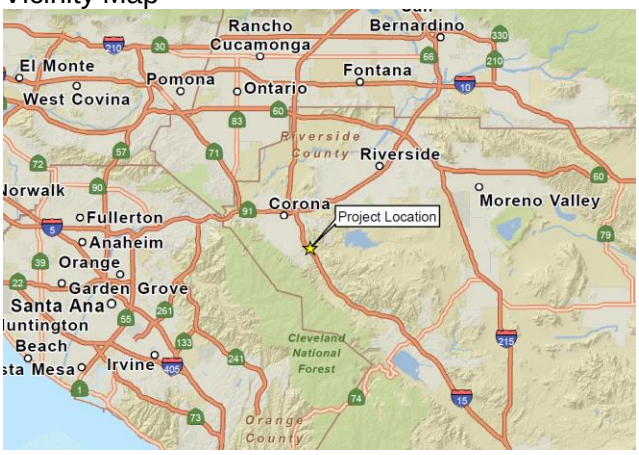
CITY OF CORONA
INITIAL STUDY / MITIGATED NEGATIVE DECLARATION
FOR LATITUDE BUSINESS PARK

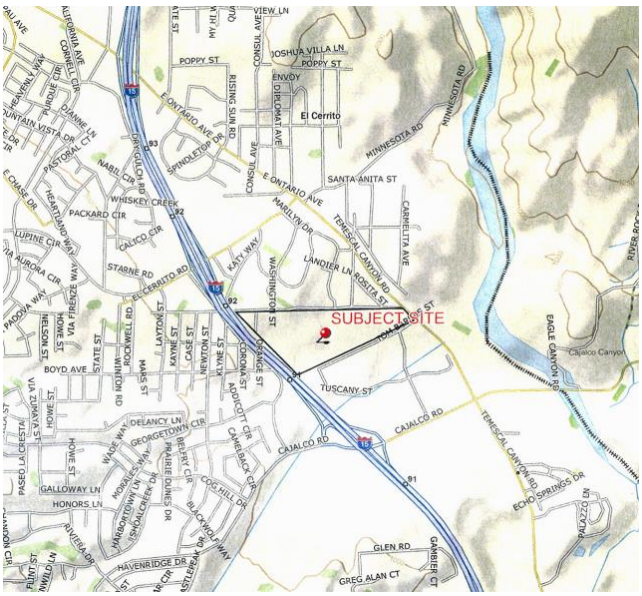
PROJECT TITLE: Precise Plan 2019-0001 (PP2019-0001) and Tentative Tract Map 37608 (TTM 37608)

PROJECT LOCATION: Northwest corner of Tom Barns Street and Temescal Canyon Road, east of Interstate 15, in the city of Corona, County of Riverside (APNs 279-121-004,-005, -006; 279-122-001, -002, -003, and -004; 279-123-001, -002, and -003; 279-125-001, -002, and -004; 279-134-001, -002, -003, and 004; 279-140-001, and -007; 279-231-044.

PROJECT PROPONENT: Latitude Business Park, LLC, 2518 N. Santiago Blvd, Orange, CA 92867

Vicinity Map





PROJECT DESCRIPTION:

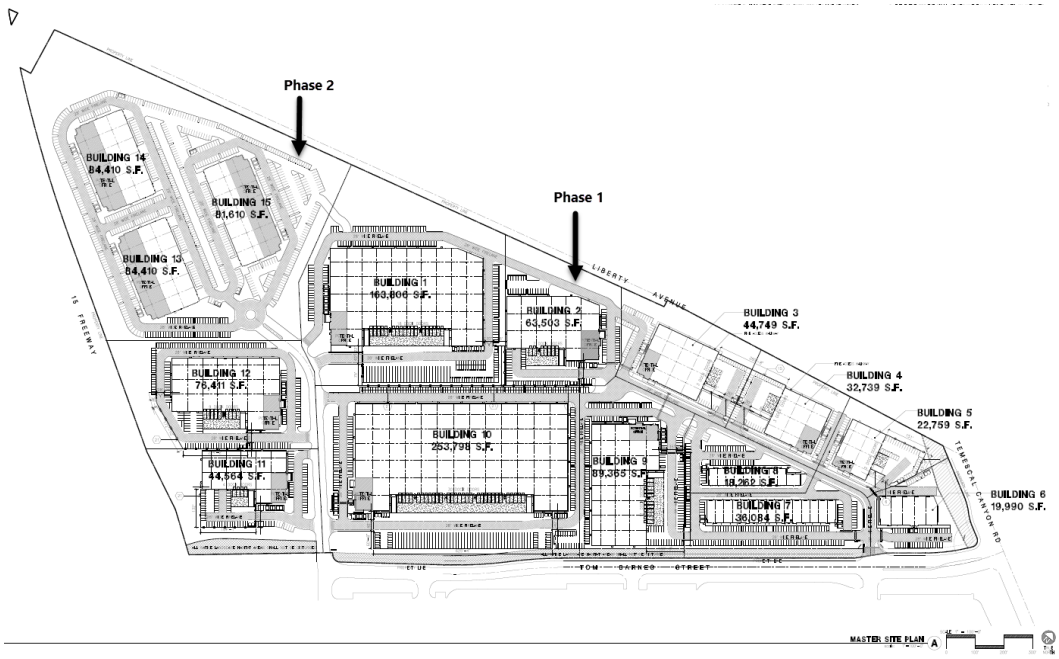
The project under Precise Plan 2019-0001 entails the construction of 15 buildings that will be used for industrial park, light industrial, manufacturing and warehouse with ancillary offices on 75 acres located at the northwest corner of Tom Barns Street and Temescal Canyon Road (project site). TTM 37608 is the subdivision of the project site into 13 lots to create separate parcels for certain buildings. The project site is in the El Cerrito Specific Plan and zoned Light Industrial (LI). The combined building square footage totals 1,074,771 square feet. The square footages based on building use are as follows:

Industrial Park (174,055 square feet): Buildings 3, 4, 5, 6, 7 & 8.
Light Industrial (205,767 square feet): Buildings 13, 14 & 15.
Warehouse (535,205 square feet) and Manufacturing (159,744 square feet) Buildings: 1, 2, 9, 10, 11 & 12.

The project is anticipated to be developed in two phases. Phase 1 covers approximately 46 acres located in the central and easterly portions of the project site and 10 industrial buildings. The total square footage in this phase is about 752,889 square feet. Phase 2 covers the westerly 28 acres located closest to Interstate 15 and 5 industrial buildings. The total building square footage in this phase is about 321,882 square feet.

Ancillary office uses are also considered in the above building square footages. The buildings are speculative with no specific users identified at this time. The exact square footage devoted to office space will be determined on the project's site plan within the square footages noted.

The project will involve the grading of 735,000 cubic yards of cut and 673,000 cubic yards of fill of dirt that will be balanced across the project site. The project site's graded finished condition will result in manufactured cut slopes at a ratio of 1.5:1 on the north and west perimeters facing the project site and 15 graded building pads. The building pads are to accommodate buildings, parking lots and landscaping.



ENVIRONMENTAL SETTING

Aerial View of Project Site

Site Description
The project site is vacant and undeveloped but was once mined for sand. The mining operation ceased in 1997 and the site has since been reclaimed by prior grading operations associated with the reclamation process under the previous surface mine permit. The mass grading associated with the reclamation process left the site with a gently sloping terrain and 2:1 (h:v) cut and fill slopes. The site slopes to the east and towards existing inlets for drainage. An incised drainage course exists along the southerly perimeter of the site and contains native vegetation consisting of annual weeds and grasses, small brush and small trees. The remainder of the site also contains annual grasses and weeds that are maintained annually through fuel modification practices, except for the area within the drainage course. The site overall is approximately 138 feet from above mean sea level at elevations of 832 feet to 970 feet.

Site Surroundings:

The project site is within an urbanized setting and surrounded by existing development. The project site is surrounded by the following land uses.

North: The project site's north perimeter is adjacent to La Gloria Street/Liberty Avenue. The properties north of the project site are in the unincorporated area of Riverside County, but within the city's sphere of influence. Beyond these streets are single family residences however a plant nursery and a manufacture of stone products (such as fountains and other outdoor garden products) are located near the northeast perimeter of the site.

East: Temescal Canyon Road is adjacent to the project site's perimeter with undeveloped land and an improved storage facility located beyond this street.

South: Tom Barns Street is adjacent to the project site's perimeter with The Crossing shopping center located beyond. The shopping center contains about 1.1 million square feet of commercial/retail buildings with associated parking lot and landscaping.

West: Interstate 15 is adjacent to the project site's perimeter with single family residences located beyond.

GENERAL PLAN \ ZONING:

General Plan

The General Plan of the project site is Light Industrial (LI). The city's General Plan was last updated in 2004 and the project site was designated LI under the general plan update. Therefore, no change to the General Plan land use on the project site has occurred since 2004.

Zoning

The project site is within the El Cerrito Specific Plan (SP91-2), which is the document governing the zoning of the project site. The project site is zoned Light Industrial by SP91-2. The LI zone is intended for light manufacturing, light industrial, office and service-related uses.

CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

Per CEQA Guidelines Section 15206 (b)(2)(E), an industrial project is of statewide, regional, or areawide significance if the proposed project meets any of the following criteria:

> *A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupy more than 40 acres, or have more than 650,000 square feet in floor area.*

The proposed project is approximately 75 acres and will have 1,074,771 square feet of building area. Therefore, this initial study/mitigated negative declaration is being submitted to the State Clearinghouse for review and comment.

STAFF RECOMMENDATION:

The City's Staff, having undertaken and completed an initial study of this project in accordance with the City's "Local Guidelines for Implementing the California Environmental Quality Act (CEQA)", has concluded and recommends the following:

___ The proposed project could not have a significant effect on the environment. **Therefore, a NEGATIVE DECLARATION will be prepared.**

__ The proposed project could have a significant effect on the environment, however, the potentially significant effects have been analyzed and mitigated to below a level of significance pursuant to a previous EIR as identified in the Environmental Checklist attached. **Therefore, a NEGATIVE DECLARATION WILL BE PREPARED.**

_X_ The Initial Study identified potentially significant effects on the environment but revisions in the project plans or proposals made by or agreed to by the applicant would avoid or mitigate the effects to below a level of significance. **Therefore, a MITIGATED NEGATIVE DECLARATION will be prepared.**

___ The proposed project may have a significant effect on the environment. **Therefore, an ENVIRONMENTAL IMPACT REPORT is required.**

__ The proposed project may have a significant effect on the environment, however, a previous EIR has addressed only a portion of the effects identified as described in the Environmental Checklist discussion. As there are potentially significant effects that have not been mitigated to below significant levels, a **FOCUSED EIR will be prepared to evaluate only these effects.**

___ There is no evidence that the proposed project will have the potential for adverse effect on fish and wildlife resources, as defined in Section 711.2 of the Fish and Game Code.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The following indicates the areas of concern that have been identified as "Potentially Significant Impact" or for which mitigation measures are proposed to reduce the impact to less than significant.

- ❑ Land Use Planning
- ❑ Population and Housing
- X Geologic Problems
- ❑ Hydrology and Water Quality
- X Air Quality
- X Transportation / Traffic
- X Biological Resources
- ❑ Mineral Resources
- ❑ Hazards / Hazardous Materials
- X Noise
- ❑ Public Services
- ❑ Utilities
- ❑ Aesthetics
- ❑ Cultural Resources
- ❑ Agricultural Resources
- ❑ Greenhouse Gases
- ❑ Tribal Cultural Resources
- ❑ Mandatory Findings of Significance

Date Prepared: January 2, 2020 Prepared By: Joanne Coletta, Community Development Director

Contact Person: Joanne Coletta Phone: (951) 736-2434

AGENCY DISTRIBUTION
(check all that apply)

_____ Responsible Agencies

_____ Trustee Agencies (CDFG, SLC, CDPR, UC)

X State Clearinghouse (all CA agencies)

_____ AQMD

_____ Pechanga

_____ Soboba

_____ WQCB

___X__ SCAG, Riverside County Regional Office3403 10th Street, Suite 805
Riverside, CA 92501

UTILITY DISTRIBUTION

___X____ Southern California Edison

Southern California Edison
Adriana Mendoza-Ramos, Esq.
Region Manager, Local Public Affairs
1351 E. Francis St.
Ontario, CA 91761

Southern California Edison
Karen Cadavona
Third Party Environmental Review
2244 Walnut Grove Ave.
Quad 4C 472A
Rosemead, CA 91770

Note: This form represents an abbreviation of the complete Environmental Checklist found in the City of Corona CEQA Guidelines. Sources of reference information used to produce this checklist may be found in the City of Corona Community Development Department, 400 S. Vicentia Avenue, Corona, CA.

1. LAND USE AND PLANNING:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with any land use plan/policy or agency regulation (general plan, specific plan, zoning)	☐	☐	☐	☒
b. Conflict with surrounding land uses	☐	☐	☐	☒
c. Physically divide established community	☐	☐	☐	☒

Discussion:

a.

The project site is within the boundary of the El Cerrito Specific Plan (SP91-02). The specific plan covers 2,928 acres including the project site. The specific plan zoning for the project site is Light Industry (LI) in Planning Areas 1 and 2. The specific plan governs the land uses and development standards for the project site. The General Plan designation for the project site is Light Industrial. Therefore, the project site's zoning and General Plan are consistent and do not conflict with the city's adopted land use plans.

b.

The intended development of the project site for industrial purposes does not conflict with surrounding land uses. The project site is surrounded by developed land uses that consist of street rights-of-way, single family residences, a nursery, light industrial buildings, an improved outdoor storage facility for recreational vehicles and commercial/retail buildings within a neighboring regional commercial shopping center. The project site would be developed in accordance with the development standards established for the LI designation which includes required building setbacks to property lines, landscaping requirements, maximum building heights, equipment screening and parking. Additionally, the developed pads on the project site will on average be 47 feet lower than the residential properties to the north (the westerly portion of the project site will be approximately 65 feet lower than the adjacent properties with the easterly portion being approximately 26 feet lower). Where the northeasterly perimeter of the project site is across from the nursery and industrial buildings the graded pad elevations on average will be 2.5 feet lower. The northerly area of the project site having the greatest difference in elevation will include an inward facing manufactured slope covered with landscaping. Therefore, the landscaping along this manufactured slope will provide suitable buffering to the residential properties and is not considered to have an impact.

c.

The project site is undeveloped and vacant and is adjacent to streets on the north, east and south sides and Interstate 15 to the west. Therefore, the project will not divide an established community and is not considered an impact.

2. POPULATION AND HOUSING:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Induce substantial growth	☐	☐	☐	☒
b. Displace substantial numbers of existing housing or people	☐	☐	☐	☒

Discussion:

a.

The project site being developed for light industrial purposes and would not induce substantial population growth in the city. The project would increase the city's service population, but not the city's overall residential population. Therefore, this is not considered an impact.

b.

The project would not displace existing housing or people as the site is undeveloped and vacant of structures. Therefore, this is not considered an impact.

3. GEOLOGIC PROBLEMS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fault /seismic failures (Alquist-Priolo zone) /Landslide/Liquefaction	☐	☐	☐	☒
b. Grading of more than 100 cubic yards	☐	☒	☐	☐
c. Grading in areas over 10% slope	☐	☒	☐	☐
d. Substantial erosion or loss of topsoil	☐	☒	☐	☐
e. Unstable soil conditions from grading	☐	☒	☐	☐
f. Expansive soils	☐	☒	☐	☐

Discussion:

a.

The project site is not located within the presently defined boundaries of an Alquist-Priolo Earthquake Fault zone (Corona General Plan, 2004) or a county of Riverside fault hazard zone (County of Riverside GIS website, 2018). Active fault zones regional to the project site include the Chino-Central Avenue fault, the Elsinore fault, and the Whittier fault, but none of those are active faults transecting the project site. The risk of surface rupture from active faults is considered negligible because of the absence of known active faults on the site. However, ground cracks can and do appear on sites due to strong seismic shaking associated with earthquakes, imperfections in subsurface strata, and the expansive nature of some soils near the ground surface. Therefore, the possibility of minor cracks in the ground surface are likely but not significant. Therefore, this is not considered an impact.

b & c.

The project site in addition to the adjacent 113.5 acres to the south was formerly mined for sand under Surface Mining Permit No. 109 issued by Riverside County in 1978. The mining operations ceased in 1997. The 113.5 acres to the south have since been developed as a regional shopping center consisting of 1.16 million square feet of building area with associated parking and landscaping. As part of the mining reclamation process on the project site, approximately 800,000 cubic yards of dirt was mass graded across the site. Presently, the project site gently slopes to the east and toward existing drainage inlets. An incised drainage course existing along the southerly perimeter of the project site and contains annual weeds and grasses and numerous brush and small trees. The project site will once again need to be graded to accommodate precise building pads associated with the project, which involves 735,000 cubic yards of cut and 673,000 cubic yards of fill across the site. The buildings on the project site will be of typical concrete tilt-up construction with the buildings being no greater that two stories. Based on the geotechnical investigation performed on the project site and the grading anticipated for the project, the building pads are anticipated to be either fill or transition pads that will require overexcavation and recompaction. If imported soil is necessary to balance the site for the creation of certain building pads, the process should be observed and approved by the soil engineer to verify compliance with project specifications in accordance with approved grading plans. Therefore, mitigation

is necessary to ensure this impact is less than significant. (Mitigation Measure 3-1).

d & e.

The geotechnical investigation done by South Shore Testing and Environmental (October 2018) on the project site used historical data and previous geotechnical reports performed on the project site. Due to the previous mining three pit ponds were created in the central portion of the project site but were filled during the reclamation process. The following provides a brief description of the geological units underlying the site that are considered pertinent to the proposed development.

Undocumented Fill

Pond 1 shown on the mining reclamation plan reportedly had undocumented fill left-in place and a surcharge fill with a minimum thickness of 20 feet was constructed where existing undocumented fills were left-in place. Settlement monuments were constructed to monitor settlement beneath the surcharge fills. The monitoring continued from August 2005 to February 2012, when a fire destroyed the monitoring equipment. Based on the latest sets of settlement data collected from the monitoring system it was determined that the surcharged induced settlement appeared complete. The surcharge soils were removed and used to fill in the remaining low areas of Pond 3 and the disposal area.

Engineered Fill

Areas of compressible soils underlying the subject site were removed and replaced with engineered fill. Engineered fill includes most of the project and extends to a depth of approximately 40 feet to over 140 feet below grade surface (bgs). The fill consists predominately of silty Sand, clayey Sand and sandy Clay and is considered suitable for support of structural fills or structures.

Colluvium

Colluvial soils have been mapped at the ground surface on the northwesterly portion of the site. This soil reportedly consists of silty Sand, clayey Sand, and sandy Clay that is not considered suitable for structural fills or structures with recompaction. The preliminary mass grading plan for the project anticipates this soil to be removed during mass grading operations.

Older Alluvium

Older alluvium was encountered at shallow depths on the easterly portions of the site overlying granitic bedrock. This soil is overlain approximately 30 feet of engineered fill and generally consisted of sandy Silt. Where undisturbed this soil is dense and suitable for support of structural fills or structures.

Silverado Formation

Sedimentary bedrock units of the Silverado formation underlie most of the site at depths varying from 40 feet to 140 feet and is exposed at the ground surface on the westerly portion of the project site. This soil is usually fine-grained silty sandstone with frequent sandy siltstone and siltstone interbeds.

Granitic Bedrock

Granitic bedrock is anticipated to underlie the project site at depths encountered on the easterly portion of the site. Where undisturbed this bedrock is dense and suitable for support of structural fills or structures.

Based on the project's geotechnical investigations (SST&E, 2018), development of the project site is feasible and safe from a geotechnical standpoint provided that certain mitigation measures contained within the investigation report are implemented during the design and construction of the project. Therefore, the implementation of MM 3-1 noted above and MM 3-2 reduces potential geological impacts to less than significant.

f.

