have been detailed in Section 7.1. The annual construction-related criteria pollutant emissions from the proposed project are shown below in Table M and the CalEEMod Annual printouts are shown in Appendix A.

Table M – Construction-Related Air Pollutant Emissions

Construction Year	Pollutant Emissions[1] (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
2023	0.21	1.86	2.08	<0.01	0.16	0.11
2024	0.60	0.09	0.13	<0.01	<0.01	<0.01
MDAMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Construction based on adherence to fugitive dust suppression requirements from MDAQMD Rule 403.2.
Source: CalEEMod Version 2020.4.0.

Table M shows that none of the analyzed criteria pollutants emissions would exceed the MDAQMD annual thresholds during construction of the proposed project. Therefore, a less than significant air quality emissions impact would occur from construction of the proposed project.

Operational Emissions

The operations-related criteria air quality impacts created by the proposed project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Section 7.1. The annual operations-related criteria pollutant emissions from the proposed project are shown below in Table N and the CalEEMod annual printouts are shown in Appendix A.

Table N – Operations-Related Air Pollutant Emissions

Emissions Source	Pollutant Emissions (tons per year)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Area Sources[1]	0.25	<0.01	<0.01	0.00	0.00	0.00
Energy Sources[2]	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mobile Sources[3]	0.06	0.61	0.63	<0.01	0.21	0.06
Off-Road Equipment[4]	<0.01	0.08	1.20	<0.01	<0.01	<0.01
Total Emissions	**0.32**	**0.70**	**1.83**	**<0.01**	**0.21**	**0.06**
MDAMD Thresholds	**25**	**25**	**100**	**25**	**15**	**12**
Exceeds Thresholds?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, hearths, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
[4] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 restricts the operation of diesel-powered forklifts, so forklifts have been analyzed as CNG-powered.
Source: CalEEMod Version 2020.4.0.

Table N shows that none of the analyzed criteria pollutants emissions would exceed the MDAQMD annual emissions thresholds during operation of the proposed project. Therefore, a less than significant air quality emissions impact would occur from operation of the proposed project.

Friant Ranch Decision

In *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (also referred to as "*Friant Ranch*"), the California Supreme Court held that when an EIR concluded that when a project would have significant impacts to air quality impacts, an EIR should "make a reasonable effort to substantively connect a project's air quality impacts to likely health consequences." As shown in Table N above, and unlike the project at issue in the *Friant Ranch* case, the project's emissions of criteria pollutants would not exceed the MDAQMD's thresholds and would not have a significant air quality impact. Therefore, it is not necessary to connect this small project's air quality impacts to likely health impacts. However, for informational purposes this analysis considers the Court's direction as follows:

1) The air quality discussion shall describe the specific health risks created from each criteria pollutant, including diesel particulate matter.

Although it has been determined that the project would not result in significant air quality impacts, this analysis details the specific health risks created from each criteria pollutant above in Section 3.1 and specifically in Table B. In addition, the specific health risks created from diesel particulate matter is detailed above in Section 2.2 of this analysis. As such, this analysis meets the part 1 requirements of the Friant Ranch Case.

2) The analysis shall identify the magnitude of the health risks created from the Project. The Ruling details how to identify the magnitude of the health risks. Specifically, on page 24 of the ruling it states "The Court of Appeal identified several ways in which the EIR could have framed the analysis so as to adequately inform the public and decision makers of possible adverse health effects. The County could have, for example, identified the Project's impact on the days of nonattainment per year."

The Friant Ranch Case found that an EIR's air quality analysis must meaningfully connect the identified air quality impacts to the human health consequences of those impacts, or meaningfully explain why that analysis cannot be provided. As noted in the Brief of Amicus Curiae by the SCAQMD in the Friant Ranch case (https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf) (Brief), SCAQMD has among the most sophisticated air quality modeling and health impact evaluation capability of any of the air districts in the State, and thus it is uniquely situated to express an opinion on how lead agencies should correlate air quality impacts with specific health outcomes. The SCAQMD discusses that it may be infeasible to quantify health risks caused by projects similar to the proposed project, due to many factors. It is necessary to have data regarding the sources and types of air toxic contaminants, location of emission points, velocity of emissions, the meteorology and topography of the area, and the location of receptors (worker and residence). The Brief states that it may not be feasible to perform a health risk assessment for airborne toxics that will be emitted by a generic industrial building that was built on "speculation" (i.e., without knowing the future tenant(s)). Even where a health risk assessment can be prepared, however, the resulting maximum health risk value is only a calculation of risk, it does not necessarily mean anyone will contract cancer as a result of the Project. The Brief also cites the author of the CARB methodology, which reported that a PM2.5 methodology is not suited for small projects and may yield unreliable results. Similarly, SCAQMD staff does not currently know of a way to accurately quantify ozone-related health impacts caused by NOX or VOC emissions from relatively small projects, due to photochemistry and regional model limitations. The Brief concludes, with respect to the Friant Ranch EIR, that although it may have been technically possible to plug the data into a methodology, the results would not have been reliable or meaningful.

On the other hand, for extremely large regional projects (unlike the proposed project), the SCAQMD states that it has been able to correlate potential health outcomes for very large emissions sources – as part of their rulemaking activity, specifically 6,620 pounds per day of NOx and 89,180 pounds per day of VOC (1,208 tons per year of NOx and 16,275 tons per year of VOC) were expected to result in approximately 20 premature deaths per year and 89,947 school absences due to ozone.

As shown above in Table M, project-related construction activities would generate a maximum of 0.60 tons per year of VOC and 1.86 tons per year of NOx and as shown above in Table N, operation of the proposed project would generate 0.32 tons per year of VOC and 0.70 tons per year of NOx. The proposed project would not generate anywhere near these levels of 1,208 tons per year of NOx or 16,275 tons per year of VOC emissions. Therefore, the proposed project's emissions are not sufficiently high enough to use a regional modeling program to correlate health effects on a basin-wide level.

Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Level of Significance

Less than significant impact.

10.4 Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The MDAQMD Guidelines details that sensitive receptor land uses consist of: Residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The nearest sensitive receptors to the proposed project to the project site are tract homes located as near as 2,300 feet (0.44 mile) to the south of the project site.

According to the MDAQMD Guidelines, the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated to determine if it exposes sensitive receptors to substantial pollutant concentrations:

- Any industrial project within 1000 feet;
- A distribution center (40 or more trucks per day) within 1000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

The proposed project would consist of development of a warehouse distribution facility. According to the Project Description (see Section 1.3), operation of the proposed project is anticipated to generate 15 truck trips per working day. Since the nearest sensitive receptors are over 1,000 feet away (2,300 feet away) and since the proposed project would generate less than 40 trucks per day (15 trucks per day), the proposed project would not exceed thresholds detailed above for new industrial uses. Therefore, the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Level of Significance

Less than significant impact.

10.5 Odor Emissions

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

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

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as MDAQMD Rule 442 that limits VOC content in solvents, Rule 1103 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

The proposed project would consist of the development of a warehouse. Operation of the proposed project may create odors from diesel truck emissions, and from trash storage bins. Pursuant to City regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Diesel truck emissions odors would be generated intermittently from truck loading and unloading activities at the project site and would not likely be noticeable for extended periods of time beyond the project site boundaries. Due to the distance of the nearest receptors from the project site (2,300 feet away) and through compliance with MDAQMD's Rule 402 and City trash storage regulations, no significant impact related to odors would occur during the on-going operations of the proposed project. Therefore, a less than significant odor impact would occur and no mitigation would be required.

Level of Significance

Less than significant impact

10.6 Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2020, San Bernardino County consumed 15,969 Gigawatt-hours per year of electricity[4].

4 Obtained from: http://www.ecdms.energy.ca.gov/elecbycounty.aspx

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2020, San Bernardino County consumed 527.24 Million Therms of natural gas[5].

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2017, 1,377 million gallons of gasoline and 265 million gallons of diesel was sold in San Bernardino County.

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

The construction activities for the proposed project are anticipated to include site preparation and grading of the 3.17-acre project site, building construction of the warehouse facility, paving of the onsite driveways, truck loading area, and parking lots, and application of architectural coatings. The proposed project would consume energy resources during construction in three (3) general forms:

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

Construction-Related Electricity

During construction the proposed project would consume electricity to construct the proposed warehouse and infrastructure. Electricity would be supplied to the project site by Southern California Edison and would be obtained from the existing electrical lines on the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction

5 Obtained from: http://www.ecdms.energy.ca.gov/gasbycounty.aspx

activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

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

Construction-Related Natural Gas

Construction of the proposed project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since there is currently natural gas service to of the project site, construction of the proposed project would be limited to installation of new natural gas connections within the project site. Development of the proposed project would likely not require extensive infrastructure improvements to serve the project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the proposed project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that construction of the proposed project would consume 2,808 gallons of gasoline and 36,590 gallons of diesel fuel. This equates to 0.0002 percent of the gasoline and 0.01 percent of the diesel used annually in San Bernardino County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and MDAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture

construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The proposed project would consist of development of a warehouse distribution facility. The on-going operation of the proposed project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment and vehicle trips.

Operations-Related Electricity

Operation of the proposed project would result in consumption of electricity at the project site. As detailed above in Section 8.3 the proposed project would consume 121,831 kilowatt-hours per year of electricity. This equates to 0.0008 percent of the electricity consumed annually in San Bernardino County. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the County.

It should be noted that, the proposed project would comply with all Federal, State, and City requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structures. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, the project would not result in the wasteful or inefficient use of electricity and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the proposed project would result in increased consumption of natural gas at the project site. As detailed above in Section 8.3 the proposed project would consume 100 MBTU per year of natural gas. This equates to 0.00002 percent of the natural gas consumed annually in San Bernardino County. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that, the proposed project would comply with all Federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed warehouse, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. As detailed above in Section 8.2 the proposed project would consume 10,779 gallons of gasoline and 27,620 gallons of diesel fuel per year from vehicle travel. This equates to 0.0008 percent of the gasoline and 0.01 percent of the diesel consumed annually in San Bernardino County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

In conclusion, the proposed project would comply with regulatory compliance measures outlined by the State and County related to Air Quality, GHG Emissions, Transportation/Circulation, and Water Supply. Additionally, the proposed project would be constructed in accordance with all applicable City Building and Fire Codes. Therefore, the proposed project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.7 Energy Plan Consistency

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the proposed project is the *Adelanto North 2035 Comprehensive Sustainable Plan,* adopted August 27, 2014. The proposed project's consistency with the applicable energy-related policies in the Comprehensive Sustainable Plan are shown in Table O.

Table O – Proposed Project Compliance with Applicable General Plan Energy Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
Goal LC 4: Sustainability incorporated into land use patterns and development approaches.		
LC 4.3	Create a sustainable community that is responsive to the environmental, water, and energy conservation needs of the region and local area.	**Consistent.** The proposed warehouse will be designed to exceed the 2019 Title 24 Part 6 building standards and CalGreen Building Code design standards that require that new non-residential buildings be designed to conserve energy and water usage.
LC 4.4	Promote the use of solar, wind, and other alternative energy generation systems as part of new planned development.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
Goal LC 7: Passive solar design and green building practices take advantage of Adelanto's solar and wind conditions.		

Policy No.	General Plan Policy	Proposed Project Implementation Actions
LC 7.1	Encourage the design and construction of buildings to go beyond the requirements of the CALGreen Building Code.	**Consistent.** The proposed warehouse will be designed to exceed the CalGreen design standards.
LC 7.2	Orient buildings to take advantage of solar gain, thus allowing the absorption of the sun's heat during colder months, while minimizing the sun's heat during warmer months.	**Consistent.** The proposed warehouse will be oriented with the majority of windows on the east side in order to heat transfer through the windows.
LC 7.3	Encourage long overhangs to screen summer sun and allow for solar gain in the winter.	**Consistent.** The proposed warehouse will include larger overhangs than typical warehouses.
LC 7.4	Orient buildings on an east-west axis to minimize western exposure.	**Consistent.** The proposed warehouse will be oriented in an east-west direction, with the windows concentrated on the east side to minimize sun exposure and associated heat transfer on the windows.
LC 7.5	Take full advantage of the wind to cool buildings in the summer months, and where feasible, generate alternative energy.	**Consistent.** The proposed warehouse will be designed to allow for the truck loading docks to remain open, when weather permits to allow the wind to cool the building.
LC 7.7	Locate windows to maximize daylighting and views. Awnings, landscaping, spectrally selective glass, and controllable blinds should be provided to reduce heat gain through windows.	**Consistent.** The windows have been located primarily on the east side in order to maximize daylighting, while minimizing the heat transfer through the windows.
LC 7.9	Encourage the building envelope to: • Minimize heat loss and gain • Reduce energy demand • Maximize passive heating and cooling • Minimize mechanical HVAC requirements	**Consistent.** The proposed warehouse will be designed to exceed the 2019 Title 24 Part 6 building standards and CalGreen Building Code design standards that through application of these standards will minimize heat loss and gain, reduce energy demand, maximize passive heating and cooling and minimize mechanical HVAC requirements.
LC 7.10	Promote glazing, size, and materials appropriate for window orientation, and promote the use of double or triple glazing wherever possible. Encourage every exterior window to be shaded appropriately for the window orientation.	**Consistent.** All windows installed on the proposed warehouse will exceed the 2019 Title 24 Part 6 building standards that require the use of either double glazing or extra thick glass that provides enhanced insulation. In addition, the windows will be primarily placed on the east side of the structure, in order to minimize the amount of sunlight and associated heat transfer on the windows.
LC 7.11	Encourage the use of energy-efficient heating, ventilation and air conditioning (HVAC) Systems and electrical systems.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 energy efficiency standards, that require installation of energy efficient HVAC systems.
Goal OS 3: Energy conservation and renewable energy production is maximized to reduce natural resources and fossil fuels consumption.		
OS 3.1	Promote the use of renewable energy and support efforts to develop small-scale, distributed energy (e.g., solar power and wind power) to reduce the amount of electricity drawn from the regional power grid, while providing Adelanto with a greater degree of energy self-sufficiency.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.

Policy No.	General Plan Policy	Proposed Project Implementation Actions
OS 3.2	Encourage new warehousing, manufacturing, industrial, and large commercial retail buildings to be designed to accommodate future rooftop solar panel systems.	**Consistent.** The proposed warehouse will be designed to meet the 2019 Title 24 Part 6 building standards that require that new non-residential buildings be designed to be "solar ready" that includes structurally designing the roof to support solar PV panels and installation of electrical conduit to support PV panels.
OS 3.5	Require all new development to provide site design and building orientation that take into account passive solar design to reduce heating and cooling loads through energy-efficiency strategies.	**Consistent.** The proposed warehouse will be oriented in an east-west direction, with the windows concentrated on the east side to minimize sun exposure and associated heat transfer on the windows.
OS 3.8	Conserve energy by promoting efficient and cost-effective lighting that reduces glare and light pollution.	**Consistent.** All lighting on the project site will be required to meet the CalGreen Building Standards, which require the installation of LED or other energy efficient lighting and also requires the use of lighting controls that automatically dim or turn off lights when sensors determine that no people are in the area.

Source: City of Adelanto, 2014.

As shown in Table O, the proposed project would be consistent with all applicable energy-related policies from the Comprehensive Sustainable Plan. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.8 Generation of Greenhouse Gas Emissions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project would consist of development of a warehouse distribution facility. The proposed project is anticipated to generate GHG emissions from construction activities and from operational activities that would include area sources, energy usage, mobile sources, off-road equipment, waste disposal, and water usage.

The MDAQMD shares responsibility with CARB for ensuring that all state and federal GHG standards are achieved and maintained within its jurisdiction. The MDAQMD CEQA Guidelines provides a project level significance threshold of 100,000 tons of CO_2e per year for both construction and operational activities. The MDAQMD developed this threshold in order to comply with the GHG emission reductions required by AB 32.

The project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed above in Section 7.1. A summary of the results is shown below in Table P and the CalEEMod model run is provided in Appendix A.

Table P – Project Related Greenhouse Gas Annual Emissions

	Greenhouse Gas Emissions (Metric Tons per Year)			
Category	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Construction				
Year 2023	332.88	0.07	<0.01	336.01
Year 2024	18.49	<0.01	<0.01	18.62
Total Construction Emissions	351.37	0.08	<0.01	354.63
Amortized Construction Emissions[1] (30 Years)	**11.71**	**<0.01**	**<0.01**	**11.82**
Operations				
Area Sources[2]	<0.01	0.00	0.00	<0.01
Energy Usage[3]	26.95	<0.01	<0.01	27.09
Mobile Sources[4]	372.44	0.02	0.05	387.29
Off-Road Equipment[5]	22.80	<0.01	0.00	22.99
Solid Waste[6]	9.50	0.56	0.00	23.54
Water and Wastewater[7]	30.25	0.38	<0.01	42.41
Total Operational Emissions	**461.94**	**0.97**	**0.06**	**503.32**
Total Annual Emission (Construction & Operations)	**473.65**	**0.97**	**0.06**	**515.14**
Threshold of Significance				**100,000**
Exceed Thresholds?				**No**

Notes:
[1] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
[2] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[3] Energy usage consists of GHG emissions from electricity and natural gas usage.
[4] Mobile sources consist of GHG emissions from vehicles.
[5] Off-road equipment consists of emissions from forklifts utilized onsite (Project Design Feature 1 restricts the operation of diesel-powered forklifts, so forklifts have been analyzed as CNG-powered.
[6] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[7] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
Source: CalEEMod Version 2020.4.0.

