



SYCAMORE HILLS DISTRIBUTION CENTER

Elevation Rendering View D

Figure 5.1-5



5.1.4 Thresholds of Significance

The City has not established local CEQA significance thresholds as described in Section 15064.7 of the *State CEQA Guidelines*. Therefore, significance thresholds in Appendix G (“Environmental Checklist”) of the *State CEQA Guidelines* are utilized. The Environmental Checklist prepared by the City for the Project (see Appendix A of this document) indicates that impacts related to the Sycamore Hills Distribution Center Project may be considered potentially significant if the proposed Project would:

- (Threshold A) have a substantial adverse effect on a scenic vista;
- (Threshold B) substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;
- (Threshold 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; or
- (Threshold D) create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

5.1.5 Environmental Impacts

Threshold A: *Would the Project have a substantial adverse effect on a scenic vista?*

Scenic vistas are defined as a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public, which can be impacted by development in two ways. First, a structure may be constructed that blocks the view of a vista. Second, the vista itself may be altered (i.e., development on a scenic hillside). The Project site is currently vacant and warehousing and light industrial uses are located east along Alessandro Boulevard and northeast, along Sycamore Canyon Boulevard. The Sycamore Canyon Wilderness Park is located directly north, and commercial and residential uses are located to the south, across Alessandro Boulevard. A Metropolitan Water District (MWD) wastewater treatment plant is west of the Project site, across Barton Street.

The Project site itself does not constitute a scenic vista. The Project site is not a part of the Sycamore Canyon Wilderness Park. Views of Sycamore Canyon Wilderness Park from Alessandro Boulevard are currently blocked by the existing Citywide Self-Storage development. Further, the Project site does not constitute a scenic vista because it is largely surrounded by development, including the wastewater treatment plant to the west, the self-storage facility and Alessandro Boulevard to the south, and commercial and residential uses south of Alessandro Boulevard. The property directly east of the Project site is vacant but is also within the Sycamore Canyon Business Park Specific Plan (SCBPSP), with land use designation for Industrial and zoned BMP-SP (Business and Manufacturing Park and Sycamore Canyon Specific Plan). Existing warehousing and light industrial uses within the SCBPSP located east and northeast also are

directly adjacent to the Sycamore Canyon Wilderness Park. Views of the Project site are generally obstructed by surrounding development, with the exception of views from the south and southeast from Alessandro Boulevard. Although the Project site is visible from Alessandro Boulevard and to the residences located on the south side of Alessandro Boulevard, the Project site itself does not provide expansive views of a highly valued landscape to the general public.

Industrial buildings located on the north side of the Sycamore Canyon Wilderness Park and within the Sycamore Canyon Business Park can be seen in the distance in the photographs View 1, 2, 3, 4, 5, and 7 (Figure 3.0-4B and 3.0-4C). Buildings A and B will be 45 feet high, with a parapet wall ranging in height between 2 and 5 feet, which is consistent with the SCBPSP standards. The proposed structures are compliant with the maximum building height allowed by the zone. Due to the Project's distance from the Box Springs Mountains as well as the elevations of these mountains, it will not block views of these mountains from Alessandro Boulevard or the existing uses (commercial and residential) south of Alessandro Boulevard. The Project will not result in a substantial adverse effect on views of these mountains within the area.

Therefore, as the Project's proposed structures will not substantially impact the scenic vistas of the Sycamore Canyon Wilderness Park or Box Springs Mountains and as the proposed Project does not represent a significant change in the viewshed from what currently exists in the area, **impacts will be less than significant.**

Threshold B: *Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The Project site is not located adjacent to a scenic highway as there are no designated or eligible State scenic highways in the City; thus, no impacts will occur in this regard.

Alessandro Boulevard, south of the Project site, is designated a Scenic Boulevard. The Project site is visible from Alessandro Boulevard from the south and southeast. The view of the Project site from Alessandro Boulevard is partially blocked by the existing Citywide Self-Storage development. Mission Grove Parkway, another designated Special Boulevard near the Project site, is located approximately 0.75 mile to the northwest. The nearest designated Parkway is Canyon Crest Drive, also a designated Scenic Boulevard, located approximately 1.5 miles to the west. (GP 2025, Figure CCM-4) The Project site is not readily visible from Mission Grove Parkway or Canyon Crest Drive due to the distance of these roadways from the Project site, the topography of the area, and existing development along these roadways.

The Project site is vacant and does not have any historic buildings or historic resources; therefore, it would not result in impacts to these resources. The topography consists of natural rolling terrain descending gradually from a west to east direction. There are granitic rock outcroppings throughout the property. The existing rock outcroppings at the site are relatively low to the ground and are generally blocked from view from Alessandro Boulevard with existing onsite vegetation. Therefore, the onsite rock outcroppings are not considered a scenic resource and damage to these rock outcroppings during construction would not be considered a significant aesthetics impact.

The Project site contains low to moderate vegetation primarily consisting of non-native grasslands crossed by several drainages, some of which contain riparian woodland. The existing riparian woodland vegetation, approximately 5.16 acres in total, is considered a scenic resource.

Driveway construction to provide access to Building A from Alessandro Boulevard will result in 0.57 acres of permanent impacts of the existing riparian vegetation in Area C. Area C has more sparse riparian vegetation, with less trees than Drainage B, and Area C is at a lower elevation than Alessandro Boulevard. Construction of Building B will result in permanent impacts to 0.35 acres of existing riparian vegetation in Drainage A. The riparian vegetation associated with Drainage A is also sparse and is generally blocked from view from Alessandro Boulevard by the more prominent Drainage B riparian vegetation and the Citywide Self-Storage facility. The 1.36 acres of riparian vegetation associated with Drainage B has more mature trees and taller trees than Drainage A and Area C and will not be permanently impacted but preserved in place. Although the project will result in permanent impacts to 0.57 acres of Area C and 0.35 acres of Drainage A riparian vegetation, this is not considered a significant impact because: 1) the views of these areas from Alessandro Boulevard are partially or completely blocked by topography relief, Drainage B vegetation, and the Citywide Self-Storage facility; 2) the most prominent riparian vegetation associated with Drainage B, that is visible from Alessandro Boulevard and has the most number of and the tallest trees, will be preserved; 3) a total of 4.24 acres of existing riparian vegetation will be preserved; 4) **Mitigation Measure MM BIO-6** includes enhancement of a total of 1.58 acres of riparian habitat and creation (establishment) of 0.61 acre of in-kind riparian woodland in Area C and restoration of 0.02 acre of riparian habitat in Drainage B, all within the Restricted Property/Conservation Area that will be managed in perpetuity.

MM BIO-6 states that prior to issuance of occupancy permit, in order to reduce impacts to on-site Riparian/Riverine areas and suitable habitat for least Bell's vireo (an endangered bird), on-site mitigation shall include:

1. Enhancement of a total of 1.58 acres of riparian habitat: 0.01 acres in Drainage A, 1.34 acres in Drainage B, and 0.23 acre in Area C.
2. Create (establish) 0.61 acre of in-kind riparian woodland in Area C.
3. Restoration of 0.02 acre of riparian habitat in Drainage B.
4. The non-jurisdictional, non-riparian/riverine upland areas of slopes associated with the access road will be restored/replanted with native seed mix.
5. The roadway/access to Parcel1/Building A shall include culverts to provide a hydrological connection to the riparian habitat on the east side of the roadway and a corridor for small wildlife species.
6. Record lettered parcels A and B for portions of the site that will not be developed but includes the revised restricted property and is designed as conservation area. Parcel A 7.19 acres and Parcel B 5.04 acres, with a combined total of 12.23 acres, shall be managed in perpetuity by a 3rd party, anticipated to be the Rivers and Lands Conservancy (RLC) or other CDFW approved entity, with an endowment funded by the developer.

Therefore, with the Project's avoidance and preservation of the most prominent and mature existing riparian woodland vegetation associated with Drainage B and implementation of MM BIO-6, **impacts will be less than significant with mitigation incorporated.**

Threshold 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?*

The proposed Project is located in an urbanized area and it will not conflict with applicable zoning and other scenic quality regulations. The City of Riverside General Plan 2025 (GP 2025) designates the Project site as Business/Office Park (B/OP), and within the Sycamore Canyon Business Park, which is considered a "Major Business Park" as shown on Figure LU-4 of the GP 2025. Additionally, as previously discussed, development of the Project site is guided by the SCBPSP, which was adopted in 1984 by the City in order to encourage and provide incentives for economic development in the 1,400-acre planning area. The SCBPSP designates the Project site land use as 'Industrial.' Further, per the City's Zoning Map, the Project site is within the BMP-SP - Business and Manufacturing Park and Specific Plan (Sycamore Canyon Business Park Specific Plan) Overlay Zones. The BMP zone is one of four industrial zones within the City. The vacant property directly east of the Project Site is also zoned BMP-SP and designated for Industrial use within the SCBPSP. Further east and northeast of the Project site is existing large-scale light industrial uses, consisting of distribution centers and warehousing within the Sycamore Canyon Business Park. Thus, the Project site is designated for business/manufacturing park use and is largely surrounded by development.

The existing restricted property, which includes a natural drainage course and associated riparian woodland vegetation, will largely be preserved and will serve as a buffer between Building A and Alessandro Boulevard, as well as between Buildings A and B.

Building A will be set back from Alessandro Boulevard by approximately 500 feet with the restricted property/ conservation area and natural terrain and vegetation within that setback. No dock doors of Building A face south towards Alessandro Boulevard or north towards Sycamore Canyon Wilderness Park. (Figure 3.0-8 – Site Plan) Dock doors are located on the west side (39 dock doors) and east side (49 dock doors) of the building. The dock doors will be screened from the public view by an 8-foot high wall on the east and west sides of Building A. Another set of 15-foot high walls will be located on the east and west sides of Building A, facing south, creating a right angle with the 8-foot high wall to screen views of the dock door and loading areas from Alessandro Boulevard. The required landscaping for Parcel 1 is five percent (23,014 square feet). Parcel 1 will include 132,699 square feet of landscaping, which greatly exceeds the minimum requirement, for a site coverage of 28.83 percent. Landscaping in Parcel 1 is located inside the western, northern, and southern boundaries. Landscaping will include fire resistant groundcover, shrubs and columnar trees, consistent with the *Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan*. This enhanced landscaping, in the northern and southern portions of the site, provide additional screening of Building A from Alessandro Boulevard and the Sycamore Canyon Wilderness Park, respectively.

Building B will have a total of 34 dock doors facing south, adjacent to and facing the back wall of Citywide Self Storage. The front of Building B faces Barton Street to the west. Building B will be set back 90 feet from Barton Street. An 8-foot high metal fence will be located along the westerly and southernly property line. An 8-foot high combination screening fence/wall, consisting of a 4-foot high tubular metal fence on top of a 4-foot high screen wall, will be located along the northerly property line adjacent to the trailhead parking lot. The required landscaping for Parcel 2 is five percent (9,542 square feet). Parcel 2 will include 37,993 square feet of landscaping, which also greatly exceeds the minimum requirement, for a site coverage of 19.91 percent. The landscaping for Parcel 2 also includes fire resistant groundcover, shrubs and columnar trees, consistent with the *Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan*. This enhanced landscaping in Parcel 2 is located inside the northern, eastern, western, and southern boundaries, providing additional screening of Building B from Barton Street and the Sycamore Canyon Wilderness Park.

Both proposed buildings will include a color palette largely consisting of beiges (Maison Blanche, Fresco Cream, Mexican Sand, and Oak Creek). Windows will have blue reflective glazing with black mullions, refer to Figure 3.0-11 Materials Board. Photographs of the site and surrounding areas were used to develop the color palette that is consistent with and complements the surrounding area, including Sycamore Canyon Wilderness Park.

Buildings A and B will be 45 feet in height, with a parapet wall ranging in height between 2 and 5-feet. HVAC systems will be located on the roofs but will be shielded from view. The south elevation of Building A is 520 feet long, while the north elevation is 400 feet long. The east and west elevations of Building A is 969 feet long. The west elevation of Building B is 365 feet, the north and south elevation is 660 feet 10 inches, and the east elevation is 308 feet. The building design implements articulation to create pockets of light and shadow to break up the long expanse of wall surface. Refer to Figures 3.0-13A and 3.0-13B for Conceptual Elevations of Buildings A and B.

Public views are those that are experienced from publicly accessible vantage point. Public views of Building A on Parcel 1 will be from two publicly accessible vantage points: Alessandro Boulevard to the south and from trails within the Sycamore Canyon Wilderness Park to the north. As shown in Figure 5.1-2 – Elevation Rendering View A, the public view of Building A from Alessandro Boulevard is softened by the 520-foot setback, landscaping, natural vegetation within the restrictive property/conservation area, and the natural and earth-toned color palette. The Project's landscaping will also partially screen the north elevation of Building A. The view from Sycamore Canyon Wilderness Park south towards Building A on Parcel 1 is shown in Figure 5.1-3 – Elevation Rendering View B. Building A will be screened on this side by the Project's landscaping, including the water quality basin, and the view is softened by the 40-foot set-back of the building from the property line.

Public views of Building B on Parcel 2 will be from two publicly accessible vantage points: Barton Street to the west and from trails within the Sycamore Canyon Wilderness Park to the north. As shown in Figure 5.1-4 – Elevation Rendering View C, the trailhead parking lot and amenities serve as an additional setback between the northern property line with the park and Building B. Building

B will be located between 20-182 feet from the northerly property line of Parcel 2, and 90 feet from the northerly property line of the trailhead parking lot. The trailhead parking lot will largely be decomposed granite, with landscaping and amenities that are complementary to the adjacent Wilderness Park. The Project's enhanced landscaping will also partially screen Building B and its parking areas from Barton Street, as shown in Figure 5.1-5 – Elevation Rendering View D.

With the natural and earth-toned color palette, the articulation of the building facades, the screen walls for the loading dock areas, and the enhanced landscaping, the Project will not substantially degrade the existing visual character or quality of public views of the site and its surroundings. The restricted property/conservation area with existing mature vegetation and the required 20-foot landscape setback at the front of Building A will preserve the existing character of the site along the frontage of Building A and between Buildings A and B. A landscaped buffer will be located along the northern side of Building A and an 8-foot high concrete wall along the northern and eastern sides of Building A to screen the building from the Sycamore Canyon Wilderness Park. Building B will have a 20-foot landscape setback on the western side, along Barton Street. There will also be an 8-foot high tubular metal fence and enhanced landscaping along the western side of Building B to screen the building from Barton Street. An 8-foot high combination screening fence/wall, consisting of a 4-foot high tubular metal fence on top of a 4-foot high screen wall and landscaping with shrubs and trees, will be located along the northerly property line adjacent to the trailhead parking lot to screen Building B from the Sycamore Canyon Wilderness Park. The trailhead parking lot will also provide a buffer and setback between Building B and the Sycamore Canyon Wilderness Park.

Grading Exception

Due to the topography of the site, the Project will require a grading exception. While the vast majority of the grading complies with the Code, minor portions of the proposed retaining walls will exceed the allowable 6 feet in height. These areas are illustrated on Figure 3.0-10 - Grading Exception & Wall Variance and identified as Areas 1 & 2. Area 3 consists of a combination freestanding/retaining wall subject to provisions of Title 19.

Area 1

As shown in red on Figure 3.0-10, this area consists of approximately 95 linear feet of retaining wall that varies in height from 6.5-11.5 feet adjacent to Building B. The primary purpose of this wall is to serve as a headwall and wing walls for a 48-inch diameter storm drain outlet that conveys offsite flow from the Metropolitan Water District Mills Filtration Plant, through the subject property and discharges directly into the existing drainage course and proposed additional Restricted Property area to allow for maximum feasible avoidance of the drainage course. Approval of the grading exception to allow retaining walls varying from 6.5-11.5 feet in height in this area would be consistent with the general purpose and intent of Title 17 of the Riverside Municipal Code to minimize the adverse effects of grading on natural landforms, particularly in regard to water runoff. The following is a summary of the requested grading exception:

- To allow a 6.5-11.5-foot retaining wall in the northeast corner of Parcel 2.

This retaining wall is located at a low point in the grading and existing topography of the site associated with Drainage A. It will not generally be visible from the Sycamore Canyon Wilderness Park to the north due to the low elevation and screening by existing vegetation in Drainage A as it extends north out of the property and into the park. This retaining wall will not be visible from views from the southeast, including from Alessandro Boulevard, due to proposed 8-foot high screening wall associated with the eastern side of Parcel 2 as well as the existing City-Wide Storage Facility and mature vegetation in Drainage B (in the central portion of the site).

Area 2

As shown on Figure 3.0-10, this area is located near the southeasterly corner of Building B. The sole purpose of the walls in this area is to accommodate two water quality basins required for new developments per requirement of the Federal Clean Water Act, State Porter-Cologne Water Quality Control Act and the Santa Ana Region National Pollutant Discharge Elimination System (NPDES) Permit. Approval of the grading exception for Area 2 is required to ensure sufficient basin capacity. The following is a summary of the requested grading exception:

- To allow a 4.7 to 8.2-foot-high retaining wall (26 linear feet) in the southeast corner of Parcel 2
- To allow a 6-10-foot-high retaining wall (170 linear feet) in the southeast corner of Parcel 2

These retaining walls will not generally be visible from the Sycamore Canyon Wilderness Park to the north due to the low elevation and screening by existing vegetation in Drainage B. These retaining walls will not be visible from views from the southeast, including from Alessandro Boulevard, due to proposed 8-foot high metal fence and landscaping associated with the southwest corner of Parcel 1, the existing City-Wide Storage Facility, and mature vegetation in Drainage B (in the central portion of the site).