The project's geotechnical investigation indicates there was an observation, classification and previous testing that indicate near surface soils have a medium expansion potential (Expansion Index of 50 & 86) consisting of plastic clayey Sand and silty Clays. To reduce the potential for heave of finish grade, it was previously recommended that soil exhibiting an expansion index greater than 50 be removed from the upper 4 feet of finish pad grade. Therefore, mitigation is recommended to ensure this potential impact remains less than significant (MM 3-3)

Mitigation Measures

MM 3-1

On-site grading shall be done according the recommendations of the preliminary geotechnical investigation prepared by South Shore Testing and Environmental (October 2019). Recommendations include: a) site specific grading instructions contained

in Appendix C of the report which covers site preparation, compacted fills, cut slopes, trench backfills and grading controls, b) structural fill placed in pad areas should be suitably processed by moisture conditioning to near optimum moisture content, then compacted in the upper 12-inches to the minimum compaction requirement prior to placing fill; and c) no structural fill shall be placed within the building areas on any ground without first being observed by licensed civil engineer or geologist and that written certification be provided that the ground is competent and prepared to receive fill.

MM 3-2

Corrosivity suite testing should be performed at the completion of rough grading including soluble sulfate, chloride, PH, and resistivity testing to determine the type of concrete to be utilized on-site.

MM 3-3

During the grading of the project site testing of the subgrade soils should be conducted to evaluate the expansive nature of the subgrade soils. If highly expansive soils are discovered, overexcavation of the slope face should occur and shall be replaced with very low to medium expansion soils during grading. This evaluation shall be monitored and evaluated by the project's licensed civil engineer and/or geotechnical/soil engineer. The foundation design parameters should be developed specific to the design of the final foundation scheme at the completion of grading.

4. HYDROLOGY AND WATER QUALITY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than significant Impact	No Impact
a. Violate water quality standards/waste discharge requirements	☐	☐	☐	☒
b. Deplete groundwater supplies	☐	☐	☐	☒
c. Alter existing drainage pattern	☐	☐	☐	☒
d. Increase flooding hazard	☐	☐	☐	☒
e. Degrade surface or ground water quality	☐	☐	☐	☒
f. Within 100-year flood hazard area	☐	☐	☐	☒
g. Increase exposure to flooding	☐	☐	☐	☒
h. Exceed capacity of storm water drainage system	☐	☐	☐	☒

Discussion:

a.

A preliminary water quality management plan (WQMP) was prepared by LDDC (2019) for the project site. The project site will be improved with an on-site drainage system that will treat/filter off-site flows coming across the project site and on-site flows before being discharged into the city's public storm drain. Water treatment will be done through the modular wetlands being created on the project site. The modular wetlands are located in areas throughout the project site and in the path of water flows. The modular wetlands are a biofiltration system that flushes out pollutants picked up from surface runoff occurring across impervious surface, such as asphalt from parking lots. These types of surfaces normally have oil residue and other types of pollutants that are captured with water runoff. Therefore, before the water is discharged into the underground retention box and the discharged into the city's public storm drain, the modular wetlands are designed to filter out and capture the pollutants. As part of the issuance of a grading permit, the applicant is required to comply with the their approved WQMP.

The city's Public Works inspector also inspects the project site for compliance with the WQMP during the on-site grading process and at the time of project completion. Therefore, the project will not impact or violate water quality standards.

b.

The project's construction and operation are not expected to come in contact with groundwater resources that would require groundwater resources to be pumped from the site. Pursuant to CEQA Guidelines Section 15155, the project meets the criteria as a water demand project and therefore requires the preparation of a water supply analysis. An industrial project is defined as a water demand project if: a) the project would house more than 1,000 persons, b) occupy more than 40 acres, or c) have more than 650,000 square feet in floor area. Based on the project's site plan, the project site is approximately 75 acres and will have 1,074,771 square feet of building area. The city's water resources are derived from groundwater basin. Discussion on groundwater resources and the availability of water resources are discussed under Section 12 (d) (sufficient water supply/compliance with UWMP) of this initial study. The project will not deplete groundwater resources and therefore this is not an impact.

c, d, g & h.

The project site accepts water flows from the north from a tributary area of approximately 18 acres. No tributary flows come from the freeway right-of-way nor from the rights-of-way on Tom Barns Street and Temescal Canyon Road. The project is designed to accept off-site runoff from the north which will bypass the project site through proposed underground storm drains that will accept flow from proposed on-site catch basin inlets that discharge into modular wetlands for treatment and then into underground retention boxes. The modular wetlands are placed next to the underground retention boxes which are strategically located in the parking lot serving the industrial building. The project is anticipated to have 14 retention boxes and modular wetlands spread across the project site. The overflows of these on-site retention boxes will discharge into a proposed underground storm drainage system that discharges into the public storm drain in Tom Barns Street. An existing box culvert running from Interstate 15 takes the water flow through Tom Barns Street and continues southeasterly across Temescal Canyon Road toward the Temescal Creek.

The hydrology study (LDDC, 2019) prepared for the project calculated storm water runoff using Corona rainfall data. Off-site runoff was assumed to be 40% impervious area for single family residential, the project site was assumed to be commercial using approximately 90% impervious area in most subareas and the graded slopes were assumed to have 80% impervious area. Based on the modeled formula used in the hydrology study, the volume of stormwater runoff generated by post development of the project site increases from the volume under existing conditions. However, the volume of retention provided by the proposed underground retention boxes is greater than the increase anticipated from stormwater runoff; therefore, the project will not increase the volume of stormwater discharge. Due to the design of the on-site drainage system and the existing public storm drain systems constructed off-site, the project site is designed to properly accept water flow across the site and will not result in increased flooding hazards on-site or in the surrounding area. Therefore, this is not an impact.

e.

The water quality management plan discussed in the above sections for the project is intended to prevent pollutants from being passed through surface water and groundwater. Implementation of the water quality control measures described by the project's WQMP will prevent the degrade of surface and ground water quality and therefore this is not considered an impact.

f.

The project site is not mapped within a 100-year flood zone (Corona General Plan 2004, Figure 5.2-1). Therefore, the project will not have a flood hazard impact. Additionally, as described above in the previous sections, the project will have proper drainage infrastructure constructed on the site that will divert water flow into the city public storm drain.

5. AIR QUALITY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with air quality plan	☐	☐	☐	☒
b. Violate air quality standard	☐	☐	☐	☒

c. Net increase of any criteria pollutant	☐	☐	☐	☒
d. Expose sensitive receptors to pollutants	☐	☒	☐	☐
e. Create objectionable odors	☐	☐	☒	☐

Discussion:

a, b, c & d.

An Air Quality Assessment was prepared by Ldn Consulting, Inc. (June 2019) for the project. The air quality assessment was prepared to determine the project's compliance with the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (AQMP). The SCAQMD has jurisdiction over an area of approximately 10,743 square miles, consisting of the South Coast Air Basin (SCAB), and the Riverside County portions of the Salton Sea Air Basin (SSAB) and Mojave Desert Air Basin (MDAB). The district prepares Air Quality Management Plans (AQMP) to demonstrate how the region will reduce air pollution emissions to meet the federal and state health-based standards to comply with Clean Air Act requirements and will be ultimately a part of the SIP. SCAQMDs latest adopted AQMP was adopted in March of 2017 (SCAQMD, 2017).

More specifically, the AQMP identifies the path South Coast Air Basin must take for the attainment of federal PM and ozone standards, and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria pollutant standards within the timeframes allowed under the federal Clean Air Act. The City of Corona lies within the SCAB. The SCAQMD is the government agency, which regulates sources of air pollution within the City of Corona.

To determine whether a project would create potential air quality impacts, the City of Corona uses South Coast Air Quality Management District's (SQAQMD) Air Quality Thresholds. The screening thresholds for construction and daily operations are shown below in Table 5-1.

Table 5-1
Screening Threshold for Criteria Pollutants

Pollutant	Total Emissions (Pounds per Day)
Construction Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	150 and 55
Nitrogen Oxide (NO_x)	100
Sulfur Oxide (SO_x)	150
Carbon Monoxide (CO)	550
Volatile Organic Compounds (VOCs)	75
Operational Emissions	
Respirable Particulate Matter (PM_{10} and $PM_{2.5}$)	150 and 55
Nitrogen Oxide (NO_x)	55
Sulfur Oxide (SO_x)	150
Carbon Monoxide (CO)	550
Lead and Lead Compounds	3.2
Volatile Organic Compounds (VOCs)	55

Criteria pollutants are measured continuously throughout the SCAB. This data is used to track ambient air quality patterns throughout the surrounding area. This data is also used to determine attainment status when compared to the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The SCAPCD is responsible for monitoring and reporting monitoring data. The District operates approximately 30 monitoring sites that collected data on criteria pollutants within the SCAB. Ambient Data was obtained from the California Environmental Protection Agency's Air Resources Board Website (California Air Resources Board, 2018). Table 5-2 identifies the closest criteria pollutants monitored to the project as well as identifies the relative distance to the project site. The Lake Elsinore monitoring station is located approximately 16 miles from the proposed project site.

Table 5-2
Three Year Ambient Air Quality Summary (Monitoring Closest to Project Site)

Pollutant	Ambient Monitoring Site	Averaging Time	CAAQS	NAAQS	2015	2016	2017
O_3 (ppm)	Lake Elsinore	1 Hour	0.09 ppm	-	0.131	0.124	0.121
	Lake Elsinore	8 Hour	0.070 ppm	0.075 ppm	0.098	0.093	0.098
PM_{10} ($\mu g/m^3$)	Lake Elsinore	24 Hour	50 $\mu g/m^3$	150 $\mu g/m^3$	90.7	99.7	134.1
	Lake Elsinore	Annual Arithmetic Mean	20 $\mu g/m^3$	-	20.1	22.4	23.6
$PM_{2.5}$ ($\mu g/m^3$)	Lake Elsinore	24 Hour	-	35 $\mu g/m^3$	41.7	31.5	27.2
	Lake Elsinore	Annual Arithmetic Mean	12 $\mu g/m^3$	15 $\mu g/m^3$	-	9.7	11.3
NO_2 (ppm)	Lake Elsinore	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	0.008	0.008	0.008
	Lake Elsinore	1 Hour	0.18 ppm	-	0.047	0.051	0.049
All ambient emissions reported are assumed to be taken by the district in compliance with both the NAAQS and CAAQS. Methodologies for those measurements are discussed in Table 2.1 of this report.							

The SCAQMD also created methodology for calculating Localized Significance Thresholds (LSTs) for NO2, CO, PM2.5 and PM10. The LST methodology is to be used as a tool to assist lead agencies in analyzing localized impacts associated with site specific project proposals. The LST methodology is often used in the preparation of CEQA documents to determine localized impacts from a project. SCAQMD developed mass rate look-up tables for projects less than five acres to assist local agencies with the development of LSTs, however LST guidelines recommend project specific air quality dispersion modeling for projects greater than five acres (South Coast Air Quality Management District, 2014). Air dispersion modeling utilizing AERMOD Version 18081 is the preferred dispersion modeling. The software has the ability to incorporate meteorological inputs as well as multiple source and receptor locations and is now used throughout the world.

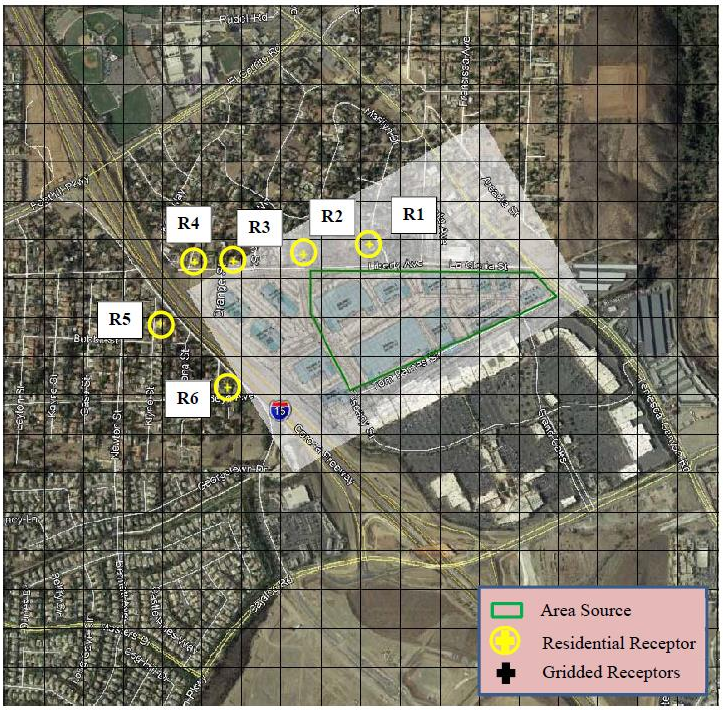
Per the requirements of SCAQMDs LSTs methodology, emissions for gases in attainment such as NO2 and CO are calculated by adding emission impacts from the project development to the peak background ambient NO2 and CO concentrations and comparing the total concentration to the most stringent ambient air quality standards. Also, according to SCAQMD Rule 403, emissions for non-attainment particulate matter such as PM 10 and PM 2.5 can produce no more than 10.4 µg/m3. Demonstrating a projects compliance with SCAQMD screening thresholds demonstrate compliance with SCAQMDs AQMP and is critical to ensuring less than significant impacts when it comes to evaluating if a project will conflict with an air quality plan or violate an air quality standard under CEQA.

The project's air quality assessment (Ldn Consulting 2019) assessed emissions for both project construction related activities and project operational related activities. The results of those assessments are described in the following.

Project Construction Emissions

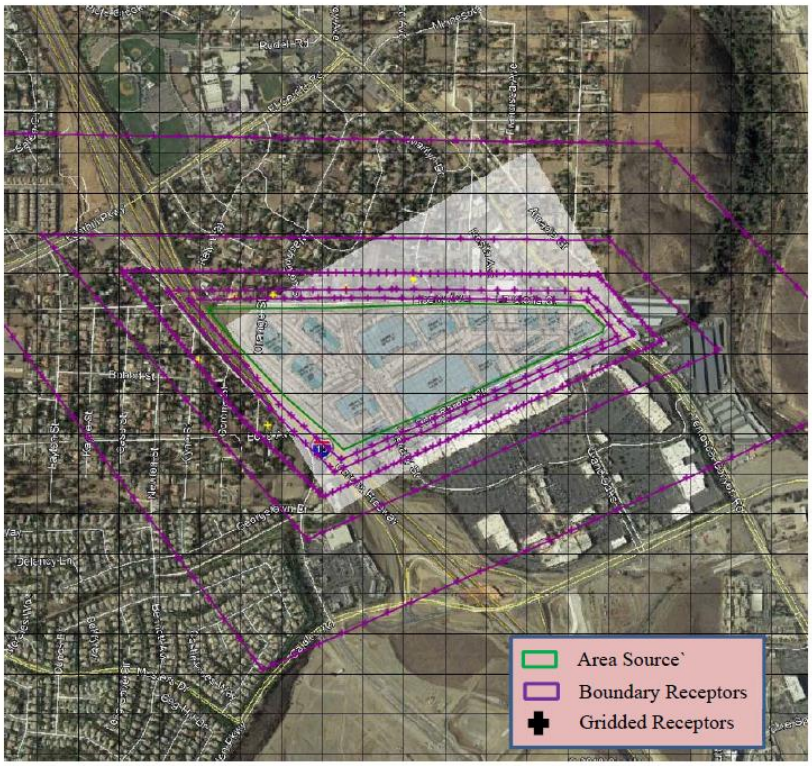
The project's air quality assessment describes in detail the methodology used in determining air quality impacts related to project construction. In summary, project construction emissions were calculated using the latest CalEEMod air quality model, which was developed by ENVIRON International Corporation for SCAQMD. The construction module in CalEEMod calculates the emissions associated with the construction of the project using methodologies presented in the US EPA AP-42 document with emphasis on Chapter 11.9. Air dispersion modeling utilizing AERMOD Version 18081 is the preferred dispersion modeling software used within this analysis. A graphical representation of the modeling locations is shown below in Figure 5-1. The grid represents a receptor matrix used by AERMOD to calculate emission contours. Also, four sensitive receptors were added to determine annual diesel exhaust emissions at discrete sensitive receptor locations (nearest homes) and are represented by yellow circles. The proposed project would be built out in two phases however for purposes of a worst-case analysis, the project was analyzed over one phase. Using AERMOD the dispersed concentrations of diesel particulates are estimated at the nearest residential homes and are used to evaluate estimated risk exposure. Exposure is evaluated by calculating the dose in milligrams per kilogram body weight per day (mg/kg/d). For residential exposure, the breathing rates are determined for specific age groups, so inhalation dose (Dose-air) is calculated for each of the following age groups: a) 3rd trimester, b) 0<2, c) 2<9, d) 2<16, e)16<30 and f) 16-70 years.

Figure 5-1
Receptor Modeling Locations



Localized Threshold Construction Impacts (LSTs) were also calculated for the project during construction. The AERMOD dispersion model was used to calculate project level air quality emissions for NOx, and PM10 emissions, which used an area source method with an area equal to the project boundaries and a source height of 3 meters. A series of concentric boundary receptors (Purple Polygons) was then utilized which represents the typical distances used by SCAQMD to calculate LSTs. The layout of the area source modeling and boundary sources are shown below in Figure 5-2.

Figure 5-2
AERMOD Area Source Modeling and Boundary Sources



Construction dates for the project were estimated to initially occur in early 2020 with the movement of earthwork estimated to take about 3 months. Once the earthwork is completed, the project would pave roads and start on-site building construction. Buildout of the project was expected to be in mid-2021 as a worst-case assumption. Table 5-3 shows the expected timeframes for the project's construction phases, which includes project infrastructure, facilities, improvements and industrial buildings at the project site as well as the expected number of pieces of construction equipment.

Table 5-3
Construction Phasing

Equipment Identification	Proposed Start	Proposed Completion	Quantity
Site Preparation	01/01/2020	01/14/2020	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	01/15/2020	02/25/2020	
Excavators			2
Graders			1
Rubber Tired Dozers			1
Scrapers			2
Tractors/Loaders/Backhoes			2
Paving	02/26/2020	03/24/2020	
Pavers			2
Paving Equipment			2
Rollers			2
Building Construction	03/25/2020	05/18/2021	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coating	08/12/2020	05/18/2021	
Air Compressors			1
This equipment list is based upon equipment inventory and estimates within CalEEMod 2016.3.2.			

Project Construction Emission Results

The calculated emissions for project construction are shown below in Table 5-4. Based on the established thresholds established by the District's AQMP, the project would not exceed daily emissions during the project's construciton phases.

Table 5-4
Expected Project Construciton Emissions

Year	ROG	NO_x	CO	SO_2	PM_{10} (Dust)	PM_{10} (Exhaust)	PM_{10} (Total)	$PM_{2.5}$ (Dust)	$PM_{2.5}$ (Exhaust)	$PM_{2.5}$ (Total)
2020 (lb/day)	27.07	50.26	36.83	0.10	18.27	2.20	20.47	9.98	2.02	12.01
2021 (lb/day)	26.65	31.46	35.08	0.10	4.90	1.11	6.01	1.32	1.05	2.36
Significance Threshold (lb/day)	**75**	**100**	**550**	**150**	-	-	**150**	-	-	**55**
Exceeds Screening Threshold	**No**	**No**	**No**	**No**	-	-	**No**	-	-	**No**

The project's air quality assessment also did a health risk assessment for project construction. Based on the modeling used for the assessment, PM10 from onsite construction equipment would cumulatively produce 0.01095 tons over the construction duration (503 calendar days) or an average of 0.00023 grams/second. It should be noted that the modeling assumed Tier 4 equipment would be used during construction. Tier 4 refers to the latest emission milestone established by the U.S. Environmental Protection Agency and the California Air Resources Board applicable to new engines found in off-road equipment including construction, mining and agricultural equipment, and stationary engines found in industrial and power generation applications. As of January 1, 2014, these emissions standards apply to new engines that power equipment commonly found in most construction and agricultural applications. Tier 4 compliant engines significantly reduce emissions of particulate matter (PM) and oxides of nitrogen (NOx) to near zero levels. Relative to previous emissions standards, Tier 4 compliant engines reduce emissions by over 95 percent for most agricultural and construction equipment.

The average emission rate over the grading area is 8.61x10-10 g/m2/s, which was calculated as follows:

$$\frac{0.00023\frac{grams}{second}}{66acres * 4{,}046\frac{meters^2}{acre}} = 8.61 * 10^{-10}\ \frac{\frac{grams}{meters^2}}{second}$$

Utilizing the AERMOD dispersion model, the peak maximum concentration is 0.0299 µg/m3 at the nearest residential receptor to the north during the worst-case construction period. Therefore, utilizing the risk equation identified in the project's air quality assessment, the inhalation cancer risk for 70 years is 7.24 which will not exceed the 10 in one million thresholds. Therefore, the project is not considered to have a health risk during construction. To ensure this risk remains less than the significant, MM 5-1 is required for the project.