The data provided in Table P shows that the construction activities would create a total of 354.63 $MTCO_2e$, which equates to 11.82 $MTCO_2e$ per year, when amortized over 30 years. Table P also shows that operational activities would create 503.32 $MTCO_2e$ per year and when combined with the amortized construction emissions, the proposed project would create a total of 515.14 $MTCO_2e$ per year, which is within the MDAQMD threshold of 100,000 $MTCO_2e$ per year that is described above in Section 9.1. Therefore, a less than significant generation of greenhouse gas emissions would occur from development of the proposed project. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.9 Greenhouse Gas Plan Consistency

The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The proposed project would consist of development of a warehouse distribution facility. As detailed above in Section 10.8, the proposed project is anticipated to create 515.14 $MTCO_2e$ per year, which is well below the MDAQMD threshold of significance of 100,000 $MTCO_2e$ per year. The MDAQMD developed this threshold in order to meet the State GHG emissions reduction regulations that was based on substantial evidence supporting the use of the recommended

thresholds. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Level of Significance

Less than significant impact.

11.0 REFERENCES

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APPENDIX A

CalEEMod Model Annual Printouts

16454 Adelanto Rd Warehouse - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

16454 Adelanto Rd Warehouse

San Bernardino-Mojave Desert County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	49.80	1000sqft	1.46	49,798.00	0
Parking Lot	45.00	Space	1.71	18,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	32
Climate Zone	10			**Operational Year**	2024
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Total Project Site 3.17 acres

Construction Phase -

Trips and VMT - 6 vendor trips added to Site Preparation and Grading phases to account for water truck emissions

Grading - 725 cu yds of dirt imported

Vehicle Trips - Daily Trip Rate Set to match VMT Memo of 101 daily trips + 15 truck trips from Project Description

Construction Off-road Equipment Mitigation - Water Exposed Area 2x per day selected to account for MDAQMD Rule 403 minimum requirements

Water Mitigation - Install low-flow fixtures and use water-efficient irrigation system selected to account for Title 24 Part 11 requirements

Operational Off-Road Equipment - 1 Forklift 8 hours per day. Per PDF 1 analyzed as CNG

Fleet Mix - Parking Lot set to 100% HHD; Warehouse set to only Autos

16454 Adelanto Rd Warehouse - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Table Name	Column Name	Default Value	New Value
tblFleetMix	HHD	0.02	1.00
tblFleetMix	HHD	0.02	0.00
tblFleetMix	LDA	0.54	0.00
tblFleetMix	LDA	0.54	0.58
tblFleetMix	LDT1	0.06	0.00
tblFleetMix	LDT1	0.06	0.06
tblFleetMix	LDT2	0.17	0.00
tblFleetMix	LDT2	0.17	0.19
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD1	0.03	0.00
tblFleetMix	LHD2	7.1040e-003	0.00
tblFleetMix	LHD2	7.1040e-003	0.00
tblFleetMix	MCY	0.03	0.00
tblFleetMix	MCY	0.03	0.03
tblFleetMix	MDV	0.14	0.00
tblFleetMix	MDV	0.14	0.15
tblFleetMix	MH	4.8300e-003	0.00
tblFleetMix	MH	4.8300e-003	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	MHD	0.01	0.00
tblFleetMix	OBUS	5.5400e-004	0.00
tblFleetMix	OBUS	5.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	SBUS	9.5400e-004	0.00
tblFleetMix	UBUS	2.5100e-004	0.00
tblFleetMix	UBUS	2.5100e-004	0.00
tblGrading	MaterialImported	0.00	725.00
tblLandUse	LandUseSquareFeet	49,800.00	49,798.00

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tblLandUse	LotAcreage	1.14	1.46
tblLandUse	LotAcreage	0.41	1.71
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	1.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblTripsAndVMT	VendorTripNumber	0.00	6.00
tblVehicleTrips	CC_TL	7.30	40.00
tblVehicleTrips	CC_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	0.33
tblVehicleTrips	ST_TR	1.74	2.03
tblVehicleTrips	SU_TR	0.00	0.33
tblVehicleTrips	SU_TR	1.74	2.03
tblVehicleTrips	WD_TR	0.00	0.33
tblVehicleTrips	WD_TR	1.74	2.03

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2057	1.8568	2.0781	3.8100e-003	0.1138	0.0873	0.2011	0.0488	0.0820	0.1308	0.0000	332.8796	332.8796	0.0709	4.5500e-003	336.0076
2024	0.5957	0.0859	0.1318	2.1000e-004	1.8900e-003	4.1500e-003	6.0300e-003	5.0000e-004	3.8700e-003	4.3700e-003	0.0000	18.4918	18.4918	4.8000e-003	4.0000e-005	18.6239
Maximum	**0.5957**	**1.8568**	**2.0781**	**3.8100e-003**	**0.1138**	**0.0873**	**0.2011**	**0.0488**	**0.0820**	**0.1308**	**0.0000**	**332.8796**	**332.8796**	**0.0709**	**4.5500e-003**	**336.0076**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2057	1.8568	2.0781	3.8100e-003	0.0712	0.0873	0.1585	0.0274	0.0820	0.1094	0.0000	332.8792	332.8792	0.0709	4.5500e-003	336.0073
2024	0.5957	0.0859	0.1318	2.1000e-004	1.8900e-003	4.1500e-003	6.0300e-003	5.0000e-004	3.8700e-003	4.3700e-003	0.0000	18.4918	18.4918	4.8000e-003	4.0000e-005	18.6239
Maximum	**0.5957**	**1.8568**	**2.0781**	**3.8100e-003**	**0.0712**	**0.0873**	**0.1585**	**0.0274**	**0.0820**	**0.1094**	**0.0000**	**332.8792**	**332.8792**	**0.0709**	**4.5500e-003**	**336.0073**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	36.86	0.00	20.59	43.46	0.00	15.85	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-2-2023	4-1-2023	0.4358	0.4358
2	4-2-2023	7-1-2023	0.5368	0.5368
3	7-2-2023	10-1-2023	0.5427	0.5427
4	10-2-2023	1-1-2024	0.5256	0.5256
5	1-2-2024	4-1-2024	0.6965	0.6965
		Highest	0.6965	0.6965

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2541	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Energy	5.4000e-004	4.9100e-003	4.1200e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	26.9476	26.9476	1.9300e-003	3.2000e-004	27.0909
Mobile	0.0592	0.6063	0.6307	3.8200e-003	0.2027	6.6600e-003	0.2094	0.0546	6.3500e-003	0.0610	0.0000	372.4373	372.4373	0.0178	0.0484	387.2949
Offroad	1.7400e-003	0.0849	1.1992	2.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	22.8044	22.8044	7.3800e-003	0.0000	22.9888
Waste						0.0000	0.0000		0.0000	0.0000	9.5020	0.0000	9.5020	0.5616	0.0000	23.5408
Water						0.0000	0.0000		0.0000	0.0000	3.6536	26.5935	30.2471	0.3775	9.1300e-003	42.4062
Total	**0.3155**	**0.6961**	**1.8349**	**4.0500e-003**	**0.2027**	**8.3100e-003**	**0.2110**	**0.0546**	**8.0000e-003**	**0.0626**	**13.1556**	**448.7846**	**461.9401**	**0.9661**	**0.0578**	**503.3233**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2541	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Energy	5.4000e-004	4.9100e-003	4.1200e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	26.9476	26.9476	1.9300e-003	3.2000e-004	27.0909
Mobile	0.0592	0.6063	0.6307	3.8200e-003	0.2027	6.6600e-003	0.2094	0.0546	6.3500e-003	0.0610	0.0000	372.4373	372.4373	0.0178	0.0484	387.2949
Offroad	1.7400e-003	0.0849	1.1992	2.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	22.8044	22.8044	7.3800e-003	0.0000	22.9888
Waste						0.0000	0.0000		0.0000	0.0000	9.5020	0.0000	9.5020	0.5616	0.0000	23.5408
Water						0.0000	0.0000		0.0000	0.0000	3.0836	22.4449	25.5285	0.3186	7.7100e-003	35.7908
Total	**0.3155**	**0.6961**	**1.8349**	**4.0500e-003**	**0.2027**	**8.3100e-003**	**0.2110**	**0.0546**	**8.0000e-003**	**0.0626**	**12.5856**	**444.6360**	**457.2216**	**0.9072**	**0.0564**	**496.7080**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.33**	**0.92**	**1.02**	**6.10**	**2.46**	**1.31**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/25/2023	1/31/2023	5	5	
2	Grading	Grading	2/1/2023	2/10/2023	5	8	

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3	Building Construction	Building Construction	2/13/2023	12/29/2023	5	230	
4	Paving	Paving	1/2/2024	1/25/2024	5	18	
5	Architectural Coating	Architectural Coating	1/26/2024	2/20/2024	5	18	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 1.71

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 74,697; Non-Residential Outdoor: 24,899; Striped Parking Area: 1,080 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

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Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	6.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	6.00	91.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	28.00	11.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	6.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0491**	**3.1700e-003**	**0.0523**	**0.0253**	**2.9100e-003**	**0.0282**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

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3.2 Site Preparation - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	5.7000e-004	2.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2751	0.2751	1.0000e-005	4.0000e-005	0.2874
Worker	1.3000e-004	9.0000e-005	1.1400e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2852	0.2852	1.0000e-005	1.0000e-005	0.2879
Total	**1.5000e-004**	**6.6000e-004**	**1.3700e-003**	**0.0000**	**4.6000e-004**	**0.0000**	**4.6000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5603**	**0.5603**	**2.0000e-005**	**5.0000e-005**	**0.5753**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0221	0.0000	0.0221	0.0114	0.0000	0.0114	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.6500e-003	0.0688	0.0456	1.0000e-004		3.1700e-003	3.1700e-003		2.9100e-003	2.9100e-003	0.0000	8.3627	8.3627	2.7000e-003	0.0000	8.4303
Total	**6.6500e-003**	**0.0688**	**0.0456**	**1.0000e-004**	**0.0221**	**3.1700e-003**	**0.0253**	**0.0114**	**2.9100e-003**	**0.0143**	**0.0000**	**8.3627**	**8.3627**	**2.7000e-003**	**0.0000**	**8.4303**

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3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.0000e-005	5.7000e-004	2.3000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.2751	0.2751	1.0000e-005	4.0000e-005	0.2874
Worker	1.3000e-004	9.0000e-005	1.1400e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.2852	0.2852	1.0000e-005	1.0000e-005	0.2879
Total	**1.5000e-004**	**6.6000e-004**	**1.3700e-003**	**0.0000**	**4.6000e-004**	**0.0000**	**4.6000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.5603**	**0.5603**	**2.0000e-005**	**5.0000e-005**	**0.5753**

3.3 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0284	0.0000	0.0284	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4243	10.4243	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0284**	**3.1000e-003**	**0.0315**	**0.0137**	**2.8500e-003**	**0.0166**	**0.0000**	**10.4243**	**10.4243**	**3.3700e-003**	**0.0000**	**10.5085**

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3.3 Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	5.2900e-003	1.5400e-003	3.0000e-005	7.8000e-004	5.0000e-005	8.4000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	2.5285	2.5285	1.1000e-004	4.0000e-004	2.6506
Vendor	3.0000e-005	9.2000e-004	3.6000e-004	0.0000	1.6000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4401	0.4401	1.0000e-005	7.0000e-005	0.4598
Worker	1.7000e-004	1.2000e-004	1.5200e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3803	0.3803	1.0000e-005	1.0000e-005	0.3839
Total	**3.1000e-004**	**6.3300e-003**	**3.4200e-003**	**3.0000e-005**	**1.4200e-003**	**6.0000e-005**	**1.5000e-003**	**4.0000e-004**	**6.0000e-005**	**4.5000e-004**	**0.0000**	**3.3489**	**3.3489**	**1.3000e-004**	**4.8000e-004**	**3.4943**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0128	0.0000	0.0128	6.1700e-003	0.0000	6.1700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	6.8400e-003	0.0717	0.0590	1.2000e-004		3.1000e-003	3.1000e-003		2.8500e-003	2.8500e-003	0.0000	10.4242	10.4242	3.3700e-003	0.0000	10.5085
Total	**6.8400e-003**	**0.0717**	**0.0590**	**1.2000e-004**	**0.0128**	**3.1000e-003**	**0.0159**	**6.1700e-003**	**2.8500e-003**	**9.0200e-003**	**0.0000**	**10.4242**	**10.4242**	**3.3700e-003**	**0.0000**	**10.5085**

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3.3 Grading - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.1000e-004	5.2900e-003	1.5400e-003	3.0000e-005	7.8000e-004	5.0000e-005	8.4000e-004	2.2000e-004	5.0000e-005	2.7000e-004	0.0000	2.5285	2.5285	1.1000e-004	4.0000e-004	2.6506
Vendor	3.0000e-005	9.2000e-004	3.6000e-004	0.0000	1.6000e-004	1.0000e-005	1.7000e-004	5.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4401	0.4401	1.0000e-005	7.0000e-005	0.4598
Worker	1.7000e-004	1.2000e-004	1.5200e-003	0.0000	4.8000e-004	0.0000	4.9000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3803	0.3803	1.0000e-005	1.0000e-005	0.3839
Total	**3.1000e-004**	**6.3300e-003**	**3.4200e-003**	**3.0000e-005**	**1.4200e-003**	**6.0000e-005**	**1.5000e-003**	**4.0000e-004**	**6.0000e-005**	**4.5000e-004**	**0.0000**	**3.3489**	**3.3489**	**1.3000e-004**	**4.8000e-004**	**3.4943**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1809	1.6543	1.8681	3.1000e-003		0.0805	0.0805		0.0757	0.0757	0.0000	266.5755	266.5755	0.0634	0.0000	268.1608
Total	**0.1809**	**1.6543**	**1.8681**	**3.1000e-003**		**0.0805**	**0.0805**		**0.0757**	**0.0757**	**0.0000**	**266.5755**	**266.5755**	**0.0634**	**0.0000**	**268.1608**

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4600e-003	0.0484	0.0192	2.4000e-004	8.4400e-003	3.5000e-004	8.7900e-003	2.4400e-003	3.4000e-004	2.7700e-003	0.0000	23.1983	23.1983	6.0000e-004	3.4300e-003	24.2346
Worker	9.3800e-003	6.5900e-003	0.0815	2.2000e-004	0.0260	1.3000e-004	0.0261	6.8900e-003	1.2000e-004	7.0200e-003	0.0000	20.4097	20.4097	6.4000e-004	6.0000e-004	20.6038
Total	**0.0108**	**0.0550**	**0.1007**	**4.6000e-004**	**0.0344**	**4.8000e-004**	**0.0349**	**9.3300e-003**	**4.6000e-004**	**9.7900e-003**	**0.0000**	**43.6080**	**43.6080**	**1.2400e-003**	**4.0300e-003**	**44.8384**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1809	1.6543	1.8681	3.1000e-003		0.0805	0.0805		0.0757	0.0757	0.0000	266.5751	266.5751	0.0634	0.0000	268.1605
Total	**0.1809**	**1.6543**	**1.8681**	**3.1000e-003**		**0.0805**	**0.0805**		**0.0757**	**0.0757**	**0.0000**	**266.5751**	**266.5751**	**0.0634**	**0.0000**	**268.1605**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.4600e-003	0.0484	0.0192	2.4000e-004	8.4400e-003	3.5000e-004	8.7900e-003	2.4400e-003	3.4000e-004	2.7700e-003	0.0000	23.1983	23.1983	6.0000e-004	3.4300e-003	24.2346
Worker	9.3800e-003	6.5900e-003	0.0815	2.2000e-004	0.0260	1.3000e-004	0.0261	6.8900e-003	1.2000e-004	7.0200e-003	0.0000	20.4097	20.4097	6.4000e-004	6.0000e-004	20.6038
Total	**0.0108**	**0.0550**	**0.1007**	**4.6000e-004**	**0.0344**	**4.8000e-004**	**0.0349**	**9.3300e-003**	**4.6000e-004**	**9.7900e-003**	**0.0000**	**43.6080**	**43.6080**	**1.2400e-003**	**4.0300e-003**	**44.8384**