Wall Variance

Area 3

A Variance is requested for Parcel 1 to allow the installation of two combination retaining/freestanding walls wherein the retaining portion exceeds the RMC's maximum allowable height of 4 feet and to allow combination retaining/freestanding walls wherein the overall height exceeds the RMC's maximum allowable height of 10 feet (Chapter 19.550 – Fences, Walls and Landscape Materials). These walls are located along the eastern property line of Parcel 1, as shown on Figure 3.0-10 – Grading Exception-Wall Variance Exhibit. The retaining wall is required to avoid drastic grade changes across the site and the freestanding wall is required to screen the dock doors on the east side of Building A from the east and southeast, including views from Alessandro Boulevard. Additionally, reconfiguring the site to reduce the walls to the required 4 feet height would also complicate future development of the private property to the east. The following is a summary of the requested variances:

- To allow 132 linear feet of combination retaining/freestanding wall with the retaining portion height up to 6.4 feet and combined height of up to 14.4 feet.
- To allow 205 linear feet of combination retaining/freestanding wall with the retaining portion height up to 7.6 feet.

Fencing

As shown on Figure 3.0-9 – Site Plan, a 42-inch cable rail fence will be located along the northern boundary of the property adjacent to the Sycamore Canyon Wilderness Park to demark the property line for park users. The cable rail fence will also run along the frontage of Parcel 1 with Alessandro Boulevard and on both sides of the access road to Parcel 1 and around the Restricted Property/Conservation Areas (Parcels A and B) internal to the site to restrict access into these areas. The 42-inch cable rail fence, by design (low height and openings), would not obstruct views or degrade the visual character of the site. In addition, the cable rail fence located along the frontage of Parcel 1 and on both sides of the access road will be at a lower elevation than Alessandro Boulevard and below the line of sight of drivers in vehicles on Alessandro Boulevard.

The south side of Building A and its parking area/drive aisles will have a 8-foot high tubular steel fence; however, there will also be landscaping with shrubs and trees along this fence line and it will be set back from Alessandro Boulevard by approximately 500 feet with the restricted property/conservation area and natural terrain and vegetation within that setback. Refer to Figure 5.1-2 for the rendering of view from Alessandro Boulevard north to Building A. Building A will also have an 8-foot high tubular steel fence along the frontage of Barton Street. Along this fence line there will be a 20-foot enhanced landscape setback with shrubs and trees. Refer to Figure 5.1-5 for the rendering of view from Barton Street northeast to Building B. These setbacks and enhanced landscaping will soften the fence lines and views of the buildings. Therefore, the Project will not substantially degrade the existing visual character or quality of public views of the site and impacts are **less than significant without mitigation measures**.

Threshold D: *Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The potential impact associated with exterior lighting is spill light (also referred to as light trespass). Spill light occurs when lighting fixtures such as streetlights, parking lot lights, landscape lights, or lights on buildings, are not properly aimed or shielded to direct light to the desired location. In these instances, light escapes and partially illuminates a surrounding area. Glare is the result of improperly aimed or blocked lighting sources that are visible against a dark background such as a night sky. Glare is also the result of indirection reflection of a light source (natural or artificial) against a surface. Glare generally does not illuminate off-site locations but may result in a visible source of light viewable from a distance.

The Project will include outside nighttime lighting for security; however, the lights will be shielded downwards and set to motion detectors and will only be turned on if employees are present. Interior lights will also be on motion detectors.

All lighting will comply with the development standards contained in the City's Zoning Code, the Sycamore Canyon Business Park Specific Plan guidelines, the RMC, the standards and specification of the City's Park, Recreation, and Community Service Department, and the *Sycamore Canyon Wilderness Park Stephens' Kangaroo Rat Management Plan and Updated Conceptual Development Plan*. Specifically, the RMC requires that on-site lighting be arranged so as to reflect away from the adjoining property or any public streets, and that lighting not be directed skyward or in a manner that interferes with aircraft operation (RMC Chapter 19.590).

The development of the Project will include the installation of exterior building lights and freestanding parking lot lights. Building-mounted lights will consist of approximately 15 high output and supersaver LED cut-off lights with no uptilt located approximately 28 feet above finished floor elevation for Building A. Along the northern and southern building wall a total of approximately 7 SLM-LED-30L-SIL-3-50-70CRI light fixtures will be placed at the same elevation. Approximately 12 high output and supersaver LED cut-off light with no uptilt will be located approximately 28 feet above finished floor elevation for Building B, and along the eastern building wall 3 SLM-LED-30L-SIL-3-50-70CRI light fixtures will be placed at the same elevation.

A photometric study with manufacturer's cut sheets of all exterior lighting on buildings, in landscaped areas, and in parking lots was prepared and submitted to Planning Division staff for review, consistent with City standard lighting conditions. Based on Riverside Municipal Code 19.5556.060, the Project site is located in Lighting Zone 3 which is suitable for medium to high levels of exterior lighting at night. The adjacent Sycamore Canyon Wilderness Park is considered to be in Lighting Zone 0 where it is intended to be preserved in a natural state with little or no exterior light at night. Photometric software was used with the layout of the Project site and the proposed light fixtures. The Photometric Plan shows the Project area with foot candle measurements, which is the most common unit of measure used to measure lighting in businesses and outdoor spaces. For reference 1-foot candle is equal to 1 lumen/square foot (ft²). All on-site lighting shall provide a minimum intensity of one-foot candle and a maximum of ten-foot candles at ground level through the areas serving the public and used for parking. The standard lighting conditions proposed that light sources shall be shielded to minimize off-site glare, shall not direct light skyward and shall be directed away from adjacent properties and public rights-of-way. If lights are proposed to be mounted on buildings, down-lights shall be utilized. Light poles shall not exceed twenty feet (20) in height, including the height of any concrete or other base material.

Existing streetlights along Alessandro Boulevard, existing commercial and residential uses south of Alessandro Boulevard, and industrial uses east and northeast of the Project site provide night lighting in the area. As a result, lighting from the Project will not result in a substantial source of new light or glare that could adversely affect these existing uses. As discussed in Section 5.3 Biological Resources, the Project must be consistent with Section 6.1.4 – *Guidelines Pertaining to the Urban/ Wildlands Interface*, of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Night light shall be directed downward away from natural open space areas and directed downwards and towards the center of the development. Energy efficient

Low Pressure Sodium (LPS) or High Pressure Sodium (HPS) lamps shall be used exclusively to dampen glare.

Per RMC Chapter 19.556.080, the Project must follow lighting restrictions for the maximum allowable light trespass to properties surrounding the Project which include the Sycamore Canyon Wilderness Park, the vacant property to the east, Barton Road, Alessandro Boulevard, and the property to the south zoned CG – Commercial General. The maximum allowable light trespass to the Sycamore Canyon Wilderness Park is 0 foot candle and all other adjacent properties have a maximum allowable light trespass of 0.5 foot candle. Per the Photometric Plan the light sources from the Project site will be located only on Parcel 1 and Parcel 2. The light spillage from Parcel 1 and Parcel 2 to the other parcels (Parcel A, B, C, respectively) and the properties surrounding the Project site would be 0 foot candle. Thus, Parcel 1 and Parcel 2 would not have light spillage to the other parcels (Parcel A, B, C, respectively) and would not have light spillage to the properties surrounding the Project site.

The photometric plan shows that no light spill from parking lot and building lights will occur outside of the Building pad footprints. Additionally, the photometric plan shows no light spill will occur into the restricted property/conservation areas (Parcels A and B), the trailhead parking lot (Parcel C), or into the Sycamore Canyon Wilderness Park to the north.

Implementation of the Project will add additional traffic to surrounding streets, including Barton Street and Alessandro Boulevard. Vehicle headlights are designed to direct light onto roadways so vehicles may be safely operated in low light conditions. When properly installed and aligned, vehicle lights do not constitute a significant source of spill light or glare. Additionally, the amount of traffic generated by the Project will not result in a significant new or increased source of light or glare as roadways within the Project already experience vehicular traffic and the use of headlights during evening and nighttime hours. Vehicle headlights will be prevented from spilling into the Sycamore Canyon Wilderness Park by an 8-foot high combination screen wall/retaining wall along the easterly side and an 8-foot high concrete screen wall located around the northern and western perimeter of Building A's drive aisles and parking and loading dock areas. Vehicle headlights will be prevented from spilling into the Sycamore Canyon Wilderness Park by an 8-foot high combination screen wall/retaining wall and an 8-foot high concrete screen wall located at the eastern and northeastern perimeter, and a 4-foot high concrete screen wall (with 4-foot metal fence on top) at the northern perimeter, of Building B's drive aisles and parking areas. The trailhead parking lot, which is located along the northern side of Building B, will also serve as a buffer between the warehouse operations and the wilderness park. Consistent with the operational hours of the Sycamore Canyon Wilderness Park, the trailhead parking lot will be open from dusk to dawn and an arm gate at the entrance will be used to restrict access when not open. Therefore, there would not be vehicle headlights at nighttime shining into the park from the trailhead parking lot.

Materials used for construction of the Project will be consistent with the materials and finishes used throughout the Sycamore Canyon Business Park and are subject to review and approval by the City's Planning Division. Because high-glare and reflective materials are not proposed to be

used, Project implementation is not anticipated to create a new source of substantial glare that would adversely affect day or nighttime views in the area.

As outlined above, the Project lighting is required to comply with the City's Zoning Code and standard lighting conditions of approval. With implementation of these requirements and **Mitigation Measure MM AES 1**, which requires the Project's night light to be directed away from open spaces, and **Mitigation Measure MM AES 2**, which requires approval of the site's photometric study, and the proposed concrete screening walls on the northern, northeastern, and eastern perimeters of building drive aisles and parking and docking areas, will ensure that there is no light spillage from the Project into the Sycamore Canyon Wilderness Park, and potential lighting impacts from the Project would **be less than significant with mitigation**.

5.1.6 Proposed Mitigation Measures

MM AES 1: To further reduce impacts related to light pollution, the Project's night lighting shall be directed away from natural open space areas within and adjacent to the Project site and directed downward and towards the center of the development. Energy efficient Low Pressure Sodium (LPS) or High Pressure Sodium (HPS) lamps shall be used exclusively to dampen glare.

MM AES 2: Prior to the issuance of building permits, the applicant shall submit a photometric (lighting) plan for approval by the Community & Economic Development Department, Planning Division. The approved light design requirements shall be included on the final building plan sheets. The lighting plan shall incorporate the following requirements and shall show that there is no light spillage into the Sycamore Canyon Wilderness Park:

- The project shall be designed in such a manner as to prevent light spillage from the project to the adjacent and nearby open space areas
- Project lighting shall not exceed an intensity of one foot-candle
- Shielding shall be employed, where feasible
- Any night lighting shall be directed away from natural open space areas and directed downward and towards the center of the development
- No project lights shall blink, flash, oscillate, or be of unusually high intensity or brightness
- Energy-efficient LPS or HPS lamps shall be used exclusively throughout the project site to dampen glare
- Exterior lights shall be only "warm" LED lights (<3000K color temperature)

5.1.7 Cumulative Environmental Effects

Cumulative development in the City and the surrounding area would modify the visual characteristic of the surrounding area through the development of vacant lots or through redevelopment. The planned and pending projects in the area of the Project, listed in Table 4.0-1 include development projects consisting of residential (approximately 525 single family and multifamily residential dwelling units), hotel (110 rooms), commercial/retail, warehouse, general

office, gas station and convenience market, gas station with carwash and commercial development, fast food drive-thru, and health/fitness club. Those in the immediate vicinity of the Project include warehouses, warehouse and commercial, and an industrial park. Cumulatively the Project does not have a substantial adverse effect on a scenic resource itself in the City or when considered alongside nearby cumulative projects. Similar to the Project, visual quality impacts associated with other cumulative projects would be addressed on a case-by-case basis in order to determine their consistency with applicable plans and policies.

Light and glare impacts shall be mitigated via **Mitigation Measure MM AES-1** which will require all night lighting to be directed away from natural open spaces and directed downwards and within the development parcels. In addition, as referenced in the Photometric Plan, light spillage is not expected to occur into areas of the Sycamore Canyon Wilderness Park or into Parcel A, Parcel B, and Parcel C (internal conservation areas). Therefore, the Project would have a **less than significant impact cumulatively with mitigation** as it relates to aesthetics.

5.1.8 References

The following references were used in the preparation of this section of the DEIR:

CDG	City of Riverside, <i>Riverside Citywide Design Guidelines and Sign Guidelines</i> adopted November 2007, Resolution No. 21544. (Available at https://riversideca.gov/cedd/sites/riversideca.gov/cedd/files/pdf/planning/Citywide_Design_and_Sign_Guidelines_web%20version_Amended%2001-15-19_1.pdf , accessed January 2020)
GP 2025	City of Riverside, General Plan 2025, certified November 2007 with subsequent amendments to various elements. (Available at https://riversideca.gov/cedd/sites/riversideca.gov/cedd/files/pdf/planning/general-plan/04_Land_Use_and_Urban_Design_Element_with%20maps%20COMPLETE%20AUGUST%202019.pdf , accessed January 2020)
GP 2025 FPEIR	City of Riverside, <i>General Plan 2025 Program Environmental Impact Report</i> (SCH# 2004021108), certified November 2007. (Available at https://riversideca.gov/cedd/sites/riversideca.gov/cedd/files/pdf/planning/general-plan/vol2/5-1_Aesthetics.pdf , accessed January 2020)
RMC	City of Riverside, <i>Municipal Code</i> . (Available at http://www.riversideca.gov/municode/ , accessed January 2020)
RMC	City of Riverside, Municipal Code Article VIII Chapter 19.556 Lighting zones. (Available at https://library.municode.com/ca/riverside/codes/code_of_ordinances?nodeId=PTIICOOR_TIT19ZO_ARTVIIIISPLGEDEPR_CH19.556OULI_19.556.060LIZO , accessed February 2021.)

SCBP	City of Riverside, <i>Sycamore Canyon Business Park Specific Plan</i> , adopted April 10, 1984, as amended through Amendment No. 14, January 23, 2007. (Available at: https://riversideca.gov/cedd/sites/riversideca.gov.chedd/files/pdf/planning/spec-plans/syc-bus-park/plan_doc.pdf , accessed January 2020)
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5.2 Air Quality

Based upon Appendix G of the *State CEQA Guidelines*, the analysis in the Initial Study (IS/NOP) prepared for this Project (Appendix A), and comments received during the NOP public review period (Appendix A), this section evaluates the Project's impacts on Air Quality.

The analysis in this section is based on the *Air Quality Analysis for the Sycamore Hills Distribution Project* prepared by RECON (Appendix C, September 2020). The *Air Quality Analysis* evaluates whether the expected criteria air pollutant emissions that would be generated as a result of the Project would cause significant impacts to air quality. The analysis of air quality impacts is based on federal and state Ambient Air Quality Standards (AAQS) and is assessed in accordance with guidelines, policies, and standards established by the City of Riverside and the South Coast Air Quality Management District (SCAQMD). The analysis in this section is also based on the *Sycamore Hills Distribution Center Mobile Source Health Risk Assessment (HRA)* prepared by Urban Crossroads (Appendix C, September 2020) and *Construction Health Risk Assessment Memorandum* prepared by Urban Crossroads (Appendix C, September 2020). The HRA includes an analysis of diesel particulate matter (DPM) emissions associated with diesel truck traffic traveling along Alessandro Boulevard, a designated truck route, and three new driveways, proposed to be constructed, one on Alessandro Boulevard and two on Barton Street, in the vicinity of the proposed Project, and potential cancer risks to existing nearby sensitive receptors, including residents and/or adjacent workers.

5.2.1 Setting

Regional Setting and Climate

The Project site is located approximately 37 miles northeast of the Pacific Ocean in the City in northwestern Riverside County. Air quality in the County is influenced by both topographical and meteorological conditions. The Project site is located between the Santa Ana Mountains and the San Jacinto Mountains.

The Project area, like other inland valley areas in southern California, has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. The March Field climate monitoring station (ID 045326) is approximately 2.5 miles southeast of the Project site and the Riverside Fire Station 3 climate monitoring station (ID 047470) is approximately 5 miles northwest of the Project site. Based on measurements taken at these climate monitoring stations, the average annual precipitation is 8 to 10 inches, falling primarily from November to April (Western Regional Climate Center 2018). Annual temperatures in the Project area average about 64 degrees Fahrenheit (°F), winter low temperatures average about 40°F, and summer high temperatures average about 92°F.

The dominant meteorological feature affecting the region is the Pacific High Pressure Zone, which produces the prevailing westerly to northwesterly winds. These winds tend to blow pollutants away from the coast toward the inland areas. Consequently, air quality near the coast is generally better than that which occurs at the base of the coastal mountain range.

The prevailing westerly wind pattern is sometimes interrupted by regional “Santa Ana” conditions. A Santa Ana wind occurs when a strong high pressure develops over the Nevada–Utah area and overcomes the prevailing westerly coastal winds, sending strong, steady, hot, dry northeasterly winds over the mountains and out to sea.