The LST methodology used for project construction incorporated background ambient air quality data. The project's air quality assessment utilized the AERMOD dispersion model for these calculations using an urban setting to determine project level emissions for NOx and PM10. Emissions were calculated utilizing multiple point sources over the project site. Total construction emissions were used as taken from CalEEMod and were normalized to the corresponding averaging time used by CAAQS methodology. An offset group of receptors were used consisting of concentric points outwards at 25, 50, 100, 200 and 500 meters were used however for purposes of graphing a 50-meter spaced discreet receptor grid was included. Also, Tier 4 equipment was also assumed to be used in this calculation.

The results showed worst case NOx and PM10 would cumulatively produce 0.5381 and 0.2313 tons respectively over the construction duration of 503 construction days. The average rate over the project area is 0.0112 and 0.0048 grams per second or 6.08 x10-8 g/m2/s and 2.61 x10-8 g/m2/s for each pollutant during the construction day and was modeled as such within AERMOD. Furthermore, the emission output plots are shown in the project's air quality assessment (Ldn Consulting, Figures 4-B and C). Based on the calculations, it was determined the project would not result in emissions that would exceed the LST. Therefore, with the implementation of MM-5-1, this is not considered a less than significant impact. Table 5-5 shows the unmitigated results from AERMOD.

Table 5-5
AERMOD Modeling Results during Project Construction (unmitigated)

Pollutant	Averaging Time	Threshold	Background Ambient Air Quality Data		LST (µg/m3)	Project Contribution (µg/m3)					Sig.?
			Data	(µg/m3)		25 (m)	50 (m)	100 (m)	200 (m)	500 (m)	
NOx	1 Hour	0.18 ppm (339 µg/m³)	0.051 ppm	96.9	245.1	20.7	20.7	18.7	16	12.7	No
PM_{10}	24 Hour	10.4 µg/m3	134.1 µg/m³	134.1	10.4	2.1	2.0	1.6	1.2	0.67	No

Operational Emissions

The proposed project would generate emissions from daily operations which would include sources such as Area, Energy, Mobile, Waste and Water uses, which are also calculated within CalEEMod. Area Sources include consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas. Finally, mobile or transportation related emissions are calculated in CalEEMod through the use of EMFAC2014. The operational model is provided in the project's air quality assessment as Attachment A (Ldn Consulting, 2019). At the time the air quality assessment was prepared, the project's traffic impact analysis used an initial project building square footage of 1,124,290 square feet. Since the preparation of the air quality assessment, the project's building square footage was reduced to 1,074,771 square feet. Therefore, mobile or transportation related emissions assessed for the project use slightly greater assumed vehicle trips when compared to the revised project. Based on the initial traffic impact analysis prepared for the project, the traffic engineer estimated 4,127 daily trips. These trips were further broken down into anticipated land uses on the project site and trip generation rates were then calculated based on the assumed land uses for light industrial, industrial park, manufacturing and warehouse. These traffic numbers were utilized within the CalEEMod analysis.

The model estimates emission predictions for ROG, NOx, CO, SO2, PM10 and PM2.5 for area source assumptions.

<u>Project Operational Emission Results</u>

Project operational emissions are shown below in Table 5-6. Based on the calculated results, the project will not exceed daily pollutant thresholds and would not result in significant impacts related to operational emissions.

Table 5-6
Expected Daily Pollutant Generation

	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Summer Scenario						
Area Source Emission Estimates (Lb/Day)	24.13	0.00	0.12	0.00	0.00	0.00
Energy Source Emissions (Lb/Day)	0.09	0.83	0.69	0.00	0.06	0.06
Operational Vehicle Emissions (Lb/Day)	7.09	35.02	95.55	0.36	30.21	8.26
Total with Design Features (Lb/Day)	**31.31**	**35.85**	**96.36**	**0.36**	**30.27**	**8.32**
SCAQMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Winter Scenario						
Area Source Emission Estimates (Lb/Day)	24.13	0.00	0.12	0.00	0.00	0.00
Energy Source Emissions (Lb/Day)	0.09	0.83	0.69	0.00	0.06	0.06
Operational Vehicle Emissions (Lb/Day)	6.80	35.79	89.69	0.34	30.21	8.27
Total with Design Features (Lb/Day)	**31.02**	**36.61**	**90.50**	**0.35**	**30.27**	**8.33**
Significant?	**No**	**No**	**No**	**No**	**No**	**No**
Daily pollutant generation assumes trip distances within CALLEEMOD 2016.3.2						

e.
The project can potentially create onsite odor generators associated with construction, such as asphalt paving and painting. However, these odors are considered short term and would cease once construction is completed. Therefore, due to the short- term nature of potential odors, this is not considered an impact.

Mitigation Measure.

MM 5-1.

The project shall use Tier 4 diesel construction equipment during project construction. The project's grading plans shall clearly note the use of this equipment.

6. TRANSPORTATION/TRAFFIC:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system	☐	☒	☐	☐
b. Conflict of be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)	☐	☐	☐	☒
c. Increase the total daily vehicle miles traveled per service population (population plus employment) (VMT/SP) above the baseline level for the jurisdiction	☐	☐	☐	☒
d. Cause total daily VMT within the study area to be higher than the No Project alternative under cumulative conditions	☐	☐	☐	☒

e. Change in air traffic patterns	☐	☐	☐	☒
f. Traffic hazards from design features	☐	☒	☐	☐
g. Emergency access	☐	☐	☐	☒
h. Conflict with alternative transportation policies	☐	☐	☐	☒

Discussion:

a & h.

The project site is adjacent to existing roadways for Temescal Canyon Road and Tom Barns Street. Tom Barns Street is a fully improved local street and has a right-of-way width of 100 feet east of Grand Oaks. Tom Barns Street transitions to a 64-foot right-of-way west of Grand Oaks. Curb, gutter and sidewalks exist on both sides of the street.

Temescal Canyon Road adjacent to the project site is partially improved. The unimproved portion of the street adjacent to the project site will be improved to the city's arterial street standard for four lanes. The project will adhere to the city's street standards and will not affect the public transportation routes along Temescal Canyon Road nor conflict with alternative transportation policies. Therefore, this is not an impact.

Intersection Queue Length Analysis

To assess stacking/storage lengths at the intersection of Temescal Canyon Road at Tom Barns Street, a queuing evaluation was prepared by LL&G Engineers for the following movements:

- Eastbound Left-Turn/Through
- Eastbound Right-Turn

The queue analysis looked at the minimum required stacking/storage lengths for the turn lanes at Temescal Canyon Road and Tom Barns Street. The analysis considered existing conditions with project, Year 2022 with project, and Year 2040 with project traffic conditions. Based on the level of service anticipated by this project, the existing eastbound left-turn/through storage of 130 feet is not sufficient in the PM peak hour at the intersection of Temescal Canyon Road at Tom Barnes Street under existing conditions with the project. In Year 2022 with the project the existing eastbound left-turn/through storage of 130 feet is not sufficient to accommodate the forecast peak queue of 283 feet in the PM peak hour. Therefore, it is recommended that the eastbound approach be restriped to extend the existing left-turn/through pocket into the No. 1 eastbound through lane, which will create an eastbound left-turn/through storage of 360 feet. This recommended design improvement is being added as mitigation to ensure the future performance of the circulation system is not impacted. (MM 6-1)

In Year 2040 with the project the eastbound storage is sufficient for all lanes to accommodate the forecast peak queues with the addition of planned improvements that would create a combined storage of 490 feet for the eastbound left-turn and through movements. These improvements would include restriping the west leg to provide the eastbound approach with an exclusive eastbound left-turn lane, a shared eastbound left-turn/through lane, and an exclusive eastbound right-turn lane and removing the crosswalk along the south leg. The existing traffic signal is recommended to be modified to include split phasing for the east/west direction. The applicant's fair share cost toward this future improvement is being added as mitigation to ensure this impact is less than significant (MM 6-2).

The project's TIA also assessed the intersection of Temescal Canyon Road at Cajalco Road. It was noted in the study that the northbound left turn queue can be reduced from approximately 580 feet to 380 feet with the restriping of the northbound approach to provide three left-turn lanes, one through lane, and one northbound exclusive right-turn lane.

b, c & d

The Program EIR for the city's 2004 General Plan Update included build-out projections of the project site in addition to other undeveloped properties in the city in order to determine ultimate growth in a build-out condition. The 2004 General Plan Update broke down the city by Traffic Analysis Zones, commonly referred to as TAZ to determine the ultimate build-out potential of undeveloped property. The TAZ provides a micro analysis of properties as opposed to a citywide macro analysis. The transportation technical analysis used in the 2004 General Plan Update expressly included the project site within TAZ "t21". TAZ "t21" covered 193 acres, which includes 80 acres on the project site and 113 acres on the neighboring property to

the south. The project site in 2004 was assumed to have a build-out condition of 1,100,000 million square feet of industrial. The adjacent property to the south was assumed to have a build-out condition of 1,236,668 million square feet of commercial. The property to the south has since been developed with 1.16 million square feet of commercial/retail buildings, which is 76,668 square feet less than anticipated by the 2004 General Plan Program EIR. That development is part of a regional shopping center known as The Crossings.

The 2004 General Plan Program EIR assessed transportation impacts using Level of Service (LOS) standards. Intersections as well as certain roadway links, were studied as part of the 2004 General Plan Program EIR to determine LOS in existing conditions at the time the General Plan was prepared and LOS in build-out conditions in Year 2020. Since the adoption of the 2004 General Plan, recent state legislation was enacted by Senate Bill 743 that changes the way transportation impacts are identified and measured under CEQA. SB 743 requires that transportation impacts be measured by vehicle miles traveled (VMT) rather than level of service (LOS), which is the measurement that was used in the 2004 General Plan Program EIR. SB 743 becomes effective July 1, 2020, but local agencies can adopt local CEQA Guidelines implementing VMT thresholds prior to that date. The city's adopted 2019 Local CEQA Guidelines established thresholds for transportation impacts using VMT in lieu of LOS.

Although the city has adopted VMT thresholds pursuant to SB 743, as explained above, the project site was analyzed in the Program EIR for the 2004 General Plan Update. With respect to the environmental analysis required for later activities contemplated by a program EIR, CEQA Guidelines Section 15168(c)(1), provides as follows",

> *Later activities in the program must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared.*
>
> *(1) If a later activity would have effects that were not examined in the Program EIR, a new initial study would need to be prepared leading to either an EIR or a negative declaration. That later analysis may tier from the Program EIR as provided in Section 15152.*

The 2004 General Plan Program EIR showed the General Plan land use designation for the project site as light industry and calculated vehicle trips and level of service impacts in TAZ "t21" based on that assumption. The project, as proposed, does not change the General Plan land use designation and the project site is being developed in accordance with the build-out projections anticipated within TAZ 't21". The project proposes the development of 1,074,771 square feet of industrial buildings, which is 25,229 square feet less than the build-out projections assumed in the TAZ "t21". Therefore, because the vehicle trips anticipated for the proposed project were analyzed in the 2004 General Plan Program EIR and the proposed project maintains consistency with the 2004 General Plan, a full VMT analysis was not required for the project and the project's build-out is below the assumed growth projection for the project site.

SB 743 does not prevent local agencies from using LOS in their General Plan to determine a project's fair share participation in the construction of transportation improvements outside of CEQA. The city still utilizes LOS in its General Plan. Although no longer a requirement for CEQA in determining environmental impacts associated with LOS, the city can impose conditions of approval to require construction of certain transportation infrastructure improvements or payment of a fair share toward the cost of such improvements warranted by the project. A traffic impact analysis (TIA) was prepared by Linscott, Law & Greenspan (September 2019) to assess LOS impacts at certain street intersections and roadway links within the project site's study area. Detailed discussion of the LOS assessment is not required for this initial study, but the project's TIA determined that certain intersections needed modification at project opening and in Year 2040 due to the number of vehicle trips generated by the project. The project is forecast to create 3,585 average daily trips, with 462 a.m. peak hour trips and 469 p.m. peak hour trips.

The City of Corona considers LOS D to be the minimum acceptable LOS for all intersections that consist of collector and arterial roadways. In addition, the City of Corona considers LOS C to be the minimum acceptable LOS for local and collector streets in residential and industrial areas. The City of Corona General Plan Circulation Element Policy 6.1.6 states:

> *Maintain Level of Service D or better on arterial streets wherever possible. At some key locations, such as at heavily traveled freeway interchanges, LOS E may be adopted as the acceptable standard, on a case-by-case basis. Locations that may warrant the LOS E standard include Lincoln Avenue at SR-91, Main Street at SR-91, McKinley Avenue at SR-91, Hidden Valley Parkway at I-15, Cajalco Road at I-15 and Weirick Road at I-15. A higher standard such as Level of Service C or better may be adopted for local and collector streets in residential areas.*

The below intersections require modification and/or improvement with the project and are being included as mitigation measures to ensure potential impacts are less than significant.

Year 2022

Intersection at State Street at Ontario Avenue.

In Year 2022 without the project, the intersection is forecast to have LOS E in the a.m. and p.m. peak hours. In Year 2022 with the project, the LOS remains the same in the a.m. and p.m. peak hours. This deficient LOS is considered cumulative in

nature and not project specific. To improve the LOS to an acceptable level, the following improvements for this intersection include: a) stripe crosswalks on all legs, and b) installation of a traffic signal and a design for five-phase operation with protected left-turn phasing on Ontario Avenue.

Intersection at Temescal Canyon Road at Cajalco Road.

In Year 2022 without the project, the intersection is forecast to have LOS D in the a.m. and p.m. peak hours. In Year 2022 with the project, the LOS is forecast to have LOS E in the p.m. peak hour. This deficiency in the LOS is considered to be from the project. To improve the LOS to an acceptable level, the planned improvement for the intersection is to modify the existing traffic signal to install eastbound right-turn overlap phasing. The developer is responsible for 100% of the cost associated with this improvement.

Year 2040

Intersection at State Street at Ontario Avenue.

In Year 2040 without the project, this intersection is forecast to operate at LOS E in the a.m. and p.m. peak hours. In Year 2040 with the project, the LOS is forecast to have LOS F in the p.m. peak hour. This deficiency in the LOS is considered to be from the project. To improve the LOS to an acceptable level, the planned improvement is the same as that in Year 2022. However, in Year 2040 the project is responsible for paying 24.43% of the cost of the improvement.

Intersection at Ontario Avenue/Temescal Canyon Road at El Cerrito Road.

In Year 2040 without the project, this intersection is forecast to operate at LOS E in the p.m. peak hour. In Year 2040 with the project, the LOS remains the same in the p.m. peak hour. This deficient LOS is considered cumulative in nature and not project specific. To improve the LOS to an acceptable level, the planned improvement at this intersection is to modify the existing traffic signal to provide eastbound right-turn overlap phasing. The project is responsible for 21.67% of the cost to construct.

Intersection at Temescal Canyon Road at Cajalco Road.

In Year 2040 without the project, the intersection is forecast to have LOS D in the a.m. peak hour and LOS E in the p.m. peak hour. In Year 2040 with the project, the LOS is forecast to have LOS E in the a.m. peak hour and LOS F in the p.m. peak hour. This deficiency in the LOS is considered to be from the project. To improve the LOS to an acceptable level, the planned improvement for the intersection is to restripe the west leg to provide the eastbound approach with a second exclusive eastbound left-turn lane; and modify the existing traffic signal to install eastbound right-turn overlap phasing and northbound right-turn overlap phasing. The developer is responsible for 100% of the cost associated with this improvement.

e.

The closest airport to the project site is the Corona Municipal Airport located in the northwest area of the city. The project site is not located within the airport influence zones for the Corona Municipal Airport. Therefore, the project will not cause a change in air traffic patterns and is not an impact.

f.

Access to the proposed project site will be provided via one (1) full access driveway at the existing intersection of Grand Oaks at Tom Barnes Street. Three full access driveways will be provided along a new public street cul-de-sac on the westerly border of the Project site that will connect to the existing intersection of Tuscany Street at Tom Barnes Street. As a result of the site access analyses, the Project proposes to convert the two existing intersections along Tom Barnes Street to all-way stop controlled intersections.

The on-site circulation layout of the proposed project on an overall basis is adequate. A circulation evaluation was performed using the *Turning Vehicle Templates*, developed by Jack E. Leisch & Associates and *AutoTURN for AutoCAD* computer software that simulates turning maneuvers for various types of vehicles. The turning template was utilized to ensure that a large delivery truck (WB-67) could properly access and circulate through the project site. In order to accommodate the ingress westbound right-turn turning movement requirements of a WB-67 design truck into the project site, the project site plan needs to incorporate a curb return radii of 65 feet on the northeast corner of Project Driveway 1 at Tom Barnes Street and a curb return radii of 60 feet on the northeast corner of Project Driveway 2 at Tom Barnes Street. Therefore, the on-site driveway design does not create a traffic hazard and is not an impact.

g.

The project site has adequate emergency access from Tom Barns Street via Temescal Canyon Road and Grand Oaks from Cajalco Road. The project also has two driveways on Tom Barns Street; one located at the westerly end of the site and the

second located on the easterly end. Therefore, two points of access are provided to Tom Barns Street in addition to the project having two project driveways from the street. The project is not considered to have an impact on emergency access.

Mitigation Measures

MM 6-1

Temescal Canyon Road and Tom Barns Street. The applicant shall restripe the eastbound approach to extend the existing left-turn/through pocket into the No. 1 eastbound through lane, which will create an eastbound left-turn/through storage of 360 feet. This improvement shall be done prior to the issuance of the first certificate of occupancy for the project.

MM 6-2

Temescal Canyon Road and Tom Barns Street (Year 2040). Prior to the issuance of a building permit or recordation of TTM 37608, whichever occurs first, the applicant shall guarantee the project's fair share cost toward future intersection improvements which includes restriping the west leg to provide the eastbound approach with an exclusive eastbound left-turn lane, a shared eastbound left-turn/through lane, and an exclusive eastbound right-turn lane and removing the crosswalk along the south leg. The existing traffic signal is recommended to be modified to include split phasing for the east/west direction.

MM 6-3
Intersection at State Street at Ontario Avenue (Year 2022). This intersection is in the City's Fee Program as a master-planned traffic signal to be installed by the City. The project's fair share cost toward this improvement is 34.92%. The developer shall guarantee the fair share cost prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

MM 6-4
Intersection at Temescal Canyon Road at Cajalco Road (Year 2022). The developer is responsible for 100% of the cost associated with this improvement. The developer shall construct this improvement prior to project opening and shall guarantee the construction of this improvement prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

MM 6-5
Intersection at State Street at Ontario Avenue (Year 2040). The project is responsible for paying 24.43% of the cost of the improvement. The developer shall guarantee the fair share cost prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

MM 6-6
Intersection at Ontario Avenue/Temescal Canyon Road at El Cerrito Road (Year 2040). The project is responsible for 21.67% of the cost to construct. The developer shall guarantee the fair share cost prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

MM 6-7
Intersection at Temescal Canyon Road at Cajalco Road (Year 2040). The developer is responsible for 100% of the cost associated with this improvement. The developer shall guarantee the full cost of this improvement prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

7. BIOLOGICAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Endangered or threatened species/habitat	☐	☐	☐	☒
b. Riparian habitat or sensitive natural community	☐	☐	☐	☒
c. Adversely affects federally protected wetlands	☐	☐	☐	☒

d. Interferes with wildlife corridors or migratory species	☐	☒	☐	☐
e. Conflicts with local biological resource policies or ordinances	☐	☐	☐	☒
f. Conflicts with any habitat conservation plan	☐	☐	☒	☐

Discussion:

a.

The applicant retained ECORP Consulting to perform a biological assessment on the project site (ECORP Consulting, December 2019).

Literature Review

ECORP biologists performed a literature review using the CDFW's California Natural Diversity Data Base (CNDDB; CDFW 2019a) and the California Native Plant Society's (CNPS') Electronic Inventory (CNPSEI; CNPS 2019) to determine the special-status plant and wildlife species that have been documented in the vicinity of the Project site. The CNDDB and CNPSEI database searches were conducted on July 23, 2019. ECORP searched CNDDB and CNPSEI records within the project site boundaries, plus the surrounding areas including Corona North, Lake Matthews, Riverside West, Prado Dam, Black Star Canyon, Santiago Peak, El Toro and Alberhill. The CNDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or in the vicinity of the Project. A USFWS species list for the Project site was also taken from the Information for Planning and Consultation (IPaC) website. The assessment also included additional information from the following sources, but is not limited to:

- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) *Web Soil Survey* (NRCS 2019);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2019b);
- *Special Animals List* (CDFW 2019c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and various online websites (e.g., CalFlora 2019).