3.5 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9300e-003	0.0745	0.1100	1.7000e-004		3.5900e-003	3.5900e-003		3.3200e-003	3.3200e-003	0.0000	14.7423	14.7423	4.6300e-003	0.0000	14.8581
Paving	2.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0102**	**0.0745**	**0.1100**	**1.7000e-004**		**3.5900e-003**	**3.5900e-003**		**3.3200e-003**	**3.3200e-003**	**0.0000**	**14.7423**	**14.7423**	**4.6300e-003**	**0.0000**	**14.8581**

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3.5 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.3000e-004	4.2500e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1166	1.1166	3.0000e-005	3.0000e-005	1.1267
Total	**4.9000e-004**	**3.3000e-004**	**4.2500e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1166**	**1.1166**	**3.0000e-005**	**3.0000e-005**	**1.1267**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.9300e-003	0.0745	0.1100	1.7000e-004		3.5900e-003	3.5900e-003		3.3200e-003	3.3200e-003	0.0000	14.7423	14.7423	4.6300e-003	0.0000	14.8581
Paving	2.2400e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0102**	**0.0745**	**0.1100**	**1.7000e-004**		**3.5900e-003**	**3.5900e-003**		**3.3200e-003**	**3.3200e-003**	**0.0000**	**14.7423**	**14.7423**	**4.6300e-003**	**0.0000**	**14.8581**

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3.5 Paving - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.9000e-004	3.3000e-004	4.2500e-003	1.0000e-005	1.4500e-003	1.0000e-005	1.4600e-003	3.9000e-004	1.0000e-005	3.9000e-004	0.0000	1.1166	1.1166	3.0000e-005	3.0000e-005	1.1267
Total	**4.9000e-004**	**3.3000e-004**	**4.2500e-003**	**1.0000e-005**	**1.4500e-003**	**1.0000e-005**	**1.4600e-003**	**3.9000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1166**	**1.1166**	**3.0000e-005**	**3.0000e-005**	**1.1267**

3.6 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5833					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0110	0.0163	3.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3012
Total	**0.5849**	**0.0110**	**0.0163**	**3.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3012**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.0000e-004	1.2800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3350	0.3350	1.0000e-005	1.0000e-005	0.3380
Total	**1.5000e-004**	**1.0000e-004**	**1.2800e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3350**	**0.3350**	**1.0000e-005**	**1.0000e-005**	**0.3380**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.5833					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.6300e-003	0.0110	0.0163	3.0000e-005		5.5000e-004	5.5000e-004		5.5000e-004	5.5000e-004	0.0000	2.2979	2.2979	1.3000e-004	0.0000	2.3012
Total	**0.5849**	**0.0110**	**0.0163**	**3.0000e-005**		**5.5000e-004**	**5.5000e-004**		**5.5000e-004**	**5.5000e-004**	**0.0000**	**2.2979**	**2.2979**	**1.3000e-004**	**0.0000**	**2.3012**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.5000e-004	1.0000e-004	1.2800e-003	0.0000	4.4000e-004	0.0000	4.4000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3350	0.3350	1.0000e-005	1.0000e-005	0.3380
Total	**1.5000e-004**	**1.0000e-004**	**1.2800e-003**	**0.0000**	**4.4000e-004**	**0.0000**	**4.4000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3350**	**0.3350**	**1.0000e-005**	**1.0000e-005**	**0.3380**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0592	0.6063	0.6307	3.8200e-003	0.2027	6.6600e-003	0.2094	0.0546	6.3500e-003	0.0610	0.0000	372.4373	372.4373	0.0178	0.0484	387.2949
Unmitigated	0.0592	0.6063	0.6307	3.8200e-003	0.2027	6.6600e-003	0.2094	0.0546	6.3500e-003	0.0610	0.0000	372.4373	372.4373	0.0178	0.0484	387.2949

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Parking Lot	14.85	14.85	14.85	216,216	216,216
Unrefrigerated Warehouse-No Rail	101.09	101.09	101.09	295,145	295,145
Total	115.94	115.94	115.94	511,361	511,361

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Parking Lot	9.50	40.00	7.30	0.00	100.00	0.00	100	0	0
Unrefrigerated Warehouse-No	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Parking Lot	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Unrefrigerated Warehouse-No Rail	0.579000	0.059000	0.185000	0.150000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.027000	0.000000	0.000000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.6063	21.6063	1.8200e-003	2.2000e-004	21.7177
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	21.6063	21.6063	1.8200e-003	2.2000e-004	21.7177
NaturalGas Mitigated	5.4000e-004	4.9100e-003	4.1200e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.3414	5.3414	1.0000e-004	1.0000e-004	5.3731
NaturalGas Unmitigated	5.4000e-004	4.9100e-003	4.1200e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.3414	5.3414	1.0000e-004	1.0000e-004	5.3731

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5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	100094	5.4000e-004	4.9100e-003	4.1200e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.3414	5.3414	1.0000e-004	1.0000e-004	5.3731
Total		**5.4000e-004**	**4.9100e-003**	**4.1200e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**5.3414**	**5.3414**	**1.0000e-004**	**1.0000e-004**	**5.3731**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	100094	5.4000e-004	4.9100e-003	4.1200e-003	3.0000e-005		3.7000e-004	3.7000e-004		3.7000e-004	3.7000e-004	0.0000	5.3414	5.3414	1.0000e-004	1.0000e-004	5.3731
Total		**5.4000e-004**	**4.9100e-003**	**4.1200e-003**	**3.0000e-005**		**3.7000e-004**	**3.7000e-004**		**3.7000e-004**	**3.7000e-004**	**0.0000**	**5.3414**	**5.3414**	**1.0000e-004**	**1.0000e-004**	**5.3731**

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5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	6300	1.1173	9.0000e-005	1.0000e-005	1.1230
Unrefrigerated Warehouse-No Rail	115531	20.4890	1.7300e-003	2.1000e-004	20.5947
Total		**21.6063**	**1.8200e-003**	**2.2000e-004**	**21.7177**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Parking Lot	6300	1.1173	9.0000e-005	1.0000e-005	1.1230
Unrefrigerated Warehouse-No Rail	115531	20.4890	1.7300e-003	2.1000e-004	20.5947
Total		**21.6063**	**1.8200e-003**	**2.2000e-004**	**21.7177**

6.0 Area Detail

16454 Adelanto Rd Warehouse - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2541	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Unmitigated	0.2541	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Total	**0.2541**	**1.0000e-005**	**8.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**0.0000**	**1.8000e-003**

16454 Adelanto Rd Warehouse - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0583					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.1957					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	8.0000e-005	1.0000e-005	8.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.6900e-003	1.6900e-003	0.0000	0.0000	1.8000e-003
Total	**0.2541**	**1.0000e-005**	**8.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.6900e-003**	**1.6900e-003**	**0.0000**	**0.0000**	**1.8000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

Install Low Flow Bathroom Faucet

Install Low Flow Kitchen Faucet

Install Low Flow Toilet

Use Water Efficient Irrigation System

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	25.5285	0.3186	7.7100e-003	35.7908
Unmitigated	30.2471	0.3775	9.1300e-003	42.4062

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	11.5162 / 0	30.2471	0.3775	9.1300e-003	42.4062
Total		**30.2471**	**0.3775**	**9.1300e-003**	**42.4062**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	9.71972 / 0	25.5285	0.3186	7.7100e-003	35.7908
Total		**25.5285**	**0.3186**	**7.7100e-003**	**35.7908**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	9.5020	0.5616	0.0000	23.5408
Unmitigated	9.5020	0.5616	0.0000	23.5408

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	46.81	9.5020	0.5616	0.0000	23.5408
Total		**9.5020**	**0.5616**	**0.0000**	**23.5408**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	46.81	9.5020	0.5616	0.0000	23.5408
Total		**9.5020**	**0.5616**	**0.0000**	**23.5408**

9.0 Operational Offroad

16454 Adelanto Rd Warehouse - San Bernardino-Mojave Desert County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	1	8.00	260	89	0.20	CNG

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	1.7400e-003	0.0849	1.1992	2.0000e-004		1.2800e-003	1.2800e-003		1.2800e-003	1.2800e-003	0.0000	22.8044	22.8044	7.3800e-003	0.0000	22.9888
Total	**1.7400e-003**	**0.0849**	**1.1992**	**2.0000e-004**		**1.2800e-003**	**1.2800e-003**		**1.2800e-003**	**1.2800e-003**	**0.0000**	**22.8044**	**22.8044**	**7.3800e-003**	**0.0000**	**22.9888**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

APPENDIX B

EMFAC2017 Model Printouts

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Year	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
San Bernar	2023	HHDT	Aggregated	Aggregated	GAS	2.4	400.8	48.0	0.1
San Bernar	2023	LDA	Aggregated	Aggregated	GAS	373604.6	15004435.5	1757226.9	458.8
San Bernar	2023	LDT1	Aggregated	Aggregated	GAS	40976.7	1469084.9	185828.6	52.7
San Bernar	2023	LDT2	Aggregated	Aggregated	GAS	125268.7	4659706.5	580200.6	178.3
San Bernar	2023	LHDT1	Aggregated	Aggregated	GAS	10651.5	357360.5	158691.6	33.9
San Bernar	2023	LHDT2	Aggregated	Aggregated	GAS	1508.5	51808.0	22475.1	5.6
San Bernar	2023	MCY	Aggregated	Aggregated	GAS	20700.1	271811.4	41400.2	6.9
San Bernar	2023	MDV	Aggregated	Aggregated	GAS	98766.7	3536805.1	448742.8	170.0
San Bernar	2023	MH	Aggregated	Aggregated	GAS	3018.8	24784.1	302.0	4.9
San Bernar	2023	MHDT	Aggregated	Aggregated	GAS	963.9	73526.3	19286.4	14.2
San Bernar	2023	OBUS	Aggregated	Aggregated	GAS	280.1	18001.9	5603.5	3.5
San Bernar	2023	SBUS	Aggregated	Aggregated	GAS	53.5	3645.6	214.1	0.4
San Bernar	2023	UBUS	Aggregated	Aggregated	GAS	43.4	4823.0	173.7	1.1

vehicle miles per day (All Categories)	25476194	930	1,000 gall per day
		930,422	gallons per day
Fleet Avg Miles per gallon	27.4		

EMFAC2017 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for VMT, trips/day for Trips, tons/day for Emissions, 1000 gallons/day for Fuel Consumption. Note 'day' in the unit is operation day.

Region	Calendar Y	Vehicle Cat	Model Yea	Speed	Fuel	Population	VMT	Trips	Fuel Consumption
San Bernar	2023	HHDT	Aggregatec	Aggregated	DSL	14430.9	2430859.2	191159.3	328.9
San Bernar	2023	LDA	Aggregatec	Aggregated	DSL	3679.2	152909.1	17411.2	2.9
San Bernar	2023	LDT1	Aggregatec	Aggregated	DSL	18.6	318.5	59.1	0.0
San Bernar	2023	LDT2	Aggregatec	Aggregated	DSL	775.1	33541.7	3801.7	0.9
San Bernar	2023	LHDT1	Aggregatec	Aggregated	DSL	11209.3	389219.2	140999.3	18.6
San Bernar	2023	LHDT2	Aggregatec	Aggregated	DSL	4173.3	146659.4	52495.5	7.5
San Bernar	2023	MDV	Aggregatec	Aggregated	DSL	2267.0	92070.7	10889.5	3.2
San Bernar	2023	MH	Aggregatec	Aggregated	DSL	1186.4	9802.7	118.6	0.9
San Bernar	2023	MHDT	Aggregatec	Aggregated	DSL	3424.2	247270.0	30799.9	21.8
San Bernar	2023	OBUS	Aggregatec	Aggregated	DSL	68.7	5332.9	677.9	0.6
San Bernar	2023	SBUS	Aggregatec	Aggregated	DSL	626.9	19924.0	7234.0	2.6
San Bernar	2023	UBUS	Aggregatec	Aggregated	DSL	1.3	122.5	5.3	0.0

Diesel Truck (HHDT, MDV, MHDT) vehicle miles per day	2,770,200	354	1,000 gall per day
		353,867	gallons per day
Diesel Truck Fleet Avg Miles per gallon	7.8		

APPENDIX B – Biological Resources Reconnaissance Assessment for the 16454 Adelanto Road Warehouse Distribution Facility Project prepared by Chambers Group, June 6, 2022.

June 6, 2022
5 Hutton Centre Drive, Suite 750
Santa Ana, California 92707

Chuck Minyard
Primior Development
750 North Diamond Bar Boulevard
Diamond Bar, California 91765

Subject: Biological Resources Reconnaissance Assessment for the 16454 Adelanto Road Warehouse Distribution Facility Project

Chambers Group, Inc. (Chambers Group) was retained by Primior Development to conduct a literature review and biological reconnaissance-level survey for the 16454 Adelanto Road Warehouse Distribution Facility Project (Project). The purpose of this survey was to document existing vegetation communities, identify special status species with a potential for occurrence, and map habitats that could support special status wildlife species as well as evaluate potential impacts of the Project to these resources.

Project Site Location and Description

The approximately 3.17-acre Project site is located between two existing storage facilities southwest of the intersection of Cassia Street and Adelanto Road, in the City of Adelanto, San Bernardino County, California. The Project site is a vacant lot and is bordered by Highway 395 to the west, Adelanto Road to the east, and two storage facilities to the north and south, with undeveloped land occurring on the east side of Adelanto Road. The elevation at the Project site is approximately 2,871 feet above mean sea level (amsl). Maps of the Project Location and Project Vicinity are provided in Attachment 1 (Figure 1 – Project Location and Vicinity Map). Primior Development plans to build a warehouse distribution facility within the Project site.

Methods

The Survey Area encompasses the Project site which includes the entirety of the 3.17-acre parcel.

Literature Review

Prior to performing the biological reconnaissance survey, Chambers Group staff conducted a literature review for soils, jurisdictional water features that contribute to hydrology, and special status species known to occur within the vicinity (approximately 5 miles) of the Survey Area.

Soils

Prior to performing the biological reconnaissance survey, soil maps for the Survey Area were referenced in accordance with categories set forth by the U.S. Department of Agriculture (USDA) Soil Conservation Service and the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2022).

Hydrology

A general assessment of waters potentially regulated by the U.S. Army Corps of Engineers (USACE), California Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) was conducted for the Survey Area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter-Cologne Water Quality Control Act

(California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Wildlife (CDFW) Code, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. A desktop assessment was conducted of available data prior to the biological reconnaissance survey in the field.

Special Status Habitats and Species

The most recent records of the California Natural Diversity Database (CNDDB) managed by CDFW (2022) and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2021) were reviewed for the following quadrangles containing and surrounding the Project: *Adelanto*, *Shadow Mountains*, *Victorville NW*, *Helendale*, *Shadow Mountains SE*, *Victorville*, *Phelan*, *Baldy Mesa*, and *Hesperia,* California U.S. Geological Survey (USGS) 7.5-minute quadrangles. These databases contain records of reported occurrences of federally or State-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Survey Area.

Biological Reconnaissance Survey

The biological reconnaissance survey was conducted on foot within the Project site. During the survey, the biologists identified and mapped all vegetation communities found within the Survey Area onto aerial photographs (Attachment 1: Figure 2 – Vegetation Communities Map). Plant communities were determined in accordance with the *Manual of California Vegetation*, *Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual*, *Vascular Plants of California, Second Edition* (Baldwin et al. 2012). Plant and wildlife species observed or detected within the Survey Area were recorded (Attachments 2 and 3). In addition, site photographs were taken depicting current site conditions (Attachment 4).

Results

Chambers Group biologists Heather Franklin and Alisa Muniz conducted the biological reconnaissance survey within the Survey Area to identify vegetation communities, the potential for occurrence of special status species, and/or habitats that could support special status wildlife species. The survey was conducted on foot between 1000 and 1200 hours on April 26, 2022. Weather conditions during the survey included temperatures ranging from 71 to 73 degrees Fahrenheit, wind speeds between 2 and 5 mile per hour, with cloud cover ranging from 60 to 70 percent, and no precipitation.

Biological Site Conditions

Soils

According to the results from the USDA NRCS Web Soil Survey (USDA 2021), the Project Site is located in the Mojave River Area, CA671 part of the soil map. One soil type is known to occur within and/or adjacent to the Project site. This soil type is described below.

- Cajon sand (0 to 2 percent slopes) occurs throughout the entire Project Site and adjacent areas. The parent material is alluvium derived from granite. The available water storage is classified as low (approximately 4.1 inches) with a depth to the water table of more than 80 inches.

Hydrology

The Project site is located within the Manzanita Wash (HUC 180902080503) watershed. No jurisdictional features such as drainages or swales were observed within or adjacent to the Survey Area (Attachment 1: Figure 4 – Jurisdictional

Waters Map). In addition, no roadside ditches or culverts occur within or directly adjacent to the site. Therefore, no impacts to waters of the United States or waters of the State are anticipated to occur as a result of this Project.