Physical Setting

The Project is located within the Basin, which is under the jurisdiction of the SCAQMD. The Basin consists of Orange County, coastal and mountain portions of Los Angeles County, as well as Riverside and San Bernardino Counties (SCAQMD 1993, p. 2-1). Regional and local air quality within the Basin is affected by topography, atmospheric inversions, and dominant onshore flows. Topographic features such as the San Gabriel, San Bernardino, and San Jacinto Mountains form natural horizontal barriers to the dispersion of air contaminants. The presence of atmospheric inversions limits the vertical dispersion of air pollutants. With an inversion, the temperature initially follows a normal pattern of decreasing temperature with increasing altitude; however, at some elevations, the trend reverses and temperature begins to increase as altitude increases. This transition to increasing temperature establishes the effective mixing height of the atmosphere and acts as a barrier to vertical dispersion of pollutants (SCAQMD 1993, p. A8-2).

Dominant onshore flow provides the driving mechanism for both air pollution transport and pollutant dispersion. Air pollution generated in coastal areas is transported east to inland receptors by the onshore flow during the daytime until a natural barrier (the mountains) is confronted, limiting the horizontal dispersion of pollutants. The result is a gradual degradation of air quality from coastal areas to inland areas, which is most evident with the photochemical pollutants such as ozone formed under reactions with sunlight (SCAQMD 1993, pp. A8-1–A8-2).

Existing Air Quality

The state of California is divided geographically into 15 air basins for managing the air resources of the state on a regional basis. As discussed, the Project is located in the SCAQMD Basin. The Basin is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except eight-hour ozone and PM_{2.5} standards. The Basin is designated as in nonattainment for state air quality standards for eight-hour ozone and PM_{2.5}, and additionally is in nonattainment of state PM₁₀ standards.

Air quality is commonly expressed as the number of days in which air pollution levels exceed state standards set by the California Air Resources Board (CARB) or federal standards set by the U.S. EPA. The SCAQMD maintains 41 active air quality monitoring sites located throughout the South Coast Air Basin, including eight active sites in the County. Air pollutant concentrations and meteorological information are continuously recorded at these stations. Measurements are then used by scientists to help forecast daily air pollution levels. Examples of primary pollutants include carbon monoxide (CO), nitrogen dioxide (NO₂) and nitric oxide (NO) (NO₂ and NO are collectively known as oxides of nitrogen [NO_x]), sulfur dioxide (SO₂), particulates (PM₁₀ and PM_{2.5}), and various hydrocarbons (HC) or volatile organic compounds (VOC), which are also referred to as reactive organic gases (ROG).

The Rubidoux-Mission Boulevard monitoring station, located at 5888 Mission Boulevard approximately eight miles northwest of the Project site, is the nearest monitoring station. The Rubidoux-Mission Boulevard monitoring station measures ozone, NO₂, PM₁₀, and PM_{2.5}. Table 5.2-1 provides a summary of measurements collected at the monitoring station for the years 2014 through 2018.

Table 5.2-1 – Summary of Air Quality Measurements Recorded at Rubidoux – Mission Boulevard Monitoring Station

Pollutant/Standard	2014	2015	2016	2017	2018
Ozone					
Days State 1-hr. Standard Exceeded (0.09 ppm)	29	31	33	47	22
Days State 8-hr. Standard Exceeded (0.07 ppm)	69	59	71	82	57
Days 2015 Federal 8-hr. Standard Exceeded (0.07 ppm)	66	55	69	81	53
Days 2008 Federal 8-hr. Standard Exceeded (0.075 ppm)	41	39	47	58	34
Max. 1-hr. (ppm)	0.141	0.132	0.142	0.145	0.123
Max. 8-hr. (ppm)	0.104	0.105	0.104	0.118	0.101
NO₂					
Days State 1-hr. Standard Exceeded (0.18 ppm)	0	0	0	0	0
Days Federal 1-hr. Standard Exceeded (0.100 ppm)	0	0	0	0	0
Max 1-hr. (ppm)	0.059	0.057	0.073	0.063	0.554
Annual Average (ppm)	0.015	0.014	0.014	0.014	0.014
CO					
Days State 1-hr. Standard Exceeded (20 ppm)	0	0	0	NA	NA
Days State 8-hr. Standard Exceeded (9.0 ppm)	0	0	0	NA	NA
Days Federal 1-hr. Standard Exceeded (35 ppm)	0	0	0	NA	NA
Days Federal 8-hr. Standard Exceeded (9.0 ppm)	0	0	0	NA	NA
Max. 1-hr. (ppm)	2.0	2.5	1.7	NA	NA
Max. 8-hr. (ppm)	1.9	1.7	1.3	NA	NA
PM₁₀*					
State Max. Daily (µg/m ³)	122.7	107.4	170.5	137.6	126.0
Measured Days State 24-hr. Standard Exceeded (50 µg/m ³)	119	87	60	98	127
Calculated Days State 24-hr. Standard Exceeded (50 µg/m ³)	124.7	92.2	NA	102.5	133.6
State Annual Average (µg/m ³)	44.8	40.0	NA	41.3	43.9
Federal Max. Daily (µg/m ³)	100.0	69.0	84.0	92.0	86.5
Measured Days Federal 24-hr. Standard Exceeded (150 µg/m ³)	0	0	0	0	0
Calculated Days Federal 24-hr. Standard Exceeded (150 µg/m ³)	0.0	0.0	0.0	0.0	0.0
Federal Annual Average (µg/m ³)	36.3	32.2	38.1	39.0	35.4
PM_{2.5}*					
State Max. Daily (µg/m ³)	50.6	61.1	60.8	50.3	68.3
State Annual Average (µg/m ³)	16.8	15.3	12.6	14.5	12.6
Federal Max. Daily (µg/m ³)	48.9	54.7	51.5	50.3	66.3
Federal Annual Average (µg/m ³)	NA	11.8	12.5	12.2	12.5
Measured Days Federal 24-hr. Standard Exceeded (35 µg/m ³)	5	9	5	7	3
Calculated Days Federal 24-hr. Standard Exceeded (35 µg/m ³)	NA	10.3	5.1	7.2	3.1
Source: CARB 2020, SCAQMD 2018. ppm = parts per million; µg/m ³ = micrograms per cubic meter; NA = Not Available.					

*Calculated days value. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

Categories of Emission Sources

Air pollutant emissions sources are typically grouped into two categories: stationary and mobile sources. These emission categories are defined and discussed in the following subsections.

Stationary Sources

Stationary sources are divided into two major subcategories: point and area sources. Point sources consist of a single emission source with an identified location at a facility. A single facility could have multiple point sources located on site. Stationary point sources are usually associated with manufacturing and industrial processes. Examples of point sources include boilers or other types of combustion equipment at oil refineries, electric power plants, etc. Area sources are small emission sources that are widely distributed but are cumulatively substantial because there may be a large number of sources. Examples include residential water heaters; painting operations; lawn mowers; agricultural fields; landfills; and consumer products, such as barbecue lighter fluid and hair spray. (SCAQMD 1993, p. 1-1)

Mobile Sources

Mobile sources are motorized vehicles which are classified as either on-road or off-road. On-road mobile sources typically include automobiles and trucks that operate on public roadways. Off-road mobile sources include aircraft, ships, trains, and self-propelled construction equipment that operate off of public roadways. Mobile source emissions are accounted for as both direct source emissions (those directly emitted by the individual source) and indirect source emissions, which are sources that by themselves do not emit air contaminants but indirectly cause the generation of air pollutants by attracting vehicles. Examples of indirect sources include office complexes, commercial and government centers, sports and recreational complexes, and residential developments. (SCAQMD 1993, p. 1-2)

Air Pollution Constituents

Criteria Pollutants

Air pollutants are classified as either primary or secondary, depending on how they are formed. Primary pollutants are generated daily and are emitted directly from a source into the atmosphere. As previously described, examples of primary pollutants include CO, (NO₂) and (NO) (NO₂ and NO are collectively known as oxides of nitrogen [NO_x]), SO₂, PM₁₀ and PM_{2.5}, and various HCs or VOCs, which are also ROGs. The predominant source of air emissions expected to be generated by the Project is vehicle emissions. Motor vehicles primarily emit CO, NO_x, and VOC/ROG/HC.

Secondary pollutants are created over time and occur within the atmosphere as chemical and photochemical reactions take place. An example of a secondary pollutant is ozone (O₃), which is one of the products formed when NO_x reacts with HC in the presence of sunlight. Other secondary

pollutants include photochemical aerosols. Secondary pollutants such as ozone represent major air quality problems in the Basin.

The federal Clean Air Act (CAA) of 1970 established the National Ambient Air Quality Standards (NAAQS). Six “criteria” air pollutants were identified using specific medical evidence available at that time, and NAAQS were established for those chemicals. The state of California has adopted the same six chemicals as criteria pollutants but has established different allowable levels. The six criteria pollutants are: carbon monoxide, nitrogen dioxide, ozone, lead, particulates less than 10 microns in size, and sulfur dioxide. The following is a further discussion of these criteria pollutants, as well as volatile organic compounds.

- **Carbon Monoxide (CO)** is a colorless, odorless, toxic gas produced by incomplete combustion of carbon-containing substances. Concentrations of CO are generally higher during the winter months when meteorological conditions favor the build-up of primary pollutants (EPA 2016). Automobiles are the major source of CO in the Basin, although various industrial processes also emit CO through incomplete combustion of fuels. In high concentrations, CO can cause serious health problems in humans by limiting the red blood cells’ ability to carry oxygen (SCAQMD 1993, p. 3-2).
- **Oxides of Nitrogen (NO_x)** contribute to air pollution include NO and NO₂. NO is a colorless, odorless gas formed by a combination of nitrogen and oxygen when combustion takes place under high temperatures and pressures. NO₂ is a reddish-brown gas formed by the combination of NO with oxygen. Combustion in motor vehicle engines, power plants, refineries, and other industrial operations, as well as ships, railroads, and aircraft, are the primary sources of NO_x. NO₂ at atmospheric concentrations is a potential irritant and can cause coughing in healthy people, can alter respiratory responsiveness and pulmonary functions in people with pre-existing respiratory illness, and potentially lead to increased levels of respiratory illness in children (EPA 2016).
- **Ozone (O₃)** is a colorless toxic gas that irritates the lungs and damages materials and vegetation. During the summer’s long daylight hours, plentiful sunshine provides the energy needed to fuel photochemical reactions between NO₂ and VOC, which results in the formation of O₃. Conditions that lead to high levels of O₃ are adequate sunshine, early morning stagnation in source areas, high surface temperatures, strong and low morning inversions, greatly restricted vertical mixing during the day, and daytime subsidence that strengthens the inversion layer (all of which are characteristic of western Riverside County). Ozone represents the worst air pollution-related health threat in the Basin as it affects people with pre-existing respiratory illness as well as reduces lung function in healthy people. Studies have shown that children living within the Basin experience a 10-15 percent reduction in lung function (SCAQMD 1993, p. 3-2).
- **Atmospheric Particulate Matter (PM)** is made up of fine solid and liquid particulates, such as soot, dust, aerosols, fumes, and mists. PM₁₀ consists of particulate matter that is 10 microns less in diameter, and PM_{2.5} consists of particulate matter of 2.5 microns or less in size. Both PM₁₀ and PM_{2.5} can be inhaled into the deepest part of the lung, contributing

to health effects. The presence of these fine particles by themselves cause lung damage and interfere with the body's ability to clear its respiratory tract. These particles can also act as a carrier of other toxic substances (SCAQMD 1993, p. 3-3).

Sources contributing to particulate matter pollution include road dust, windblown dust, agriculture, construction, fireplaces and wood burning stoves, and vehicle exhaust. Specifically, SCAQMD data indicates the largest component of PM₁₀ particles in the area comes from dust (unpaved roads, unpaved yards, agricultural lands, and vacant land that has been disked). PM_{2.5} particles are mostly manmade particles resulting from combustion sources. According to SCAQMD, one component of PM_{2.5} pollution in Riverside comes from ammonium nitrate (NH₄NO₃) particulates. NO_x, emitted throughout the Basin by vehicles, reacts with ammonia produced from livestock and horses to form ammonium nitrate. Organic carbon particles generated from paints, degreasers, and vehicles are another component of PM_{2.5} pollution. The last notable constituent of PM_{2.5} sources is elemental carbon, which is used as a surrogate for diesel particulates.

- **Sulfur dioxide (SO₂)** is a colorless, pungent gas formed primarily by the combustion of sulfur-containing fossil fuels. SO₂ can result in temporary breathing impairment in asthmatic children and adults engaged in active outdoor activities. When combined with PM, SO₂ can cause symptoms such as shortness of breath and wheezing; and, with long-term exposure, lead to the exacerbation of existing cardiovascular disease and respiratory illnesses (EPA 2016). Although SO₂ concentrations have been reduced to levels well below state and federal standards, further reductions in SO₂ emissions are needed because SO₂ is a precursor to sulfate and PM_{2.5}.
- **Lead (Pb)** concentrations in the past once exceeded the state and federal air quality standards by a wide margin but have not exceeded state or federal air quality standards at any regular monitoring station since 1982. Health effects associated with lead include neurological impairments, mental retardation, and behavioral disorders. At low levels, lead can damage the nervous systems of fetuses and result in lowered IQ levels in children (EPA 2016). Although special monitoring sites immediately downwind of lead sources recorded very localized violations of the state standard in 1994, no violations have been recorded at these stations since 1996. Unleaded gasoline has greatly contributed to the reduction in lead emissions in the Basin. Since the Project will not involve leaded gasoline, or other sources of lead emissions, this criteria pollutant is not expected to increase with Project implementation.
- **Reactive Organic Gases/Volatile Organic Compounds (ROG/VOC)** are not classified as criteria pollutants and as such do not have any state or federal ambient air quality standards. VOCs are regulated; however, a reduction in VOC emissions reduces certain chemical reactions which contribute to the formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher PM₁₀ and lower visibility levels. Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOCs because of interference

with oxygen uptake. In general, ambient VOC concentrations in the atmosphere, even at low concentrations, are suspected to cause coughing, sneezing, headaches, weakness, laryngitis, and bronchitis. Some hydrocarbon components classified as VOC emissions are thought or known to be hazardous. Benzene, for example, is a hydrocarbon component of VOC emissions that is known to be a human carcinogen. (SCAQMD 2005, p. 1-5)

Toxic Air Contaminants

A toxic air contaminant (TAC) is defined as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are generally present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at very low concentrations. For those TACs that cause cancer, there is no concentration that does not present some low-level risk. In other words, there is no threshold below which adverse health impacts are not expected to occur. This contrasts with the criteria pollutants for which acceptable levels of exposure can be determined, and for which the state and federal governments have set ambient air quality standards. The majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important being PM from diesel-fueled engines, known as diesel particulate matter (DPM). In addition to DPM, benzene and 1,3-butadiene are also significant contributors to overall ambient public health risk in California.

TACs are regulated under both federal and state laws. Federally, the 1970 Amendments to the Clean Air Act included a provision to address air toxics. California regulates TACs through its air toxics program, mandated in Chapter 3.5 (Toxic Air Contaminants) of the Health and Safety Code Section 39660, *et seq.*, and Part 6 Air Toxics "Hot Spots" Information Assessment (Section 44300, *et seq.*). CARB, working in conjunction with the Office of Environmental Health Hazard Assessment (OEHHA), identifies TACs. Air toxic control measures may then be adopted to reduce ambient concentrations of the identified TAC below a specific threshold based on its effects on health, or to the lowest concentration achievable through use of best available control technology for toxics (T-BACT). The program is administered by the CARB. Air quality control agencies, including the SCAQMD, must incorporate air toxic control measures into their regulatory programs or adopt equally stringent control measures as rules within six months of adoption by CARB.

Both SCAQMD and the CARB have monitoring networks within the Basin that measure ambient concentrations of certain TACs which are associated with important health-related effects and are present in appreciable concentrations in the Basin. The SCAQMD uses this information to determine health risks for a particular area. CARB publishes annual statewide, air basin, and location-specific summaries of the concentration levels of several TACs and their resulting cancer risks. The most recent summary is the CARB Air Quality Almanac for 2013; however, this version did not include a discussion of TACs. The 2009 version of the Almanac is the most recent version which presents the relevant concentration and cancer risk data for the ten TACs that present the most substantial health risk in California based on available data. These TACs are: acetaldehyde, benzene, 1,3-butadiene, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. DPM is not directly measured but is

indirectly estimated based on fine particulate matter measurements and special studies on the chemical speciation of ambient fine particulate data, along with receptor modeling techniques.

Exhaust emissions from diesel mobile sources dropped by 38 percent from 1990 to 2000 due to more stringent emissions standards and introduction of cleaner burning diesel (CARB 2013). Reductions in cancer risk are expected to continue into the future as new emission controls are implemented to further reduce DPM emissions, which are the major component total airborne cancer risk.

Table 5.2-2 – TAC Concentration Levels and Associated Health Risks provides a summary of TACs and health risk information from the CARB Annual Toxic Summary for the most recent four-year period, 2016-2019 for the Riverside-Rubidoux air monitoring station, which is located approximately 7.5 miles northeast of the Project site. The overall cancer risk attributable to the non-DPM chemicals (i.e., the 10 TACs measured by the CARB described above, excluding para-dichlorobenzene) have also shown significant reductions at the Riverside-Rubidoux location, declining from an estimated cancer risk of 299 in one million in 1996 to 118 in one million in 2014, a reduction of approximately 60 percent (CARB 2016).