Using this information and observations in the field, a list of special-status plant and animal species that have potential to occur within the project site was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions; and/or
- are covered species under the MSHCP.

Special-status species reported for the region in the literature review or for which suitable habitat occurs on the Project site were assessed for their potential to occur within the project site based on the following guidelines:

Present: The species was observed on site during a site visit or focused survey.

High: Habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been recorded within five miles of the site.

Moderate: Either habitat (including soils and elevation factors) for the species occurs on site and a known occurrence has been reported in the database, but not within five miles of the site, or a known occurrence occurs within five miles of the site and marginal or limited amounts of habitat occurs on Site.

Low: Limited habitat for the species occurs on site and a known occurrence has been reported in the database, but not within five miles of the site, or suitable habitat strongly associated with the species occurs on site, but no records were found in the database search.

Presumed Absent: Focused surveys were conducted, and the species was not found, or species was found in the database search but habitat (including soils and elevation factors) is not present on site, or the known geographic range of the species does not include the survey area.

Field Survey

The biological reconnaissance survey was conducted on May 1, 2019 between 9:30 a.m. and 11:45 a.m. by an ECORP biologist. Weather conditions during the survey were warm, with clear skies, wind speeds of 3 to 8 miles per hour, and an average temperature of 76 degrees Fahrenheit.

The biological reconnaissance survey was done by walking the entire project site to identify the vegetation communities and wildlife habitats present. The biologist documented the plant and animal species present on the Project site, and the location and condition of the project site were assessed for the potential to provide habitat for special-status plant and wildlife species. Data were recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were also taken during the survey to provide visual representation of the various vegetation communities within the Project site. The project site was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. In addition, the biologist mapped the vegetation communities present on the project site.

Plant and wildlife species, including any special-status species that were observed during the survey, were recorded. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (SSAR 2017), *Check-list of North American Birds* (American Ornithologists' Union [AOU] 2018), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014). In instances where a special-status species was observed, the date, species, location and habitat, and GPS coordinates were recorded. The locations of special-status species observations were recorded using a handheld GPS in NAD 83, Universal Transverse Mercator coordinates, Zone 11S.

Property Characteristics

The project site consists of an undeveloped lot containing mostly non-native grassland, with a relatively flat topography. To the south, along Tom Barnes Street, is Joseph Canyon Wash located within a constructed channel and vegetated with restored riparian vegetation. A small patch of Riversidean sage scrub is associated with the western slopes adjacent to I-15. (Figure 7-1). Most of the project site had low vegetation growth at the time of the survey, with grasses of moderate height. Representative site photographs are included in Appendix C of the biological assessment (ECORP December 2019).

Figure 7-1
Vegetation Communities

Figure 4. Vegetation Communities
2019-124 Latitude Business Park

Vegetation Communities

The project site is within an urban environment and was subject to surface mining, followed by mine reclamation, and therefore it has been subjected to repeated and ongoing disturbance from human activities. The entire project site is covered in nonnative annual grassland, with some Riversidean sage scrub along its western boundary (Figure 7-1). The area along Joseph Canyon Wash supports riparian woodland communities, but this area is not being affected by the proposed

development and has been set aside as a mitigation site. The plant species observed on the project site were nonnative or invasive weedy species over the majority of the area and native plant species are limited largely to the Joseph Canyon Wash Conservation Easement and the slopes adjacent to I-15, which were part of ongoing revegetation activities associated with environmental compliance for the Crossings Project. A portion of the site had a stormwater/detention basin that collected and managed storm flows. This consisted of an area that pooled stormflows shallowly. Although some limited riparian vegetation was present within this feature, the area was still vegetated overall by non-native grassland species.

Riparian Woodland community occurs along Joseph Canyon Wash, an earthen channel area dedicated as conservation under existing entitlements for the Crossings Project. Plant species within the channel were all planted along with the original restoration at the time the Crossings Project was constructed. The mitigation pallet contained western sycamore (*Platanus racemosa*), Fremont's cottonwood (*Populus fremontii*), toyon (*Heteromoles arbutifolia*), coast live oak (*Quercus agrifolia*), coyote bush (*Baccharis pilularis*), narrow-leaf willow (*Salix exigua*), black willow (*Salix goodingii*), arroyo willow (*Salix lasiolepis*), yerba mansa (*Anemopsis californica*), mule fat (*Baccharis salicifolia*) and blackberry (*Rubus ursinus*).

Most of these plant species are present, along with some volunteer species along the banks, including California buckwheat (*Eriogonum fasciculatum*) and western ragweed (*Ambrosia psilostachya*). The area receives flows from a storm drain system to the west of I-15, which enters into a cement channel beneath I-15 to empty into a drain that serves the restoration area. An overflow channel continues into a storm drain underneath Tom Barnes Street, to handle larger storm events. The system is augmented by runoff from urban developments and landscaping. It has also been irrigated for many years, while the restoration efforts have been ongoing.

Areas mapped as Riversidean sage scrub were a part of the slope revegetation that was included in the environmental compliance efforts for the Crossings Project. The vegetation on the slopes consists of California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*) and California buckwheat primarily. The understory is composed mostly of nonnative grasses including weedy species such as wild oat (*Avenua fatua*) and short-pod mustard (*Hirschfeldia incana*).

Areas mapped as nonnative annual grasslands dominate the site in a manner consistent with the frequent disturbance the Project site has undergone. Species present include wild oat, short-pod mustard, ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* ssp. *rubens*), cheat grass (*Bromus tectorum*), Bermuda grass (*Cynodon dactylon*), wild barley (*Hordeum* sp.), tree tobacco (*Nicotiana glauca*), dove weed (*Eremocarpus setigerus*), Russian thistle (*Salsola tragus*) and castor bean (*Ricinus communis*). The majority of these grasses and forbs are from the Mediterranean region, and have naturalized to southern California and elsewhere.

Potential for Special-Status Plant and Wildlife Species to Occur on the Project Site

Plant species observed on the Project site were generally characteristic of disturbed urban areas, and soils that have been heavily modified. The only native plant species were either of very low cover within the non-native grassland or were associated with revegetated areas along Joseph Canyon Wash or on slopes adjacent to I-15.

The literature search documented 53 special-status plant species (of those, 9 are federally and/or state listed and all of those are covered by the Western Riverside Multiple Specifies Habitat Conservation Plan [MSHCP]). Because the project site boundaries consist entirely of nonnative annual grassland, all were presumed absent due to lack of suitable habitat. A complete list of the 53 special-status plant species, with details regarding blooming periods, habitat requirements, and potential for occurrence designations, is included as Appendix A of ECORP's biological assessment (December 2019).

The project site provided habitat for a mixture of resident species adapted to disturbances and urban environments, along with others that are primarily using the site for foraging. One reptile species was observed during the survey, western fence lizard (*Sceloporus occidentalis*). Twelve bird species were observed during the reconnaissance visit: house finch (*Haemorhous mexicanus*), California towhee (*Pipilo crissalis*), house sparrow (*Passer domesticus*), common raven (*Corvus corax*), American crow(*Corvus brachyrhynchos*), rock pigeon (*Columba livia*), northern mockingbird (*Mimus polyglottos*), mourning dove (*Zenaida macroura*), European starling (*Sturnus vulgaris*), red-tailed hawk (*Buteo jamaicensis*), horned lark (*Eremophila alpestris*) and Anna's hummingbird (*Calypte annae*). During the survey, there was also a regional dispersion of painted lady butterflies (*Cynthia cardui*) and many hundreds were observed flying through the area.

The literature search documented 54 special-status wildlife species in the vicinity of the project site (15 of which are federally and/or state-listed and all of those are covered by the MSHCP). Most of those species were eliminated for consideration in the potential for occurrence analysis due to the lack of suitable habitat. A complete list of the 54 special-status wildlife species, with details regarding habitat requirements and potential for occurrence designations, is included as Appendix B of the biological assessment (Ibid).

Based on the biological assessment conducted by ECORP Consulting the project will not impact endangered, threatened species of habitat.

b.

Historically the project site was a subset of a 191.6-acre aggregate mining facility that operated under Surface Mining Permit 109. The mine ceased operation in 1997 and underwent mine reclamation activities shortly after the closure of the mine. In 2000, the portion of this former mine site to the south of Tom Barnes Street was rezoned to a commercial designation and approved for development into what is now the Crossings at Corona retail center (Tentative Parcel Map No. 29503). This resulted in subdivision of the project site from the larger property. As a part of that previous entitlement for the Crossings Project, a portion of land within the Latitude Business Park property along Joseph Canyon Wash was set aside in a Conservation Easement, located adjacent to Tom Barnes Street. This area is maintained for conservation purposes and is not a part of the planned development. As a part of the environmental commitments for the Crossings Project, surveys have been conducted on the Project site. These have included annual monitoring reports for the restoration effort within Joseph Canyon Wash (TPA 2006; 2007; 2008; 2009; 2010; 2011; 2012; 2013; 2014; and 2018) as well as a Phase I Biological and Burrowing Owl Assessment for the site (TPA 2018) (ECORP 2019).

The applicant's biologist did a desktop review to identify potential streams and hydric soils on the property. This entailed examination of the NRCS Soil Mapper (2019), National Wetland Inventory (NWI) mapping, and the USGS topographic mapping of the project site to aid in identifying potential biological constraints to the project due to jurisdictional streams. The only known jurisdictional feature within the project site is Joseph Canyon Wash, which has been channelized and is a part of a dedicated Conservation Easement located along Tom Barnes Street (Figure 7-2). This area is not affected by the proposed project.

Figure 7-2
Conservation Easement Boundary (Joseph Canyon Wash)

Although ECORP Consulting did not conduct a formal jurisdictional delineation, the assessment concluded no jurisdictional drainages, stream courses, and/or other water features were identified on the project site except for the area associated with Joseph Canyon Wash. This feature is considered jurisdictional to the USACE, SWRCB and CDFW because it is associated with an historic stream and connects to Temescal Canyon Wash. All of the jurisdictional portions of Joseph Canyon Wash and the associated riparian vegetation have been placed within a Conservation Easement and are not being impacted by the Project. Within the non-native grassland areas, there are shallow basins that collect water for stormwater management, and had limited riparian vegetation such as mule fat. These areas are, however, considered to be "stormwater control features created in dry land" and not considered jurisdictional to the USACE under 33 CFR Part 328.3.b (Definitions).

Based on the assessment provided ECORP Consulting, the project will not impact riparian habitat or sensitive natural communities.

c.

The biological assessment performed by ECORP Consulting showed the project site does not contain any state or federally protected wetlands or Waters of the U.S. other than those identified within Joseph Canyon Wash, which is being fully avoided

by the project. The development of the Project site will therefore not result in impacts to state or federally protected wetlands or Waters of the United States.

d.

Burrowing Owl Habitat Assessment

The City of Corona participates in the Western Riverside County MSHCP. The MSHCP has specific habitat assessment and survey requirements for burrowing owl. The project site is located within a designated burrowing owl survey area and, therefore, a burrowing owl habitat assessment and burrow survey was conducted in accordance with the MSHCP burrowing owl survey guidelines (County of Riverside 2006) in 2018 by The Planning Associates Group(TPA) in December 2018. No burrowing owls or potential owl burrows were identified during this survey. The burrowing owl is a California SSC and a covered species under the MSHCP. Burrowing owls historically occurred throughout much of California and the western United States; however, many former California populations have been extirpated. The burrowing owl inhabits open habitats, primarily grasslands and deserts. Burrowing owls require burrows for roosting and nesting cover. Although they often nest in abandoned California ground squirrel (*Otospermophilus beecheyi*) burrows, they will also use other small mammal burrows, pipes, culverts, and nest boxes, particularly where burrows are scarce (TPA December 2018). The project site did not provide suitable habitat for burrowing owl due to the lack of suitable burrows or burrow structure, absence of California ground squirrel activity, extremely dense vegetation in the central portion of the project site, and evidence of frequent mechanical disturbances throughout the entire project site (especially around the edges of the site). Nevertheless, a pre-construction survey for burrowing owls would be recommended prior to ground disturbance to ensure potential impacts to burrowing owls is less than significant (MM 7-1).

Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code was present adjacent to the project site in particular within trees and shrubs associated with Joseph Canyon Wash. Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August. A pre-construction survey for raptor species is recommended prior to ground disturbance to ensure potential impact is less than significant (Mitigation Measures 7-2 and 7-3).

Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

ECORP Consulting evaluated the potential of a wildlife corridor occurring on the project site. Wildlife corridors constitute linkages between habitat areas that allow wildlife species to move from one habitat area to another. Corridors vary in configuration and type, ranging from wide stream systems to narrow culverts in urban landscapes. Ideally a corridor provides some level of plant cover, water sources and food sources as well. The project site was assessed for its ability to function as a wildlife corridor. The project site is very disturbed and surrounded by development to the west, south, and east. Undeveloped areas within the project site are undoubtedly used by wildlife, but these areas are limited by the level of disturbance present. Joseph Canyon Wash provides some level of connectivity through the site and towards Temescal Canyon Wash, but this channel is very narrow, ranging up to around 100 feet in width. Also, to the west the channel becomes a concrete, urbanized feature that traverses beneath I-15. Wildlife use of the site is considered to be limited largely to small to medium sized mammal species, birds and smaller reptiles and amphibians. The lack of vegetative cover and the urban nature of the project site would likely deter larger wildlife species such as deer (*Hemonianus odocoileus*) and mountain lions (*Felis concolor*) from moving through the area. Therefore, the project would not impact a wildlife corridor.

e & f

The Western Riverside County MSHCP is a comprehensive, multi-jurisdictional HCP focusing on conservation of species and their associated habitats in Western Riverside County. The MSHCP identified 146 species, referred to as "Covered Species," for which the federal and California ESAs "take" authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be "adequately conserved." The remaining 28 Covered Species will be considered to be adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in and efficient way.

The Project site is located within the Temescal Canyon Area Plan and partially within Criteria Cell 2400 of the MSHCP (Figure 7-3). The target conservation acreage range for the Temescal Canyon Area Plan is approximately 29,555 to 31,870 acres and is composed of approximately 26,070 acres of existing Public/Quasi-Public Lands and 3,485 – 5,800 acres of Additional Reserve Lands. The City of Corona sits entirely within the Temescal Area Plan. The Project site is located within Subunit 3 – Temescal Canyon Wash West, an area whose chief goal consists of conserving native habitats associated with Temescal Canyon Wash, which is located approximately ¼ mile from the Project site's eastern boundary.

Figure 7-3
MSHCP Cells

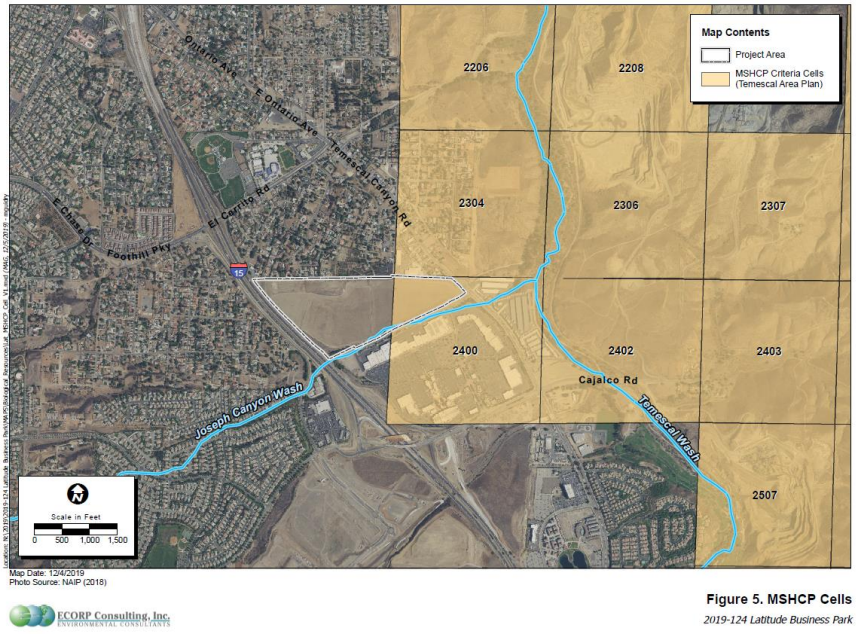


Figure 5. MSHCP Cells
2019-124 Latitude Business Park

Section 6.0 of the MSHCP requires assessment of the potential effects from the project on biological resources including riparian/riverine areas, vernal pools, and fairy shrimp, burrowing owl, and Narrow Endemic Plant Species. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in proximity of MSHCP Conservation Areas. These resources were assessed during the biological reconnaissance survey prepared by ECORP Consulting and are discussed below in relation to the project.

Riparian/Riverine, Vernal Pool, and Fairy Shrimp Habitat Assessment (MSHCP Section 6.1.2)
In accordance with Section 6.1.2 of the MSHCP, a habitat assessment was performed for riparian and riverine communities, vernal pools, and fairy shrimp. The project site, consisting largely of various loams, with only limited clays, did not contain vernal pool habitat or suitable habitat for fairy shrimp. Additionally, the soils within the site have been disturbed heavily by the former mine site and its reclamation.

Riparian/Riverine Areas
The only riparian vegetation observed on the project site is associated with Joseph Canyon Wash, an area that is avoided by the Project. This wash has been channelized into underground storm drain systems through residential and commercial areas to the west of Interstate 15, runs in an earthen channel along the southern site boundary and empties into Temescal Wash to the east of the site. Temescal Wash is an important regional waterway and wildlife corridor and remains the focus of several conservation efforts.

As a part of The Crossings mitigation and permits, Joseph Canyon Wash was replanted with riparian plantings, and since 2005 the wash has been monitored for compliance with the Crossings Habitat Mitigation and Monitoring Plan (HMMP) according to the Crossings Project environmental compliance measures. The wash currently supports a diverse variety of riparian plants including willows (*Salix* sp.), cottonwoods (*Populus fremontii*), western sycamore (*Platanus racemosa*), cattails (*Typha latifolia*) and mule fat (*Baccharis salicifolia*). There are also several understory species present typical of riparian areas as well as coastal sage scrub species along the banks of the channel. The area currently meets or exceeds its required success criteria. The Joseph Canyon Wash accounts for approximately one acre of the project site, averages 20 feet in width and is approximately 2,100 feet in length.

No defined channels or drainages were identified elsewhere on the Project site and the Project site did not contain any additional riverine resources. Per Section 6.1.2 of the MSHCP, “if an avoidance alternative is selected, measures shall be incorporated into the project design to ensure the long-term conservation of the area to be avoided, and associated functions and values, through the use of deed restriction, conservation easement, or other appropriate mechanisms.” Narrow Endemic Plant Species (MSHCP Section 6.1.3).

Vernal Pools and Fairy Shrimp
Vernal pools are seasonal wetlands that contain semi-impermeable soils, allowing water to perch for long periods of time, and concave topography. True vernal pools also support a variety of plant species that are specific to vernal pool ecological parameters. An area that is not a true vernal pool, such as a road rut or road pool, may exhibit similar characteristics. Vernal

pools and similar habitat areas tend to occur within clay soils zones. Soils within the Project site consist of Altamont series, Arbuckle series, Terrace Escarpments, Cortina Series, Temescal series and Vallecitos series soils.

The biological assessment indicated the project site did not contain any apparent vernal pool habitat or suitable habitat for fairy shrimp, although there were basins located on site whose purpose was to detain stormwater flows across the site. These basins were created as part of the mining reclamation and are shallow, are artificially created and are located within the southeast corner of the site within areas mapped as Arbuckle loam. The basins contain stand pipes that allow drainage and only hold stormwater during times immediately after storm events, and they do not hold water for long enough periods of time needed to support fairy shrimp. Within the MSHCP (Section 6.1.2), it states that "with the exception of wetlands created for the purpose of providing wetlands Habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions." For these reasons, the site is not considered to support fairy shrimp habitat or vernal pools.

Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The requirements for Urban/Wildlands Interface for the management of edge factors do not apply to the project site or staging areas because the project site is not situated adjacent to any wildlands or MSHCP-designated Conservation Areas. The Project site and staging areas are relatively isolated from larger, contiguous blocks of native habitat and completely surrounded by residential development, urban development, and other anthropogenic land use. A net long-term increase of edge impacts within proposed conservation areas is not expected as a result of this project.