Vegetation Communities and Other Areas

Four vegetation communities or land types were observed within the Survey Area during the biological reconnaissance survey: disturbed, ornamental, ruderal, and developed landscape. The majority of the Project site is disturbed with some portions of ruderal vegetation occurring along the southern edge of the site, and a small developed area including a small portable building with ornamental vegetation occurs in the northeast section of the site. The communities are described in the following subsections.

Disturbed

Disturbed areas include those areas that are either devoid of vegetation (cleared or graded) such as dirt roads or those areas that have been disturbed by human use. Soils are compacted and support little to no vegetation or may contain species such as tocalote (*Centaurea melitensis*), wild oat (*Avena* sp.), mustard species, prickly sow thistle (*Sonchus asper*), and prickly lettuce (*Lactuca serriola*) (Gray and Bramlet 1992). Disturbed areas within the Project site included non-native mustards (*Brassica* spp.) and erodium (*Erodium* sp.).

Ornamental

Ornamental Landscaping includes areas where the vegetation is dominated by non-native horticultural plants (Gray and Bramlet 1992). Typically, the species composition consists of introduced trees, shrubs, flowers and turf grass. The ornamental vegetation within the Project site consisted of cultivated pine trees (*Pinus* sp.).

Ruderal

Areas classified as Ruderal tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground, and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999). The soils in ruderal areas are typically characterized as heavily compacted or frequently disturbed. The vegetation in these areas is adapted to compact soils where water does not readily penetrate the soil. Ruderal areas are often dominated by species of the *Centaurea*, *Brassica*, *Malva*, *Salsola*, *Eremocarpus, Amaranthus*, and *Atriplex* genera. Areas with Ruderal vegetation were present along southern border of the Survey Area. Ruderal areas within the Project site included brome (*Bromus diandrus*), non-native mustards (*Brassica* spp.), and rubber rabbitbrush (*Ericameria nauseosa*).

Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as urban areas, houses, paved roads, buildings, parks, and other maintained areas (Gray and Bramlet 1992). The small developed area included a portable building, small parking area, two storage containers, and piles of trash.

General Plants

A total of 12 plant species were observed within the Survey Area during the biological reconnaissance survey (Attachment 2: Plant Species Observed). Plant species observed during the survey were representative of the existing Survey Area conditions. No special status plant species were observed during the survey.

General Wildlife

A total of 7 wildlife species were observed within the Survey Area during the biological reconnaissance survey. Wildlife species observed or detected during the survey were characteristic of the existing Survey Area conditions. A complete list of wildlife species observed or detected is provided in Attachment 3 – Wildlife Species Observed/Detected List.

Sensitive Species

Special Status Species

The following information is a list of abbreviations used to help determine special status biological resources potentially occurring in the Survey Area.

CNPS California Rare Plant Rank (CRPR)

1A	=	Plants presumed extinct in California.
1B	=	Plants rare and endangered in California and throughout their range.
2	=	Plants rare, threatened or endangered in California but more common elsewhere in their range.
3	=	Plants about which we need more information, a review list.
4	=	Plants of limited distribution; a watch list.

CRPR Extensions

0.1	=	Seriously endangered in California (greater than 80 percent of occurrences threatened/high degree and immediacy of threat).
0.2	=	Fairly endangered in California (20 to 80 percent occurrences threatened).
0.3	=	Not very endangered in California (less than 20 percent of occurrences threatened).

Federal

FE	=	Federally listed; Endangered
FT	=	Federally listed; Threatened

State

ST	=	State listed; Threatened
SE	=	State listed; Endangered
RARE	=	State listed; Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)
SSC	=	State Species of Special Concern
WL	=	CDFW Watch List
FP	=	CDFW Fully Protected

The following information was used to determine biological resources potentially occurring within the Survey Area. The criteria used to evaluate the potential for special status species to occur within the Survey Area are outlined in Table 1.

Table 1: Criteria for Evaluating Special Status Species Potential for Occurrence (PFO)

PFO*	CRITERIA
Absent:	Species is restricted to habitats or environmental conditions that do not occur within the Project site.
Low:	Historical records for this species do not exist within the vicinity (approximately 5 miles) of the Project site, and/or habitats or environmental conditions needed to support the species are of poor quality.

PFO*	CRITERIA
Moderate:	Either a historical record exists of the species within the vicinity of the Project site (approximately 5 miles) and marginal habitat exists on the Survey Area, or the habitat requirements or environmental conditions associated with the species occur within the Survey Area, but no historical records exist within 5 miles of the Project site.
High:	Both a historical record exists of the species within the Survey Area or its immediate vicinity (approximately 1 mile), and the habitat requirements and environmental conditions associated with the species occur within the Survey Area.
Present:	Species was detected within the Survey Area at the time of the survey.

*PFO: Potential for Occurrence

Special Status Plant Species

Database searches (CDFW 2022; CNPS 2022) resulted in a list of 8 federally and/or state-listed threatened, endangered, or otherwise special status plant species documented to historically occur within the vicinity of the Survey Area (Attachment 1: Figure 3 – CNDDB Occurrences Map). Of the 8 plant species that resulted from the database search, it was determined that all 8 are considered absent from the Survey Area. No special status plant species were observed during the biological reconnaissance survey.

The following 8 plant species are considered **Absent** from the Survey Area due to lack of suitable habitat within the Survey Area:

- beaver Dam breadroot (*Pediomelum castoreum*) – CRPR 1B.2
- Booth's evening-primrose (*Eremothera boothii* ssp. *boothii*) – CRPR 2B.3
- Mojave monkeyflower (*Diplacus mohavensis*) – CRPR 1B.2
- sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiarum*) – CRPR 2B.2
- San Bernardino aster (*Symphyotrichum defoliatum*) – CRPR 1B.2
- short-joint beavertail (*Opuntia basilaris* var. *brachyclada*) – CRPR 1B.2
- southern mountains skullcap (*Scutellaria bolanderi* ssp. *austromontana*) – CRPR 1B.2
- white pygmy-poppy (*Canbya candida*) – CRPR 4.2

Special Status Wildlife Species

Database searches (CDFW 2022; USFWS 2022) resulted in a list of 26 federally and/or state listed endangered or threatened, State Species of Concern, or otherwise special status wildlife species documented to occur within the Survey Area (Attachment 1: Figure 3 – CNDDB Occurrences Map). After a literature review and the assessment of the various habitat types within the Survey Area, it was determined that all 26 special status wildlife species are considered absent.

The following 26 wildlife species are considered **Absent** from the Survey Area due to the absence of suitable habitat present within the site:

- arroyo toad (*Anaxyrus californicus*) – **FE**, SSC
- burrowing owl (*Athene cunicularia*) – SSC

- California red-legged frog (*Rana draytonii*) – **FT**, SSC
- coast horned lizard (*Phrynosoma blainvillii*) – SSC
- desert tortoise (*Gopherus agassizii*) – **FT**, **ST**
- gray vireo (*Vireo vicinior*) – SSC
- Le Conte's thrasher (*Toxostoma lecontei*) - SSC
- least Bell's vireo (*Vireo bellii pusillus*) – **FE**, **SE**
- loggerhead shrike (*Lanius ludovicianus*) – SSC
- long-eared owl (*Asio otus*) – SSC
- Mohave ground squirrel (*Xerospermophilus mohavensis*) – **ST**
- Mohave river vole (*Microtus californicus mohavensis*) – **ST**
- Mohave tui chub (*Siphateles bicolor mohavensis*) – **FE**, **SE**
- mountain plover (*Charadrius montanus*) – SSC
- pallid bat (*Antrozous pallidus*) – SSC
- San Diego pocket mouse (*Chaetodipus fallax pallidus*) – SSC
- southwestern willow flycatcher (*Empidonax traillii extimus*) – **FE**, **SE**
- summer tanager (*Piranga rubra*) – SSC
- Swainson's hawk (*Buteo swainsoni*) – **ST**
- Townsend's big-eared bat (*Corynorhinus townsendii*) – SSC
- tricolored blackbird (*Agelaius tricolor*) – **ST**
- western mastiff bat (*Eumops perotis californicus*) – SSC
- western pond turtle (*Emys marmorata*) – SSC
- western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) – **FT**, **SE**
- yellow warbler (*Setophaga petechia*) – SSC
- yellow-breasted chat (*Icteria virens*) – SSC

United States Fish Wildlife Service Critical Habitat

Critical Habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated Critical Habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated Critical Habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Designated Critical Habitat delineates all suitable habitat, occupied or not, that is essential to the survival and recovery of the species. According to the USFWS Critical Habitat WebGIS map, the Project site does not fall within any designated Critical Habitat (USFWS 2022). Critical Habitat for the southwestern willow flycatcher occurs approximately 4 miles east of the Project site (Attachment 1: Figure 3 – USFWS Occurrences and Critical Habitat Map); however, no connectivity occurs between the Project site and the designated critical habitat.

Conclusions and Recommendations

Hydrology

No jurisdictional features were observed within or adjacent to the Project site. Therefore, a USACE 404 permit, State 401 certification, or CDFW State Streambed Alteration Agreement are not anticipated to be required for Project authorization.

Special Status Plant Species

Following the literature review and after the assessment of the various habitat types in the Survey Area, it was determined that of the 8 special status plant species known to historically occur within the Survey Area, all 8 species were considered absent within the Survey Area. No special status species were found during the biological reconnaissance survey.

Special Status Wildlife Species

Following the literature review and the assessment of the various habitat types in the Survey Area, it was determined that of the 26 special status wildlife species known to occur within the Project site, all 26 species are considered absent.

To minimize potential impacts to nesting birds protected under the Migratory Bird Treaty Act (MBTA), construction activities should take place outside nesting season (February 1 to August 31), to the greatest extent practicable.

If construction activities occur during nesting season, preconstruction nesting bird surveys should be conducted. The survey should occur no more than three days prior to initiation of ground disturbing activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the impact area should be delineated. Additional follow-up surveys may be required by the resource agencies. To the maximum extent practicable, a minimum buffer zone around occupied nests should be determined by the qualified biologist to avoid impacts to the active nest. The buffer should be maintained during physical ground-disturbing activities. Once nesting has ceased, the buffer may be removed.

Please contact me at (949) 261-5414 ext. 7232 if you have any questions or concerns regarding this memo report.

Sincerely,

CHAMBERS GROUP, INC.

Heather Franklin
Project Biologist
hfranklin@chambersgroupinc.com
(949) 261-5414 ext. 7232

Attachments

Attachment 1: Figure 1 – Project Location and Vicinity Map
Figure 2 – Vegetation Communities Map
Figure 3 – CNDDB Occurrences and USFWS Critical Habitat Map
Figure 4 – Jurisdictional Waters Map
Attachment 2: Plant Species Observed
Attachment 3: Wildlife Species Observed/Detected
Attachment 4: Site Photographs

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ATTACHMENT 1 – FIGURES

Project Location

N

0 40 80 160

Feet

Figure 1
16454 Adelanto Road Warehouse Distribution Facility Project
Project Location and Vicinity

Name: 21354 BIO Fig 1 Project Location and Vicinity.Mxd
Print Date: 4/21/2022 11:21:49 AM Author: pcarlos

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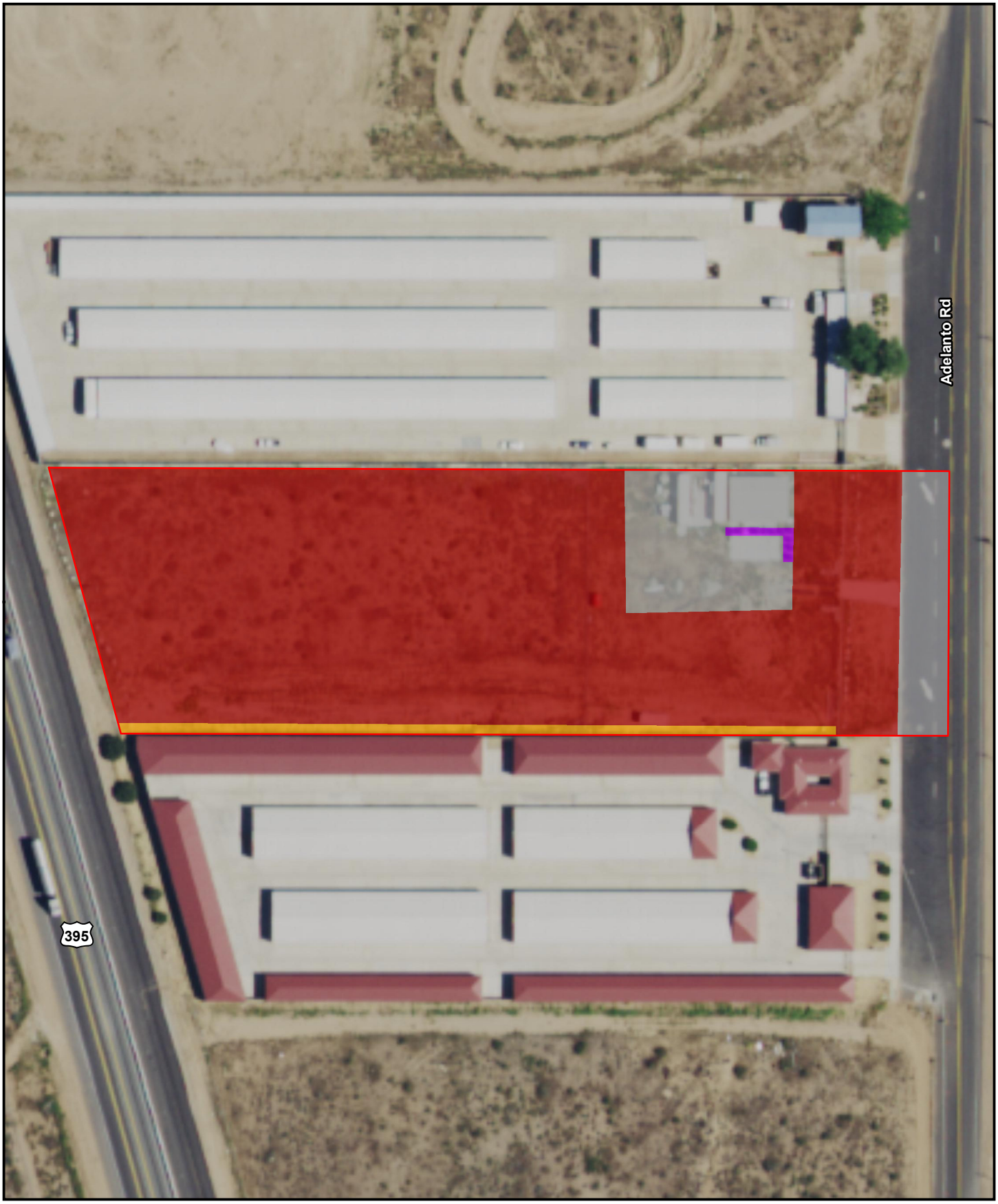


Project Location

Vegetation Communities

- Developed
- Disturbed
- Ornamental
- Ruderal

N

0 40 80 160

Feet

Figure 2
16454 Adelanto Road Warehouse
Distribution Facility Project
Vegetation Communities

Name: 21354 BIO Fig 2 Vegetation Communities.Mxd
Print Date: 5/25/2022 10:45:32 AM Author: pcarlos