Table 5.2-2 – TAC Concentration Levels and Associated Health Risks

TAC		Year			
		2016	2017	2018	2019
Acetaldehyde ⁴	Concentration ¹	1.44	1.08	--	--
	Risk ²	21	16	--	--
Benzene	Concentration	0.33	0.27	0.24	--
	Risk	85	70	62	--
1,3-Butadiene	Concentration	0.05	0.04	0.04	--
	Risk	57	48	46	--
Carbon Tetrachloride	Concentration	0.09	0.09	0.07	--
	Risk	67	69	56	--
Chromium, Hex	Concentration ³	0.05	0.04	--	--
	Risk	19	16	--	--
Para-Dichlorobenzene ⁴	Concentration	--	--	--	--
	Risk	--	--	--	--
Formaldehyde	Concentration	3.64	3.35	--	--
	Risk	76	70	--	--
Methylene chloride	Concentration	48.2	12.3	9.59	--
	Risk	477	122	95	--
Perchloroethylene	Concentration	0.02	0.01	0.01	--
	Risk	2	2	1	--
Diesel PM ⁴	Concentration	---	---	--	--
	Risk	---	---	--	--

Notes: ¹Concentration in parts per billion (ppb), ²Risk in cancer cases per million, ³Chromium Hex concentration in ng/m³, ⁴Data insufficient or unavailable to determine the value (most recent year is 2006 for para-Dichlorobenzene at Riverside-Rubidoux station)

In addition to the measurements presented in the CARB 2013 almanac and the Annual Air Toxics Summary, the SCAQMD has conducted a detailed TAC emission inventory, air sampling, and dispersion modeling study called the “Multiple Air Toxics Exposure Study in the South Coast Air

SoCAB” (MATES-II, SCAQMD 2000), MATES-III (SCAQMD 2008a), and MATES-IV (SCAQMD 2014) (collectively, “MATES Studies”).

The MATES Studies provided information on the importance of various TACs in terms of their relative health risks, as well as their spatial distribution across the Basin. The MATES-IV information can be used to characterize the “background” health risks from both regional and local TAC emission sources based on the available toxics emission inventory for the year 2012. The MATES-IV program results indicate that the existing cancer risk attributable to TACs in the area where the Project site is located is estimated to be 710.46 in one million, of which DPM contributes approximately 68 percent of the total cancer risk (MATES Appendices, p. VII-1). This cancer risk level is approximately 16 percent lower than the background cancer risks based on the MATES-III study that used the toxics emission inventory for the year 2005, which further illustrates the trend of declining health risk from TACs. The MATES V update is currently being conducted and the final MATES V report is still pending (SCAQMD 2020). Thus, as the final report for the MATES IV study is the most currently available, it is the most appropriate for use in this analysis.

This sharp decline is attributable largely to emission reduction programs implemented by the SCAQMD, CARB, and the U.S. Environmental Protection Agency (EPA), particularly with regard to DPM.

Attainment Status

The EPA has established NAAQS for the six criteria pollutants O₃, CO, NO₂, SO₂, PM₁₀, and PM_{2.5} to protect human health, with an adequate margin of safety. Likewise, the California EPA (Cal EPA) has developed statewide thresholds for each of the criteria pollutants. If the concentration of one or more criteria pollutants within a geographic area is found to exceed the established statewide or NAAQS threshold level for one of the criteria pollutants, the area is considered to be in nonattainment for that pollutant.

The Project site is located within a portion of the Basin that is designated as nonattainment for PM₁₀ by the state, as well as nonattainment for ozone, and PM_{2.5} under both the state and federal standards (see Table 5.2-3 – Attainment Status). As a result, SCAQMD is required to develop an Air Quality Management Plan (AQMP) for the Basin to bring the area into attainment for all criteria pollutants.

Table 5.2-3 –Basin Attainment Status

Criteria Air Pollutant	Attainment Designation	
	State	Federal
1-Hour Ozone	Nonattainment	Nonattainment (Extreme)
8-Hour Ozone	Nonattainment	Nonattainment (Extreme)
Carbon monoxide (1-hour and 8-Hour)	Attainment	Attainment (Maintenance)
Nitrogen dioxide	Attainment	Attainment (Maintenance)
Sulfur dioxide	Attainment	Unclassifiable/Attainment
PM ₁₀	Nonattainment	Attainment (Maintenance)
PM _{2.5}	Nonattainment	Nonattainment (Serious)

Source: <http://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/naaqs-caaqs-feb2016.pdf?sfvrsn=14>

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the SCAQMD, may include children, the elderly, and people with cardiovascular and chronic respiratory diseases. Sensitive receptors may include residences, schools, playgrounds, athletic facilities, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes.

The sensitive receptors nearest to the Project site include single and multi-family residences to the south and southeast of the Project site.

5.2.2 Related Regulations

The federal and state ambient air quality standards (AAQS) establish the context for the local AQMPs and for determination of the significance of a Project's contribution to local or regional pollutant concentrations. The federal and state AAQS are presented in Table 5.2-5. The AAQS represent the level of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness, and persons engaged in strenuous work or exercise, all referred to as "sensitive receptors." SCAQMD defines a "sensitive receptor" as a land use or facility such as schools, childcare centers, athletic facilities, playgrounds, retirement homes, and convalescent homes. (SCAQMD 1993, p. 1-2)

5.2.2.1 Federal Regulations

U.S. Environmental Protection Agency

The EPA is responsible for enforcing the CAA, the legislation that governs air quality in the United States. EPA is also responsible for establishing the NAAQS. NAAQS are required under the 1977 CAA and subsequent amendments. EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. EPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes emission standards, including those for vehicles sold in states other than California, where automobiles must meet stricter emission standards set by the California Air Resources Board.

Ambient Air Quality Standards

AAQS represent the maximum levels of background pollution considered safe, with an adequate margin of safety, to protect the public health and welfare. The federal CAA was enacted in 1970 and amended in 1977 and 1990 [42 United States Code (USC) 7401] for the purposes of protecting and enhancing the quality of the nation's air resources to benefit public health, welfare,

and productivity. In 1971, in order to achieve the purposes of Section 109 of the CAA [42 USC 7409], the EPA developed primary and secondary NAAQS.

Six criteria pollutants of primary concern have been designated: ozone, CO, SO₂, NO₂, Pb, and respirable PM₁₀ and PM_{2.5}. The primary NAAQS “. . . in the judgment of the Administrator, based on such criteria and allowing an adequate margin of safety, are requisite to protect the public health . . .” and the secondary standards “. . . protect the public welfare from any known or anticipated adverse effects associated with the presence of such air pollutant in the ambient air” [42 USC 7409(b)(2)]. The primary NAAQS were established, with a margin of safety, considering long-term exposure for the most sensitive groups in the general population (i.e., children, senior citizens, and people with breathing difficulties). The NAAQS are presented in Table 5.2-4 – Ambient Air Quality Standards (CARB, 2016).

Table 5.2-4 - Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ¹		National Standards ²			
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷	
Ozone ⁸	1 Hour	0.09 ppm (180 µg/m ³)	Ultraviolet Photometry	---	Same as Primary Standard	Ultraviolet Photometry	
	8 Hour	0.07 ppm (137 µg/m ³)		0.070 ppm (137 µg/m ³)			
Respirable Particulate Matter (PM ₁₀) ⁹	24 Hour	50 µg/m ³	Gravimetric or Beta Attenuation	150 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	20 µg/m ³		---			
Fine Particulate Matter (PM _{2.5}) ⁹	24 Hour	No Separate State Standard		35 µg/m ³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis	
	Annual Arithmetic Mean	12 µg/m ³	Gravimetric or Beta Attenuation	12 µg/m ³			15 µg/m ³)
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	Non- dispersive Infrared Photometry	35 ppm (40 mg/m ³)	--- Same as Primary Standard	Non-dispersive Infrared Photometry	
	8 Hour	9.0 ppm (10 mg/m ³)		9 ppm (10 mg/m ³)			---
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m ³)		---			---
Nitrogen Dioxide (NO ₂) ¹⁰	1 Hour	0.18 ppm (339 µg/m ³)	Gas Phase Chemi- luminescence	100 ppb (188 µg/m ³)	--- Same as Primary Standard	Gas Phase Chemi- luminescence	
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)		0.053 ppm (100 µg/m ³)			
Sulfur Dioxide (SO ₂) ¹¹	1 Hour	0.25 ppm (655 µg/m ³)	Ultraviolet Flourescence	75 ppb (196 µg/m ³)	--- 0.5 ppm (1,300 µg/m ³)	Ultraviolet Fluorescence; Spectro- photometry (Pararosaniline Method)	
	3 Hour	---		---			
	24 Hour	0.04 ppm (105 µg/m ³)		0.14 ppm (for certain areas) ¹¹			---

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
	Annual Arithmetic Mean	---		0.030 ppm (for certain areas) ¹¹	---	
Lead ^{12,13}	30 Day Average	1.5 µg/m ³	Atomic Absorption	---	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Calendar Quarter	---		1.5 µg/m ³ (for certain areas) ¹²		
	Rolling 3-Month Average	---		0.15 µg/m ³		
Visibility Reducing Particles ¹⁴	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m ³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m ³)	Ultraviolet Fluorescence			
Vinyl Chloride ¹²	24 Hour	0.01 ppm (26 µg/m ³)	Gas Chromatography			

ppm = parts per million; ppb = parts per billion; µg/m³ = micrograms per cubic meter; -- = not applicable.

¹ California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

³ Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

⁴ Any equivalent measurement method which can be shown to the satisfaction of the Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

⁵ National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

⁶ National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

⁷ Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

⁸ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

⁹ On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12.0 µg/m³. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standards of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

¹⁰ To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of ppb. California standards are in units of ppm. To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

¹¹ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary

Pollutant	Averaging Time	California Standards ¹		National Standards ²		
		Concentration ³	Method ⁴	Primary ^{3,5}	Secondary ^{3,6}	Method ⁷
<p>standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO₂ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.</p> <p>Note that the 1-hour national standard is in units of ppb. California standards are in units of ppm. To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.</p> <p>¹² The Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.</p> <p>¹³ The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m³ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.</p> <p>¹⁴ In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.</p> <p>Source: CARB 2016</p>						

An air basin is designated as either attainment or nonattainment for a particular pollutant. Once a nonattainment area has achieved the AAQS for a particular pollutant, it is re-designated as an attainment area for that pollutant. To be re-designated, the area must meet air quality standards for three consecutive years. After re-designation to attainment, the area is known as a maintenance area and must develop a 10-year plan for continuing to meet and maintain air quality standards, as well as satisfy other requirements of the federal CAA. The Project area of the Basin is a nonattainment area for the federal ozone and PM_{2.5} standards.

General Conformity Rule

The General Conformity Rule requires that federal agencies demonstrate that actions would conform to the applicable State Implementation Plan (SIP), which is a collection of documents that set forth the state's strategies for achieving the NAAQS. In California, the SIP is a compilation of new and previously submitted plans, programs (such as air quality management plans, monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. Per the General Conformity Rule, federal agencies demonstrate actions would conform to the applicable SIP by either determining that the action is exempt from the General Conformity Rule requirements or subject to a formal conformity determination. This requires analysis of the total direct and indirect emissions of criteria pollutants and their precursors for which an area is designated nonattainment or covered by a maintenance plan. The total direct and indirect emissions are the net emission increases in the nonattainment or maintenance area caused by the action. The emissions must be reasonably foreseeable at the time the conformity determination is made. For indirect emissions, the federal agency also must be able to practicably control the emissions based upon the agency's continuing program responsibility. If the emissions resulting from an action would not exceed applicable General Conformity *de minimis* levels, shown in Table 5.2-5 below, then the action would conform to the applicable SIP and no further analysis would be required. If emissions resulting from an action would exceed applicable General Conformity *de minimis* levels, then a formal Air Quality Conformity Analysis would be required.

Table 5.2-5 - General Conformity De Minimis Limits

Pollutant	Designation Category	Emissions (Tons/Year)
Ozone Precursors (VOC or NO _x)	Nonattainment (Extreme)	10
Carbon Monoxide (CO)	Attainment (Maintenance)	100
Particulate Matter (PM ₁₀)	Attainment (Maintenance)	100
Particulate Matter (PM _{2.5})	Nonattainment (Serious)	70
Sources: 40 CFR 93.53(b)(1) and 40 CFR 93.53(b)(2) VOC = Volatile Organic Compound		

5.2.2.2 State Regulations

California Air Resources Board

In addition to being subject to the requirements of the CAA, air quality in California is also governed by more stringent regulations under the California Clean Air Act (CCAA). The CARB, which became part of the CalEPA in 1991, is responsible for administering the CCAA and establishing the California Ambient Air Quality Standards (CAAQS). The CCAA, as amended in 1992, requires all air districts in the state to achieve and maintain the CAAQS, which are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles.

CARB has broad authority to regulate mobile air pollution sources, such as motor vehicles. It is responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB established passenger vehicle fuel specifications, which became effective in March 1996. CARB oversees the functions of local air pollution control districts and air quality management districts, which, in turn, administer air quality activities at the regional and county levels. The state standards are summarized in Table 5.2-1 (Summary of Air Quality Measurements Recorded at Rubidoux-Mission Boulevard Monitoring Station).

The CCAA requires CARB to designate areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a state standard and are not used as a basis for designating areas as nonattainment. CAAQS attainment status is shown in Table 5.2-3 Attainment Status.

Criteria Pollutants

The CARB has developed the California Ambient Air Quality Standards (CAAQS) and generally has set more stringent limits on the criteria pollutants than the NAAQS, shown in Table 5.2-4. In addition to the federal criteria pollutants, the CAAQS also specify standards for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride, shown in Table 5.2-4.

Similar to the federal CAA, the state classifies as either “attainment” or “nonattainment” areas for each pollutant based on the comparison of measured data with the CAAQS. The Project area of the South Coast Air Basin is a nonattainment area for the state ozone, PM₁₀, and PM_{2.5} standards.

California Environmental Quality Act

Section 15125(d) of CEQA Guidelines requires discussion of any inconsistencies between the project and applicable general plans and regional plans, including the applicable air quality attainment or maintenance plan (or SIP).

California Green Building Code

Part 11 of the California Building Standards Code in Title 24 of the California Code of Regulations is also known as the CALGreen Code. The development of the CALGreen Code is intended to: (1) cause a reduction in greenhouse gas emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The following sections of the CALGreen Code are applicable to this Project:

Section 5.106.4

Bicycle parking. Comply with Sections 5.106.4.1 and 5.106.4.2; or meet local ordinance or the University of California Policy on Sustainable Practices, whichever is stricter.

- 5.106.4.1 Short-term bicycle parking. If the project is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors’ entrance, readily visible to passers-by, for 5 percent of visitor motorized vehicle parking capacity, with a minimum of one two-bike capacity rack.
- 5.106.4.2 Long-term bicycle parking. For buildings with over 10 tenant-occupants, provide secure bicycle parking for 5 percent of motorized vehicle parking capacity, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and may include: 1. Covered, lockable enclosures with permanently anchored racks for bicycles; 2. Lockable bicycle rooms with permanently anchored racks; and 3. Lockable, permanently anchored bicycle lockers. Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

Section 5.106.5.2

Designated parking.

- Provide designated parking for any combination of low-emitting, fuel efficient, and carpool/vanpool vehicles as shown in *Table 5.106.5.2* of the CALGreen Code.

5.2.2.3 Regional Regulations

South Coast Air Quality Management District

The SCAQMD is the air pollution control agency in the Basin. The role of the local SCAQMD is to protect the people and the environment of the Basin from the effects of air pollution. SCAQMD shares responsibility with CARB for ensuring that NAAQS and CAAQS are achieved and

maintained within the Basin. As the South Coast Air Basin is designated as a nonattainment area for state air quality standards for 8-hour ozone, PM₁₀, and PM_{2.5}, the SCAQMD periodically prepares AQMPs outlining measures to reduce these pollutants. The most recent AQMP is the 2016 Air Quality Management Plan (2016 AQMP).

SCAQMD Amicus Brief

In *Sierra Club v. County of Fresno* (2019) 6 Cal.5th 502 (“Friant Ranch” decision), the California Supreme Court conceded that an explanation of the connection between an individual project’s pollutant emissions in excess of thresholds and human health effects may not be possible given the current state of environmental science modeling. However, the California Supreme Court concluded that the Friant Ranch Project EIR itself must explain, in a manner reasonably calculated to inform the public, the scope of what is and is not yet known about the effect of the project’s significant and unavoidable air quality impacts on human health. The specific language provided by the Court is provided below:

“The EIR fails to provide an adequate discussion of health and safety problems that will be caused by the rise in various pollutants resulting from the Project’s development. At this point, we cannot know whether the required additional analysis will disclose that the Project’s effects on air quality are less than significant or unavoidable, or whether that analysis will require reassessment of proposed mitigation measures. Absent an analysis that reasonably informs the public how anticipated air quality effects will adversely affect human health, an EIR may still be sufficient if it adequately explains why it is not scientifically feasible at the time of drafting to provide such an analysis.”

SCAQMD has provided amicus briefs explaining the difficulties in providing correlation between regional pollutant emissions and human health. With regard to the analysis of air quality-related health impacts, the SCAQMD has stated that “EIRs must generally quantify a project’s pollutant emissions, but in some cases, it is not feasible to correlate these emissions to specific, quantifiable health impacts (e.g., premature mortality; hospital admissions).” In such cases, a general description of the adverse health impacts resulting from the pollutants at issue may be sufficient.