Because Joseph Canyon Wash is tributary to Temescal Wash, which is a part of Existing Core 2, indirect impacts to the wash should be minimized and avoided, where such impacts may affect downstream water and habitat quality. Runoff and toxins from the Project into Joseph Canyon Wash are the most likely potential indirect impact of this nature. In order to control release of toxins and runoff into downstream waters, each proposed lot of the project directs flows over the surface towards a catch basin inlet connected to an underground storage system which detains and regulates outflow through a modular wetland system to treat stormwater flows for each parcel per the County and State requirements. These treated storm flows discharge into proposed storm drains that connect to one of four existing storm drain laterals that have been extended into the site. The laterals extend northerly of the Joseph Canyon Wash area without disturbing it. The overall discharges for the site are below the levels these laterals were designed to accept due to the underground storage system detaining and slowing down discharge rates. These existing laterals are located on Lots 10 & 11 shown on TTM 37608 and the two street intersections and connect to the existing concrete box storm drain located in Tom Barnes Avenue. The Joseph Canyon Wash discharges into this storm drain box. There is no impact to the wash due to the reduction of design flows and treatment of all project flows prior to discharge. In addition, species listed in the MSHCP as invasive species (Section 6.1.4) would not be used in landscaping for the project.

Although the project site is located within a designated MSHCP Criteria Cells for conservation within Temescal Canyon Wash, and none of the portions of the cell located within site boundaries are designated for conservation, the development of the project site would be considered to be consistent with the MSHCP. The project's MSHCP consistency analysis is also being reviewed by the Riverside Conservation Authority (RCA), the agency that oversees the implementation of the MSHCP, as part of the joint project review (JPR) process with the city. The JPR process between the city and RCA shall be completed prior to the issuance of a grading permit for the project.

Mitigation Measures

MM 7-1

A pre-construction survey for burrowing owls should be completed within the Project site no more than 30 days prior to construction activities in accordance with the Western Riverside MSHCP burrowing owl survey guidelines (County of Riverside 2006). If burrowing owls are observed during the preconstruction survey, a specific mitigation methodology for the owl shall be determined in coordination with CDFW in order to reduce impacts to a level that is less than significant. Mitigation measures for any owls present could include avoidance of the owl burrows during their nesting season and/or passive relocation of burrowing owls.

MM 7-2

Any ground disturbance activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 31). This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified biologist who is experienced in the identification of avian species and conducting nesting bird surveys. The nest surveys shall include the Project site and adjacent areas where Project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) are found to be present, avoidance or minimization measures shall be undertaken to avoid potential project-related impacts. Measures may include establishment of an avoidance buffer until nesting has been completed and periodic nest monitoring by the project biologist. The width of the avoidance buffer will be determined by the Project biologist. Typically this is 300 feet from the nest site in all directions (500 feet is typically recommended by CDFW for raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. The monitoring biologist will monitor the nest(s) during construction and document any findings.

MM 7-3
Due to the potential presence of least Bell's vireo within Joseph Canyon Wash, if activities with the potential to disrupt nesting birds are scheduled to occur during the breeding season, protocol-level least Bell's vireo surveys shall be completed prior to any such activities, in order to rule out the presence of least Bell's vireo. Surveys involve eight surveys from April 10 through July 31, spaced at least 10 days apart. If least Bell's vireo is detected during the surveys, then all work within 500 feet of the location of the least Bell's vireo territory will be halted and the CDFW will be consulted regarding mitigation and avoidance measures during construction. At a minimum, an avoidance buffer will be planned and established in consultation with the CDFW to avoid indirect impacts to least Bell's vireo. The buffer is expected to be a minimum of 500 feet in width. The width of the avoidance buffer will be determined by the Project biologist, in consultation with the CDFW. Other mitigation measures may also be applied based on that consultation process.

8. MINERAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Loss of mineral resource or recovery site	☐	☐	☐	☒

Discussion:

The project site is a former mine site that was used for the mining of sand from 1978 to 1997. The mining operation was permitted by Riverside County per Surface Mine Permit 109. On-site reclamation started in 1997 when the mining operated ceased. The project site was massed graded and former quarry pits were filled during the mass grading process. The mineral resource on the site has been exhausted and the site was fully reclaimed in 2015. Therefore, the project will not result in the loss of mineral resources and this is not an impact.

9. HAZARDS AND HAZARDOUS MATERIALS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Transport, use or disposal of hazardous materials	☐	☐	☐	☒
b. Risk of accidental release of hazardous materials	☐	☐	☐	☒
c. Hazardous materials/emissions within ¼ mile of existing or proposed school	☐	☐	☐	☒
d. Located on hazardous materials site	☐	☐	☐	☒
e. Conflict with Airport land use plan	☐	☐	☐	☒
f. Impair emergency response plans	☐	☐	☐	☒
g. Increase risk of wildland fires	☐	☐	☐	☒

Discussion:

a.

Project grading will not involve the transport or use of hazardous materials. As indicated, the project site was a former sand mine that has been reclaimed. The project site is also planned to be an industrial/business park that will include concrete tilt-up buildings, paved parking, and landscaping. The uses of the buildings are unknown at this time, but the buildings are required to adhere to occupancy standards in accordance with the California Building Standards Code. Future businesses involving the use of hazardous materials are also required to prepare and submit a hazardous materials occupancy report to the Fire Department. The Fire Department does an annual inspection of businesses to ensure the on-site quantities of materials are within the allowed occupancy of the building. Therefore, this is not an impact.

b & d

A Phase 1 Environmental Site Assessment was prepared by South Shore Testing and Environmental (October 2018) on the project site. The surface condition of the project site at the time of the assessment consisted of a formerly reclaimed clay mine and undeveloped land. The reclamation activity on the project site included a fill area from east to west, a fill disposal area and fill areas where quarry ponds once existed. The site is surrounded by numerous utilities which includes an MWD manhole, water valves and risers, a concrete pad with vault, and vent with electric meter and utility cabinet, six pad-mounted transformers, and a Corona Department of Water and Power switching station. A MWD 108-inch lower feeder line is located in a 25 foot to 30 foot wide easement adjoining the northern property line in La Gloria Street and Liberty Avenue. A City of Corona 10 inch water line is located along the northern portion of the subject property in addition to numerous water valves, settlement monitoring wells, vent risers, a 6 inch water line remnant, and a check valve assembly. A large diameter culvert is located along the southeast property line near the northeast property corner in addition to a line of dense trees representing the Joseph Canyon Wash. Two 36 inch corrugated metal pipe (CMP) risers are also located near the southeast property line. A 24 inch CMP pipe and riser connect in th area of Parcels 3 and 5 for drainage purposes, a CMP riser and drain pipe and riprap outlet are located in the approximately center of Parcel 3, a 36 inch CMP riser and drain pipe and riprap outlet are located in the southern portion of Parcel 5, a standpipe water valve is located in Parcel 4 and miscellaneous sign structures are located near Parcel 7.

Exterior surface run-off from the project site is expected to flow into the several observed storm water drains located at various points on the project site. The drains look as though they flow to the municipal stormwater system. At the time of the assessment, the drains appeared to be in good visible condition with no significant staining observed around the perimeters.

Hazardous materials handling and/or storage activities were not observed at the project site and there was no sign of hazardous waste generation or disposal activities during the on-site assessment.

Above ground storage tanks were not visually observed on the project site and no underground storage tanks were noted as part of the research done through U.S. Environmental Protection Agency database and Department of Toxic Substances Control's database.

Based on the field observations and literature review done on the project site the project is not located on a hazardous materials site and is not expected to release hazardous materials. Therefore, this is not an impact.

c.

The closest school to the project site is El Cerrito Intermediate School located 0.4 miles to the north on El Cerrito Road. The proposed use of the property will not result in the release of hazardous materials or emissions and therefore this is not an impact.

e.

The Corona Municipal Airport is located 6 miles northwest of the project site and outside of the boundaries of the airport influence zones. Therefore, the project will not conflict with the airport land use plan and this is not an impact.

f.

The project will not block public streets or evacuation routes from the project site. All construction, except for public infrastructure connections, and operations will occur on-site. The on-site circulation system will also provide two points of ingress and egress and designated fire lanes no less than 28 feet wide. Therefore, the project will not impair emergency response plans.

g.

According to fire hazard severity zone map provide by CalFire (2017), the project site is not located within wildfire hazard severity zone. Therefore, the increase risk of wildland fire is not an impact.

10. NOISE:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed noise level standards	☐	☐	☒	☐
b. Exposure to excessive noise levels/vibrations	☐	☐	☒	☐
c. Permanent increase in ambient noise levels	☐	☐	☒	☐
d. Temporary increase in ambient noise levels	☐	☒	☐	☐
e. Conflict with Airport Land Use Plan noise contours	☐	☐	☐	☒

Discussion:

a.

The Corona Municipal Code, Section 17.84.040, establishes sound level limits at property lines. Unless a variance has been applied for and granted pursuant to this chapter, it is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced, exceeds the applicable limits set forth in the CMC. Residential land uses exist to the north and therefore, the project must meet a 55 dBA Leq daytime standard (7:00 a.m. to 10:00 p.m.) and a property line standard of 50 dBA Leq nighttime standard (10:00 p.m. to 7:00 a.m.) at the residential property line.

Direct Noise Impacts

A noise analysis for the project was prepared by Ldn Consulting (June 2019). To determine if direct off-site noise level increases associated with the development of the proposed project will create noise impacts, the noise levels for the existing conditions were compared with the noise level increase of existing plus the proposed project. Utilizing the project's traffic assessment (Source: LL&G Engineers, 2019), the noise levels for the roadways in the vicinity of the project site are shown Table 10-1 for the Existing plus Project Scenario. The below table is provided by the project's noise analysis.

Table 10-1
Existing Plus Project

Roadway	Segment	Noise Level @ 50-Feet (dBA CNEL)			Significant Impact
		No Project	With Project	Increase	
El Cerrito Road	I-15 NB Ramps and Ontario Ave	68.3	68.6	0.3	No
Temescal Canyon Road	El Cerrito Rd and Tom Barnes St	71.4	71.6	0.2	No
Tom Barnes	Tuscany St and Temescal Canyon Rd	66.1	67.4	1.3	No
Temescal Canyon Road	Tom Barnes Street and Cajalco Rd	70.5	70.8	0.3	No
Cajalco Road	I-15 NB Ramps and Temescal Canyon Rd	72.4	72.5	0.1	No

[1] Source: Project Traffic study prepared by LL&G Engineers, 2019

The values shown in the table do not take into account the effect of any noise barriers, structures or topography that may affect ambient noise levels. The project does not create a noise level increase of more than 3 dBA CNEL on any roadway segment as shown in above table. The roadway segment noise levels will increase from 0.1 dBA CNEL to 1.3 dBA CNEL with the development of the proposed project. Therefore, the proposed project's direct contributions to off-site roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

Cumulative Noise Impacts

To determine if cumulative off-site noise level increases associated with the development of the proposed project will create noise impacts, the noise levels for the cumulative conditions were compared with the noise level increase with the proposed

project. Utilizing the project's traffic assessment, the noise levels for the roadways in the vicinity of the project site are shown in Table 10-2 for the Cumulative plus Project Scenario. The below table was provided by the project's noise analysis.

Table 10-2
Cumulative Plus Project

Roadway	Segment	Noise Level @ 50-Feet (dBA CNEL)			Significant Impact
		No Project	With Project	Increase	
El Cerrito Road	I-15 NB Ramps and Ontario Ave	68.3	69.4	1.1	No
Temescal Canyon Road	El Cerrito Rd and Tom Barnes St	71.4	72.2	0.8	No
Tom Barnes	Tuscany St and Temescal Canyon Rd	66.1	67.7	1.6	No
Temescal Canyon Road	Tom Barnes Street and Cajalco Rd	70.5	71.4	0.9	No
Cajalco Road	I-15 NB Ramps and Temescal Canyon Rd	72.4	73.6	1.3	No

[1] Source: Project Traffic study prepared by LL&G Engineers, 2019

The values given do not take into account the effect of any noise barriers, structures or topography that may affect ambient noise levels. The project does not create a noise level increase of more than 3 dBA CNEL on any roadway segment as shown in the above table. The roadway segment noise levels will increase from 0.8 dBA CNEL to 1.6 dBA CNEL with the development of the proposed project. Therefore, the proposed project's contributions to offsite roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses.

The project does not directly or cumulatively create a noise level increase of more than 3 dBA CNEL on any roadway segment. Therefore, the proposed project's direct contributions to offsite roadway noise increases will not cause any significant impacts to any existing or future noise sensitive land uses. Therefore, this is a less than significant impact.

b & c

Operational Noise Levels

The Corona Municipal Code, Section 17.84.040, establishes sound level limits at property lines. Unless a variance has been applied for and granted pursuant to this chapter, it is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level, at any point on or beyond the boundaries of the property on which the sound is produced, exceeds the applicable limits set forth Table 10-3. In example, residential land uses exist to the north and therefore, the project must meet a 55 dBA Leq daytime standard and a property line standard of 50 dBA Leq nighttime standard the residential property line.

Table 10-3
CMC Chapter 17.84 Noise Levels

STATIONARY NOISE SOURCE STANDARDS				
TYPE OF LAND USE	MAXIMUM ALLOWABLE NOISE LEVELS			
	Exterior Noise Level		Interior Noise Level	
	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.	7 a.m. to 10 p.m.	10 p.m. to 7 a.m.
Single-, Double- and Multi-Family Residential	55 dBA	50 dBA	45 dBA	35 dBA
Other Sensitive Land Uses	55 dBA	50 dBA	45 dBA	35 dBA
Commercial Uses	65 dBA	60 dBA	Not applicable	Not applicable
Industrial, Manufacturing or Agricultural	75 dBA	70 dBA	Not applicable	Not applicable

Source: Corona Municipal Code Chapter 17.84

The project site is designed for light industrial/business park uses and therefore may utilize noise-producing equipment including rooftop mechanical ventilation units and truck activities. The cumulative noise level from all equipment will vary at the property line depending on the location and orientation of the equipment, the amount of each type of equipment and the size of each type of equipment. It is important to note that the following projected noise levels assume the worst-case noise environment with the trucks and roof-top mounted mechanical ventilation all occurring at the same time. The reality is these noise levels will vary throughout the day. The mechanical ventilation may operate during nighttime hours and the delivery trucks may arrive during evening or morning hours.

Trucks

The project is proposed with loading docks and truck parking spaces. Operational noise levels from trucks will be required to meet the 75 dBA standard at the industrial use property lines surrounding the project. The nearest noise sensitive residential land use exists over 800-feet to the north and the buildings are oriented so that the truck bays do not directly face north. It is also worth noting that the northerly perimeter closest to the residential land uses will include a downward slope facing the project site. This slope will be landscaped with a variety of shrubs and trees which will help buffer sound beyond the project site. The trucks utilizing these parking spaces and loading docks consist of regular trucks and refrigerated trucks. Regular trucks create a noise level of 67 dBA at 23 feet. With roughly 66 available loading docks and approximately 60 trailer spaces a maximum number of 126 trucks may be on site. Not all the trucks will be operating while onsite, most will be parked. It is anticipated that as many as up to 18 trucks per hour may operate (enter or exit the site).

A truck will take approximately 5 minutes to drive in the site and position itself into a parking or loading bay. Based on the fact that trucks are not allowed to idle for more than 5 minutes within the State of California, it's assumed that each trip would not exceed 5 minutes or 10 minutes per round trip. Conservatively, no reduction was taken for the reduced operational time for the trucks. The noise level reductions due to the buildings is anticipated to reduce noise by about 20 decibels due to the locations of the noise sources and the height of the buildings. To be conservative, based on the truck movements, only a 10 decibel reduction was accounted for in the reductions (Ldn Consulting June 2019). Therefore, truck activity is not expected to exceed the noise levels established by the CMC on the project site.

Roof-top Mechanical Ventilation Units

Rooftop mechanical ventilation units (HVAC) will be installed on the proposed buildings. Typically, mechanical equipment (HVAC) noise is 70-80 dBA at a distance of 3 feet from 3-ton to 10-ton units. The smaller buildings will have less units and smaller units. The larger buildings will have the larger sized units and number of units. Based on the site plans, the larger proposed buildings could have as many as ten (10) temperature control units (HVAC) located on the roof.

To determine the noise levels associated with the HVAC units on the northern buildings, the higher noise level of 80 dBA at 3 feet for each anticipated HVAC unit was utilized and as many as ten HVAC units would be in close proximity to each other and would operate at the same time. Based on the separation of each building and the separation of the HVAC units, cumulative noise levels from as many as ten HVAC units would be considered worst-case. To predict the worst-case future noise environment, continuous reference noise levels were used to represent the mechanical ventilation system. Even though the mechanical ventilation system will cycle on and off throughout the day, this approach presents the worst-case noise condition (Ldn Consulting June 2019).

HVAC units would be included on the roof of the proposed buildings and would be shielded by a mechanical screen and/or the roof parapet, which would further reduce the noise levels by 5 decibels or more (MM 10-3). The HVAC units would be spread out on the roof of the buildings with an average distance of 205 feet from Building 15 to the nearest residential property lines to the north and 225 feet from Building 14 and 290 feet from Building 2 (Figure 10-1).

Figure 10-1
Stationary Sources

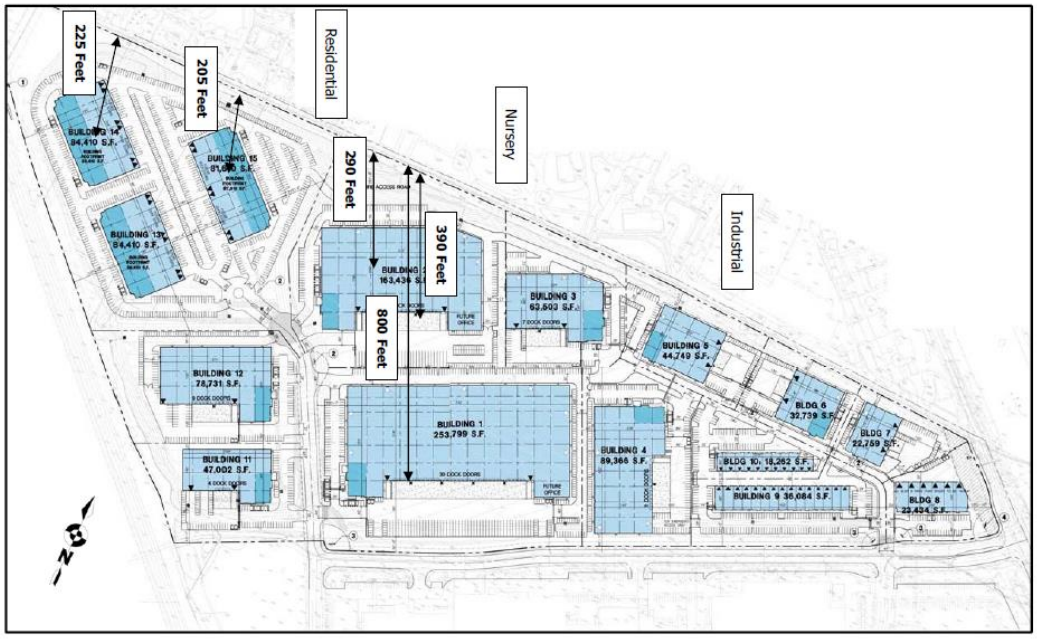


Table 10-4 shows the HVAC units will comply with the city's nighttime 50 dBA Leq noise standards at the shortest average distance of 205 feet and no mitigation or impacts are anticipated. Therefore, project stationary noise is considered a less than significant impact.

Table 10-4
HVAC Noise Levels

Noise Level @ 3 Feet (dBA)	Quantity	Cumulative Noise Level (dBA)	Average Distance to Property Line (Feet)	Noise Reduction due to distance (dBA)	Noise Reduction for Shielding (dBA)	Resultant Property Line Noise Level (dBA)
80	10	90.0	205	-36.7	-5	48.3

d.

Construction Noise Levels

Construction noise represents a short-term impact on the ambient noise levels. Noise generated by construction equipment includes haul trucks, water trucks, graders, dozers, loaders and scrapers can reach relatively high levels. Grading activities typically represent one of the highest potential sources for noise impacts. The most effective method of controlling construction noise is through local control of construction hours and by limiting the hours of construction to normal weekday working hours.