CHAMBERS GROUP

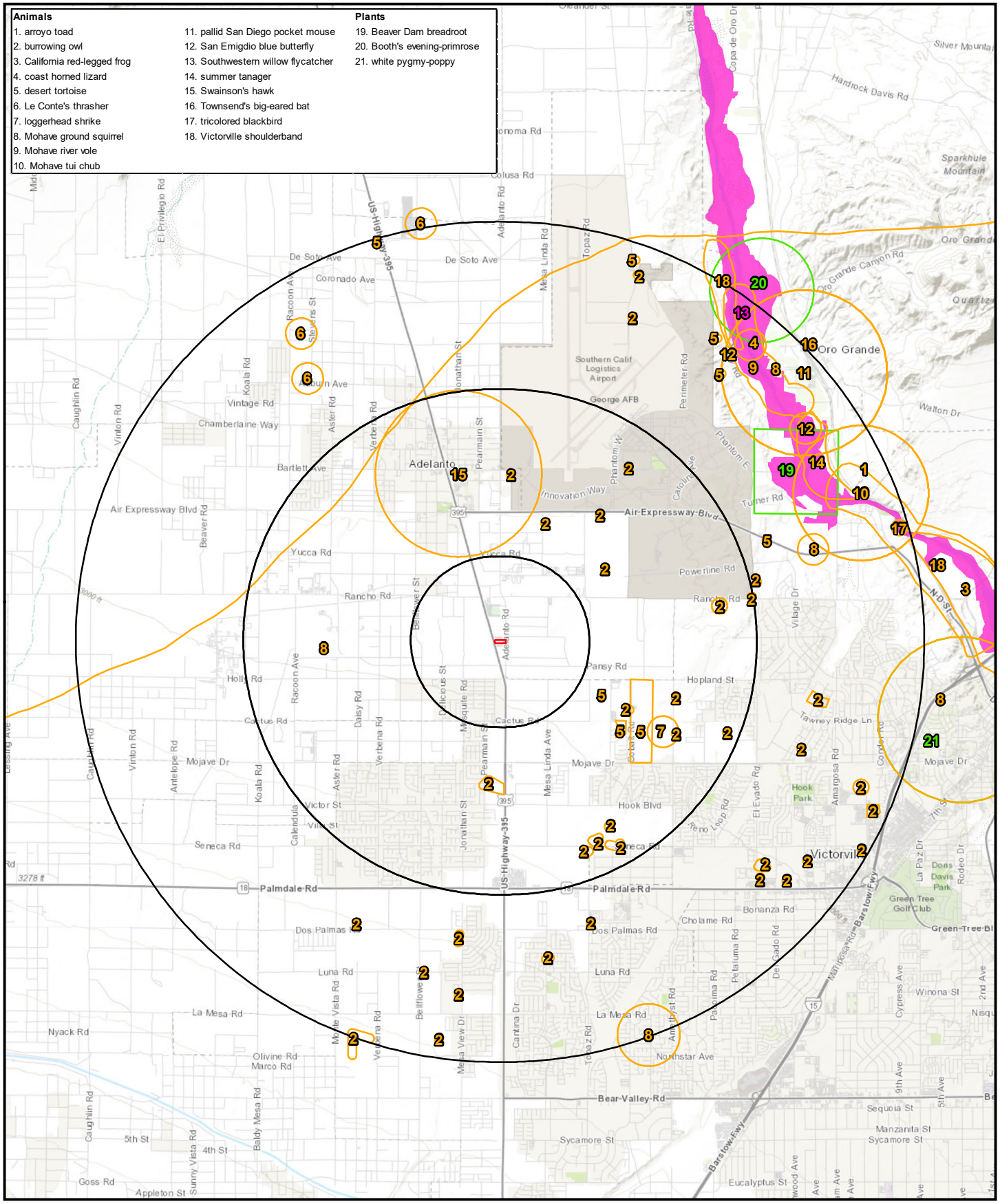
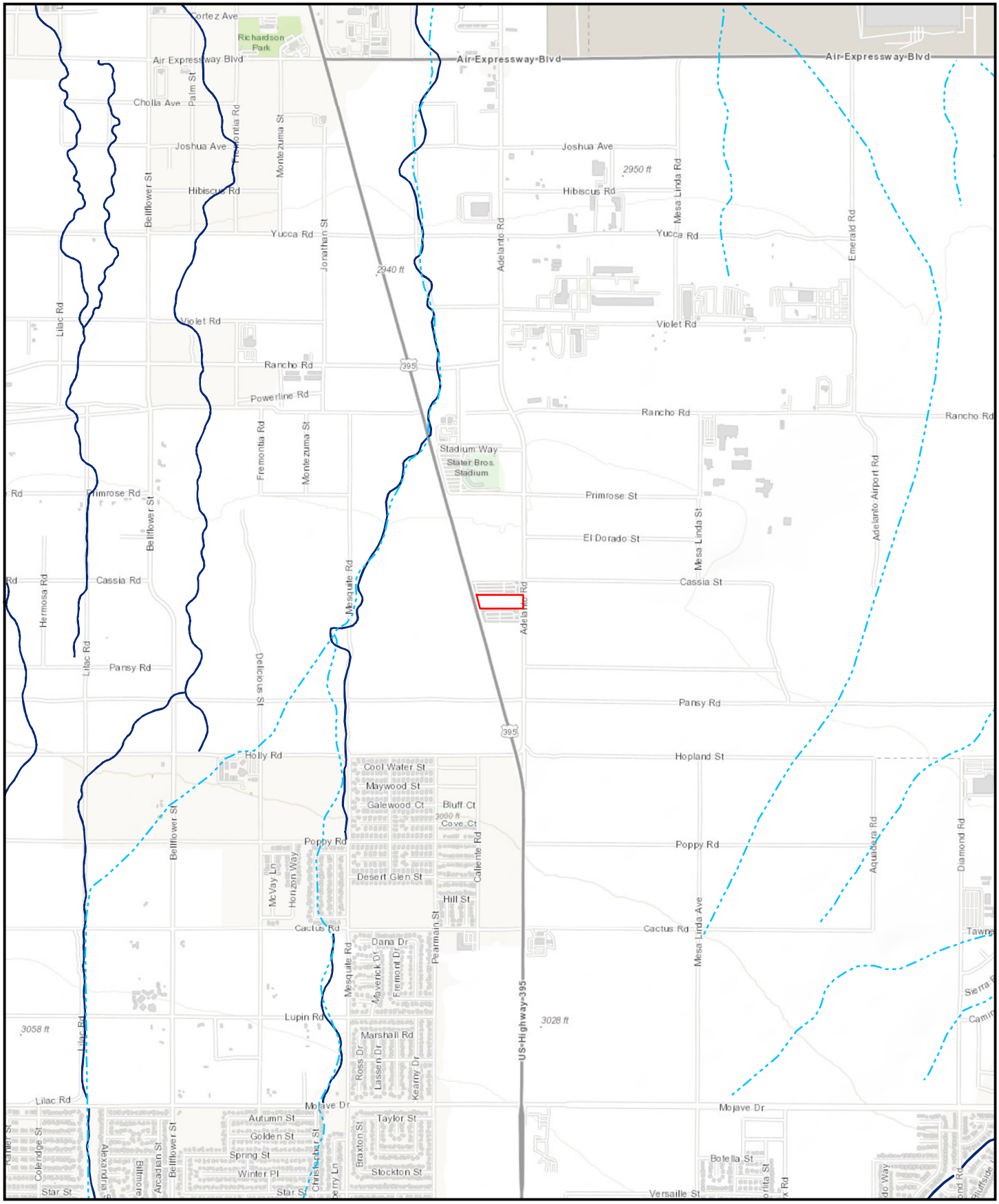


Figure 3
16454 Adelanto Road Warehouse Distribution Facility Project
CNDDB Occurrences and USFWS Critical Habitat

Name: 21354 BIO Fig 3 CNDDB Occurrences and USFWS Critical Habitat.Mxd
Print Date: 5/25/2022 4:19:22 PM Author: pcarlos

CHAMBERS GROUP



Project Location

NHD

Stream/River

NWI

Riverine

N

0 750 1,500 3,000

Feet

Figure 4

16454 Adelanto Road Warehouse Distribution Facility Project

Jurisdictional Waters

Name: 21354 BIO Fig 4 Jurisdictional Waters.Mxd
Print Date: 6/6/2022 11:55:17 AM Author: pcarlos

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ATTACHMENT 2 – PLANT SPECIES OBSERVED

ATTACHMENT 2 – PLANT SPECIES OBSERVED

Scientific Name	Common Name
ANGIOSPERMS (EUDICOTS)	
ASTERACEAE	**SUNFLOWER FAMILY**
Ambrosia acanthicarpa	annual bur-sage
Chaenactis artemisiifolia	white pincushion
Ericameria nauseosa	rubber rabbitbrush
BORAGINACEAE	**BORAGE FAMILY**
Amsinckia sp.	fiddlenecks
Pectocarya sp.	pectocarya
BRASSICACEAE	**MUSTARD FAMILY**
Brassica sp.	mustard
*Brassica tournefortii**	sahara mustard
CHENOPODIACEAE	**GOOSEFOOT FAMILY**
*Salsola australis**	Russian-thistle
GERANIACEAE	**GERANIUM FAMILY**
Erodium sp.	erodium
ANGIOSPERMS (MONOCOTS)	
POACEAE	**GRASS FAMILY**
Avena sp.*	wild oat
Bromus madritensis subsp. *rubens**	red brome
Hordeum sp.	barley

*Non-Native Species, +Ornamental, Unlikely to be Invasive

ATTACHMENT 3 – WILDLIFE SPECIES OBSERVED/DETECTED

ATTACHMENT 3 – WILDLIFE SPECIES LIST

Scientific Name	Common Name
CLASS REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**ZEBRA-TAILED, EARLESS, FRINGE-TOED, SPINY, TREE, SIDE-BLOTCHED, AND HORNED LIZARDS**
Uta stansburiana	side-blotched lizard
CLASS AVES	**BIRDS**
COLUMBIDAE	**PIGEONS AND DOVES**
Zenaida macroura	mourning dove
CORVIDAE	**JAYS AND CROWS**
Corvus corax	common raven
PARULIDAE	**WOOD WARBLERS**
Setophaga coronate	yellow-rumped warbler
FRINGILLIDAE	**FINCHES**
Haemorhous mexicanus	house finch
PASSERIDAE	**OLD WORLD SPARROWS**
Passer domesticus	house sparrow
CLASS MAMMALIA	**MAMMALS**
HETEROMYIDAE	**POCKET MICE AND KANGAROO RATS**
Dipodomys merriami	Merriam's kangaroo rat

ATTACHMENT 4 – SITE PHOTOGRAPHS

ATTACHMENT 4 – SITE PHOTOGRAPHS

Photo 1.

Overview of Project site from the northwest corner the site. Photo is facing east.

Photo 2.

Photo showing the ruderal vegetation occurring along the southern portion of the site. Photo is facing west.

Photo 3.

Photo showing the ruderal vegetation and small building located in the northeast section of the site. Photo is facing east.

Photo 4.

Photo showing the ornamental vegetation and building located in the northeast section of the site. Photo is facing southwest.

Photo 5.

Overview of the Project site from the southeast section of the site. Photo is facing west.

Photo 6.

Overview of the Project site from the southwest corner of the site. Photo is facing northeast.

APPENDIX C – Cultural Resources Study Letter Report for the 16454 Adelanto Road Warehouse Distribution Facility, prepared by Chambers Group, August 25, 2022. Updated October 27, 2022.

CULTURAL RESOURCES SURVEY AND STUDY RESULTS LETTER REPORT FOR THE ADELANTO 16454 ADELANTO ROAD WAREHOUSE PROJECT

City of Adelanto

August 25, 2022
Updated October 27, 2022
9620 Chesapeake Drive, Suite 202
San Diego, CA 92123
(21354)

Chuck Minyard
Primior Development
750 North Diamond Bar Boulevard,
Diamond Bar, CA 91765

Subject: Cultural Resources Survey and Study Letter Report for the 16454 Adelanto Road Warehouse Distribution Facility Project, City of Adelanto, San Bernardino County, California

Dear Mr. Minyard,

Chambers Group, Inc. (Chambers Group) is providing this Letter Report documenting the results of a cultural resources records search, literature review, and field survey in support of the 16454 Adelanto Road Warehouse Distribution Facility Project (Project, Proposed Project) in the City of Adelanto (City), San Bernardino County, California. This assessment includes a cultural resources records search and literature review for the Project site and study area (Figure 1) and field survey of the Project site. The purpose of the review is to gather and analyze information needed to assess the potential for impacts to cultural resources within the Proposed Project site.

Project Description

The Project Applicant proposes construction and operation of a one-story, 49,798 square foot (sq. ft.) warehouse distribution facility (Proposed Project), which would include clearing and grading the mostly vacant lot. The facility would have 27 loading docks; three at level height and 24 at dock height. The Proposed Project would also contain offices, two restrooms, a break room, a guard house, and a trash enclosure. The Project site would contain 43 parking spaces and two ADA compliant parking spaces. Much of the parking and facility would be contained behind a security gate that would be operated by the staff in the guard house. The Project would be consistent with the existing zoning of Light Manufacturing (LM). Utilities would tie into nearby established connections.

The City of Adelanto is the lead agency for the Proposed Project. An Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] §21000 et seq.) and the State CEQA Guidelines (Title 14, California Code of Regulations [CCR] §15000 et seq.) and has determined that preparation of a Categorical Exemption would be appropriate under CEQA.

Location and Setting

The Proposed Project site comprises a mostly-vacant, 3.17-acre parcel located at 16454 Adelanto Road on Assessor Parcel Number (APN) 3128-231-04. The Project site is bound to the north and south by previously-constructed storage facilities, to the west by US 395, and to the east by Adelanto Road. The site has a land use designation and zoning of Mixed Use (MU). Access to the site is currently available via a private driveway along Adelanto Road. An existing manufactured building, concrete pads, storage boxes, iron fence, and various building debris are on the property; the site contains no intact native vegetation and shows evidence of previous clearing and grading. The Project is located on the United States Geological Survey (USGS) 7.5' Adelanto Quadrangle, Township 5 North, Range 5 West, Section 4.

Figure 1: Project Location

Regulatory Context

As lead agency, the City of Adelanto must ensure that the Proposed Project complies with the provisions of CEQA, and determine whether a project may have a significant effect on historical resources (PRC Section 21084.1). In addition to State regulations, proposed projects are also subject to several City of Adelanto policies relating to archaeological, historical, and paleontological resources. Chapter 6 of the Adelanto North 2035 Comprehensively Sustainable Plan pertains specifically to cultural and historic preservation within the City. The regulatory framework as it pertains to cultural resources under CEQA is detailed below.

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

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

California Register of Historic Resources

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

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

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

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

- An archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:
    - Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information

- Has a special and particular quality, such as being the oldest of its type or the best available example of its type
- Is directly associated with a scientifically recognized important prehistoric or historic event or person

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

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

(1) physically destroys or damages all or part of a resource;

(2) changes the character of the use of the resource or physical feature within the setting of the resource, which contributes to its significance; or

(3) introduces visual, atmospheric, or audible elements that diminish the integrity of significant features of the resource.

Assembly Bill 52

Assembly Bill (AB) 52 was enacted in 2015 and expands CEQA by defining a new resource category: tribal cultural resources (TCRs). AB 52 establishes that "a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed in the jurisdiction of the lead agency. It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

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

Senate Bill 18

Senate Bill (SB) 18 was enacted in September 2004. SB 18 requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.). Although SB 18 does not specifically mention consultation or notice requirements for adoption or

amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code §65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. The principal objective of SB 18 is to preserve and protect cultural places of California Native Americans. SB 18 is unique in that it requires local governments to involve California N alive Americans in early stages of land use planning, extends to both public and private lands, and includes both federally recognized and non-federally recognized tribes. SB 18 refers to Public Resources Code §5097.9 and 5097.995 to define cultural places under the following criteria:

- Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9).
- Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historic Resources pursuant to Section 5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.995).

These definitions can be inclusive of a variety of places. Archaeological or historic sites may include places of tribal habitation and activity, in addition to burial grounds or cemeteries. Some examples are village sites and sites with evidence (artifacts) of economic, artistic, or other cultural activity. Religious or ceremonial sites and sacred shrines may include places associated with creation stories or other significant spiritual history, as well as modem day places of worship. Collection or gathering sites are specific places where California Native Americans access certain plants for food, medicine, clothing, ceremonial objects, basket making, and other crafts and uses important to on-going cultural traditions and identities; these places may qualify as religious or ceremonial sites as well as sites that are listed or eligible for listing in the California Register of Historic Resources.

Local

In addition to State regulations, projects built in the City of Adelanto are also subject to the following goals and policies outlined in the Adelanto North 2035 Comprehensively Sustainable Plan, Chapter 6: Open Space and Conservation. Specifically, Chapter 6 of the General Plan outlines several policies relating to archaeological, historical, and paleontological resources driven by Goal OS 10.

Goals, Policies, and Implementing Programs

Goal OS 10: Cultural and historical resources are protected and preserved.

Policies: OS 10.1: Identify, protect, and minimize impacts to archaeological and paleontological resources.
OS 10.2 Review proposed development for the possibility of cultural resources and for compliance with the cultural resources program.

Implementing Programs Procedures, Permits, Agreements, and Ordinances

Program OS-8 **Historical Resources Assessment**. Prior to any construction activities that may affect historical resources, a historical resources assessment shall be performed by an architectural historian or historian who meets the PQS in architectural history or history. This shall include a records search at the SBAIC to determine if any resources that may be potentially affected by the project have been previously recorded, evaluated, and/or designated in the NRHP or CRHR. Following the records search, the qualified architectural historian or historian shall conduct a reconnaissance-level and/or intensive-level survey in accordance with the California Office of Historic Preservation guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. Resources shall be evaluated pursuant to CEQA Guidelines and Public Resources Code Section 21083.2.

Program OS-9 **Alteration to Historical Resource**. To ensure that projects requiring the relocation, rehabilitation, or alteration of a historical resource not impair its significance, the Secretary of the Interior's Standards for the Treatment of Historic Properties shall be used to the maximum extent possible. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the PQS. Prior to any construction activities that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Adelanto.