The SCAQMD has further stated that from a scientific standpoint, it takes a large amount of additional precursor emissions to cause a modeled increase in ambient ozone levels over an entire region. SCAQMD further acknowledges that it may be feasible to analyze air quality related health impacts for projects on a regional scale with very high emissions of oxides of nitrogen (NO_x) and volatile organic compounds (VOCs), where impacts are regional. The example SCAQMD provided was for proposed Rule 1315, which authorized various newly permitted sources to use offsets from the SCAQMD’s “internal bank” of emission reductions. The CEQA analysis accounted for essentially all of the increases in emissions due to new or modified sources in the District between 2010 and 2030, or approximately 6,620 pounds per day of NO_x and 89,947 pounds per day of VOC, to expected health outcomes from ozone and particulate matter (e.g., 20 premature deaths per year and 89,947 school absences in the year 2030 due to ozone).

Multiple Air Toxics Exposure Study

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study conducted in the South Coast Air Basin. The MATES V study, which is an update of previous studies, includes a fixed site monitoring program with 10 stations, an updated inventory of TACs, and a modeling effort to characterize risk across the South Coast Air Basin. The purpose of the MATES V fixed site monitoring is to characterize long-term regional air toxics levels in residential and commercial areas (SCAQMD 2017). MATES V is still being conducted; however, MATES IV predicts that the excess cancer risk for the project area is 754.23 in a million (SCAQMD 2015a). The MATES IV study represents the baseline health risk for a cumulative analysis.

5.2.2.4 Local Regulations

Riverside General Plan 2025

The GP 2025 contains objectives and policies to protect air quality within the City in the Air Quality Element. The following objectives and policies are applicable to the Project:

Objective AQ-1: Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve jobs-housing balance; reduce vehicle miles travelled and length of work trips; and improve the flow of traffic.

Policy AQ-1.3: Separate, buffer and protect sensitive receptors from significant sources of pollution to the greatest extent possible.

Policy AQ-1.8: Promote “Job/Housing Opportunity Zones” and incentives to support housing in job-rich areas and jobs in housing-rich areas, where the jobs are located at non-polluting or extremely low polluting entities.

Policy AQ-1.21: Cooperate and participate in regional air quality management plans, programs, and enforcement measures.

Policy AQ-1.22: Implement the required components of the Congestion Management Plan (CMP) and continue to work with Riverside County Transportation Commission on annual updates to the CMP. **Objective AQ-2:** Reduce air pollution by reducing emissions from mobile sources.

Policy AQ-2.8: Work with Riverside Transit Authority (RTA) to establish mass transit mechanisms for the reduction of work-related and non-work-related vehicle trips.

Policy AQ-2.11: Develop ways to incorporate the “Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities” into the Development Review process and Citywide air quality education programs.

Objective AQ-3: Prevent and reduce pollution from stationary sources, including point sources (such as power plants and refinery boilers) and area sources (including small emission sources such as residential water heaters and architectural coatings).

Policy AQ-3.6: Support “green” building codes that require air conditioning/filtration installation, upgrades or improvements for all buildings, but particularly for those associated with sensitive receptors.

Objective AQ-4: Reduce particulate matter, as defined by the Environmental Protection Agency, as either airborne photochemical precipitates or windborne dust.

Policy AQ-4.4: Support programs that reduce emissions from building materials and methods that generate excessive pollutants through incentives and/or regulations.

Policy AQ-4.5: Require the suspension of all grading operations when wind speeds (as instantaneous gusts) exceed 25 miles per hour.

Policy AQ-5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

Riverside Good Neighbor Guidelines

The City adopted Good Neighbor Guidelines for Siting New and/or Modified Warehouse/Distribution Facilities (GNG) in October 2008 to focus on the relationship between land use, permitting, and air quality. They also highlight strategies that can help minimize the impacts of diesel emissions associated with warehouse/distribution centers. Specifically, the Guidelines help to minimize the impacts of diesel particulate matter from on-road trucks associated with warehouses and distribution centers on existing communities and sensitive receptors.

The Good Neighbor Guidelines goals and strategies, adopted by the City in 2008, applicable to the Project include:

Goal 1: Minimize exposure to diesel emissions to neighbors that are situated in close proximity to the warehouse/distribution center.

Strategy 1a: Design facilities to allow for the queuing of the trucks on-site and away from sensitive receptors. Conversely, prevent the queuing of the trucks on streets or elsewhere outside of the facility in compliance with Title 10-Vehicles and Traffic-Chapter 10.44-Stopping, Standing and Parking.

Strategy 1b: To the extent possible, locate driveways, loading docks, and internal circulation routes away from residential uses or any other sensitive receptors.

Strategy 1c: In compliance with CEQA, conduct SCAQMD URBEMIS and EMFAC computer models, as appropriate, to initially evaluate warehouse and distribution projects on a case by case basis to determine the significance of air quality impacts and whether air quality thresholds would be exceeded as a result of the project. Where thresholds are exceeded, a more detailed air quality analysis/health risk assessment prepared by an air quality specialist is required to be prepared and submitted by the project applicant. As a general rule, the following guidelines can be used to determine whether a proposed project will be required to prepare additional technical analyses:

- i. An air quality study for an industrial project is required when the proposed project has the potential to exceed established thresholds as noted by URBEMIS and EMFAC computer models provided by SCAQMD. If these models indicate the project will exceed thresholds due to existing or proposed site conditions, intensity

of development, location of nearest sensitive receptor, or any other exceptional circumstance warranting the need for additional review the preparation of an air quality study will be required.

- ii. A health risk assessment is required when the truck traffic areas of an industrial project are located within 1,000 feet of sensitive receptors, in accordance with SCAQMD guidelines and/or practices.

Goal 4: Reduce and/or eliminate diesel idling within the warehouse/distribution center.

On November 10, 2020, the Riverside City Council adopted updates to the GNG, in addition to associated amendments to Title 19 – Zoning Code of the Riverside Municipal Code (RMC), the Hunter Business Park Specific Plan, and the Sycamore Canyon Business Park Specific Plan related to siting industrial uses in the City when located adjacent to sensitive receptors, including residential neighborhoods, schools, parks, playgrounds, day care centers, nursing homes, hospitals, and other public spaces. City Council action also allowed any project achieving substantial completion within 90 days of the effective date of the implementing ordinance to continue to be subject to the 2008 GNG. As this Project was deemed complete prior to adoption of the updated GNG (discussed further in Section 5.2.5), it does not need to comply with the updated GNG.

Diesel Regulations

In 1990, the state of California listed diesel exhaust as a known carcinogen under its Safe Drinking Water and Toxic Enforcement Act (Proposition 65). In 1998, CARB listed diesel particulate as a TAC.

CARB took the lead on addressing diesel emissions in the state of California. The first step to significantly reduce diesel emissions occurred in September 2000 when CARB approved the “Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles” or Diesel Risk Reduction Plan. The two main goals of the Diesel Risk Reduction Plan are: 1) to get new diesel fueled engines to use state-of-the-art emission controls as well as low-sulfur diesel fuel and, 2) for existing diesel engines to be retrofitted with emission control features. Effects of meeting these goals set by the CARB reduce the health effects experienced by Californians from diesel exhaust.

CARB Diesel Risk Reduction Program

Under CARB’s Diesel Risk Reduction Program, mobile diesel emissions have their own set of reduction programs, as opposed to stationary diesel sources (generators) which are addressed separately under the Reduction Plan. One of the incentive programs for mobile diesel sources is the Carl Moyer Program which is a clean engine incentive program. This program provides money in the form of grants to cover the incremental portion of the cost to purchase cleaner burning engines or retrofitting existing ones.

Other programs include a program designed to develop and implement strategies to reduce emissions from new on-road heavy-duty diesel engines. The primary method of implementing this program will be through the development of emission control regulations and test procedures for

those new engines. The California Exhaust Emission Standards and Test Procedures for 2004 and Subsequent Model Heavy-Duty Diesel Engines and Vehicles were amended in 2007 and will reduce emissions from new on-road heavy-duty diesel engines.

Strategies for reducing diesel emissions from existing on-road heavy duty engines are mainly implemented through three sections of this program: retrofit assessment, heavy-duty testing and field support and retrofit implementation. CARB staff has developed a regulation to reduce diesel particulate matter and other emissions from existing on-road heavy-duty diesel powered vehicles operating in California. These regulations were adopted by CARB in December 2008 and last amended in December 2014. Beginning January 1, 2012, the Statewide Truck and Bus rule began requiring heavier trucks to be retrofitted diesel exhaust filters and requires older truck replacement which started in January 2015. By 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent.

CARB Air Quality and Land Use Handbook

In addition to the above listed programs and regulations, CARB's *Air Quality and Land Use Handbook* (CARB 2005, p. 4) provides recommendations for siting new sensitive land uses. These recommendations include a 1,000-foot buffer between new sensitive land uses and freeways or urban roads with 100,000 vehicles per day. The Handbook also recommends to avoid the placement of new sensitive land uses within 1,000 feet of a distribution center (accommodating more than 100 trucks per day, 40 trucks with transport refrigeration units (TRUs), or where TRUs operate more than 300 hours a week) and to take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points. These are recommendations, not mandates, and land use decisions ultimately lie with the local agency which needs to balance other considerations.

Other Regulations

Also, some statewide regulations proposed to reduce one form of pollutant have the added benefit of reducing other forms of pollution. For example, when CARB approved the Heavy-Duty Vehicle Greenhouse Gas Reduction Measure in 2008 and the most recent amendments in December 2014 to reduce greenhouse gas emissions from heavy-duty trucks, it also reduces NO_x emissions. This measure requires a compliance schedule for trucks to be certified under the EPA SmartWay Program, which reduces fuel consumption by improving fuel efficiency through improvements to tractor and trailer aerodynamics and low-rolling resistance tires. On February 1, 2005, a requirement limiting the idling of diesel-fueled commercial vehicles to five minutes at any location pursuant to Section 2485 of Chapter 10 within Title 13 of California Code of Regulations was adopted. Similarly, Section 2449 prohibits construction equipment and truck idling times shall be prohibited in excess of five minutes on site.

Off-road diesel vehicles are also regulated under CARB for both in-use (existing) and new engines. Off-road diesel vehicles include construction equipment.

There have been four sets of off-road standards implemented by CARB, known as Tiers. Tier 1 standards began in 1996. Tier 2 and 3 were adopted in 2000 and were more stringent than the

first tier. Tier 2 and 3 standards were completely phased in by 2006 and 2008, respectively. In December 2004, CARB adopted the Tier 4 or fourth phase of emission standards for late model year engines. These emission standards are nearly identical to those finalized by the EPA in May 2004. These standards, which commenced in 2011, are estimated to decrease PM and NO_x emissions by 90 percent below pre-2011 levels.

Since most off-road vehicles today have no emission controls and can last 30 years or longer, CARB approved a regulation in 2007 to reduce emissions from existing off-road diesel vehicles used in construction and other industries. This regulation establishes emission rates targets that decline over time to accelerate turnover to newer, cleaner engines and require exhaust retrofits to meet these targets. The regulation took effect on the larger fleets first, with average compliance dates in 2010, while medium and small fleet requirements achieved compliance in 2013 and 2015, respectively. This regulation also includes the Surplus Off-Road Opt-in for NO_x (SOON) program. The local air districts may opt into the SOON program to reduce NO_x emissions beyond what is required by the regulation. Staff at SCAQMD proposed Rule 2449 which would implement the SOON program. This rule was adopted by SCAQMD in 2008. Opting into this program was anticipated to achieve a 12 ton per day reduction in NO_x by 2014.

5.2.3 Project Design Considerations

The Project includes several features that will reduce Project-related emissions both during construction and operation.

Sustainability Features

As described in DEIR Section 3.2.5 (Sustainability Features), the Project would meet or exceed all applicable standards under California's Green Building Code Title 24 standards. This will be accomplished by incorporating, at minimum, the following sustainability features or other features that are equally efficient:

Energy Efficiency

- Design building shells and components, such as electrical systems, windows, and roof systems to comply with the provisions of the Title 24 standards for non-residential buildings. The Project would be constructed in accordance with energy efficiency standards effective at the time building permits are issued. The effective date of the 2019 Building Energy Efficiency Standards was January 1, 2020, and it is anticipated that non-residential buildings will use approximately 30 percent less energy due to lighting upgrades under the revised standards.
- Use of Energy Star products such as appliances, building products, heating and cooling equipment, appliances, and other energy-efficient equipment will be utilized.
- Install efficient lighting and lighting control systems. LEDs will be installed for outdoor lighting, which will incorporate motion sensors that turn lighting off when not in use.

- Installation of trees within landscaping along the south and west elevations of Building A, and along the west elevations of Building B to provide shade and thereby potentially reduce energy use.
- Install skylights on the rooftops of both buildings and incorporate the use of natural lighting when possible.
- Achieve construction energy efficiencies and energy conservation through bulk purchase, transport, and use of construction materials. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as transport and disposal of construction waste.
- The Project proposes conventional industrial uses that are not inherently energy intensive and reflect contemporary energy efficient/energy conserving designs and operational programs.

Renewable Energy

- Design buildings to have “solar ready” roofs that will structurally accommodate later installation of rooftop solar panels. Building operators providing rooftop solar panels will submit plans for solar panels prior to occupancy.

Water Conservation and Efficiency

- Create water-efficient landscapes in compliance with the City’s Water Efficient Landscape and Irrigation Ordinance in 19.570.
- Include landscaping in areas of parking lots to reduce the heat island effect.
- Install water-efficient irrigation systems and devices according to the City’s Water Efficient Landscape and Irrigation Ordinance 19.570, which complies with the California Department of Water Resources Model Efficient Landscape Ordinance.
- Design buildings to be water-efficient; install water-efficient fixtures and appliances.
- Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff.
- Provide education about water conservation and available programs and incentives to the building operators to distribute to employees.

Solid Waste Measures

- Sort, recycle, and divert from landfills Project-related construction and demolition waste in accordance with mandatory regulatory requirements.
- Provide interior and exterior storage areas for recyclables and green waste and adequate recycling containers located in public areas.
- The property operator will provide readily available information provided by the City for employee education about reducing waste and available recycling services.

Transportation and Motor Vehicles

- Limit idling times of construction vehicles to no more than five minutes in accordance with CCR, Title 13, Motor Vehicles, section 2449(d)(3) Idling.
- Implement sidewalks to facilitate and encourage pedestrian and access, which would reduce VMT and associated energy consumption.
- Provide a total of 39 EV parking stalls (24 within Parcel 1 for Building A and 15 within Parcel 2 for Building B) to encourage the use of low or zero-emission vehicles.
- Provide a total of 13 clean air/van pool parking stalls (8 within Parcel 1 for Building A and 5 within Parcel 2 for Building B) to support and encourage ridesharing.
- Promote the use of bicycles as an alternative means of transportation by providing short-term and/or long-term bicycle parking accommodations in accordance with the California Green Buildings Standards Code Sections 5.710.6.2.1 and 5.710.6.2.2.
- The building operator will support and encourage ridesharing and transit for the construction crew.

On-Site Equipment and Loading Docks

- The Project will require building operators (by contract specifications) to turn off equipment, including heavy-duty equipment, motor vehicles, and portable equipment when not in use for more than five minutes. Truck idling shall not exceed five minutes in time. All facilities will post signs requiring that trucks shall not be left idling for more than five minutes pursuant to Title 13 of the California Code of Regulations, Section 2485, which limits idle times to not more than five minutes.

Construction

- Require construction equipment to turn off when not in use.
- Use locally produced and/or manufactured building materials for at least 10% of the construction materials used for the Project.
- Use “green” building materials where feasible, such as those materials that are resource-efficient and recycled and manufactured in an environmentally conscious way.
- During grading, heavy-duty construction equipment (i.e., excavators, graders, scrapers, dozers, tractor/loader/backhoes, etc.) shall be CARB/U.S. Environmental Protection Agency Tier 3 certified. All construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases

out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements.¹

5.2.4 Thresholds of Significance

The City's has not established local CEQA significance thresholds as described in Section 15064.7 of the State CEQA Guidelines. The City generally utilizes the CEQA significance thresholds in Appendix G ("Environmental Checklist") of the *State CEQA Guidelines*. The Environmental Checklist prepared by the City for the Project (Appendix A) indicates that impacts related to the Sycamore Hills Distribution Center Project may be considered potentially significant if the proposed Project would:

- (Threshold A) conflict with or obstruct implementation of the applicable air quality plan;
- (Threshold B) result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;
- (Threshold C) expose sensitive receptors to substantial pollutant concentrations;
- (Threshold D) result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

5.2.5 Environmental Impacts

Threshold A: *Would the Project conflict with or obstruct implementation of the applicable air quality plan?*

As listed in Section 5.2.2.3 Regional Regulations, Project-applicable air quality plans include the 2016 AQMP, objectives and policies of the GP 2025's Air Quality Element, and the City's applicable 2008 Good Neighbor Guidelines. Discussions of the Project's consistency with the 2016 AQMP and the Good Neighbor Guidelines is provided below. Additionally, a brief summary is provided discussing the Project's consistency with the General Plan 2025 Air Quality Element. Refer to Appendix B for the analysis of the Project's consistency with General Plan 2025 Air Quality Element.