The U.S. Environmental Protection Agency (U.S. EPA) has compiled data regarding the noise generating characteristics of specific types of construction equipment. Noise levels generated by heavy construction equipment can range from 60 dBA to in excess of 100 dBA when measured at 50 feet. However, these noise levels diminish rapidly with distance from the construction site at a rate of approximately 6 dBA per doubling of distance. For example, a noise level of 75 dBA measured at 50 feet from the noise source to the receptor would be reduced to 69 dBA at 100 feet from the source to the receptor and reduced to 63 dBA at 200 feet from the source.

The Project site will be mass graded in one phase using the grading equipment identified in Table 10-5. The equipment is anticipated to be spread out over the entire site. However, some equipment may be operating at or near the property line while the rest of the equipment may be located over 800-feet from the same property line. This would result in an acoustical center for the grading operation at approximately 400-feet to the nearest property line.

Table 10-5
Construction Noise Levels

Construction Equipment	Quantity	Source Level @ 50-Feet (dBA)[1]	Duty Cycle (Hours/Day)	Cumulative Noise Level @ 50-Feet (dBA)
Scraper	4	8	75	81.0
Compactor	2	8	75	78.0
Water Truck	2	8	70	73.0
Motor Grader	2	8	73	76.0
Loader	2	8	72	75.0
Dozer	2	8	75	78.0
Cranes	2	8	78	81.0
			Cumulative Levels @ 50 Feet (dBA)	86.7

[1] Source: U.S. EPA 1971, U.S. DOT, 1995 and Empirical Data

Construction noise is of short-term duration and will not present any long-term impacts on the project site or the surrounding area. The most effective method of controlling construction noise is through local control of construction hours determined by the City. The City of Corona Municipal Code, Section 17.84.040, limits construction activity to the hours of 7:00 a.m. to 8:00 p.m. from Monday to Saturday and from 10:00 a.m. to 6:00 p.m. on Sundays and federal holidays. However, to minimize noise impacts during construction, mitigation is recommended to reduce the impact to less than significant.

e.

The project site is not located within the Corona Municipal Airport influence zones. Therefore, the project will have no impact on the airport land use plan noise contours.

Mitigation Measures

MM 10-1
The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the project site.

MM 10-2

The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings. Homeowners shall be notified via postings on the construction site prior to the construction commencing.

MM 10-3
Rooftop equipment shall be shielded by a mechanical screen or raised building parapet to minimize equipment noise from projection beyond the project site.

11. PUBLIC SERVICES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fire protection	☐	☐	☐	☒
b. Police protection	☐	☐	☐	☒
c. Schools	☐	☐	☐	☒
d. Parks & recreation facilities	☐	☐	☐	☒
e. Other public facilities or services	☐	☐	☐	☒

Discussion:

a, b, c, d & e

The project site is designated General Industrial on the General Plan Land Use Plan (2004). Growth and development anticipated from the project site was considered at the time of the 2004 General Plan Update. The project does not cause the construction of new public facilities associated with fire stations, police stations, schools or parks and recreation facilities. The existing public services provided by the city will serve the project site. Therefore, this is not considered an impact.

12. UTILITIES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Exceed wastewater treatment requirements	☐	☐	☐	☒
b. Involve construction/expansion of water or wastewater treatment facilities	☐	☐	☐	☒
c. Involve construction/expansion of storm drains	☐	☐	☒	☐
d. Sufficient water supplies/compliance with Urban Water Management Plan.	☐	☐	☐	☒

e.	Adequate wastewater treatment capacity	☐	☐	☐	☒
f.	Adequate landfill capacity	☐	☐	☐	☒
g.	Comply with solid waste regulations	☐	☐	☐	☒

Discussion:

a & e.

The City of Corona Department of Water and Power operates three water reclamation treatment facilities with sufficient capacity to serve the proposed development of 1,074,785 square feet of industrial development. The project will currently be served by the Waste Water Reclamation Treatment Facility #3 that has a capacity to treat 1 million gallons of sewer flow per day. The facility currently treats an average of 700,000 gallons per day. The proposed project will generate 66,000 gallons of sewer flow per day which will result in the plant accepting a total sewer flow of 760,000 gallons per day which is less than the plants treatment capacity. Therefore, the project will not impact the existing treatment facility.

Additionally, the City of Corona Department of Water and Power is preparing to close the Waste Water Reclamation Facility 3 and is constructing a series of sewer lift stations and force mains that will convey the flow to the other treatment facilities in the City. These additional flows have been accounted for in the design of these new facilities and will not impact the city's in the future.

b.

The proposed project will not impact the City of Corona's Department of Water and Power existing water and sewer facilities. The existing facilities have been designed and constructed to account for the demand that the project will create. The development will be responsible to construct the onsite water and sewer facilities required to serve the development in accordance the City of Corona Department of Water and Power standards.

c.

As previously discussed under Section 4 (Hydrology & Water Quality) of this initial study, the project site accepts water flows from the north from a tributary area of approximately 18 acres. No tributary flows come from the freeway right-of-way nor from the rights-of-way on Tom Barns Street and Temescal Canyon Road. The project is designed to accept off-site runoff from the north which will bypass the project site through proposed underground storm drains that will accept flow from proposed on-site catch basin inlets that discharge into modular wetlands for treatment and then into underground retention boxes. The modular wetlands are placed next to the underground retention boxes which are strategically located in the parking lot serving the industrial building. The project is anticipated to have 14 retention boxes and modular wetlands spread across the project site. The overflows of these on-site retention boxes will discharge into a proposed underground storm drainage system that discharges into the public storm drain in Tom Barns Street. An existing box culvert running from Interstate 15 takes the water flow through Tom Barns Street and continues southeasterly across Temescal Canyon Road toward the Temescal Creek.

The hydrology study (LDDC, 2019) prepared for the project calculated storm water runoff using Corona rainfall data. Off-site runoff was assumed to be 40% impervious area for single family residential, the project site was assumed to be commercial using approximately 90% impervious area in most subareas and the graded slopes were assumed to have 80% impervious area. Based on the modeled formula used in the hydrology study, the volume of stormwater runoff generated by post development of the project site increases from the volume under existing conditions. However, the volume of retention provided by the proposed underground retention boxes is greater than the increase anticipated from stormwater runoff; therefore, the project will not increase the volume of stormwater discharge. Due to the design of on-site drainage system and the existing public storm drain systems constructed off-site, the project site is designed to properly accept water flow across the site and will not result increased flooding hazards on-site or in the surrounding area. Therefore, this is not an impact.

d.

Pursuant to CEQA Guidelines Section 15155, the project meets the criteria as a water demand project and therefore requires the preparation of a water supply analysis. An industrial project is defined as a water demand project if: a) the project would house more than 1,000 persons, b) occupy more than 40 acres, or c) have more than 650,000 square feet in floor area. Based on the project's site plan, the project site is approximately 75 acres and will have 1,074,771 square feet of building area.

A water supply assessment (WSA) was prepared by Harris and Associates (July 2019) for the project. Reference documents used to prepare the WSA are cited throughout the document. In the interest of concision, references are made to these documents, but the documents and associated content are not reproduced herein. For additional insight into the bases of the citations, the reader is encouraged to acquire and review the references.

The documents referenced in the WSA are follows:

2015 Urban Water Management Plan (UWMP)
City of Corona 2015 Urban Water Management Plan, Volume 1 – Report (July 2016)
https://www.coronaca.gov/home/showdocument?id=4318

City of Corona 2015 Urban Water Management Plan, Volume 2 – Appendices (July 2016)
https://www.coronaca.gov/home/showdocument?id=4316

Corona General Plan 2004
El Cerrito Specific Plan (April 1992, Amended June 2011)
Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001
City of Corona Water Master Plan (September 2005)
City of Corona 2018 Reclaimed Water Master Plan

This report was prepared in compliance with the California Water Code and the Urban Water Management Planning Act as set forth in the 2015 Urban Water Management Plans Guidebook for Urban Water Suppliers established by the Department of Water Resources (DWR). It provides a review of water supply reliability for existing (2015) and future (through 2040) conditions with the City's Water Service Area as well as water conservation, energy use and contingency planning. Volume 1 includes analysis and Volume 2 include supporting documentation.

The UWMP is intended as a source of information for the preparation of Water Supply Assessments in accordance with SB 610. All topics related to existing and projected water supply and demand for the City are covered in detail and were thoroughly vetted by City staff prior to adoption by the City Council in 2016.

As a convention, applicable excerpts are taken directly from the UWMP. These excerpts are in units of acre-feet per year (AFY).

The WSA analysis is based on the *Guidebook for Implementation of Senate Bill 610 and Senate Bill 221 of 2001* (Guidebook). The Guidebook provides a methodology to determine whether supply is sufficient to meet demand under normal year, single dry year and multiple dry conditions for the next 20 years. Existing and projected supply and demand were taken from the *City of Corona 2015 Urban Water Management Plan* (UWMP). Calculation and projection of the incremental increase in demand associated with the Project were based on a number of factors, including:

- Project phasing
- Consistency with similar existing Light Industrial customers adjacent to California Avenue between Rimpau Avenue and Ontario Avenue
- Water use reduction to account for installation of efficient fixtures per the Building Code
- Water use reduction to account for changing economic conditions in the future
- Variation in irrigation demand due to meteorological conditions
- Use of reclaimed water for irrigation and dual plumbing

Based on the factors listed above, demand varies from 83 acre-feet per year (AFY) [Phase 1 only under normal conditions in 2020] to 144 AFY [Phase 1 and Phase 2 in the third year of a multi-year drought in 2025].

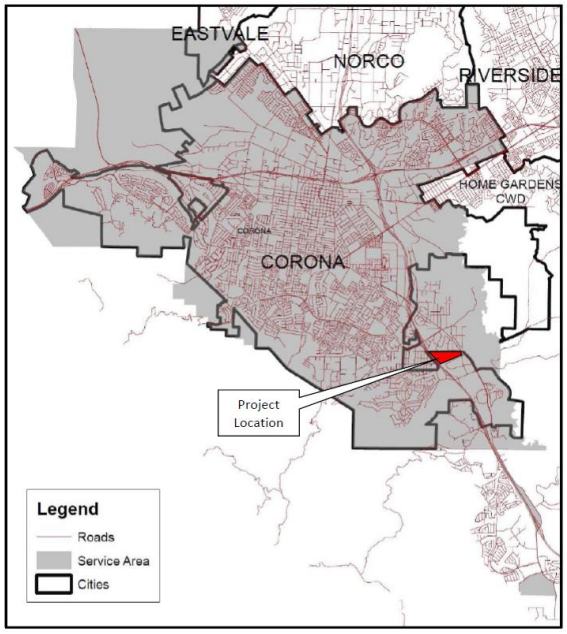
The WSA evaluated supply based on the project phasing shown in Table 12-1. It needs to be noted that the time the WSA was prepared the project proposed 1,124,294 square feet. The proposed project has since been revised and the total building square footage is 1,074,771 square feet. The change is square footage is less than originally studied. Therefore, the revised in the project does not negatively impact the WSA prepared in July 2019.

Table 12-1
Project Phases

Phase	Area (acres)	Floor Space (square feet)	Estimated Landscaping (square feet)	Estimated Slope Control (square feet)
Phase 1	45.58	748,131	402,059	21,780
Phase 2	28.00	376,163	449,975	0
Total	73.58	1,124,294	852,034	21,780

The project site is lcoated within the city's water service area. The area is shown in Figure 12-1.

Figure 12-1
Corona Water Service Area



[UWMP, page 3-2]

The City's UWMP (page 6-28) shows the City's existing and projected water supply. This information is provided in Table 12-2.

Table 12-2
City's Existing and Projected Water Supply

Year	2015	2020	2025	2030	2035	2040
Imported Water	12,692	28,365	28,365	28,365	28,365	28,365
Coldwater Basin	2,154	2,596	2,596	2,596	2,596	2,596
Temescal Basin	16,131	15,435	15,435	15,435	15,435	15,435
Reclaimed Water	6,519	10,000	10,000	10,000	10,000	10,000
Total	37,496	56,396	56,396	56,396	56,396	56,396

[UWMP, page 6-28]

This WSA relies entirely on existing supplies. The city's water supply portfolio includes imported water, groundwater from the Temescal and Coldwater Basins, and reclaimed water. The city has flexibility and discretion in the way it manages its supply portfolio. The WSA prepared for the project considered total supply the sum of imported water, groundwater and reclaimed water resources, but does not consider these sources individually. It is the city's responsibility to balance water supply and demand with the resources at its disposal.

Wholesale Water Supplies

The city is a member agency of the Western Municipal Water District (WMWD). WMWD is a local water wholesaler. Per the UWMP, the city received 12,692 acre-feet of imported water from WMWD in 2015. Historical and projected wholesale supply availability from WMWD is provided in Table 12-3.

Table 12-3
Wholesale Water Supply Availability

Year	2015	2020	2025	2030	2035	2040
Imported Water (AFY)	12,692	28,365	28,365	28,365	28,365	28,365

[UWMP, page 6-3]

Groundwater Supplies

The city pumps groundwater from two local aquifers: the Coldwater Basin and the Temescal Basin. Historical and projected production from these basins are shown in Table 12-4.

Table 12-4
Summary of Groundwater Supply

Year	2015	2020	2025	2030	2035	2040
Coldwater Basin (AFY)	2,154	2,596	2,596	2,596	2,596	2,596
Temescal Basin (AFY)	16,131	22,800	22,800	22,800	22,800	22,800

[UWMP, page 6-13]

Projected Water Demand

The water demand for the project was not explicitly accounted for in the 2015 UWMP. The UWMP only considered future demands associated with population growth and minor infill projects. For this reason, the WSA calculated water demand for the project independently. The analysis considered the project in two phases; Phase 1 is assumed to begin within five years, and Phase 2 within ten years. The water demand for the project was then calculated accordingly.

The City considers both potable water and reclaimed water as elements of its water supply portfolio in the UWMP. For this reason, both are calculated and considered as water demand for the project. The WSA reviewed supply sufficiency only, and did not include site-specific determination of the feasibility of using reclaimed water. As a non-potable source, the feasibility of implementing reclaimed water use is subject to a determination by the City Engineer. The WSA provided calculations for reclaimed water use by the project for landscape irrigation and dual-plumbing as guidance to the City Engineer on application of recommendations in the RWMP. The calculations were for planning purposes only and do not constitute an obligation by the City or the developer to implement reclaimed water use or to what degree reclaimed water use will be implemented.

Total water demand for the project was calculated and separated into potable water demand and reclaimed water demand by the following method:

- Recent city water use records for Light Industrial land use were used to develop an area-based demand factor in terms of total water demand per acre.
- The demand factor was applied to the area of the project to determine the gross water demand.
- Reclaimed water demand for irrigation and dual plumbing was calculated per guidance in the Reclaimed Water Master Plan. Reclaimed water demand for irrigation was increased under single dry year and multiple dry year conditions proportional to increases documented in the UWMP.
- Gross potable water demand is the gross water demand reduced by the reclaimed water demand.
- Potable water demand is the gross potable water demand reduced to account for installation of efficient plumbing fixture per the Building Code and reduced to account for the impact of wholesaler inflation on price elasticity.
- Total demand for the project is the sum of the potable water demand and the reclaimed water demand.

Water use records from January 2016 through December 2018 for 53 light industrial parcels in the vicinity of California Avenue between Rimpau Avenue and Ontario Avenue were analyzed to determine the average water use per acre. The total existing light industrial area was calculated at 107.26 acres and the associated annual water demand was calculated at 181.25 acre-feet per year (AFY). This is equivalent to a factor of 1.69 AFY per acre (Harris and Associates 2019).

For comparison purposes, the WSA noted that the Water Master Plan (page 6-9) provides a Water Unit Flow Factor for light industrial land use of 1,400 gallons per day per acre, which is equivalent to 1.57 AFY per acre. To be conservative, the demand factor of 1.69 AFY per acre based on recent city records will govern for this assessment.

Applying the demand factor to the Project area results in a total water demand of 124.33 AFY (Table 12-5).

Table 12-5
Total Demand Factor for Project

Phase	Area (acres)	Demand Factor (AFY/acre)	Demand (AFY)
Phase 1	45.58	1.69	77.02
Phase 2	28.00	1.69	47.31
Total	73.58		124.33

Per Ordinance 2854, reclaimed water will be used to meet irrigation and toilet flushing (i.e. dual plumbing) demands for the project. Calculations for reclaimed water were done based on project phasing for Phase 1 and Phase 2. Potable water demand was estimated as the total water demand minus the reclaimed water demand. Per the UWMP (page 7-7), potable water demand for new construction is reduced by 5% to account for efficient plumbing fixtures. Per the UWMP (page 4-5), future potable water demand is reduced to account for the impact of wholesaler inflation on price elasticity.

Based on the calculations and methodology used in the project's WSA (Harris and Associates 2019), the total water demand projecting into Year 2040 are provided in the following tables.

Table 12-6
Total Project Demand in Year 2020

Demand in 2020	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Reclaimed Water Demand	36.88	43.66	46.37	46.03	48.06	47.39
Potable Water Demand	37.67	37.67	37.67	37.67	37.67	37.67
Total Water Demand	74.55	81.33	84.04	83.70	85.73	85.06

Year 2020 assumed Phase 1 of the project was constructed within five years.

Table 12-7
Total Project Demand Year 2025

Demand in 2025	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Reclaimed Water Demand	75.52	89.73	95.41	94.7	98.96	97.54
Potable Water Demand	45.12	45.12	45.12	45.12	45.12	45.12
Total Water Demand	120.64	134.85	140.53	139.82	144.08	142.66

Year 2025 assumes Phase 1 and Phase 2 of the project are constructed within 10 years.

Table 12-8
Total Project Demand Year 2030

Demand in 2030	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Reclaimed Water Demand	75.52	89.73	95.41	94.7	98.96	97.54
Potable Water Demand	44.42	44.42	44.42	44.42	44.42	44.42
Total Water Demand	119.94	134.15	139.83	139.12	143.38	141.96

Year 2030 assumes project construction is complete.

Table 12-9
Total Project Demand for Year 2035

Demand in 2035	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Reclaimed Water Demand	75.52	89.73	95.41	94.7	98.96	97.54
Potable Water Demand	43.73	43.73	43.73	43.73	43.73	43.73
Total Water Demand	119.25	133.46	139.14	138.43	142.69	141.27

Table 12-10
Total Project Demand for Year 2040

Demand in 2040	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Reclaimed Water Demand	75.52	89.73	95.41	94.7	98.96	97.54
Potable Water Demand	43.03	43.03	43.03	43.03	43.03	43.03
Total Water Demand	118.55	132.76	138.44	137.73	141.99	140.57

The WSA also reviewed single and multiple years dry weather supply to also determine water supply sufficiency for the project. Total supply sufficiency based on the project's water demand are shown in the below tables.

Table 12-11
Summary of Supply Suffciency 2020 through 2040

Supply Sufficiency in 2020

Supply Sufficiency in 2020	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Total Supply	56,396	56,396	56,396	56,396	56,396	56,396
System Demand	39,533	47,616	50,463	50,132	52,680	51,932
Project Demand	75	81	84	84	86	85
Surplus Supply	16,788	8,699	5,849	6,180	3,630	4,379

Supply Sufficiency in 2025

Supply Sufficiency in 2025	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Total Supply	56,396	56,396	56,396	56,396	56,396	56,396
System Demand	39,514	47,486	51,171	50,835	53,425	52,664
Project Demand	121	135	141	140	144	143
Surplus Supply	16,761	8,775	5,084	5,421	2,827	3,589

Supply Sufficiency in 2030

Supply Sufficiency in 2030	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Total Supply	56,396	56,396	56,396	56,396	56,396	56,396
System Demand	39,555	47,523	51,986	51,641	54,274	53,502
Project Demand	120	134	140	139	143	142
Surplus Supply	16,721	8,739	4,270	4,616	1,979	2,752

Supply Sufficiency in 2035

Supply Sufficiency in 2035	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Total Supply	56,396	56,396	56,396	56,396	56,396	56,396
System Demand	39,634	47,609	52,871	52,523	55,203	54,417
Project Demand	119	133	139	138	143	141
Surplus Supply	16,643	8,654	3,386	3,735	1,050	1,838

Supply Sufficiency in 2040

Supply Sufficiency in 2040	Normal	Single Dry Year	Multiple Dry Year 1	Multiple Dry Year 2	Multiple Dry Year 3	Multiple Dry Year 4
Total Supply	56,396	56,396	56,396	56,396	56,396	56,396
System Demand	39,636	47,699	53,681	53,328	56,051	53,681
Project Demand	119	133	138	138	142	141
Surplus Supply	16,641	8,564	2,577	2,930	203	2,574

Under all supply sufficiency tests, there is surplus supply when the demand of the project is added to projected system demand. Based on the findings provided in the WSA, there is sufficient supply under normal year, single dry year and multiple dry year conditions through 2040. Therefore, the project will not impact the availability of water supply resources.

e & f

In 1989, the State Legislature passed Assembly Bill 939, the original landmark bill that required recycling, source reduction, and waste diversion. Since then, the state has required jurisdictions to increase diversion of solid waste from the landfills from 25 to 75 percent. The City of Corona has adopted comprehensive integrated waste management programs to meet state mandates. Corona's waste management efforts include waste prevention (or "source reduction"), recycling and composting, and combustion or disposal of waste into landfills. Corona's waste management efforts center around the following programs: mandatory recycling for residential, commercial and multifamily uses; household hazardous waste and electronic waste program; organics, mulch, compost, and tree recycling; bulky item pickup; waste oil/filter program; and construction and demolition recycling.