Program OS-10 **Historical Resource Demolition**. If a proposed project would result in the demolition or significant alteration of a historical resource, it cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible. Recordation shall take the form of Historic American Building Survey (HABS), Historic American Engineering Record (HAER), or Historic American Landscape Survey (HALS) documentation, and shall be performed by an architectural historian or historian who meets the PQS. Documentation shall include an architectural and historical narrative; medium- or large format black and white photographs, negatives, and prints; and supplementary information such as building plans and elevations, and/or historic photographs. Documentation shall be reproduced on archival paper and curated with a qualified scientific or educational repository, as defined by the Guidelines for the Curation of Archaeological Collections. The specific scope and details of documentation are determined for each project.

Program OS-11 **Archaeological Sensitivity**. To determine the archaeological sensitivity of a proposed planning area, archaeological resources assessments shall be performed under the supervision of an archaeologist that meets the Secretary of the Interior's Professional Qualifications Standards (PQS) in either prehistoric or historic archaeology. Assessments shall include a CHRIS records search at the SBAIC and of the Sacred Lands File maintained by the NAHC. The records searches will determine if the proposed planning area has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. A pedestrian survey shall be undertaken in undeveloped areas of the planning area to locate any surface cultural materials. By performing a records search, consultation with the NAHC, and a pedestrian survey, a qualified archaeologist will classify the planning area as having High, Medium, or Low sensitivity for archaeological resources.

Program OS-12 **Archaeological Significance Evaluation**. If potentially significant archaeological resources are identified through an archaeological resource assessment, and impacts to these resources cannot be avoided, an Archaeological Significance Evaluation investigation shall be performed by an archaeologist who meets the PQS prior to any construction-related ground-disturbing activities to determine significance under CEQA and/or Section 106 of the NHPA. If resources are determined to be significant or unique through significance evaluation, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. This might include an archaeological data recovery program that would be implemented by a qualified archaeologist and performed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR).

Program OS-13 **Disturbances of Archaeological Resources**. If the archaeological assessment did not identify potentially significant archaeological resources in the proposed planning area, but indicates the area to be of medium or high sensitivity for archaeological resources, an archaeologist who meets the PQS shall be retained on an on-call basis. The archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) area exposed during ground disturbing activities, construction activities within a 50-foot radius of the discovery shall be halted while the on-call archaeologist is contacted. If the resource is determined to be significant or unique through significance evaluation, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include an archaeological data recovery program that would be implemented by a qualified archaeologist and performed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR). If the discovery proves to be significant, it shall be curated with a qualified scientific of educational repository, as defined by the Guidelines for the Curation of Archaeological Collections.

Program OS-14 **Paleontological Resources**. Future development proposals subject to environmental review pursuant to the California Environmental Quality Act (CEQA) are subject to the following provisions at the expense of the project proponent, as directed by the Development Services Director.

Paleontological Assessment. In areas containing middle to late Pleistocene era sediments (Qof) where it is unknown if paleontological resources exist, prior to grading an assessment shall be made by a qualified paleontological professional to establish the need for paleontologic monitoring. Should paleontological monitoring be required after recommendation by the professional paleontologist and approval by the Development Services Director, paleontological monitoring shall be implemented.

Paleontological Monitoring. A project that requires grading plans and is located in an area of known fossil occurrence or that has been demonstrated to have fossils present in a paleontological field survey or other appropriate assessment shall have all grading monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Paleontologic monitors shall be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring is not necessary if the potentially fossiliferous units described for the property in question are not present or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources. Should significant paleontological resources be discovered, paleontological recovery, identification, and curation shall be implemented.

Paleontological Recovery, Identification, and Curation. Qualified paleontologic personnel shall prepare recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Qualified paleontologic personnel shall identify and curate specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum or a similar established, accredited museum repository with permanent retrievable paleontologic storage. The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. This measure is not considered complete until curation into an established museum repository has been fully completed and documented.

Paleontological Findings. Qualified paleontologic personnel shall prepare a report of findings with an appendix of itemized specimens subsequent to implementation of paleontological recovery, identification, and curation. A preliminary report shall be submitted to and approved by the Development Services Director before granting of building permits, and a final report shall be submitted to and approved by the Development Services Director before granting of occupancy permits.

Environmental Setting

The Proposed Project is located within the City of Adelanto, wedged between US-395 to the west and Adelanto Road to the east. The City is located within the Mojave Desert Air Basin (MDAB). The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. The MDAB is separated from the Southern California coastal and central California valley regions by mountains (highest elevation approximately 10,000 feet). The Antelope Valley is bordered in the northwest by the Tehachapi Mountains and on the south by the San Gabriel Mountains. The adjacent Mojave Desert is bordered in the southwest by the San Bernardino Mountains (USGS 2015). As a portion of the southern extent of the Mojave Desert and western extent of the Colorado Desert, this area is characterized by the presence of decomposing granite derived from the nearby hillsides and windborne or water-borne alluvial deposits. Native vegetation in the area is generally limited to Joshua Trees and desert sage scrub, but riparian zones can be found along washes and intermittent streams.

The University of California, Davis SoilWeb database was consulted to identify soils that underlie the Project site. The database indicates that the property is underlain by the Cajon soil association, which consists of very deep and well drained sandy soil. Slopes range from 0 to 2 percent (SoilWeb 2022).

The Project site is situated atop a geologic formation of Pleistocene to Holocene age sediments comprised of largely non-marine alluvium, lake, playa, and terrace deposits; both unconsolidated and semi-consolidated (Jennings 2010). In Southern California, the middle Pleistocene is generally associated with a pre-human presence, although recent research suggests early human exploration of North America earlier in the Late Pleistocene than previously documented. Fossil specimens are also associated with the Pleistocene, particularly in areas where deposits are referred to as “older Alluvium”. The Holocene is the most recent geologic period and one that is directly associated with human activity. The Holocene is also generally associated with “younger Alluvium,” which tend not to be fossil bearing, except in instances where fossils have been redeposited.

Cultural Setting

Prehistoric Overview

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes within all or portions of Southern California (Moratto 1984; Jones and Klar 2007). A prehistoric chronology was devised for the Southern California coastal region based on early studies and focused on data synthesis that included four horizons: Early Man, Milling Stone, Intermediate, and Late Prehistoric (Wallace 1955, 1978). Though initially lacking the chronological precision of absolute dates (Moratto 1984:159), Wallace’s 1955 synthesis has been modified and

improved using thousands of radiocarbon dates obtained by Southern California researchers over recent decades (Byrd and Raab 2007:217; Koerper and Drover 1983; Koerper et al. 2003). The prehistoric chronological sequence for Southern California presented below is a composite based on Wallace (1955) and Warren (1968) as well as later studies, including Koerper and Drover (1983).

Ethnographic Overview

Various regional syntheses have been utilized in the archaeological literature for southern California. The following framework derives information from local studies to provide a useful overview for the Project site. The Project site is geographically associated with both the Serrano and Vanyume of Southern California (Kroeber 1925:615-619 and 692-708). Though near the territorial boundary separating these two populations, the area is more generally considered part of the "Pass Cahuilla" territory. Cahuilla culture has been described by several scholars, but most thoroughly by Bean (1972 and 1978). The "Pass Cahuilla" are one of the three main Cahuilla populations associated with western Riverside County as well as Desert Cahuilla and Mountain Cahuilla.

Serrano

The Serrano language is classified as being within the Takik language family (Bean and Smith 1978:570). The Serrano lived in the San Bernardino Mountains east of the Cajon Pass to as far east as present-day Twentynine Palms and as far south as the Yucaipa Valley (Bean and Smith 1978:570). The Serrano had exogamous moieties made up of exogamous, patrilineal clans (Bean and Smith 1978:572). Lineage and clan leaders were hereditary ceremonial leaders who controlled sacred bundles and lived in ceremonial houses (Bean and Smith 1978:571–572).

The Serrano were organized into local lineages occupying favored territories but rarely claiming any territory far from the lineage's home base (Bean and Smith 1978). The estimated population of the Serrano before European contact was 1,500-2,500. It is difficult to estimate the number of Serranos living in each village however, it is likely that the villages held only as many Serranos as could be accommodated by water sources (Stickel and Weinman-Roberts 1980).

The Serrano lived in dwellings which were circular, domed structures built over an excavated area. These structures were built with fire pits and primarily served as sleeping areas. Ceremonial houses were the only other buildings in the villages and were normally occupied by the village priest (Stickel and Weinman-Roberts 1980).

In the Serrano artifact assemblage, it is noted to be similar to that of the neighboring Cahuilla and includes musical instruments such as rattles and flutes; utensils and ornaments such as fire drills, mortars, metates, pipes, beads, awls, and projectile points from wood, shell, bone, and stone. The Serrano were talented pottery and basket makers. Their pots were made of coiled clay smoothed out with a paddle and set in the sun to dry before being fired in a pit. Serrano Brown ware was sometimes decorated with designs of circles and lines of either red or black (Stickel and Weinman-Roberts 1980).

The Serrano were also known for their petroglyphs. Abstract and geometric designs are often seen with representational figures of sheep, lizards (zoomorphs) and human beings (anthropomorphs). Researchers have proposed that the petroglyphs were records of important events, rough maps, and artistic representations of native life (Stickel and Weinman-Roberts 1980).

Vanyume

The Vanyume or Beñemé, as Father Garces called them, lived beyond and along much of the length of the Mojave River, from the eastern Mojave Desert to at least the Victorville region, and perhaps even farther upstream to the south. They also appear to have lived in the southern and southwestern Antelope Valley. They intermarried with the Serrano and spoke a dialect of the Serrano language, so they may be thought of as a desert division or branch of the Serrano proper.

The Vanyume living along the Mojave River were quite wealthy in shell-bead money and other items. This was perhaps on account of the active trade route running along the Mojave River, connecting the Colorado River tribes and the Indian nations of the Southwest with the Indian groups of coastal southern California (Eerkens 1999; Knack 1980; Kroeber 1925; Park et al. 1938).

The Serrano-speaking villages of the southern Antelope Valley were, according to Garces, affiliated with this desert branch of the Serrano. The southern Antelope Valley native communities, including Maviajek and Kwarung had strong ties with Serrano-speaking communities on the upper Mojave River and in the areas of the northern San Bernardino and San Gabriel Mountains.

The Vanyume had a culture and food supply practices that were similar to those of the Serrano of the San Bernardino Mountains. Despite living in the desert, this branch of the Serrano had the advantage that it could receive and use in its desert villages large quantities of acorns gathered in the San Bernardino and San Gabriel Mountain ranges to the south. This allowed large villages to be supplied with abundant food far out in the desert, far north of where oak trees could be found. Father Garces reported having been given acorn porridge at a Vanyume village just to the southwest of modern Barstow, far from any oak grove.

The Vanyume shared a territorial boundary with the Chemehuevi to the northeast. The Chemehuevi had much lower population densities than the Vanyume and other Serrano because their food resources were less abundant. The Vanyume population may have ranged from 500 to 1000 or more at the arrival of the Spanish (Bean 1972; Kroeber 1925; Steward 1938).

They had frequent contacts with Spaniards after 1776, and they were in continual contact with Mohave travelers and Paiutes throughout the contact and pre-contact periods. In 1844, along the Mohave River, John C. Frémont met a group of five Mohave's and an ex-mission neophyte who had returned to the "mountains" after secularization (1830's). This ex-neophyte said that they lived upon a large river in the Southeast, which the "soldiers called the Rio Colorado"; but that formerly, a portion of them lived upon this river [Mohave River], and among the mountains which had bounded the river valley to the northward during the day [Calico Mountains 7], and that here along the river they had raised various kinds of melons (Forbes 1963).

Historic Overview

Post-European contact history for the state of California is generally divided into three periods: the Spanish Period (1769–1822), the Mexican Period (1822–1848), and the American Period (1848– present). Briefly, and in very general terms, the Spanish Period encompassed the earliest historic-period explorations of the West, bringing colonization, missionization and proselytization across the western frontier, the establishment of major centers such as Los Angeles and Monterey and a line of missions and presidios with attendant satellite communities, along with minor prospecting, and a foundational economic structure based on the rancho system. The Mexican Period initiated with a continuation of the same structures; however, commensurate with the political changes that led to the establishment of the Mexican state the missions and presidios were secularized, the lands parceled, and Indian laborers released. Increased global trade introduced both foreign and American actors into the Mexican economic and political sphere, both coincidentally, and purposefully, smoothing the transition to the American Period. The American Period was ushered in with a momentous influx of people seeking fortune in the Sierra foothills where gold was "discovered" in 1848. By the early 1850s people from all over the globe had made their way to California. Expansive industries were required to supply the early mining operations, such as forestry products, food networks to supply grains, poultry, cattle, and water systems, which intensified the early Mexican Period structures of ranches and supply chains, as well as the development and expansion of port cities to supply hard goods and clothes, animals, and people that moved across vastly improved trail and road networks. California cycled through boom and bust for several decade until World War I when the Department of the Navy began porting war ships along the west coast. Subsequently, California has grown, and contracted, predominantly around military policy along the west coast, and the Pacific Ocean. Following the industrial expansion related to World War II and the Cold War, technology and systems associated have come to fore as economic drivers.

City of Adelanto

The City of Adelanto, which in Spanish means "progress" or "advance," was founded in 1915 by E. H. Richardson. The name was given to the post office when it was established in 1917. Richardson was the inventor of what became the

Hotpoint Electric Iron. He sold his patent and purchased land for $75,000, with the goal to develop one of the first master-planned communities in Southern California. Richardson subdivided his land into one-acre plots, which he hoped to sell to veterans with respiratory ailments suffered during World War I. He also hoped to build a respiratory hospital. While Richardson never fully realized his dream, it was his planning that laid the foundation for what is currently the City of Adelanto (City of Adelanto 2022).

Famous throughout the state for fresh fruit and cider, the deciduous fruit tree orchards thrived until the depression, when they were replaced by poultry ranches. As the wartime emergency developed early in 1941, the Victorville Army Airfield was established land within the Adelanto sphere of influence. In September 1950, it was named George Air Force Base in honor of the late Brigadier General Harold H. George. Adelanto continued as a "community services district" until 1970, when the city became incorporated, and Adelanto became San Bernardino County's smallest city. Adelanto became a charter city in November 1992 and later a contract city in 2005. As of 2010, Adelanto had a population of almost 32,000 (City of Adelanto 2022; SBS Museum 2022; Census.gov 2022).

Methods of Review

Chambers Group requested a records search from the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) at California State University, Riverside on April 1, 2022. The SCCIC returned the records search results on March 3, 2022, providing information on all documented cultural resources and previous archaeological investigations within one-half mile of the Project site. A half-mile study area was requested to provide additional context to the Project site and surrounding area and more information on which to base this review. Results of the records search (Figure 2) and additional research are detailed below and included in Attachment B. Resources consulted during a records search conducted by the SCCIC include the NRHP, California Historical Landmarks (CHL), California Points of Historical Interest (CPHI), Caltrans Historic Highway Bridge Inventory, the California State Historic Resources Inventory, local registries of historic properties, and a review of available Sanborn Fire Insurance maps as well as historical photographs, maps, and aerial imagery. The task also included a search for potential prehistoric and/or historic burials (human remains) evident in previous site records and/or historical maps.

Chambers Group archaeologist and cross-trained paleontologist Kellie Kandybowicz conducted a cultural resources Phase I intensive pedestrian survey of the Project site on April 14, 2022. The cultural resources survey consisted of systematic surface inspection of all areas with transects walked at 10-meter intervals to ensure that any evidence of surface-exposed cultural materials and/or evidence of paleontological resources could be identified. Chambers Group examined the ground surface for the presence of prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), historical artifacts (e.g., metal, glass, ceramics), sediment discoloration that might indicate the presence of a cultural midden, roads and trails, and depressions and other features that might indicate the former presence of structures or buildings (e.g., post holes, foundations). The Project site was photographed using a digital camera and any on-site data was recorded using a hand-held global positioning system (GPS) unit with sub-meter accuracy. Chambers Group has all field notes, photographs, geodata, and other records related to the current study on file.

In addition, Chambers Group submitted a request to the Native American Heritage Commission (NAHC) on April 1, 2022, to provide a review of the Sacred Land Files (SLF) for the Project site and surrounding vicinity. Results of the NAHC SLF records search are detailed below and are included in Attachment A.

Finally, Chambers Group requested a paleontological records search from the San Bernardino County Museum on April 1, 2022. This information was requested with the intent to provide further context related to the paleontological sensitivity of the area based on known fossil locations identified within the Project site or half-mile study area. The paleontological records provide insight into what associated geological formations are more likely to contain fossils as well as the associated depths and placement of the known fossil locals relative to the geological formations in the area.