2016 AQMP

As stated previously, the Basin is designated as in attainment or unclassifiable attainment (expected to be meeting the standard despite a lack of monitoring data) for all federal air quality standards except for the 8-hour ozone and PM_{2.5} standards. The Basin is also designated as in nonattainment for state air quality standards for 8-hour ozone and PM_{2.5}, and additionally is in nonattainment of state PM₁₀ standards. The regional air quality plan, the 2016 AQMP, outlines measures to reduce emissions of ozone and PM_{2.5}. Whereas reducing PM concentrations is

¹ Air Quality Analysis for the Sycamore Hills Distribution Project, page 34, contained in Appendix C of this EIR.

achieved by reducing emissions of PM_{2.5} to the atmosphere, reducing ozone concentrations is achieved by reducing the precursors of photochemical formation of ozone, VOC, and NO_x.

A project's consistency with the AQMP is determined by two criteria: whether the project is consistent with the land use as designated in the local general plan; and if the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards (NAAQS and CAAQS) or interim emissions reductions specified in the AQMP.

In regard to the first criteria, the growth forecasting for the AQMP is based in part on the land uses established by local general plans. Thus, if a project is consistent with land use as designated in the local general plan, it can normally be considered consistent with the AQMP. Projects that propose a different land use than is identified in the local general plan may also be considered consistent with the AQMP if the proposed land use is less intensive than buildout under the current designation. For projects that propose a land use that is more intensive than the current designation, analysis that is more detailed is required to assess conformance with the AQMP.

The Project site has a land use designation of B/OP – Business/Office Park – in the GP 2025 and is zoned BMP-SP - Business and Manufacturing Park and Specific Plan (Sycamore Canyon Business Park (SCBPSP)) Overlay Zones. The Specific Plan designates the project site as Industrial. Permitted land uses include light industrial, manufacturing, distribution and warehousing, and product assembly. The Project would be consistent with the land use and zoning designations and would therefore be consistent with the growth assumptions of the 2016 AQMP. The Project is consistent with the land use designations in the GP 2025 and the SCBPSP Zone, and therefore is also consistent with the AQMP.

As mentioned above, another factor used to determine if a project would conflict with implementation of the AQMP is determining if the project would result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay the timely attainment of air quality standards (NAAQS and CAAQS) or interim emissions reductions specified in the AQMP. NAAQS and CAAQS violations could occur if project emissions would exceed regional significance thresholds or localized significance thresholds (LSTs).

Table 5.2-6 shows the total emissions in tons per year over the one-year construction period and compares emissions to the General Conformity *de minimus* levels. Table 5.2-7 summarizes the total projected construction maximum daily emission levels for each criteria pollutant and compares the emissions to the SCAQMD regional significance thresholds. As shown in Tables 5.2-6 and 5.2-7, construction and operational emissions would be less than the regional significance thresholds. Additionally, as shown in Tables 5.2-8 and 5.2-9 in the following section, construction and operational emissions would be less than the LSTs. Therefore, the Project would not result in an air quality violation and would not conflict with or obstruct the implementation of the AQMP or applicable portions of the SIP and potential impacts would be **less than significant with Mitigation Measure MM AIR-1**.

Table 5.2-6 – Total Annual Construction Emissions Comparison to General Conformity De Minimis Levels

Construction	Emissions (tons per year)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Year 2021 Emissions (tons/year)	0.35	3.29	2.78	0.01	0.51	0.25
Year 2022 Emissions (tons/year)	1.77	1.61	1.95	0.01	0.33	0.13
Total Emissions (tons)	2.12	4.91	4.73	0.01	0.83	0.38
Maximum Annual Emissions (tons/year)	1.77	3.29	2.78	0.01	0.51	0.25
<i>De Minimis Levels</i>	10	10	100	--	100	70
<i>Exceed Threshold?</i>	No	No	No	--	No	No

Table 5.2-7 – Maximum Daily Construction Emissions Comparison to SCAQMD Significance Thresholds

Construction	Emissions (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Site Preparation	4	41	22	<1	9	6
Grading	4	46	32	<1	6	2
Building Construction/Architectural Coatings ¹	32	29	34	<1	6	2
Paving/Architectural Coatings ¹	32	46	34	<1	2	1
Maximum Daily Emissions²	32	46	34	<1	9	6
<i>SCAQMD Regional Threshold</i>	75	100	550	450	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No

¹The architectural coatings phase of construction was modeled simultaneously with building construction and parking lot paving emissions.

²Emissions were rounded to the nearest whole number, Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.

General Plan 2025

The Project site has a land use designation of B/OP – Business/Office Park – in the GP 2025 and is zoned BMP-SP - Business and Manufacturing Park and Specific Plan (Sycamore Canyon Business Park (SCBPSP)) Overlay Zones. The Specific Plan designates the project site as Industrial. Permitted land uses include light industrial, manufacturing, distribution and warehousing, and product assembly. As discussed in Section 3 Project Description, the Project's warehouse buildings are proposed for high cube transload short-term use, primarily for the short-term storage and/or consolidation of manufactured goods. The Project would be consistent with the land use and zoning designations and would therefore be consistent with the growth assumptions of the 2016 AQMP. The Project is consistent with the land use designations in the GP 2025 and the SCBPSP and the Zone.

Although manufacturing is a permitted use in the SCBPSP and the Zone, the proposed Project is for high cube transload short-term use, which is the proposed land use analyzed in the *Traffic Operations Analysis* prepared by Urban Crossroads (Appendix K) and the *Air Quality Analysis for the Sycamore Hills Distribution Project* prepared by RECON (Appendix C). As outlined in the Project Description, the Project is a speculative development, and the tenants are unknown at this time. Therefore, in order to ensure future use of the site is consistent with high cube transload

short-term warehouse use, and the analysis contained herein, Mitigation Measure **MM AIR-1** is required.

Good Neighbor Guidelines

Additionally, the Project was evaluated for consistency with the City's *Good Neighbor Guidelines for Siting New and/or Modified Warehouse Distribution Facilities* (Good Neighbor Guidelines; City of Riverside 2008). The Good Neighbor Guidelines were designed to help minimize the impacts of DPM from on-road trucks associated with warehouses and distribution centers on existing communities and sensitive receptors located in the region. The Good Neighbor Guidelines goals and strategies, adopted by the City in 2008, applicable to the Project include:

- Minimize exposure to diesel emissions to neighbors that are situated in close proximity to the warehouse/distribution center;

- Recommended strategy: Design facilities to allow for the queuing of truck on-site and away from sensitive receptors. Conversely, prevent the queuing of trucks on streets or elsewhere outside of facility in compliance with Title 10 – Vehicles and Traffic – Chapter 10.44 – Stopping, Standing and Parking.

Project consistency: Based on the Project location and design, no truck queuing would occur next to sensitive receptors, which are located south of Alessandro Boulevard. Truck queuing would not occur outside the facility.

- Recommended strategy: To the extent possible, locate driveways, loading docks and internal circulation route away from residential uses or any other sensitive receptors.

Project consistency: Driveways, loading docks, and internal circulation routes are not adjacent to sensitive receptors. Further, as calculated in this analysis, emissions due to on-site operations would not expose sensitive receptors to substantial pollutant concentrations.

- Recommended strategy: Conduct SCAQMD URBEMIS and EMFAC computer models as appropriate, to initially evaluate warehouse and distribution projects on a case by case basis to determine the significance of air quality impacts and whether air quality thresholds would be exceeded as a result of the project. Where thresholds are exceeded, a more detailed air quality specialist is required to be prepared and submitted by the project applicant.

Project consistency: As calculated and concluded in the Project's Air Quality Analysis and summarized within this section of the EIR, the Project would not result in significant air quality impacts.

- Recommended strategy: Enforce compliance with Riverside Municipal Code Section 19.880 – "Transportation Demand Management Regulations". This section of the Code requires trip reduction plans to be submitted for all businesses, including warehouses, with over one hundred employees to reduce work-related

vehicles trips by six and one half percent from the number of trips related to the project.

Project consistency: The Project would include transportation demand management measures that would reduce emissions associated with employee trips. These include access to public transit (Routes 20 and 208), bicycle parking, clean air/van pool parking spaces, and electric vehicle parking.

- Eliminate diesel trucks from unnecessarily traversing through residential neighborhoods;
 - Recommended strategy: Require warehouse/distribution centers to establish a specific truck route between the warehouse/distribution center and the State Route 60 and Interstate 215 freeways for City approval as part of the Design Review process. In addition, a haul route plan for construction activities should also be provided as part of the Design Review process.

Project consistency: The Project site is located one mile west of Interstate 215, with direct access via Alessandro Boulevard which is an existing truck route.

- Recommended strategy: Require warehouse/distribution centers to clearly specify all entrance and exit points on the site plan submitted for City review and approval.

Project consistency: The Project site plans indicate all entrance and exit points.

- Recommended strategy: Require warehouse/distribution centers to provide on-site signage for directional guidance to trucks entering and exiting the facility.

Project consistency: On-site signage for directional guidance will be provided.

- Recommended strategy: Require warehouse/distribution centers to provide signage or flyers that advise truck drivers of the closest restaurants, fueling stations, truck repair facilities, lodging and entertainment.

Project consistency: The future tenants are unknown at this time; however, this information is readily available to truck drivers.

- Eliminate trucks from using residential areas and repairing vehicles on the streets;
 - Recommended strategy: Enforce compliance with Riverside Municipal Code Section 10.44.155 – “Parking of certain commercial vehicles, trailers and semi-trailers prohibited; exceptions”, Section 10.44.160 – “Parking of certain commercial vehicles prohibited in residential districts” and Section 10.44.040 “Parking for certain purposes prohibited”.

Project consistency: The Project would comply with all Municipal Code requirements. No trucks would be parked off-site.

- Reduce and/or eliminate diesel idling within the warehouse/distribution center;
 - Recommended strategy: Promote the installation of on-site electric hook-ups to eliminate the idling of main and auxiliary engines during loading and unloading of

cargo and when trucks are not in use – especially where Transportation Refrigeration Units are proposed to be used.

Project consistency: The Project would not include Transportation Refrigeration Units. All trucks would be required to comply with the CARB idling limit of 5 minutes.

- Recommended strategy: Implement General Plan 2025 Program Final Program Environmental Impact Report, Mitigation Measure MM Air 12. This Mitigation Measure requires that all new truck terminals, warehouses and other shipping facilities requiring the use of refrigerated trucks and with more than 50 truck trips per day shall provide electrical hookups for the refrigerated units to reduce idling and its associated air quality pollutants. Additionally, future tenant improvements involving conversion of a warehouse for refrigeration storage shall include electrical hookups for refrigerated units.

Project consistency: The Project would not include Transportation Refrigeration Units or refrigeration storage.

- Recommended strategy: Require signage (posted inside and outside of the warehouse facility) to inform truck drivers of CARB regulations, idling limits, authorized truck route, and designated truck parking locations. Post signs requesting truck drivers to turn off engines when not in use and restrict idling within facilities to less than 5 minutes.

Project consistency: The Project would include signage regarding idling limits, truck routes, and parking.

Additionally, the City's Guidelines recommend the enforcement of the Riverside Municipal Code. As discussed in Section 5.2.2.3 above, on November 10, 2020, the Riverside City Council adopted updates to the Good Neighbor Guidelines, in addition to associated amendments to Title 19 – Zoning Code of the Riverside Municipal Code (RMC), the Hunter Business Park Specific Plan, and the Sycamore Canyon Business Park Specific Plan related to siting industrial uses in the City when located adjacent to sensitive receptors, including residential neighborhoods, schools, parks, playgrounds, day care centers, nursing homes, hospitals, and other public spaces. City Council action also allowed any project achieving substantial completion within 90 days of the effective date of the implementing ordinance to continue to be subject to the 2008 GNG. As this Project was deemed complete prior to adoption of the updated GNG, it does not need to comply with the updated GNG.

The updated 2020 Good Neighbor Guidelines include new requirements for technical studies and new guidelines related to noise and neighborhood character. The following is a short summary of the applicable updates:

- **Technical Studies:** The 2020 GNGs require the preparation of an Air Quality Analysis, and Health Risk Assessments for industrial uses within 1,000 feet of sensitive receptors.

Project Consistency: The Project has completed an Air Quality Analysis (Appendix C) and Health Risk Assessments (Appendix C) as part of the EIR process.

- **Noise:** The updated guidelines include measures related to minimizing noise from construction activities and ensuring compliance with Title 7 – Noise of the Riverside Municipal Code as it relates to noise in residential neighborhoods.

Project Consistency: As outlined in Section 5.11 Noise, **Mitigation Measure MM NOI-1** is required to minimize construction noise and operational noise generated by the Project will comply with the noise standards in Title 7 of the RMC.

- **Neighborhood Character:** The new guidelines incorporate tiered development standards in Title 19 – Zoning Code related to building setbacks, height, and size, based on proximity to residential uses. The guidelines also require screening of industrial uses from Sensitive Receptors, and landscaping to soften visual impacts.

Project Consistency: The tiered development standards of Title 19 do not apply to the Project, as the proposed buildings are located more than 800 feet from residential uses. As outlined in Section 5.1 Aesthetics, extensive design considerations are included in the Project, as well as **Mitigation Measure MM AES-2**, to minimize visual impacts from the Project on nearby sensitive receptors.

Although the Project is not required to comply with the updated Title 19 development standards or the updated GNGs, the project is consistent with all new requirements related to warehouse uses.

Thus, as outlined above, the Project is consistent with and would not conflict with any of applicable 2008 Good Neighbor Guidelines and recommended strategies; potential impacts would be **less than significant with implementation of Mitigation Measure MM AIR-1**, as outlined below.

MM AIR-1: The project applicant is required to record a covenant on the property (Parcels 1 and 2) that prohibit manufacturing use. Proof of the record of covenant shall be submitted to the City of Riverside Planning Department prior to issuance of Building Permits.

Threshold B: *Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?*

As discussed in Section 4.3 of the Air Quality Analysis and previously shown in Table 5.2-5 of this section, the Basin is classified as in attainment for all criterion pollutants except for ozone, PM₁₀, and PM_{2.5}. The Basin is designated as a nonattainment area for federal AAQS for the 8-hour ozone and PM_{2.5} standards and is in nonattainment area under state PM₁₀ standards. Ozone is not emitted directly but is a result of atmospheric activity on precursors. NO_x and ROG are known as the chief “precursors” of ozone. These compounds react in the presence of sunlight to produce ozone.

As previously shown in Table 5.2-7 (Maximum Daily Construction Emissions Comparison to SCAQMD Significance Thresholds) and in Table 5.2-8 (Summary of Project Operational Emissions), emissions of ozone precursors (ROG and NO_x), PM₁₀, and PM_{2.5} from construction and operation of the Project would be below the SCAQMD's thresholds of significance. These thresholds were developed based on the CAA *de minimis* level, which are designed to provide limits below which project emissions from an individual project would not significantly affect regional air quality or the timely attainment of the NAAQS and CAAQS. Additionally, as shown in Tables 5.2-7 and 5.2-8, maximum localized construction and operational emissions would not exceed any of the SCAQMD recommended localized screening thresholds. SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, the Project construction and operational emissions would not result in a project-specific or cumulatively considerable net increase in emissions of ozone, PM₁₀, or PM_{2.5}, and impacts would be **less than significant with Mitigation Measure MM AIR-1**.

Table 5.2-8 – Summary of Project Operational Emissions

Source	Emissions (pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
WINTER						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	1	17	<1	10	3
Mobile Sources – Trucks	2	37	17	<1	10	3
Total	17	38	34	<1	19	6
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
SUMMER						
Area Sources	14	<1	<1	<1	<1	<1
Energy Sources	<1	<1	<1	<1	<1	<1
Mobile Sources – Passenger Cars	1	1	19	<1	10	3
Mobile Sources – Trucks	2	36	16	<1	10	3
Total	17	37	36	<1	19	6
<i>Significance Threshold</i>	55	55	550	150	150	55
<i>Exceed Threshold?</i>	No	No	No	No	No	No
Note: Emissions were rounded to the nearest whole number. Emissions reported as <1 indicate that emissions were calculated to be less than 0.5 pound per day.						

Threshold C: *Would the Project expose sensitive receptors to substantial pollutant concentrations?*

Localized Significance Thresholds (LSTs)

LSTs were developed in response to environmental justice and health concerns raised by the public regarding exposure of individuals to criteria pollutants in local communities. To address the issue of localized significance, the SCAQMD adopted LSTs that show whether a project would cause or contribute to localized air quality impacts and thereby cause or contribute to potential localized adverse health effects.

A sensitive receptor is a person in the population who is more susceptible to health effects due to exposure to an air contaminant than is the population at large. Examples of sensitive receptor locations in the community include residences, schools, playgrounds, childcare centers, churches, athletic facilities, retirement homes, and long-term health care facilities. The sensitive receptors nearest to the Project site include single and multi-family residences approximately 300 feet south and southeast of the Project site across Alessandro Boulevard. The Project was analyzed for its potential to result in significant health risk impacts resulting from short-term construction and long-term operational emissions. Sections 6.3.1 (Construction Localized Significance Thresholds Calculations) and 6.3.2 (Operational Localized Significance Thresholds) of the Project's Air Quality Analysis provide discussions of how LSTs were calculated.