Assembly Bill 341 came into effect in 2012, requiring mandatory commercial and public agency waste recycling and establishing a statewide 75 percent waste diversion goal by 2020. In 2016 businesses and multifamily buildings with five or more units were impacted by Assembly Bill 1826, which requires the mandatory recycling of organic waste. The project will be designed to provide trash enclosure spaces designed to accommodate waste bins associated with the state's and city recycling program. Therefore, the project will comply with solid waste regulations and this is not an impact.

The city's waste hauler is Waste Management which transports all solid waste from the City and the sphere of influence areas to the El Sobrante landfill, located east of the City in the unincorporated county. Opened in 1986, the El Sobrante Landfill is a Class III landfill that accepts municipal solid waste.

13 AESTHETICS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Scenic vista or highway	☐	☐	☐	☒
b. Degrade visual character of site & surroundings	☐	☐	☐	☒
c. Light or glare	☐	☐	☐	☒

d. Scenic resources (forest land, historic buildings within state scenic highway	☐	☐	☐	☒

Discussion:

a & d.

Per Figure 4.4-2 (Scenic Highways) of the city's 2004 General Plan, the project site is not located along local scenic vista or highway. The westerly property line of the project site is adjacent to Interstate 15 and visible from highway. I-15 in this area is not designated as a state scenic highway. Therefore, the project will not have an impact on local or state designated scenic vistas or highway.

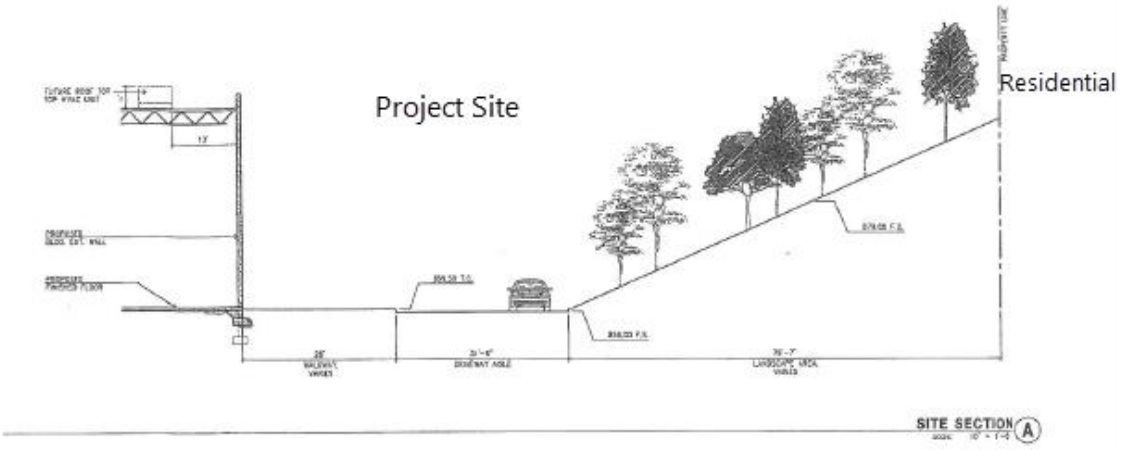
b.

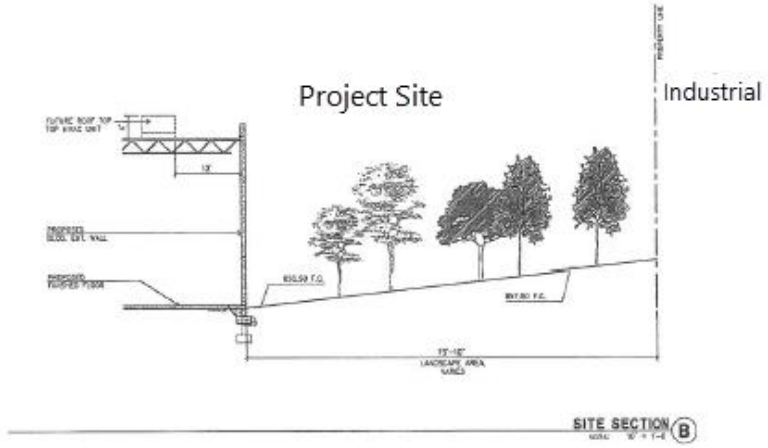
The project site was once used for the mining of sand. The mining operation ceased in 1997 and the site has since been reclaimed. The on-site reclamation efforts included the fill of on-site quarry pits and the mass grading of dirt across the entire site. The property is currently in an undeveloped condition and is covered with annual grasses and weed throughout the year. The project will improve the on-site condition of the property with new industrial buildings, paved parking, and landscaping. The project is also designed pursuant to the development standards of the Light Industrial zone governed by the El Cerrito Specific Plan and additional standards imposed by the Corona Municipal Code regulating building setbacks, landscaping, parking, building heights, and building architecture. The project is expected to improve the current appearance of the project site and will not result in a situation that would degrade the visual character of the site or the surrounding area.

c.

Although development of the site will introduce new lighting sources mostly associated with parking lot lighting and building lighting, the on-site light sources will not project glare beyond the project site. All parking lot lights are designed with a hooded standard that will direct light downward. The same situation will also exist on buildings. Exterior building lights will be from building mounted fixtures that will direct light downward. Additionally, the project site will on average be 47 feet lower than the residential properties to the north (the westerly portion of the project site will be approximately 65 feet lower than the adjacent properties with the easterly portion being approximately 26 feet lower) and will have an extensive landscape buffer on the manufactured slope created as a result of the grade difference. Cross sections along the perimeters near the residential properties are shown in Figure 13-1. The conceptual landscape plan along the north perimeter is shown in Figure 13-2. Based on the on-site design of the project, light and glare is not an impact.

Figure 13-1
Cross Sections (Northerly Perimeter)





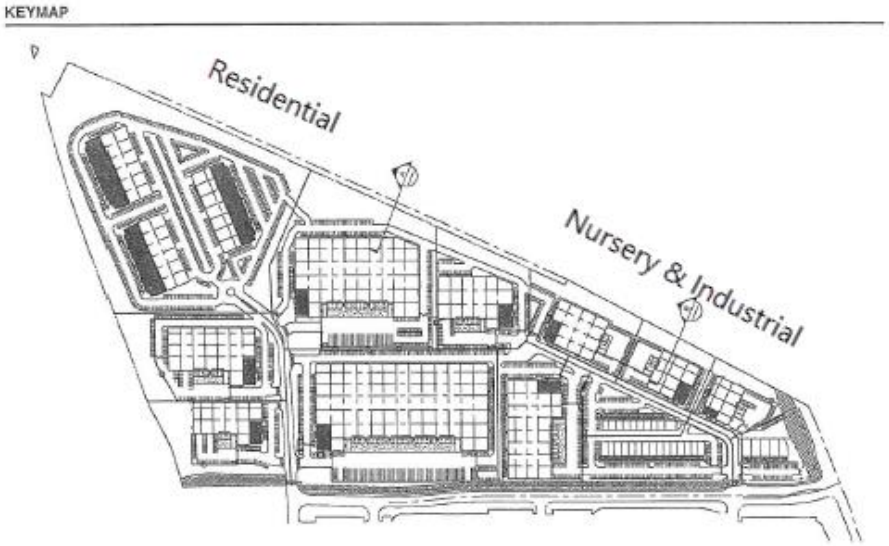
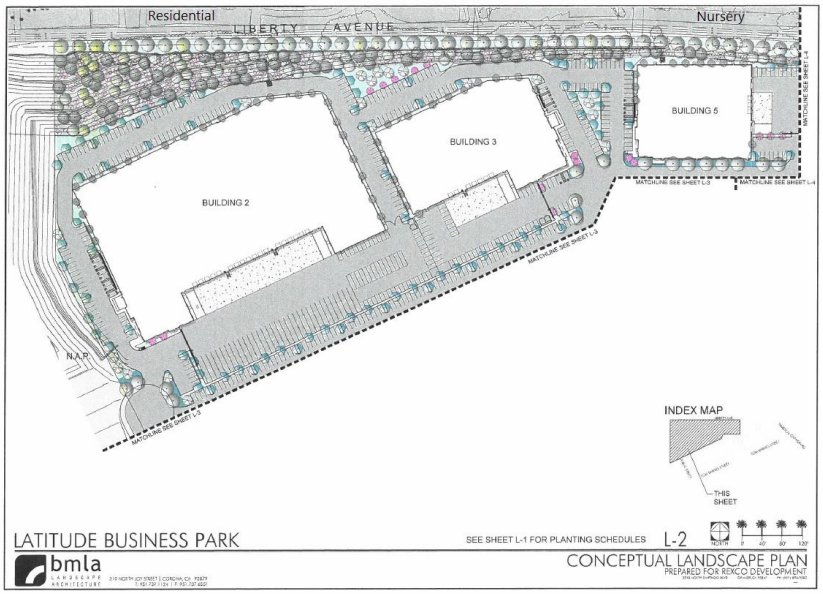
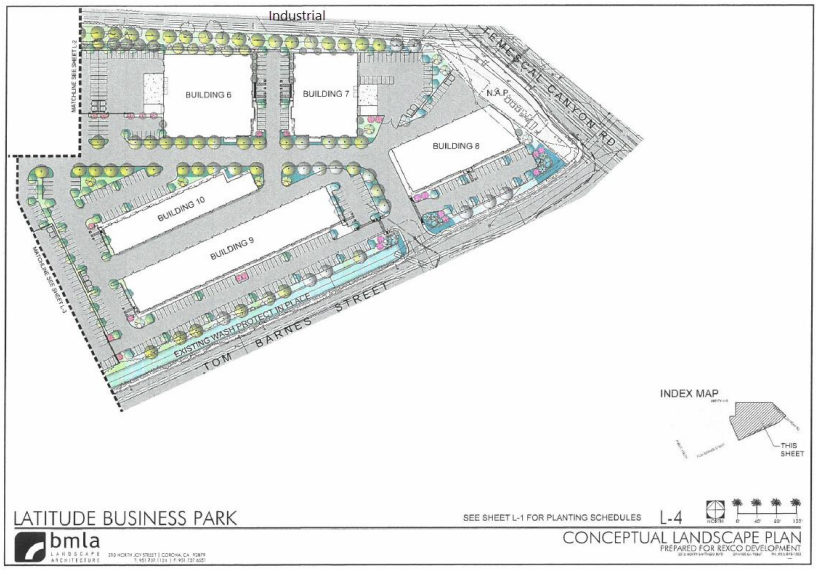


Figure 13-2
Conceptual Landscape (Northerly Perimeter)





14. CULTURAL RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Historical resource	☐	☐	☐	☒
b. Archaeological resource	☐	☐	☐	☒
c. Paleontological resource or unique geologic feature	☐	☐	☐	☒
d. Disturb human remains	☐	☐	☐	☒

Discussion:

a, b, c, d

Because the previous use of the project site was a sand mine and involved mining to depths of 30 feet and 40 feet below surface levels, cultural, archeological and paleontological resources are highly unlikely to occur on the project site. Also, the on-site remediation that took place after the mining was discontinued included mass grading across the project site. This activity resulted in the further disturbance as sediments were bulldozed in attempt to level some of the project site and return it to a more natural appearance. The previous mining operation also extended on to the adjacent 113 acres to the south which is now developed as a commercial shopping center. At the time of development of the adjacent property, no cultural resources were discovered in the area. Therefore, the project will not have an impact on cultural resources.

15. AGRICULTURE RESOURCES:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Williamson Act contract	☐	☐	☐	☒
b. Conversion of farmland to nonagricultural use	☐	☐	☐	☒

Discussion:

a & b.

The project site is designated on the General Plan as Light Industry and has a zoning of Light Industrial per the El Cerrito Specific Plan. The project site was also greatly disturbed by previous mining operations under Surface Mine Permit 109 issued by the County of Riverside. The site is not restricted by a Williamson Act contract. Therefore, the project will not impact agricultural resources.

16. GREENHOUSE GAS:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Generate greenhouse gases	☐	☐	☐	☒
b. Conflict with a plan, policy or regulation	☐	☐	☐	☒

Discussion:

a & b

Greenhouse Gas (GHG) emissions from daily operations would include sources such as area, energy, mobile, waste and water uses. Area sources include usage of consumer products, landscaping and architectural coatings as part of regular maintenance. Energy sources would be from uses such as electricity and natural gas. Solid waste generated in the form of trash is also considered as decomposition of organic material breaks down to form GHGs. GHGs from water are also indirectly generated through the conveyance of the resource via pumping throughout the state and as necessary for wastewater treatment. Finally, the project would also generate air quality emissions and GHG through the use of carbon fuel burning vehicles for transportation.

A GHG Emissions Assessment was prepared by Ldn Consulting (June 2019) for the project site. GHG impacts related to project construction and daily operations were calculated using the latest CalEEMod 2016.3.2 air quality and GHG model, which was developed by Breeze Software for South Coast Air Quality Management District (SCAQMD) in 2017. The City of Corona recognizes the CalEEMod Version 2016.3.2 as an acceptable model for projects of this nature.

The City of Corona guidelines for determining significance for GHGs under CEQA are identified in the CEQA Thresholds and Corona Climate Action Plan (CAP) Screening Tables prepared for the City of Corona by ATKINS in 2012. The CEQA thresholds give initial guidance for determining significance and also offer methodologies for screening out proposed land use developments. The document recommends completing a screening checklist or direct calculations for larger projects. The City has also indicated that small projects could alternatively demonstrate that the emissions for the development would not exceed a 3,000 MT for residential and mixed-use projects and up to 10,000 MT for industrial projects per SCAQMD GHG screening thresholds (SCAQMD, 2008). Should emissions exceed these thresholds, projects would be required to demonstrate compliance with the City's CAP Screening Checklist where a project would need to achieve 100 points in order to not exceed GHG thresholds.

Project Related Construction Emissions

Table 16-1 shows the anticipated construction schedule for the project, which is proposed to be developed in two phases (Ldn Consulting June 2019).

Table 16-1
Project Construction Schedule

Equipment Identification	Proposed Start	Proposed Completion	Quantity
Site Preparation	01/01/2020	01/14/2020	
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Grading	01/15/2020	02/25/2020	
Excavators			2
Graders			1
Rubber Tired Dozers			1
Scrapers			2
Tractors/Loaders/Backhoes			2
Paving	02/26/2020	03/24/2020	
Pavers			2
Paving Equipment			2
Rollers			2
Building Construction	03/25/2020	05/18/2021	
Cranes			1
Forklifts			3
Generator Sets			1
Tractors/Loaders/Backhoes			3
Welders			1
Architectural Coating	08/12/2020	05/18/2021	
Air Compressors			1
This equipment list is based upon equipment inventory and estimates within CalEEMod 2016.3.2.			

The CalEEMod 2016.3.2 model was utilized to determine annual CO2 emissions for the proposed construction years. The construction emissions as calculated in CalEEMod are reported in Metric Tons and are shown in Table 16-2. It should be noted that GHGs are analyzed on a Metric Ton per year (MT/year) which is why annual emissions are estimated. Based upon the findings for the proposed industrial project, construction activities would not be expected to exceed the 10,000 MT industrial threshold any given construction year. Therefore, the construction emissions would be considered less than significant.

Table 16-2
Expected Annual Construction CO2 Emissions Summary - MT/Year

Year	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
2020	0.00	1,006.07	1,006.07	0.13	0.00	1,009.22
2021	0.00	893.47	893.47	0.09	0.00	895.60
Expected Construction emissions are based upon CalEEMod modeling assumptions for equipment and durations listed in Table 1 above. CalEEMod annual output is attached to this letter.						

Project Related Operational Emissions

Emissions generated from area, energy, mobile, solid waste and water uses is also calculated within CalEEMod. The program is largely based on default settings which are automatically populated throughout the model based on the imputed land use. Statewide averages for utility emissions were utilized for the calculations throughout the model. The calculated operational emissions are identified in Table 16-3 (Ldn Consulting June 2019). It should be noted that the GHG model includes the project

estimated vehicular trips (4,127 daily trips) which were broken down within the project traffic study prepared by LL&G Engineers 2019.

Table 16-3
Expected Operational Emissions Summary - MT/Year

Year	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
Area	0.00	0.03	0.03	0.00	0.00	0.03
Energy	0.00	1,346.23	1,346.23	0.05	0.01	1,351.70
Mobile	0.00	5,815.48	5,815.48	0.28	0.00	5,822.38
Waste	181.53	0.00	181.53	10.73	0.00	449.72
Water	79.97	842.04	922.01	8.25	0.20	1,188.36
Total Operations	**261.50**	**8,003.78**	**8,265.28**	**19.30**	**0.22**	**8,812.19**

Expected Construction emissions are based upon CalEEMod 2016.3.2 modeling assumptions for equipment and durations listed in Table 1 above.
CalEEMod annual output is attached to this letter.
Data is presented in decimal format and may have rounding errors.

Based upon the operations emissions as calculated by CalEEMod, the operational annual emissions were found to be less than the general 10,000 MT screening threshold for industrial projects and would therefore comply with the City's GHG policies under the CAP without mitigation. Based on this, the project would not be required to implement GHG design features beyond those required by local state and City regulations. Based on this, the project would be considered less than significant for GHG emissions.

17. TRIBAL CULTURAL RESOURCES	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☐	☒
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe	☐	☐	☐	☒

Discussion:

a & b.

A negative cultural resources assessment was prepared for the project site by LSA Associates in June 2008. Ethnographically, the project site is within the Gabrielino territory. The northernmost territory of the Luiseno also just reaches the project area. The assessment determined that no Gabrielino or Luiseno villages are located near the project area. Also, due to the historic use of the property as a sand mine, which involved the excavation of earthen materials to depths 30 feet and 40 feet below surface level, it is not likely that tribal resources exist on the site today in its current condition.

AB 52 requires local agencies to notify and consultant with tribes about development projects. The purpose of AB 52 is to ensure that local and tribal governments, public agencies and project proponents have information available, early in the planning process to identify and address potential adverse impacts to tribal cultural resources. In February 2019, the city contacted the following Native American Tribes regarding the proposed project and consultation under AB 52:

- Soboba Band of Luiseno Indians
- Pechanga Band of Luiseno
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrieleno Band of Mission Indians – Kizh Nation
- Torres Martinez Desert Cahuilla Indians
- Santa Rosa Band of Cahuilla Mission Indians
- Rincon Band of Luiseno Indians

The city was contacted by the Rincon Band of Luiseno Indians on March 18, 2019, the Pechanga Band of Luiseno on March

20, 2019, and the Soboba Band of Luiseno Indians on March 27, 2019, requesting consultation. The city completed tribal consultation with the Rincon Band of Luiseno Indians on September 3, 2019. The Rincon Band of Luiseno Indians concluded there was an unlikelihood that cultural resources exist on the property due to the previous mining operation and grading that has occurred on the project site. The tribe had no additional concerns and did not request any mitigation measures relating to cultural resources. The city contacted the other two tribes on two separate occasions requesting consultation but a response from either tribe was never received. On September 20, 2019, the city contacted Pechanga Band of Luiseno and Soboba Band of Luiseno Indians for a third time and provided a deadline for consultation by September 27, 2019. The city received no responses from either tribe and concluded consultation on September 27, 2019.