Project Personnel

Chambers Group Cultural Resources Department Lead Lucas Tutschulte managed the Project and co-authored the report. Chambers Group archaeologist and cross-trained paleontologist Kellie Kandybowicz conducted the field survey, supported with background research and preparation of the report. Richard Shultz, MA, RPA, served as Principal Investigator for cultural resources, and performed quality control for the report.

Cultural Resources Reports within the Study Area

The results of the SCCIC records search were received on June 1, 2022. Based on the records search by the SCCIC, eight cultural resource studies have previously been completed within the half-mile records search radius. Table 1 provides further details of the eight studies. Of these eight reports, two overlap with the Project site, SB-07960 and SB-07982, and these projects are bolded and italicized in the table.

Table 1: Previous Cultural Resources Studies within the Half-Mile Study Area

Report Number	Year	Author	Title	Resources	Within Project Site?
SB-02037	1989	Hampson, R. Paul	ASSESSMENT OF FOUR SITES ALONG THE KRAMER-VICTOR 115 KV TRANSMISSION LINE	36-002257, 36-004020, 36-004022, 36-004024	
SB-04453	2003	Eckhardt, William T.	CUTURAL RESOURCEES SURVEY OF WORKSTATIONS ON THE ROBIN, KENO & MACK 12KV CIRCUITS & TH PORTLAND, POCO & DOBLE 33KV CIRCUITS, SCE DETERIORATED POLE REPLACEMENT PROGRAM, SAN BERNARDINO COUNTY, CA. 13PP		
SB-05112	2006	Hatheway, Roger	HISTORICAL, ARCHAEOLOGICAL AND PALEONTOLOGICAL SURVEY OF THE CASSIA PROPERTIES, LLC, LOCATED AT THE NORTHEAST CORNER OF THE INTERSECTION OF CASSIA AND ADELANTO ROAD, CITY OF ADELANTO, COUNTY OF SAN BERNARDINO, CALIFORNIA		
SB-05766	1997	Love, Bruce	Cultural Resources Report: Bakersfield—Rialto Fiberoptic Line Project, Kern, Los Angeles and San Bernardino Counties, California.		
SB-07381	2011	Wilson, Stacie, M.K. Meiser, and Theodore G. Cooley	Cultural Resources Class III Survey Report for the Proposed Mojave Solar Project and Lockhart Substation Connection and Communication Facilities, San Bernardino County, California.	36-001025, 36-002257, 36-002291, 36-002910, 36-004018, 36-004019, 36-004020, 36-004021, 36-004022, 36-006148, 36-006348, 36-006552, 36-006553, 36-006555,	

Table 1: Previous Cultural Resources Studies within the Half-Mile Study Area

Report Number	Year	Author	Title	Resources	Within Project Site?
				36-006556, 36-006557, 36-006572, 36-006693, 36-006793, 36-006877, 36-006880, 36-006881, 36-006882, 36-007429, 36-007430, 36-007431, 36-007432, 36-007544, 36-007545, 36-007746, 36-007747, 36-009509, 36-010316, 36-010317, 36-010318, 36-012469, 36-012470, 36-012471, 36-012472, 36-012690, 36-012693, 36-013897, 36-013952, 36-013954, 36-013959, 36-020985, 36-020986, 36-020987, 36-020988, 36-020989, 36-020990, 36-020991, 36-020992, 36-020993, 36-020994, 36-020995, 36-020996, 36-020997, 36-020998, 36-020999, 36-021000, 36-021001, 36-021002, 36-021003, 36-021004, 36-021005, 36-021006, 36-021007, 36-021008, 36-021009, 36-021010, 36-021011, 36-021012, 36-021013, 36-021014, 36-021096, 36-021099, 36-022194, 36-022195, 36-022196, 36-022197, 36-022198, 36-022199, 36-022200, 36-022201, 36-022202, 36-022203, 36-022204, 36-022205, 36-022206, 36-022207, 36-022208, 36-022209, 36-022210, 36-022211, 36-022212, 36-022213, 36-022214,	

Table 1: Previous Cultural Resources Studies within the Half-Mile Study Area

Report Number	Year	Author	Title	Resources	Within Project Site?
				36-022215, 36-022216, 36-022217, 36-022218, 36-022219, 36-022220, 36-022221, 36-022222, 36-022223, 36-022224, 36-022225, 36-022226, 36-022227, 36-022228, 36-022229, 36-022230, 36-022231, 36-023224, 36-023225, 36-023226, 36-023227, 36-023228, 36-023229, 36-023230, 36-023231, 36-023232, 36-023233, 36-023234, 36-023235, 36-023236, 36-023237, 36-023238, 36-023239, 36-023240, 36-023241, 36-023242, 36-023243, 36-023244, 36-023245, 36-023246, 36-023247, 36-023248, 36-023249, 36-023250, 36-023251, 36-023252, 36-023253, 36-023254, 36-023255, 36-023256, 36-023257, 36-023258, 36-023259, 36-023260, 36-023261, 36-023262, 36-023263, 36-023264, 36-023265, 36-023266, 36-023267, 36-023268, 36-023269, 36-023270, 36-023271, 36-023272, 36-023273, 36-023274, 36-023275, 36-023276, 36-023277, 36-023278, 36-023279, 36-023280, 36-023281, 36-023282, 36-023283, 36-023284, 36-023285, 36-023286, 36-023287, 36-023288, 36-023289, 36-023290,	

Table 1: Previous Cultural Resources Studies within the Half-Mile Study Area

Report Number	Year	Author	Title	Resources	Within Project Site?
				36-023291, 36-023292, 36-023293, 36-023294, 36-023295, 36-023296, 36-023297, 36-023298, 36-023299, 36-023300, 36-023301, 36-023302, 36-023303, 36-023304, 36-023305, 36-023306, 36-023307, 36-023308, 36-023309, 36-023310, 36-023311, 36-023312, 36-023313, 36-023314, 36-023315, 36-023316, 36-023317, 36-023318, 36-023319, 36-023320, 36-023321, 36-023322, 36-023323, 36-023324, 36-023325, 36-023326, 36-023327, 36-023328, 36-023329, 36-023330, 36-023331, 36-023332, 36-023333, 36-023334, 36-023335, 36-023336, 36-023337, 36-023338, 36-023339, 36-023340, 36-061220, 36-061222, 36-061225, 36-061226, 36-061227, 36-061248, 36-061250, 36-061252, 36-061253, 36-061254, 36-061255, 36-061256, 36-061257, 36-061258, 36-061259, 36-061260, 36-061261, 36-061262, 36-061263, 36-061264, 36-061651, 36-061699, 36-061709, 36-061711, 36-061712, 36-061713, 36-061716, 36-061717, 36-061718, 36-061719, 36-061720, 36-061721, 36-061722, 36-061723,	

Table 1: Previous Cultural Resources Studies within the Half-Mile Study Area

Report Number	Year	Author	Title	Resources	Within Project Site?
				36-061724, 36-061728, 36-061729, 36-062021, 36-062022, 36-062023, 36-062024, 36-062025, 36-062026, 36-062027, 36-062028, 36-062029, 36-062030, 36-062031, 36-062032, 36-062033, 36-062034, 36-062035, 36-062036, 36-062037, 36-062038, 36-062040, 36-062046, 36-062061, 36-062062, 36-062063, 36-062192	
SB-07899	2013	Strudwick, Ivan	Cultural Resource and Paleontology Monitoring Report - SCE Sandlot (Water Valley) Project	36-026217, 36-026218	
SB-07960	***2010***	***Self, William***	***Class III Cultural Resources Survey Addendum for the Proposed Calnev Expansion Project, California Portion San Bernadino County, California***	***36-000827, 36-000828, 36-003731, 36-005351, 36-006109, 36-006117, 36-006506, 36-006693, 36-006699, 36-006708, 36-007091, 36-007309, 36-007371, 36-008127, 36-008131, 36-008133, 36-008544, 36-008857, 36-010148, 36-010317, 36-012335, 36-013632, 36-015497, 36-020321, 36-020324, 36-020325, 36-020326, 36-020327, 36-020328, 36-020329, 36-020330, 36-022659, 36-022660, 36-022661, 36-022662, 36-022663, 36-022664***	***Yes***
SB-07982	***2013***	***Dietler, Sara, Elizabeth Denniston, and Steven Treffers***	***Cultural Resources Impact Mitigation Analysis for the Adelanto North 2035 Sustainable***		***Yes***

Table 1: Previous Cultural Resources Studies within the Half-Mile Study Area

Report Number	Year	Author	Title	Resources	Within Project Site?
			Community Plan, City of San Bernardino County, California		

Previously Recorded Cultural Resources within the Study Area

Based upon the records search conducted by the SCCIC, eight previously recorded cultural resources are recorded within the half-mile records search radius (Table 2). Of those eight previously recorded resources, none are located within the Project site. A map (Figure 2) displaying the record search results is included in Attachment B.

Table 2: Previously Recorded Cultural Resources within the Half-Mile Study Area

Primary Number	Trinomial	Resource Names	Site Description	Within Project Site?
P-36-004020	CA-SBR-004020H	ED-8	Historic Site	No
P-36-004021	CA-SBR-004021H	ED-10	Historic Site	No
P-36-007747	CA-SBR-007747H	Site 271+48	Historic Site	No
P-36-010316	CA-SBR-010316H	Kramer-Victorville Transmission Line	Historic Structure	No
P-36-023319		MTL-ISO-SJ-31	Historic Other	No
P-36-034133		Access Road to SCE Bishop Creek to San Bernardino "Tower Line"	Historic Structure	No
P-36-034159		459_SCE Kramer-Roadway-Victor 115kV Transmission Line	Historic Structure	No
P-36-061253	CA-SBR-061253H	ED-9	Historic Site, Other	No

Background Research Results

In addition to the SCCIC record search, Chambers Group archaeologists completed research to determine if any additional historic properties, landmarks, bridges, or other potentially significant or listed properties are located within the Project footprint or one-half-mile study area. This background research included, but was not limited to, the NRHP, California State Historic Property Data Files, California State Historical Landmarks, California Points of Historical Interest, Office of Historic Preservation Archaeological Determinations of Eligibility, historical aerial imagery accessed via NETR Online, historical U.S. Geological Survey topographic maps, Built Environment Resource Directory (BERD), and California Department of Transportation (Caltrans) State and Local Bridge Surveys.

As a result of the archival research, no previously recorded resources or any other listed or potentially significant properties were identified within the Project site.

Based on the review of available historical photographs and aerial imagery, it appears that the Project site has been open space with no built environment features visible from 1952 to approximately 2015, when the manufactured building, concrete slabs, and secured fencing were installed; these features remain to occupy the Project site. Historical topographic maps indicate the immediate area as undeveloped from 1957 through 2005 to 2009, when two self-storage buildings were constructed on both the north and south side of the Project site. The historical aerial imagery and topographic maps indicate that the current alignment of Adelanto Road was constructed as a paved roadway sometime before 1952 (United States Department of Agriculture (USDA); NETRonline 2022).

US Route 395, portions of which are known as a Blue Star Memorial Highway, was established between 1952 and 1957. Both Adelanto Road and US Route 395 are visible on the topographic map as early as 1957 (United States Department of Agriculture (USDA); NETRonline 2022). Originally constructed in 1933, portions of US Route 395 are listed on the BERD and have been evaluated and determined ineligible for inclusion in the NRHP (evaluation status: 6Y). This ineligible resource is not located within the Project site but is within the half-mile study area.

Field Survey Results

Chambers Group archaeologist and cross-trained paleontologist Kellie Kandybowicz conducted a cultural resources pedestrian survey of the Project site on April 14, 2022. The Project site was visually examined with north-south oriented transects at 10-meter intervals, working in an easterly direction. Soils were yellowish orange to light brown fine-medium grained silty sand with roughly 25 percent small angular gravel. Ground visibility within the Project site was predominately good, with clear bare-ground areas providing an average of approximately 90-100 percent surface visibility within roughly three-quarters of the Project site (Photo 1 & 2). In the northeastern area of the Project site, where a manufactured building, concrete slabs, storage containers, gravel, and modern debris are located, ground visibility was approximately 85 percent (Photo 2). The entire Project site displayed evidence of previous disturbance related to the adjacent developed infrastructures on the northern and southern perimeters, as well as recent previous clearing and partial grading activities, which were indicated by a pile of dry vegetation refuse, upright grading stakes and survey/grading markers, a pile of removed previously installed metal fence posts with concrete bases, and patterns of equipment use in the dried soil.

The diagonal western margin of the Project site is bound by a six-foot-tall chain link fence, which runs parallel to US Route 395. The northern and southern margins of the Project site are bound by commercial self-storage facilities, separated by brick and stucco walls respectively. Along the eastern edge is a security iron fence with a sliding gate for vehicles access, which runs the entirety of the Project site from north to south. On the east side of the fence, west of Adelanto Road, is a roughly landscaped section of land with boulders lining the eastern side of the fence and an east-west paved driveway leading to the sliding gate from Adelanto Road. This section of land is completely disturbed due to the proximity to Adelanto Road and the associated disturbances related to the road construction and ongoing maintenance.

Within the predominately enclosed Project site, in the northeastern section, is a commercial building and two concrete slabs, including a designated parking area. Beginning at the eastern entrance gate, and surrounding the parking slab, is a slightly dispersed layering of 1-4-inch sized rip rap gravel. There are also multiple imported pine trees separating the building and parking slab. Located to the west of the building are two Conex boxes. Additionally, in the general areas surrounding the building, parking slab, and Conex boxes is various scattered debris, including paint cans, mirrors, glass windows, appliances, metal and wood scraps, carpeting, screens, water tanks, a small, destructed metal-framed “shed” with corrugated roofing, furniture, used tires, wooden pallets, a mattress, Waste Management bins, clothing, and modern refuse of food and beverage containers. In the southeastern corner is a currently-in-use utility box.

No surface evidence of prehistoric or historic archaeological resources or paleontological resources was identified within the Project site.

Photo 1: Overview of Project site from gated entrance, view to the west.

Photo 2: Overview of Project site from western margin, view to northeast

Paleontological Resources

As mentioned in the environmental setting section, the overall Adelanto area is a portion of the southern extent of the Mojave Desert and western extent of the Colorado Desert. As such, this area is characterized by the presence of decomposing granite derived from the nearby hillsides and windborne or water-borne alluvial deposits. Additional information from California Geological Survey indicates that the Project site is situated atop geological formations of Pleistocene to Holocene age sediments comprised of largely non-marine alluvium, lake, playa, and terrace deposits; both unconsolidated and semi-consolidated (Jennings 2010).

Based on that information alone, the paleontological sensitivity might be considered low in the overall area. However, the requested paleontological records search for the Project site and half-mile study area provided more context and allows for the sensitivity determination to be further supported based on what fossil types and localities have been documented in the area.

A paleontological records search for the Project site was requested by Chambers Group from personnel at the San Bernardino County Museum (SBCM) on April 1, 2022, and results of the search conducted by Scott Kottkamp, Curator of Earth Science for the Division of Earth Science were received on July 15, 2022. The search revealed that the Project site is located most immediately atop recent alluvial surficial deposits of Holocene age (Qa) comprised of unconsolidated mixed sand, silt, and gravel, often covered by soil and these upper deposits appear unlikely to be fossiliferous (Dibblee and Minch, 2008). However, these upper deposits directly overlie approximately 1.8 million- to 11,000-year-old Pleistocene alluvial deposits (Qoa) that are found to be highly fossiliferous in the local area. These Qoa deposits are understood to be present at depths as shallow at three feet below native surface in Adelanto but are exposed to the surface at the Mojave River to the east of the Project site. Qoa has been shown to contain several fossil localities near the Project site. Fossil deposits recovered from Qoa in the vicinity include the remains of mammoth, mastodon, and other large mammals as well as microfossils including rodents (Reynolds and Springer, 1991). Qoa overlies the Miocene age Tropico Group, which is also fossiliferous in the Adelanto region (Dames and Moor, Inc., 1995).

The SBCM records search indicated that within the requested half-mile study area, three fossil localities (SBCM 1.115.1, 1.115.2, and 1.115.3) were found located at depths of five to 14 feet under the surface in middle to late Pleistocene age older alluvium consisting of mixed green to buff colored fine sand, silt, and clay, underlying the surficial younger alluvium. Additionally, the SBCM noted that outside of the half-mile buffer, several other localities are documented in Qoa, within a five-mile radius of the Project site. These include five localities (1.115.4 – 1.115.7, 1.115.11) within 2.0 miles of the Project site. Construction monitoring in the five-mile radius of the Project site uncovered 70 paleontological localities (including SBCM 1.114.56 – 1.114.90, SBCM 1.114.93 – 1.114.97, SBCM 1.114.131 – 1.114.46, SBCM 1.114.160 – 1.114.65, 1.114.206 – SBCM 1.114.208, and SBCM 1.114.290 – 294) situated within Qoa, three to 15 feet beneath the surface (Reynolds and Springer, 1991).