Results of the LST analysis indicate that the project would not exceed the SCAQMD LSTs during construction (see Table 5.2-9, Localized Construction Emissions). Results of the LST analysis also indicate that the project would not exceed the SCAQMD LSTs during operational activity (see Table 5.2-10, Localized Operational Emissions). The LSTs represent the maximum emissions from a project that will not cause or contribute to an exceedance of the most stringent applicable NAAQS or CAAQS at the nearest residence or sensitive receptor. The SCAQMD states that lead agencies can use the LSTs as another indicator of significance in its air quality impact analyses. Because construction and operational activity would not result in an exceedance of the SCAQMD's LSTs, sensitive receptors would not be exposed to substantial criteria pollutant concentrations during Project construction or operation and impacts would be **less than significant**.

Table 5.2-9 – Localized Construction Emissions

	CO	NO _x	PM ₁₀	PM _{2.5}
Maximum Daily On-Site Emission	33	39	9	5
<i>LST Threshold</i>	6,860	488	75	31
Threshold Exceeded?	No	No	No	No

Table 5.2-10 – Localized Operational Emissions

	CO (ppm)		NO _x (ppm)		PM ₁₀ (µg/m ³)		PM _{2.5} (µg/m ³)
	Averaging Time						
	1-Hr	8-Hr	1-Hr	Annual	24-Hrs	Annual	24-Hrs
Peak Localized Emission Concentration	0.066	0.044	0.033	0.006	0.044	0.022	0.043
Background Concentration ¹	2.50	1.90	0.073	0.015	--	--	--
Total Concentration	2.566	1.944	0.106	0.021	0.044	0.022	0.043
<i>LST Threshold</i>	20	9	0.18	0.03	2.5	1	2.5
Threshold Exceeded?	No	No	No	No	No	No	No

¹Highest concentration from the last three years of available data (see Table 5.2-1)

Diesel Particulate Matter (DPM)**Long-Term Operational DPM**

The Project-specific HRA includes an evaluation of diesel particulate matter (DPM) emissions associated with diesel truck traffic traveling along Alessandro Boulevard, a designated truck route, and three new driveways, proposed to be constructed, one on Alessandro Boulevard and two on Barton Street, in the vicinity of the proposed Project, and potential cancer risks to existing nearby sensitive receptors, including residents and/or adjacent workers. SCAQMD identifies that if a proposed Project is expected to generate/attract heavy-duty diesel trucks, which emit DPM, preparation of a mobile source HRA is recommended. This document serves to meet the SCAQMD's request for preparation of an HRA. The purpose of the Project specific HRA is to document the increased cancer and noncancer health risk levels from project-related emissions of toxic air contaminants (TACs) on existing nearby sensitive receptors, including residents and/or adjacent workers.

Cancer Risk

The SCAQMD CEQA Air Quality Handbook (1993) states that emissions of TACs are considered significant if an HRA shows an increased risk of greater than 10 in one million. The SCAQMD has established an incidence rate of ten (10) persons per million as the maximum acceptable incremental cancer risk due to DPM exposure. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulative impact.

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in one million implies a likelihood that up to 10 people, out of one million equally exposed people, would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time. As an example, the risk of dying from accidental drowning is 1,000 in a million, which is 100 times more than the SCAQMD's threshold of 10 in one million. The nearest comparison to 10 in one million is the 7 in one million lifetime chance that an individual would be struck by lightning.

Non-Carcinogenic Risk

The SCAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less-than-significant.

Residential Exposure

The residential land use with the greatest potential exposure to Project DPM source emissions is located at existing residential homes approximately 225 feet south of the Project site, across Alessandro Boulevard. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project DPM source emissions is estimated at 0.49 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be 0.0002, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent residences. All other residential uses located farther away from the Project would be exposed to less emissions and therefore less risk than the MEIR identified herein. As DPM generally dissipates with distance from the source, all other residential receptors in the vicinity of the Project site would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences.

Worker Exposure Scenario

The worker receptor land use with the greatest potential exposure to Project DPM source emissions is located immediately adjacent to the Project site at the adjacent industrial use/wastewater treatment plant approximately 145 feet to the west. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact at this location is 0.08 in one million which is less than the threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be 0.0003, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. All other modeled worker sites located farther away from the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers.

School Children Exposure

The school site land use with the greatest potential exposure to Project DPM source emissions is at the Taft Elementary School located approximately 1.1-mile (6,027 feet) northwest of the Project site. At the maximally exposed individual school child (MEISC), the maximum incremental cancer risk impact attributable to the Project at this location is calculated to be an estimated 0.003 in one million which is less than the significance threshold of 10 in one million. At this same location, non-cancer risks attributable to the Project were calculated to be 0.000006, which would not exceed the applicable significance threshold of 1.0. Any other schools located at a farther distance from the Project site would be exposed to less emissions and consequently less impacts than what is disclosed for the MEISC. As such, the Project will not cause a significant human health or cancer risk to nearby school children.

Short-Term Construction DPM

Mobile HRAs are typically conducted to evaluate long-term exposure (e.g. 9 or 30 years) diesel particulate matter (DPM) emissions associated with a project's long-term diesel truck travel (i.e. those traveling to and from warehouses) on nearby sensitive receptors (residences, schools, etc.).

Heavy-duty off-road construction equipment (graders, excavators, dozers, scrapers, loaders, etc.) typically have diesel engines and emit DPM emissions. However, construction activity is typically short-term (1-2 years or less), as is anticipated for the proposed Sycamore Hills Distribution Center project, and does not constitute long-term exposure, typically used to generate risk estimates. As outlined above, construction emissions would not exceed SCAQMD thresholds established to protect public health and air quality. Therefore, the health risk associated with construction emissions would be less than significant for the surrounding sensitive uses and no mitigation is required.

Because construction and operational activity would not result in an exceedance of the SCAQMD's DPM cancer risk exposure threshold of 10 in one million, or non-cancer risk threshold of 1.0, sensitive receptors would not be exposed to substantial DPM pollutant concentrations during Project construction or operation, and impacts would be **less than significant with Mitigation Measure MM AIR-1**.

Threshold D: *Would the Project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.*

During construction, diesel equipment may generate some nuisance odors. Sensitive receptors near the Project site include residential uses approximately 300 feet south of the Project site; however, exposure to odors associated with Project construction would be short term and temporary in nature. It should also be noted that all construction equipment is subject to the CARB In-Use Off-Road Diesel-Fueled Fleets Regulation. This regulation, which applies to all off-road diesel vehicles 25 horsepower or greater, limits unnecessary idling to 5 minutes, requires all construction fleets to be labeled and reported to CARB, bans Tier 0 equipment and phases out Tier 1 and 2 equipment (thereby replacing fleets with cleaner equipment), and requires that fleets comply with Best Available Control Technology requirements. Implementation of this measure reduces construction exhaust emissions, thereby also reducing construction equipment odors. Additionally, SCAQMD Rule 402 addresses nuisance emissions, including odors. Rule 402 states, "A person shall not discharge from any source whatsoever such quantities or air contaminants or other material which cause 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 natural tendency to cause, injury or damage to business or property."

Due to the distance to the residential receptors, implementation of CARB regulations, the short-term nature of construction, and enforcement of Rule 402, construction odor impacts would be less than significant.

The following list provides some common types of facilities that are known producers of objectionable odors. This list of facilities is not meant to be all-inclusive.

- Wastewater Treatment Plant
- Wastewater Pumping Facilities
- Sanitary Landfill

- Transfer Station
- Composting Facility
- Petroleum Refinery
- Asphalt Batch Plant
- Chemical Manufacturing
- Fiberglass Manufacturing
- Painting/Coating Operations
- Rendering Plant
- Coffee Roaster
- Food Processing Facility
- Confined Animal Facility/Feed Lot/Dairy
- Green Waste and Recycling Operations
- Metal Smelting Plants

The Project does not include any of these uses that are typically associated with odor complaints. The Project does not propose any uses or activities that would result in potentially significant operational-source odor impacts. The Project proposes the operation of a high-cube warehouse, which is not included on CARB's list of facilities that are known to be prone to generate odors. During operation of the Project, odors that could be emitted from trucks would be required to comply with CARB's idling limit of 5 minutes, and these trucks would not produce a significant number of odors. Consistent with City requirements, all Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with solid waste regulations, thereby precluding substantial generation of odors due to temporary holding of refuse on-site. The Project is not expected to generate significant objectionable odors affecting a substantial number of people. Impacts would be **less than significant without mitigation**.

5.2.6 Proposed Mitigation Measures

As the Project does not exceed any of the Air Quality significance thresholds and potential impacts are expected to be less than significant. Therefore, no mitigation measures specific to air quality are required to reduce potential impacts from the proposed Project as described in Section 3.0 Project Description. However, **Mitigation Measure MM AIR-1** is required to ensure that the actual use of the site is consistent with the use described in the Project Description and analyzed in the project specific air quality analyses.

MM AIR-1: The project applicant is required to record a covenant on the property (Parcels 1 and 2) that prohibit manufacturing use. Proof of the record of covenant shall be submitted to the City of Riverside Planning Department prior to issuance of Building Permits.

5.2.7 Cumulative Environmental Effects

Due to the defining geographic and meteorological characteristics of the Basin, the cumulative area for air quality impacts is the Basin itself. As discussed in Section 5.2.6, the portion of the Basin within which the City is located is designated as a nonattainment area for ozone, PM_{2.5}, and PM₁₀ under state standards; and for ozone and PM_{2.5} under both federal standards. Project emissions within the context of SCAQMD's regional emissions thresholds provide an indicator of potential cumulative impacts within the Basin. Cumulative localized impacts for pollutants are also considered and reflect Project air pollutant emissions in the context of ambient conditions in the Project vicinity.

As previously discussed, SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. Therefore, projects that exceed project-specific significance thresholds are considered by SCAQMD to be cumulatively considerable. Based on SCAQMD's regulatory jurisdiction over regional air quality, it is reasonable to rely on its thresholds to determine whether there is a cumulative air quality impact. None of the SCAQMD mass daily significance thresholds are exceeded during Project construction and operation of proposed high cube transload short-term use warehouses. Therefore, the Project would not have a cumulatively considerable increase in emissions. Moreover, in terms of localized air quality impacts, construction and operation of the Project would not have a cumulatively considerable impact due to criteria pollutant emissions, nor would the Project result in significant and unavoidable cumulative impacts to air quality **with implementation of Mitigation Measure MM AIR-1**.

5.2.8 References

The following references were used in the preparation of this section of the DEIR:

2016 AQMP	South Coast Air Quality Management District 2016 Air Quality Management Plan. (Available at https://www.aqmd.gov/home/air-quality/clean-air-plans/air-quality-mgt-plan/final-2016-aqmp).
Air Quality Analysis 2020	RECON, Air Quality Analysis for the Sycamore Hills Distribution Project, Riverside, California. September 2020. (Appendix C)
CALGreen Code 2016	California Green Building Standards Code, 2016. (Available at https://www.ladbs.org/docs/default-source/publications/code-amendments/2016-calgreen_complete.pdf?sfvrsn=6).
CARB 2005	California Air Resources Board, <i>Air Quality and Land Use Handbook: A Community Health Perspective</i> , April 2005. (Available at https://ww3.arb.ca.gov/ch/handbook.pdf).
CARB 2013	California Air Resources Board, <i>The California Almanac of Emissions and Air Quality – 2013 Edition</i> , 2013. (Available at https://ww3.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm .)

CARB 2016	California Air Resources Board, <i>Ambient Air Quality Standards</i> , 2016. (Available at https://ww2.arb.ca.gov/sites/default/files/2020-03/aaqs2_0.pdf).
Construction HRA Memo 2020	Urban Crossroads, Construction Health Risk Assessment Memorandum, September 2020. (Appendix C)
HRA 2020	Urban Crossroads, Sycamore Hills Distribution, Mobile Source Health Risk Assessment, City of Riverside, California. September 2020. (Appendix C)
SCAQMD, 1993	South Coast Air Quality Management District California Environmental Quality Act Air Handbook. November 1993.
SCAQMD 2000	South Coast Air Quality Management District, <i>Multiple Air Toxics Exposure Study (MATES-II)</i> , March 2000. (Available at www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-ii .)
SCAQMD 2005	South Coast Air Quality Management District, <i>Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning</i> , May 2005. (Available at https://www.aqmd.gov/home/research/guidelines/planning-guidance/guidance-document .)
SCAQMD 2008a	South Coast Air Quality Management District, <i>Multiple Air Toxics Exposure Study (MATES-III)</i> , September 2008. (Available at www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-iii/mates-iii-final-report .)
SCAQMD 2014	South Coast Air Quality Management District, <i>Multiple Air Toxics Exposure Study (MATES-IV)</i> , May 2015. Available at https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-iv .)
SCAQMD 2020	South Coast AQMD Rule Book. (Available at http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book).
SCAQMD 2021	South Coast AQMD MATES V Air Toxics Exposure Study. (Available at https://www.aqmd.gov/home/air-quality/air-quality-studies/health-studies/mates-v).
Section 44300	Health and Safety Code Section 44300, "Air Toxics 'Hot Spots' Information Assessment Act of 1987. (Available at https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=HSC&division=26.&title=&part=6.&chapter=1.&article=).
EPA, 2016	U.S. Environmental Protection Agency, <i>Criteria Air Pollutants</i> . (Available at https://www.epa.gov/criteria-air-pollutants).

5.3 Biological Resources

Based on Appendix G of the *State CEQA Guidelines*, the analysis in the Initial Study (IS/NOP) prepared for this Project (Appendix A), and comments received during the NOP public review period (Appendix A), this section evaluates the Project's potential impacts to biological resources. Specifically, this EIR section will evaluate potential impacts related to sensitive species and habitats, wetlands, wildlife movement, and local policies or ordinances related to biological resources and habitat conservation plans.

The discussion in this section is based on the following reports:

- *Determination of Biologically Equivalent or Superior Preservation (DBESP) Report for Impacts to Riparian/Riverine Resources*, January 2021, (RVA).
- *Biological Resources and Western Riverside County Multiple Species Habitat Conservation Plan Consistency Report*, September 2020 (Wood(a));
- *Jurisdictional Delineation Report, Sycamore Hills Distribution Center, City of Riverside, Riverside County, California*, December 2020 (Wood(b));
- *Least Bell's Vireo, Southwestern Willow Flycatcher & Yellow-Billed Cuckoo Survey Results for the Sycamore Hills Distribution Center*, August 2020, (Kidd Biological); and
- *Sycamore Hills Distribution Center Burrowing Owl Focused Survey Report*, September 2020 (ELMT Consulting).

These reports are contained in their entirety in Appendix D of this DEIR.

5.3.1 Setting

The approximately 48.64-acre Project site is currently undeveloped with no existing structures. Surrounding land uses include preserved open space to the north as part of Sycamore Canyon Wilderness Park, Metropolitan Water District's water treatment plant to the west across Barton Street; single-family residential and commercial to the south, across Alessandro Boulevard; a storage facility to the southwest; and undeveloped land to the east. (Wood(a), p.1)

The Project site contains an existing 11.6 acre Restricted Property area, as shown in Figure 3.0-3 – Project Site Map, intended for preservation in a natural condition.

The Project site was formerly owned by the Grove Community Church where a new church was planned to be constructed in the future. However, as the site is located within the C-1 Primary Approach/Departure Zone of the March Air Reserve Base/ Inland Port Airport Land Use Compatibility Plan, and due to restrictions regarding the height of the building and the maximum number of people allowed to congregate at any time, it was not conducive to the church's plans. March Joint Powers Authority (MJPA) assisted the church in finding a new location for the church, approximately one mile to the southwest at 19900 Grove Community Drive, Riverside.

Construction of the Grove Community Church at the off-site 19900 Grove Community Drive location had impacts to a jurisdictional drainage and associated riparian habitat at that location.

To mitigate for impacts from construction of the church at the off-site location, the U.S. Army Corps of Engineers required that the on-site jurisdictional drainage and riparian habitat along Alessandro Boulevard be set aside and preserved in a legally designated “Restricted Property,” as a condition of the Clean Water Act Section 404 permit that was issued for the construction of the church. The “Restricted Property” was recorded in 2009.

MJPA purchased the Project site property from the church with the intent to sell and to convey title of the “Restricted Property” area to the City of Riverside. However, a parcel map was not created, and the title transfer did not take place. MJPA is still the owner of the entire Project site property. The Project applicant intends to purchase the property from MJPA upon project entitlement approvals.

The Project site is located within the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) area. The MSHCP is intended to conserve species and their associated habitats throughout Western Riverside County. The MSHCP encompasses approximately 1.26 million acres. The City is a Permittee to the MSHCP; thus, the Project is required to comply with applicable provisions of the MSHCP (GP 2025, p. 5.4-31). The Project site is located within the *Cities of Riverside and Norco Area Plan* of the MSHCP. The Project site is not in a criteria area for the MSHCP (not within a Criteria Cell, Cell Group, habitat core or linkage). However, it is immediately adjacent to the Sycamore Canyon Wilderness Park to the north, which is designated as Public Quasi Public (PQP) lands and Existing Core D of the MSHCP conservation area. The Project site is also within the *Stephens’ Kangaroo Rat Habitat Conservation Plan* (SKRHCP).

Vegetation

As shown on Figure 5.3-1 - Vegetation Communities Map, the Project site includes the following vegetation categories or types: non-native grassland, riparian woodland, Riversidean sage scrub, and disturbed. The biological study area (BSA) is covered with Non-Native Grassland crossed by several drainages, some of which contain Riparian Woodland. Patches of sparse Riversidean Sage Scrub are present in the uplands. Several unpaved trails, which fall in the disturbed category, cross the uplands and drainages within the BSA.