The city did receive a letter from Pechanga Band of Luiseno dated November 14, 2019. The letter commented on some of the citations made in the report regarding the tribe's history. No comments were made regarding potential impacts to tribal/cultural resources. The tribe however did reserve the right to comment on the city's environmental analysis when it comes available.

Based on the previous use of the property and the mass grading activity that has occurred across the project site and the lack of physical resources, the project will not have an impact on tribal cultural resources.

18. MANDATORY FINDING OF SIGNIFICANCE:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Fish/ wildlife population or habitat or important historical sites	☐	☐	☐	☒
b. Cumulatively considerable impacts	☐	☒	☐	☐
c. Substantial adverse effects on humans	☐	☐	☒	☐
d. Short-term vs. long-term goals	☐	☐	☒	☐

Discussion:

A. No impact.

The project is not anticipated to impact threatened or endangered species or habitat. As discussed under Section 7 of this initial study, Biological Resources, the area along Joseph Canyon Wash supports riparian woodland communities, but this area is not being affected by the proposed development and has been set aside as a mitigation site. The plant species observed on the project site were nonnative or invasive weedy species over the majority of the area and native plant species are limited largely to the Joseph Canyon Wash Conservation Easement and the slopes adjacent to I-15, which were part of ongoing revegetation activities associated with environmental compliance for the Crossings Project. Therefore, the project does not impact biological resources that are threatened or endangered.

B. Potentially Significant Unless Mitigation Incorporated.

None of the issue areas analyzed in the initial study resulted in impacts that would be considered significant after mitigation. Traffic from the project would not contribute to significant impacts on the city's circulation system, the emission thresholds related to air quality and greenhouse gases are not being exceed by the project construction and operation, the water quality management being established on-site prevents ground water contamination and the water supply assessment determined there is sufficient water supply under normal year, single dry year and multiple dry year conditions through 2040. Therefore, these impacts are less than significant and therefore not cumulatively considerable.

C. Less than significant.

The project would not have a substantial adverse effect on human beings, either directly or indirectly. The initial study did not identify significant impacts related to air quality and greenhouse gases as the project will operate within the thresholds adopted by the State's air resources board.

D. Less Than Significant.

Noise from the project during construction and operation adheres to the city's performance standards regulated by the Corona Municipal Code and air quality and greenhouse gas emissions are within the thresholds established by the State's air resources board. Adherence to these standards throughout the operation of the project would keep these impacts at less than significant.

19. WILDFIRE:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan	☐	☐	☐	☒
b. Due to slope, prevailing wind, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from wildfire or the uncontrolled spread of a wildfire	☐	☐	☐	☒
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment	☐	☐	☐	☒
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes	☐	☐	☐	☒

Discussion:

a, b, c, & d

The project site is not located within a high fire hazard severity zone (https://koordinates.com/layer/96850-riverside-county-ca-fire-hazard-severity-zones/). Therefore, development of the project site will not exacerbate wildfire risks. The project site is also not adjacent to other properties that are within a high fire hazard severity zone. The properties to the south and east have also been developed for commercial purposes and developed to commercial standards that include paved concrete surfaces, paved access and commercial buildings. The proposed industrial buildings will also be constructed in accordance with the California Building Standards Code and California Fire Code which will require adequate fire suppression measures and adequate water pressure for fire hydrants serving the project.

Paved roadway access will also be provided to the project from two public streets, Temescal Canyon Road and Tom Barns Road, including additional access from Cajalco Road via Grand Oaks from the adjacent shopping center. The project's on-site design also provides two points of vehicular access from Tom Barns Road.

Therefore, based on the project's location, there is no impact or threat of wildfire.

20. ENERGY:	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation	☐	☐	☐	☒

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency	☐	☐	☐	☒

Discussion:

a.

An energy efficiency analysis for project construction and operations was prepared by Ldn Consulting (July 2019) as it relates to nonrenewable fuel sources including electrical, natural gas, diesel and gasoline. The analysis was prepared according to requirements established within Public Resource Code (PRC) Section 21100(b)(3) and California Environmental Quality Act (CEQA) Guidelines Section 15126.4.

Project Construction

Energy usage for construction equipment is best estimated using total horsepower hours and an assumed thermal efficiency of 30%. The most common measure of the energy efficiency of a tractor is referred to here as "specific volumetric fuel consumption" (SVFC), which is given in units of gallons per horsepower-hour (gal/hp-h). SVFC for diesel engines typically ranges from 0.0476 to 0.1110 gal/hp-h. Inverting these numbers yields a range of between 12-21 hp-h/gal. Over the last 30 years, fuel efficiency at maximum power has increased from roughly 14.5 to 16.5 hp-h/gal (Ldn Consulting 2019). Project construction dates were estimated based on an estimated construction kickoff starting in July 2019 and completing the project sometime in 2020. Based on the equipment, quantity, work time, Horsepower (HP), the project would require a total of 1,242,791.20 hp-h. This is shown in Table 20-1 below. Based on this, the project would consume roughly 75,321 gallons of diesel for construction. It should be noted that fuel consumption would go up if diesel construction equipment is poorly maintained. Based on this, the project shall properly maintain all equipment per manufacture recommendations.

Construction emissions from vendors and hauling are based on the estimated vehicle miles traveled (VMT) for the total construction duration which is 2,431,536 miles total. In California, the average fuel intensity for on-road vehicles is 0.0615 gal/mile (Ldn Consulting 2019). Based on this, the vehicular trips would consume roughly 149,539.5 gallons total during construction.

On-road vehicles are regulated by state and federal regulations and vehicular fleet efficiencies are getting better each year. Additionally, all construction equipment shall be maintained as needed per manufactures recommendations. Based on this, the short-term energy demand during construction of the project would not result in a wasteful or inefficient use of energy.

Table 20-1
Expected Project Construction Equipment

Equipment Identification	Construction Days	Hours per day	HP	Load Factor	Quantity	Horsepower Hours
Site Preparation	10					
Rubber Tired Dozers		8	247	0.4	3	23,712.00
Tractors/Loaders/Backhoes		8	97	0.37	4	11,484.80
Grading	30					
Excavators		8	158	0.38	2	28,819.20
Graders		8	187	0.41	1	18,400.80
Rubber Tired Dozers		8	247	0.4	1	23,712.00
Scrapers		8	367	0.48	2	84,556.80
Tractors/Loaders/Backhoes		8	97	0.37	2	17,227.20
Paving	20					
Pavers		8	130	0.42	2	17,472.00
Paving Equipment		8	132	0.36	2	15,206.40
Rollers		8	80	0.38	2	9,728.00
Building Construction	400					
Cranes		7	231	0.29	1	187,572.00
Forklifts		8	89	0.2	3	170,880.00
Generator Sets		8	84	0.74	1	198,912.00
Tractors/Loaders/Backhoes		7	97	0.37	3	301,476.00
Welders		8	46	0.45	1	66,240.00
Architectural Coating	300					
Air Compressors		6	78	0.48	1	67,392.00
					Total Horsepower Hours	1,242,791.20
					Total Diesel Fuel (Gal) @ 16.5 hp-h/gal	75,321
Construction Lists identified within **CalEEMod Attachment A** to this report which was used for the project GHG analysis						

Project Operations
Energy – Utility Demand

The State of California has implemented a number of energy reducing policies largely geared to reducing greenhouse gasses (GHGs). The most notable is Assembly Bill (AB) 32 which was signed in 2006. Since then, the state has implemented two scoping plan updates which are geared to reduce GHG emissions by reducing energy consumption, increasing energy efficiency and increasing the usage of renewable sources. The state has also taken a strong step in increasing building efficiencies under Title 24, par 6 of California's Code of Regulations. Additionally, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards are updated every three years as part of the California Building Standards triannual update. The mandatory standards required per the CAL Green code include the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings.
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance.
- 65 percent of construction waste must be diverted from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.
- Inclusion of electric vehicle charging stations or designated spaces capable of supporting future charging stations.
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

Furthermore, the state has adopted a number of regulations which force utility electrical utility providers to increase renewable portfolios or procurement. Although not described in detail for this initial study, the following regulations include SB 1078 (Renewable Portfolio Standards), SB X1 2, SB 350 and SB 100 (expanded and accelerated Renewable Portfolio Standards).

Energy – Vehicular Usage
The proposed project was analyzed as a light industrial and industrial office project using trip generation rates identified in the project traffic study prepared by LL&G Engineers (2019). Based on the project trip generation rate, the proposed project would generate roughly 4,127 daily passenger car equivalent trips. The proposed project is also within walking distance the Corona Cruiser Red Line (City of Corona - Corona Cruiser, 2019). The ease of access to this resource would result in reduced vehicle miles traveled, reducing gasoline use, and inhibiting wasteful, inefficient, or unnecessary use of energy. Furthermore, the project is within walking distance to a regional shopping center that provides retail services and eating establishments across the street from the project site. These close commercial amenities also helps to reduce the project's vehicle trips throughout the day by employees. Finally, the use of energy efficiency (zero-emission) vehicles has increased over the years due to state mandated policies geared to reduce GHG emissions. An electric vehicle charging station is also located adjacent to the project site within the parking lot of the shopping center near Target. Therefore, employees will have access to vehicle charging stations within walking distance to the project.

Therefore, the long-term energy demand during operations of the project would not result in a wasteful or inefficient use of energy. As renewable portfolios increase and as electric vehicle operations become more standardized, energy consumptions will decrease. Given this, the project would not result in a wasteful or inefficient use of energy and is a less than significant impact.

21. PREVIOUS ENVIRONMENTAL ANALYSIS:

Earlier analysis may be used when one or more of the environmental effects have been adequately analyzed in an earlier EIR or Negative Declaration (Section 15063).

DOCUMENTS INCORPORATED BY REFERENCE:

1. City of Corona. 2004. *Corona General Plan Update 2004*.
2. ECORP Consulting, Inc. December 2019. *Biological Technical Report and MSHCP Consistency Analysis, Latitude Business Park Development.*
3. Harris and Associates, Inc. July 2019. *Water Supply Assessment for the Latitude Business Park.*
4. Land Development Design Company, LLC. December 2019. *Preliminary Water Quality Management Plan for Latitude Business Park.*

5. Land Development Design Company, LLC. December 2019. *Hydrology Study for Latitude Business Park.*
6. Ldn Consulting, Inc. July 2019. *Energy Use and Conservation, Latitude Business Park Development.*
7. Ldn Consulting, Inc. June 2019. *Latitude Business Park Development Project Greenhouse Gas Letter.*
8. Ldn Consulting, Inc. June 2019. *Air Quality Assessment, Latitude Business Park.*
9. Ldn Consulting, Inc. June 2019. *Noise Analysis, Latitude Business Park.*
10. Linscott Law & Greenspan Engineers. September 23, 2019. *Traffic Impact Analysis Report, Latitude Business Park.*
11. Linscott Law & Greenspan Engineers. November 20, 2019. *General Plan Conformance Traffic Analysis for the Proposed Latitude Business Park Supplemental Memo to the TIA dated September 23, 2019.*
12. LSA Associates. June 2008. *Negative Cultural Resource Assessment Letter Report.*
13. The Planning Associates Group. December 2018. *Preconstruction Phase 1 Biological and Burrowing Owl Assessment for North 65 acres, Gateway Business Plaza.*
14. South Shore Testing and Environmental. October 2018. *Phase 1 Environmental Site Assessment, Proposed Latitude Business Park.*
15. South Shore Testing and Environmental. October 2018. *Preliminary Geotechnical Investigation.* (Provided as Appendix B in Preliminary WQMP prepared by LDDC, LLC).

MITIGATION MONITORING AND REPORTING PROGRAM
CITY OF CORONA

Mitigation Measure	Topic	Timing
	Geological	
3-1	On-site grading shall be done according the recommendations of the preliminary geotechnical investigation prepared by South Shore Testing and Environmental (October 2019). Recommendations include: a) site specific grading instructions contained in Appendix C of the report which covers site preparation, compacted fills, cut slopes, trench backfills and grading controls, b) structural fill placed in pad areas should be suitably processed by moisture conditioning to near optimum moisture content, then compacted in the upper 12-inches to the minimum compaction requirement prior to placing fill; and c) no structural fill shall be placed within the building areas on any ground without first being observed by licensed civil engineer or geologist and that written certification be provided that the ground is competent and prepared to receive fill.	Prior to issuance of a grading permit
3-2	Corrosivity suite testing should be performed at the completion of rough grading including soluble sulfate, chloride, PH, and resistivity testing to determine the type of concrete to be utilized on-site.	Prior to the issuance of a building permit
3-3	During the grading of the project site testing of the subgrade soils should be conducted to evaluate the expansive nature of the subgrade soils. If highly expansive soils are discovered, overexcavation of the slope face should occur and shall be replaced with very low to medium expansion soils during grading. This evaluation shall be monitored and evaluated by the project's licensed civil engineer and/or geotechnical/soil engineer. The foundation design parameters should be developed specific to the design of the final foundation scheme at the completion of grading.	Prior to issuance of a building permit

Mitigation Measure	Topic	Timing
	Air Quality	
5-1	The project shall use Tier 4 diesel construction equipment during project construction. The project's grading plans shall clearly note the use of this equipment.	Prior to issuance of a grading permit
	Transportation/Circulation	
6-1	Temescal Canyon Road and Tom Barns Street. The applicant shall restripe the eastbound approach to extend the existing left-turn/through pocket into the No. 1 eastbound through lane, which will create an eastbound left-turn/through storage of 360 feet.	Prior to the issuance of the first certificate of occupancy for the project.
6-2	Temescal Canyon Road and Tom Barns Street (Year 2040), The applicant shall guarantee the project's fair share cost toward future intersection improvements which includes restriping the west leg to provide the eastbound approach with an exclusive eastbound left-turn lane, a shared eastbound left-turn/through lane, and an exclusive eastbound right-turn lane and removing the crosswalk along the south leg. The existing traffic signal is recommended to be modified to include split phasing for the east/west direction.	Prior to the issuance of a building permit or recordation of TTM 37608, whichever occurs first
6-3	Intersection at State Street at Ontario Avenue (Year 2022). In Year 2022 without the project, the intersection is forecast to have LOS E in the a.m. and p.m. peak hours. In Year 2022 with the project, the LOS remains the same in the a.m. and p.m. peak hours. This deficient LOS is considered cumulative in nature and not project specific. To improve the LOS to an acceptable level, the following improvements for this intersection include: a) stripe crosswalks on all legs, and b) installation of a traffic signal and a design for five-phase operation with protected left-turn phasing on Ontario Avenue. This intersection is in the City's Fee Program as a master-planned traffic signal to be installed by the City. The project's fair share cost toward this improvement is 34.92%.	The developer shall guarantee the fair share cost prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

Mitigation Measure	Topic	Timing
6-4	Intersection at Temescal Canyon Road at Cajalco Road (Year 2022). In Year 2022 without the project, the intersection is forecast to have LOS D in the a.m. and p.m. peak hours. In Year 2022 with the project, the LOS is forecast to have LOS E in the p.m. peak hour. This deficiency in the LOS is considered to be from the project. To improve the LOS to an acceptable level, the planned improvement for the intersection is to modify the existing traffic signal to install eastbound right-turn overlap phasing. The developer is responsible for 100% of the cost associated with this improvement.	The developer shall construct this improvement prior to project opening and shall guarantee the construction of this improvement prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.
6-5	Intersection at State Street at Ontario Avenue (Year 2040). In Year 2040 without the project, this intersection is forecast to operate at LOS E in the a.m. and p.m. peak hours. In Year 2040 with the project, the LOS is forecast to have LOS F in the p.m. peak hour. This deficiency in the LOS is considered to be from the project. To improve the LOS to an acceptable level, the planned improvement is the same as that in Year 2022. The project is responsible for paying 24.43% of the cost of the improvement	The developer shall guarantee the fair share cost prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.
6-6	Intersection at Ontario Avenue/Temescal Canyon Road at El Cerrito Road (Year 2040). In Year 2040 without the project, this intersection is forecast to operate at LOS E in the p.m. peak hour. In Year 2040 with the project, the LOS remains the same in the p.m. peak hour. This deficient LOS is considered cumulative in nature and not project specific. To improve the LOS to an acceptable level, the planned improvement at this intersection is to modify the existing traffic signal to provide eastbound right-turn overlap phasing. The project is responsible for 21.67% of the cost to construct.	The developer shall guarantee the fair share cost prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.
6-7	Intersection at Temescal Canyon Road at Cajalco Road (Year 2040). In Year 2040 without the project, the intersection is forecast to have LOS D in the a.m. peak hour and LOS E in the p.m. peak hour. In Year 2040 with the project, the LOS is forecast to have LOS E in the a.m. peak hour and LOS F in the p.m. peak hour. This deficiency in the LOS is considered to be from the project. To improve the LOS to	The developer shall guarantee the full cost of this improvement prior to the issuance of the first building permit for the project or prior to the recordation of TTM 37608, whichever one occurs first.

Mitigation Measure	Topic	Timing
	an acceptable level, the planned improvement for the intersection is to restripe the west leg to provide the eastbound approach with a second exclusive eastbound left-turn lane; and modify the existing traffic signal to install eastbound right-turn overlap phasing and northbound right-turn overlap phasing. The developer is responsible for 100% of the cost associated with this improvement.	
	Biological Resources	
7-1	A pre-construction survey for burrowing owls should be completed within the Project site no more than 30 days prior to construction activities in accordance with the Western Riverside MSHCP burrowing owl survey guidelines (County of Riverside 2006). If burrowing owls are observed during the preconstruction survey, a specific mitigation methodology for the owl shall be determined in coordination with CDFW in order to reduce impacts to a level that is less than significant. Mitigation measures for any owls present could include avoidance of the owl burrows during their nesting season and/or passive relocation of burrowing owls.	Prior to issuance of a grading permit or any ground disturbance on the project site.
7-2	Any ground disturbance activities shall be conducted during the non-breeding season for birds (approximately September 1 through January 31). This will avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. If activities with the potential to disrupt nesting birds are scheduled to occur during the bird breeding season (February 1 through August 31), a preconstruction nesting bird survey shall be conducted by a qualified biologist who is experienced in the identification of avian species and conducting nesting bird surveys. The nest surveys shall include the Project site and adjacent areas where Project activities have the potential to cause nest failure. If no nesting birds are observed during the survey, site preparation and construction activities may begin. If nesting birds (including nesting raptors) are found to be present, avoidance or minimization measures shall be undertaken to avoid potential project-related impacts. Measures may include establishment of an avoidance buffer until nesting has been completed and periodic nest monitoring by the project biologist. The width of the avoidance buffer will be determined by the Project biologist. Typically this is 300 feet from the nest site in all	Prior to the issuance of grading permit or any ground disturbance on the project site.

Mitigation Measure	Topic	Timing
	directions (500 feet is typically recommended by CDFW for raptors), until the juveniles have fledged and there has been no evidence of a second attempt at nesting. The monitoring biologist will monitor the nest(s) during construction and document any findings.	
7-3	Due to the potential presence of least Bell's vireo within Joseph Canyon Wash, if activities with the potential to disrupt nesting birds are scheduled to occur during the breeding season, protocol-level least Bell's vireo surveys shall be completed prior to any such activities, in order to rule out the presence of least Bell's vireo. Surveys involve eight surveys from April 10 through July 31, spaced at least 10 days apart. If least Bell's vireo is detected during the surveys, then all work within 500 feet of the location of the least Bell's vireo territory will be halted and the CDFW will be consulted regarding mitigation and avoidance measures during construction. At a minimum, an avoidance buffer will be planned and established in consultation with the CDFW to avoid indirect impacts to least Bell's vireo. The buffer is expected to be a minimum of 500 feet in width. The width of the avoidance buffer will be determined by the Project biologist, in consultation with the CDFW. Other mitigation measures may also be applied based on that consultation process.	Prior to the issuance of grading permit or any ground disturbance on the project site.
	Noise	
10-1	The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise sensitive receptors nearest the project site.	During on-site construction
10-2	The construction contractor shall limit haul truck deliveries to the same hours specified for construction equipment. To the extent feasible, haul routes shall not pass sensitive land uses or residential dwellings. Homeowners shall be notified via postings on the construction site prior to the construction commencing.	During on-site construction

Mitigation Measure	Topic	Timing
10-3	Rooftop equipment shall be shielded by a mechanical screen or raised building parapet to minimize equipment noise from projection beyond the project site.	Prior to issuance of a building permit