Overall, the paleontological research and SBCM records search results indicate that there is a medium paleontological sensitively and potential to encounter intact and fossiliferous soil deposition at and below depths as shallow as three feet below surface within the Project site.

Native American Heritage Commission Sacred Lands File Search

On April 1, 2022, Chambers Group requested that the Native American Heritage Commission (NAHC) conduct a search of its Sacred Lands File (SLF) to determine if Tribal Cultural Resources (TCR) important to Native Americans have been recorded in the Project site and half-mile study area. PRC Section 21074 defines a resource as a TCR if it meets either of the following criteria:

1. sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a tribe that are listed, or determined to be eligible for listing, in the national or state register of historical resources, or listed in a local register of historic resources; or
2. a resource that the lead agency determines, in its discretion, is a tribal cultural resource

On May 13, 2022, Chambers Group received a response from the NAHC stating that the search of its Sacred Lands File was negative for the presence of Native American cultural resources within Project site and the record search study area.

The NAHC provided a list of 13 Native American tribal contacts that may have knowledge of cultural resources near the Project site. The 13 Native American contacts identified by the NAHC include Kern Valley Indian Community, Morongo Band of Mission Indians, Quechan Tribe of the Fort Yuma Reservation, San Fernando Band of Mission Indians, San Manuel Band of Mission Indians, Serrano Nation of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The response from the NAHC and list of tribal contacts is included in Attachment A.

Upon receipt of the NAHC SLF records search it is considered best practice to allow for additional outreach via scoping letters with the tribes indicated in the NAHC SLF letter. This effort further supports the goal to determine the nature of any existing TCRs located within the Project site or half-mile study area. However, no scoping letters were transmitted due to the negative SLF results and the fact that the current Project will include AB 52 and SB 18 consultation efforts by the City of Adelanto with all tribes that have been included in the AB 52 consultation process with the City of Adelanto and SB 18 consultation with all tribes listed on the contact list provided by NAHC. The intent of these legislated consultation efforts is the same as NAHC scoping letters and will allow the local tribal groups with any TCR concerns to engage with the City and recommend protocols to ensure the TCRs are protected appropriately.

Tribal Consultation

The proposed Project does not require public review, and therefore does not require AB 52 and SB 18 consultation. Nonetheless, as a good faith effort, the City of Adelanto initiated tribal consultation for the Project on July 13, 2022, which included six tribal groups. As of the date of this report, only two tribes have responded to the consultation notification. The Agua Caliente Band of Cahuilla Indians (ACBCI) responded via email on July 14, 2022. The ACBCI stated that the Project site is outside their Tribal Traditional Use Area and deferred to more local tribal groups. The Yuhaaviatam of San Manuel Nation (YSMN; formerly known as the San Manuel Band of Mission Indians) responded via email on August 11 and 25, 2022, noting that the Proposed Project area exists within Serrano ancestral territory and, therefore, is of interest to YSMN. They also stated that YSMN does not have any concerns with the Project's implementation, as planned, at this time; however, they did request that additional language be provided as part of the project. These recommendations have been included as best management practices (BMPs) to ensure that any inadvertent discoveries of cultural resources are addressed, assessed, and protected appropriately, as well as verifying that the Tribe is notified appropriately of any cultural resources discovered throughout the Project.

Therefore, with compliance with Programs OS-13 and OS-14, and implementation of BMP TCR-1 and BMP TCR-2, any TCRs or cultural resources of importance uncovered will be handled properly, and the Project would not cause a change in the significant of a TCR, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, or object with cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe.

Discussion

As detailed above, Chambers Group conducted a cultural resources records search and literature review within the Project site and surrounding half-mile study area in April and May of 2022 and conducted a cultural and paleontological pedestrian field survey in April 2022. The archaeological records search results were received and verified there are no known cultural resources within the Project site. No new cultural resources were observed during the pedestrian survey.

An archival records search through the CHRIS database at the SCCIC and background study of the Project site were conducted as part of the study. The SCCIC records search identified eight cultural resources reports and two cultural resources within the half-mile study area, but no resources were located within the Proposed Project site. Chambers Group also submitted a search request of the NAHC SLF to determine the presence or absence of data regarding any

known tribal cultural resources previously reported within the Project site or surrounding vicinity. The NAHC SLF search resulted in negative findings.

The paleontological records search confirmed no paleontological fossil localities have been previously recorded within the Project site, and no evidence of paleontological resources was observed on the surface during the pedestrian survey.

In summary, Chambers Group found no evidence of archaeological or paleontological resources within the Project site. However, the paleontological records search results did indicate that there is a medium level of sensitivity and potential to encounter fossil bearing geologic units within intact buried formations known to exist within and underlying the Project site. Additionally, as indicated by the YSMN, the overall Adelanto area is associated with the traditional use area of the Serrano, and as such, has the potential to yield prehistoric archaeological materials. Based on the information available at this time and the results of the current study in accordance with the City of Adelanto Policy implementation Program OS-11 and OS-14 (City of Adelanto, 2014), the subsurface context within the Project site is considered medium sensitivity for buried resources, both archaeological and paleontological.

Recommendations

Based on the results of the background research utilizing publicly available sources, Chambers Group archaeologists assess that the Proposed Project site is currently a vacant parcel of land and is previously disturbed. The background research confirmed a medium level of sensitivity for buried resources, both archaeological and paleontological. Although the NAHC SLF records search results resulted in negative findings, further consultation with local tribes and the associated response from YSMN clearly stated the general (medium) sensitivity for TCRs in the area.

Chambers Group recommends that the Project comply with Program OS-13 and OS-14 to ensure that impacts to potential undiscovered archaeological and paleontological resources remain less than significant. In general, if any cultural resources are identified, they would need to be evaluated for eligibility for the CRHR. Evaluation for archaeological sites consists of an archaeological testing program. Similarly, evaluation for paleontological resources will require evaluation by a qualified paleontologist. If determined eligible by the CEQA lead agency or the State Historic Preservation Office, mitigation, consisting of data recovery for archaeological sites, paleontological resources and documentation would be required if avoidance is not feasible.

Program OS-13 **Disturbances of Archaeological Resources**. If the archaeological assessment did not identify potentially significant archaeological resources in the proposed planning area, but indicates the area to be of medium or high sensitivity for archaeological resources, an archaeologist who meets the PQS shall be retained on an on-call basis. The archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) area exposed during ground disturbing activities, construction activities within a 50-foot radius of the discovery shall be halted while the on-call archaeologist is contacted. If the resource is determined to be significant or unique through significance evaluation, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include an archaeological data recovery program that would be implemented by a qualified archaeologist and performed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports (ARMR). If the discovery proves to be significant, it shall be curated with a qualified scientific of educational repository, as defined by the Guidelines for the Curation of Archaeological Collections.

Program OS-14 **Paleontological Resources**. Future development proposals subject to environmental review pursuant to the California Environmental Quality Act (CEQA) are subject to the following provisions at the expense of the project proponent, as directed by the Development Services Director.

Paleontological Assessment. In areas containing middle to late Pleistocene era sediments (Qof) where it is unknown if paleontological resources exist, prior to grading an assessment shall be made by a qualified paleontological professional to establish the need for paleontologic monitoring. Should paleontological monitoring be required after recommendation by the professional paleontologist and approval by the Development Services Director, paleontological monitoring shall be implemented.

Paleontological Monitoring. A project that requires grading plans and is located in an area of known fossil occurrence or that has been demonstrated to have fossils present in a paleontological field survey or other appropriate assessment shall have all grading monitored by trained paleontologic crews working under the direction of a qualified professional, so that fossils exposed during grading can be recovered and preserved. Paleontologic monitors shall be equipped to salvage fossils as they are unearthed, to avoid construction delays, and to remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens. Monitoring is not necessary if the potentially fossiliferous units described for the property in question are not present or if present are determined upon exposure and examination by qualified paleontologic personnel to have low potential to contain fossil resources. Should significant paleontological resources be discovered, paleontological recovery, identification, and curation shall be implemented.

Paleontological Recovery, Identification, and Curation. Qualified paleontologic personnel shall prepare recovered specimens to a point of identification and permanent preservation, including washing of sediments to recover small invertebrates and vertebrates. Qualified paleontologic personnel shall identify and curate specimens into the collections of the Division of Geological Sciences, San Bernardino County Museum or a similar established, accredited museum repository with permanent retrievable paleontologic storage. The paleontologist must have a written repository agreement in hand prior to the initiation of mitigation activities. This measure is not considered complete until curation into an established museum repository has been fully completed and documented.

Paleontological Findings. Qualified paleontologic personnel shall prepare a report of findings with an appendix of itemized specimens subsequent to implementation of paleontological recovery, identification, and curation. A preliminary report shall be submitted to and approved by the Development Services Director before granting of building permits, and a final report shall be submitted to and approved by the Development Services Director before granting of occupancy permits.

Additionally, to keep a working relationship with the YSMN Tribe, it is recommended that the following BMPs be incorporated during project construction:

BMP-TCR-1 The YSMN Cultural Resources Department shall be contacted, as detailed in OS-13, of any pre-contact cultural resources discovered during Project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resource Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the Project, should YSMN elect to place a monitor on-site.

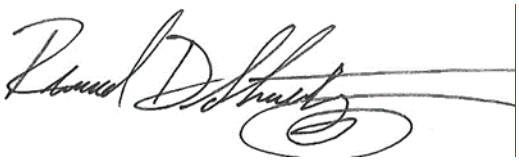
BMP-TCR-2 Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the Project.

Legal Requirement: Unanticipated discovery of Human Remains: In the unlikely event that human remains are discovered during ground-disturbing activities, then the Proposed Project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98. If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the San Bernardino County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Chambers Group is available to assist with any further support or document preparation related to Cultural Resources, including tribal consultation. Please contact the Project Manager Victoria Boyd, at (760) 685 -4838, or one of the contacts below if you have any questions or comments regarding this report.

Sincerely,

CHAMBERS GROUP, INC.



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Attachments

Attachment A: NAHC SLF Records Search Results

Attachment B (Confidential): Record Search Results

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ATTACHMENT A – NAHC SLF RECORDS SEARCH RESULTS LETTER

Attachment A: NAHC SLF Records Search Results Letter

STATE OF CALIFORNIA — Gavin Newsom, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION

May 13, 2022

Kellie Kandybowicz
The Chambers Group, Inc.

Via Email to: kkandybowicz@chambersgroupinc.com

Re: 16454 Adelanto Road Warehouse Project, San Bernardino County

Dear Ms. Kandybowicz:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

NAHC HEADQUARTERS
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West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Native American Heritage Commission
Native American Contact List
San Bernardino County
5/13/2022

Kern Valley Indian Community
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30741 Foxridge Court — Kawaiisu
Tehachapi, CA, 93561 — Tubatulabal
Phone: (661) 821 - 1733 — Koso
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Kern Valley Indian Community
Robert Robinson, Chairperson
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bbutterbredt@gmail.com

Kern Valley Indian Community
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Morongo Band of Mission Indians
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12700 Pumarra Road — Cahuilla
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Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
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12700 Pumarra Road — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 755 - 5259
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abrierty@morongo-nsn.gov

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
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San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Vanyume
Phone: (503) 539 - 0933 — Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Manuel Band of Mission Indians
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Serrano Nation of Mission Indians
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Phone: (253) 370 - 0167
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Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
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This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 16454 Adelanto Road Warehouse Project, San Bernardino County.

Native American Heritage Commission
Native American Contact List
San Bernardino County
5/13/2022

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place Chemehuevi
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov

Twenty-Nine Palms Band of Mission Indians
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Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed 16454 Adelanto Road Warehouse Project, San Bernardino County.

APPENDIX D – Vehicle Miles Traveled (VMT) Analysis – 16454 Adelanto Road Warehouse, prepared by General Technologies and Solutions (GTS), May 16, 2022; Updated October 27, 2022.

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GTS | General Technologies and Solutions

MEMORANDUM

Date:	May 16, 2022; Updated October 27, 2022	**GTS:** 220306.01
To:	Victoria Boyd, Chambers Group	
From:	Rawad Hani, GTS	
Subject:	**Vehicle Miles Traveled (VMT) Analysis – 16454 Adelanto Rd Warehouse, Adelanto, CA**	

This memorandum describes the development of vehicle miles traveled (VMT) analysis for the proposed warehouse at 16454 Adelanto Rd in the City of Adelanto (City), CA. The project is located between US highway 395 and Adelanto Rd and between Holly St/Rd and Rancho Rd in the City of Adelanto. The project proposes construction of a single building with 49,798 SF of industrial warehouse land use. The project would be consistent with the existing zoning of Light Manufacturing (LM). This VMT analysis evaluated the project using the 2016 and 2040 model years obtained from the San Bernardino County Transportation Authority (SBCTA).

Background

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) guidelines for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled (VMT).

Methodology

The project VMT analysis was conducted using the City of Adelanto's "*Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS)*" (Guidelines), dated July 2020. The guidelines included project screening criteria which was reviewed for the project evaluation. The project doesn't qualify for VMT screening under any of the established screening criteria. Although not required, a full VMT analysis was conducted using San Bernardino County Transportation Analysis Model (SBTAM) as recommended in the City's guidelines.

SBTAM model is a socioeconomic data-based model and so the project land use was converted into model employment categories using conversion factors that were developed from the ITE Trip Generation Manual trip rate data. The land use conversion yielded a total of 17 employees as shown in Table 1. However, the operational statement for the project included a total of 20 employees at the project site. Number of employees from the operational statement was used in the VMT analysis for a conservative scenario.

Table 1: 16454 Adelanto Rd Warehouse – Employment Estimates

Land Use	Unit	Total Units	ITE Code	Trips/Unit	Trips/Emp	Emp/Unit	Total Employees	Employees (Operational Statement)
Warehouse	SF	49,798	150	1.71	5.05	0.338	17	20
Total Employees used in VMT analysis								**20**

VMT Analysis

Both baseline (2016) and horizon year (2040) model runs were used to estimate project's VMT impacts. SBTAM socioeconomic databases for the scenarios were updated with the project land use to calculate project VMT. Typically, project VMT is calculated by isolating the project in a new TAZ or multiple TAZs depending on the diversity of project land uses and project size. Since, SBTAM does not allow addition of new TAZs, one TAZ was borrowed for this project. The project TAZ was utilized to calculate project specific VMT per service population.

No project specific network modifications were conducted for the model scenarios. Full model runs with feedback loops were conducted for all of the project scenarios. It should be noted that the project land use was included in the model as additional land use in the cumulative (2040) scenario and no shifting of land use from other TAZs was used. In that regard, the cumulative VMT analysis can be considered as a conservative estimate.

Based on the Guidelines, either project's Origin/Destination (OD) VMT per service population or Production/Attraction (PA) VMT per service population can be used to evaluate project impact if the project consists of a single land use. As the proposed project consists of a single land use (warehouse), PA VMT per service population was used to evaluate the project.

The project PA VMT per service population for base and cumulative scenarios was compared with San Bernardino County regional average PA VMT per service population. The San Bernardino County PA VMT per service population threshold was estimated using "No Project" runs conducted by GTS. VMT metrics for the threshold and project were developed using consistent methodology.

Table 2 below shows the project VMT metrics for both baseline (2016) and cumulative (2040) conditions along with the regional VMT thresholds. For both 2016 and 2040 conditions, the project's PA VMT per service population is less the County's PA per service population.

Table 2: Project VMT Analysis

2016	16454 Adelanto Rd Warehouse	San Bernardino County*
Households	-	630,327
Population	-	2,140,539
Employment	20	790,400
Service Population	20	2,930,939
Homebased Work (HBW) VMT	255	13,554,775
PA VMT	338	77,244,870
HBW VMT per employee	12.8	17.1
PA VMT per service population	16.9	26.4

2040	16454 Adelanto Rd Warehouse	San Bernardino County*
Households	-	854,777
Population	-	2,721,775
Employment	20	1,027,872
Service Population	20	3,749,647
Homebased Work (HBW) VMT	201	17,045,817
PA VMT	282	103,117,026
HBW VMT per employee	10.0	16.6
PA VMT per service population	14.1	27.5

** Estimated using No-Project model runs*

Table 3 illustrates the project's effect on VMT. The project's effect on VMT is a comparison of roadway VMT within San Bernardino County for both "With project" and "Without project" conditions. As shown in Table 3, the project does not increase the VMT per service population.

Table 3: Roadway VMT within San Bernardino County

2016	With Project	Without Project
Roadway VMT	57,506,209	57,354,729
Service population	2,930,959	2,930,939
VMT per service population	19.6	19.6

2040	With Project	Without Project
Roadway VMT	88,372,847	88,879,672
Service population	3,749,667	3,749,647
VMT per service population	23.6	23.7

Conclusion

Based on the VMT analysis as shown in above Tables 2 and 3, the project doesn't constitute a significant impact for both "project generated VMT" and "project's effect on VMT.