Non-native Grassland

Non-native grassland (40.71 acres in the BSA) supports a dense to sparse cover of annual grasses. Dominant species include non-native species such as wild oats (*Avena* spp.), red brome (*Bromus madritensis* ssp. *rubens*), and non-native forbs such as short-pod mustard (*Hirschfeldia incana*) and filaree (*Erodium* spp.). A variety of native forbs are associated with this habitat, but their presence is episodic and rainfall dependent. Plants will generally be dead through the summer to fall dry season, with germination beginning with the fall to winter rains and growth and seed-set through the spring. (Wood(a) p.16).

Riparian Woodland

The riparian woodland (5.12 acres in the BSA) is dominated by trees and shrubs such as willows (*Salix* sp.) and cottonwood (*Populus fremontii*) for the over-story species, and mulefat (*Baccharis salicifolia*) for understory. The understory is relatively sparse, lacking a well-developed mid-story

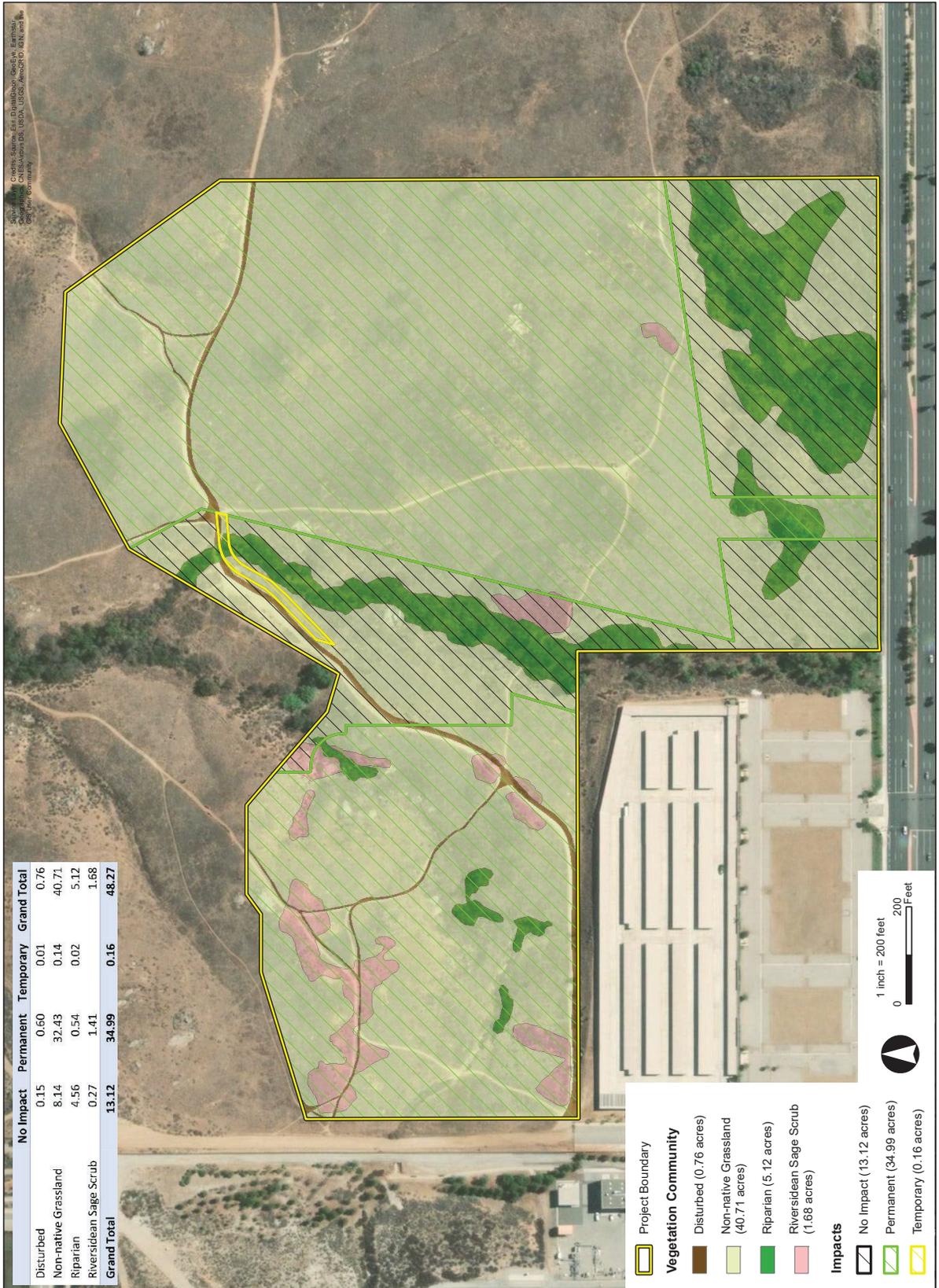
canopy with herbaceous plant species more common than shrubs. The vegetation in this community has suffered from drought and homeless occupation, with some trees and shrubs dead or dying. None of the plant species mentioned here are special-status, but riparian communities provide potential habitat for special-status species. (Wood(a) p.16).

Riversidean Sage Scrub

Riversidean Sage Scrub (1.68 acres in the BSA) is dominated by low-statured, aromatic, drought-deciduous shrubs, and subshrub species. Characteristic species present in the BSA include brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), and California sagebrush (*Artemisia californica*). None of the plant species mentioned here are special-status, but Riversidean Sage Scrub provides potential habitat for special-status species. (Wood(a) p.16).

Disturbed

Several open, cleared dirt trails crisscross the study area, comprising 0.76 acre in the BSA. The trails are not vegetated and are used by both humans and animals (Wood(a) p.14).



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Vegetation Communities Map
Figure 5.3-1



Sensitive Plant Species

One special status plant species, paniculate tarplant (*Deinandra paniculata*), has been noted incidentally during site visits. Individuals of tarplant (*Deinandra paniculata*) have been seen scattered throughout the non-native grassland areas of the BSA, especially in years with ample rainfall. Paniculate tarplant, which is not covered by the MSHCP, is an annual which has a CNPS California Rare Plant Rank (CRPR) of 4.2. Paniculate tarplant is not state or federally listed as threatened or endangered, and List 4 plants have the lowest sensitivity ranking in the CNPS system as "Plants of Limited Distribution - A Watch List". Paniculate tarplant primarily blooms from April through November but has been recorded blooming in March and December at some locations (Wood(a) p.16).

Three additional special status plant species and one vegetation community have been recorded in the California Native Diversity Database (CNDDDB) records within two miles of the Project site and include (Wood(a) p.17):

- *Centromadia pungens* ssp. *laevis*, smooth tarplant (MSHCP, CNPS 1B.1). This species has a designated survey area in the MSHCP, but the Project is not within that survey area.
- *Chorizanthe parryi* var. *parryi*, Parry's spineflower (MSHCP, CNPS 1B.1). Habitat is present in the BSA.
- *Lepidium virginicum* var. *robinsonii*, Robinson's pepper-grass (CNPS 4.3, not covered by MSHCP). Habitat is present in the BSA.
- Southern Sycamore Alder Riparian Woodland. This is a California Department of Fish and Wildlife (CDFW) recognized special-status vegetation community that does not occur in the BSA.

Wildlife

Common wildlife species detected during biological resource assessments include common side-blotched lizard (*Uta stansburiana*), Nuttall's woodpecker (*Picoides nuttallii*), bushtit (*Psaltriparus minimus*), Anna's hummingbird (*Calypte anna*), house finch (*Carpodacus mexicanus*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), and desert cottontail (*Sylvilagus audubonii*).

The following special status wildlife species were encountered during surveys in the BSA:

2019

- *Circus hudsonius*, northern harrier (MSHCP, SSC)
- *Accipiter cooperii*, Cooper's hawk (MSHCP; WL)
- *Lepus californicus bennettii*, San Diego black-tailed jackrabbit (MSHCP; SSC)
- *Dipodomys stephensi*, Stephens' kangaroo rat (observed burrows & sign; MSHCP; FE; ST)
- *Neotoma* sp., wood rat middens* (MSHCP; SSC)

2014-2018

- *Crotalus ruber*, red-diamond rattlesnake (MSHCP; SSC; S)
- *Selasphorus rufus/sasin*, rufous/Allen's hummingbird (rufous is a BCC). During the migratory period when rufous and Allen's occur together, most individuals cannot be identified to species level.
- *Phalacrocorax auritus*, double-crested cormorant (MSHCP; WL)
- *Empidonax traillii*, willow flycatcher (MSHCP; SE; BCC)
- *Vireo bellii pusillus*, least Bell's vireo (MSHCP; FE, SE)
- *Eremophila alpestris actia*, California horned lark (MSHCP; WL)
- *Spinus lawrencei*, Lawrence's goldfinch (BCC)
- *Setophaga petechia brewsteri*, yellow warbler (MSHCP; BCC; SSC)
- *Aimophila ruficeps canescens*, southern California rufous-crowned sparrow (MSHCP; WL)

FE - Federally Endangered; BCC – United States Fish and Wildlife Service Birds of Conservation Concern; SE – California State Endangered, ST – California State Threatened, WL - CDFW Watch List, SSC - CDFW Species of Special Concern; S- USFS Sensitive.

*The MSHCP / SSC San Diego desert woodrat *Neotoma lepida* ssp. *intermedia* is the expected species within the study area.

All of the avian, reptile, and mammals species above could be found foraging and/or breeding in the non-native grassland community and the associated riparian habitat with the exception of a double-crested cormorant (flyover only). Rufous hummingbird may forage, but only in migration; they do not breed in Southern California. The willow flycatchers detected in the BSA were migrants present for foraging only, likely of more northerly subspecies which do not nest in southern California (E.t. *adastus* or E.t. *brewsteri*), and not southwestern willow flycatchers (subspecies E.t. *extimus*). USFWS protocol does not recognize willow flycatchers as the

“southwestern” species unless they are found to be nesting or if they stay on-site past the migratory period.

CNDDDB records of additional special status species recorded in the past within two miles of the project site are shown on Figure 5.3-2 - CNDDDB Occurrences Map. These records include many of the species already recorded in the BSA, but also:

- *Aspidoscelis hyperythra*, orange-throated whiptail (MSHCP, WL). Habitat present in the BSA.
- *Agelaius tricolor*, tricolored blackbird (MSHCP, ST, SSC, BCC). No habitat present in the BSA.
- *Chaetodipus fallax fallax*, northwestern San Diego pocket mouse (MSHCP, SSC). Habitat present in the BSA.
- *Spea hammondi*, western spadefoot (MSHCP, SSC). Like fairy shrimp, this species requires temporary pools to breed. No breeding habitat is present.
- *Onychomys torridus ramona*, southern grasshopper mouse (not covered by MSHCP, SSC). Habitat present in the BSA.
- *Lanius ludovicianus*, loggerhead shrike (MSHCP, SSC, BCC). Habitat present in the BSA.
- *Athene cunicularia*, burrowing owl (MSHCP, SSC, BCC). This species has a designated survey area in the MSHCP, and the project is within it. Focused surveys in 2018 and 2020 did not detect the species.
- *Dipodomys merriami parvus*, San Bernardino kangaroo rat (MSHCP, FE, state candidate for listing as endangered, SSC). This species has a designated survey area in the MSHCP, and the project is not within that survey area.
- *Phrynosoma blainvillii*, coast horned lizard (MSHCP, SSC). Habitat present in the BSA.
- *Nyctinomops femorosaccus*, pocketed free-tailed bat (SSC, not covered by MSHCP). No roosting habitat in the BSA could forage.
- *Perognathus longimembris brevinasus*, Los Angeles pocket mouse (MSHCP, SSC). This species has a designated survey area in the MSHCP, and the project is not within that survey area.

Threatened or Endangered Wildlife

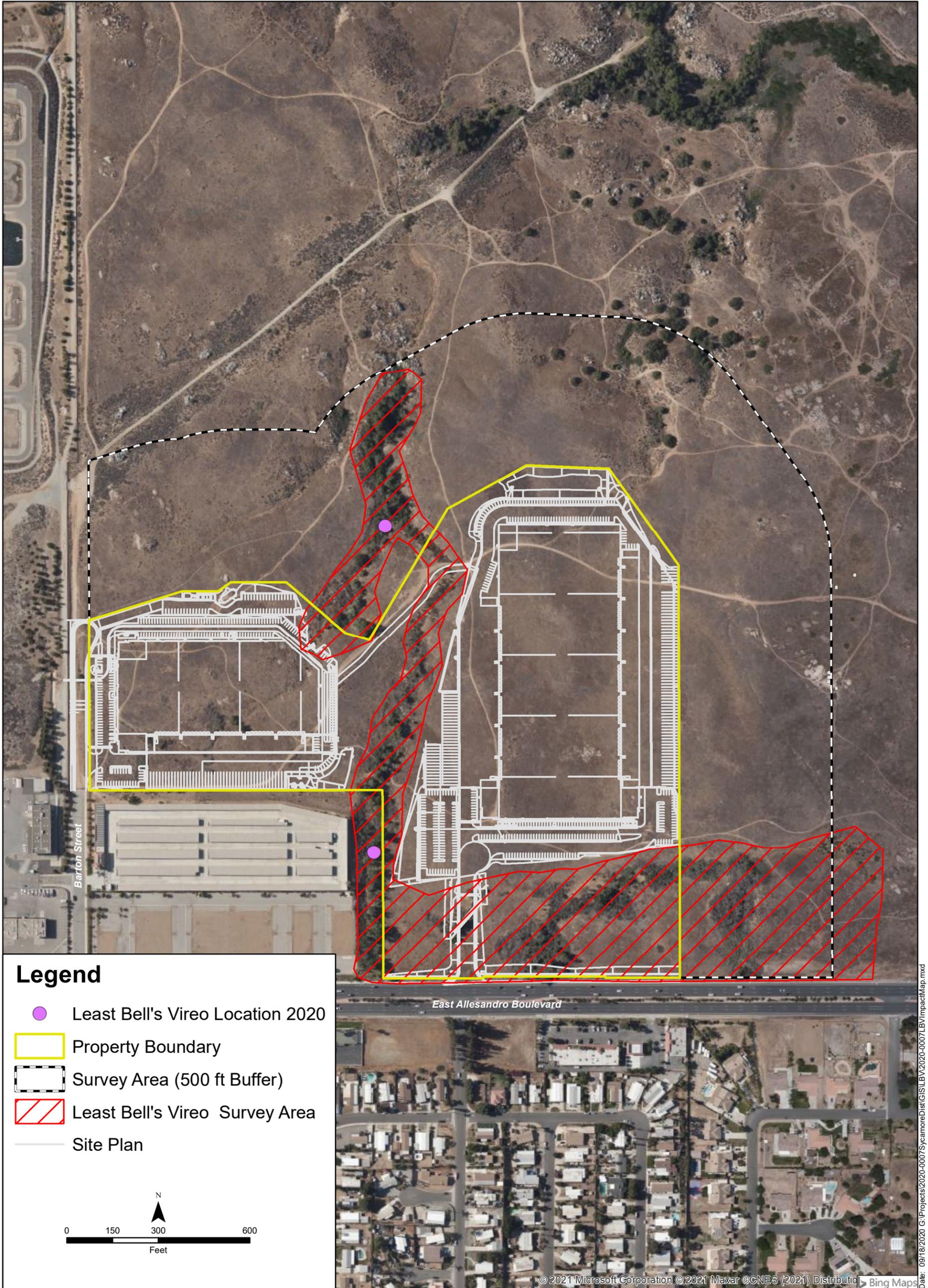
Least Bell's vireo and Stephens' kangaroo rat (SKR) are the only federally and state listed threatened and/or endangered species that have been observed in the study area. Stephens' kangaroo rat burrows, scat, sign, and tracks are present throughout the entire grassland areas. (Wood(a) p.28)

Least Bell's vireos (LBVI) were detected in the BSA during 2014 focused surveys. (Wood(a) p.28) A focused survey was also conducted in 2020. Two (2) singing LBVI males were present on May 5, 2020 during the second survey; however, for all subsequent surveys only one male remained throughout the 2020 season. This individual was observed only at the northernmost part of the

survey area and was often seen with a mate. Later in the season, the pair was also seen with a fledgling. (Kidd, p. 10) The 2020 LBVI observation locations are shown on Figure 5.3-3 - Least Bell's Vireo Location Map.

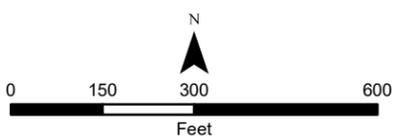
Burrowing Owl

Burrowing owl (*Athene cunicularia*; BUOW) is protected under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code and is a CDFW SSC. Based on the results of the 2018 and 2020 BUOW focused surveys, no BUOW or evidence of recent or historic use by BUOW were observed on the Project site. As a result, BUOW are presumed absent on the Project site (ELMT p. 15). Although no individual BUOW or BUOW sign was observed during the surveys, potentially suitable BUOW burrows were recorded via CNDDDB observations within a five (5) mile radius of the BSA as shown on Figure 5.3-5 – CNDDDB BUOW Observations.



Legend

- Least Bell's Vireo Location 2020
- Property Boundary
- Survey Area (500 ft Buffer)
- Least Bell's Vireo Survey Area
- Site Plan



Source: Bing Aerial Microsoft Corporation 2020, Datum: NAD 83, Coordinate Sytem: State Plane 6

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Least Bell's Vireo Location Map

Figure 5.3-3