Public Review Draft

IBC MULTI-USE TRAIL CREEKWALK SEGMENT PROJECT

Initial Study/Mitigated Negative Declaration

Prepared for
City of Irvine

February 2026

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Acronyms and Other Abbreviations

Abbreviation	Definition
AB	Assembly Bill
AQMP	Air Quality Management Plan
BERD	Built Environment Resource Directory
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CGS	California Geological Survey
CH4	methane
City	City of Irvine
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO2	carbon dioxide
CO2e	carbon dioxide equivalent
CWA	Clean Water Act
dB	decibels
DG	decomposed granite
DPM	diesel particulate matter
EIR	environmental impact report
ESA	Environmental Science Associates
FHWA	Federal Highway Administration
FTA	Federal Transportation Administration
GHG	greenhouse gas
GWP	Global Warming Potential
HFC	hydrofluorocarbons
IBC	Irvine Business Complex
IRWD	Irvine Ranch Water District
LACM	Natural History Museum of Los Angeles County
Leq	energy-equivalent noise level
Ldn	day-night average noise level
Lmax	maximum noise level
Lmin	minimun noise level

Abbreviation	Definition
LST	localized significance threshold
Lx	noise level exceeded X% of a specific period of time
MLD	Most Likely Descendent
MMRP	Mitigation Monitoring and Reporting Program
MMT	Million Metric Tons
MT	Metric Ton
MTCO2e	metric tons of carbon dioxide equivalent
N2O	nitrous oxide
NAHC	Native American Heritage Commission
NHTSA	National Highway Traffic Safety Administration
NO2	nitrogen oxides
NOX	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
PFC	perfluorocarbons
PM2.5	fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
PM10	respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
PRC	Public Resources Code
Project	Irvine Business Comple Multi-Use Trail Creekwalk Segment Project
RCNM	Roadway Construction Noise Model
RRFB	rapid rectangular flashing beacon
RWQCB	regional water quality control board
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SF6	sulfur hexafluoride
SLF	Sacred Lands File
SLM	Sound Level Meter
SO2	sulfur dioxide
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminants
USEPA	U.S. Environmental Protection Agency
VdB	vibration decibels
VOC	Volatile organic compounds

SECTION 1
Introduction

1.1 Overview

The City of Irvine (City), as the lead agency under the California Environmental Quality Act (CEQA), has identified the need for the Irvine Business Complex (IBC) Multi-Use Trail Creekwalk Segment Project (Project). The Project would construct a new multi-use paved trail (proposed trail) along the western edge of the San Diego Creek and Peters Canyon Wash, extending from Coronado Drive in the south to Warner Avenue in the north. The proposed trail would total approximately 1.75 miles of an off-street paved Class I shared-use path. The proposed trail would include two components: 1) a two-foot wide paved shoulder nearest to the channel and an eight-foot wide paved trail for pedestrians and cyclists and 2) a five-foot wide decomposed granite (DG) trail for equestrian use and a two-foot wide earthen swale located on the western side of the path. Proposed intersection improvements at Coronado Drive and Main Street would include at-grade crossings (proposed intersection improvements). The at-grade crossing at Coronado Drive would include a proposed bulb out to allow for a traffic signal pole, which would include a post-mounted rapid rectangular flashing beacon (RRFB). The at-grade crossing at Main Street would include a full height curb, driveway modification, or curb island to allow for a new signal pole, which would include full bike/trail signal. The proposed trail and proposed intersection improvements collectively comprise of the Project. The location of the proposed trail and proposed intersection improvements collectively comprise of the Project Site.

1.2 Statutory Authority and CEQA Requirements

In accordance with Sections 15051 and 15367 of the California Code of Regulations (CCR), the City is identified as the Lead Agency for the Project. Under CEQA (Public Resources Code Section 21000-21177) and pursuant to Section 15063 of the CCR, the City is required to undertake the preparation of an Initial Study to determine if the Project would have a significant environmental impact. If, as a result of the Initial Study, the Lead Agency finds that there is evidence that any aspect of the Project may cause a significant environmental effect, the Lead Agency shall further find that an Environmental Impact Report (EIR) is warranted to analyze Project related and cumulative environmental impacts. Alternatively, if the Lead Agency finds that there is no evidence that the Project, either as proposed or as modified to include the mitigation measures identified in the Initial Study, may cause a significant effect on the environment, the Lead Agency shall find that the Project would not have a significant effect on the environment and shall prepare a Negative Declaration. Such determination can be made only if “there is no substantial evidence in light of the whole record before the Lead Agency” that such impacts may occur (Section 21080(c), Public Resources Code).

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the Project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and other discretionary approvals would be required.

The environmental documentation and supporting analysis is subject to a public review period. During this review, public agency comments on the document relative to environmental issues will be addressed to the City. Following review of any comments received, the City will consider these comments as a part of the Project's environmental review and include them with the Initial Study documentation for consideration by the City.

Section 15063 of the CEQA Guidelines identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include:

- A description of the project, including the location of the project;
- Identification of the environmental setting;
- Identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries;
- Discussion of ways to mitigate significant effects identified, if any;
- Examination of whether the project is compatible with existing zoning, plans, and other applicable land use controls; and
- The name(s) of the person(s) who prepared or participated in the preparation of the Initial Study.

1.3 Consultation

As soon as the Lead Agency (in this case, the City) has determined that an Initial Study would be required for the Project, the Lead Agency is directed to consult informally with all Responsible Agencies and Trustee Agencies that are responsible for resources affected by the Project, in order to obtain the recommendations of those agencies as to whether an EIR or Negative Declaration should be prepared for the Project. Following receipt of any written comments from those agencies, the Lead Agency considers any recommendations of those agencies in the formulation of the preliminary findings. Following completion of this Initial Study, the Lead Agency initiates formal consultation with these and other governmental agencies as required under CEQA and its implementing guidelines.

1.4 Incorporation by Reference

The following documents were utilized during preparation of this Initial Study and are incorporated into this document by reference. These documents are available for review at the City of Irvine Department of Public Works and Sustainability located at 1 Civic Center Plaza, Irvine, California, 92606.

- *City of Irvine 2045 General Plan*. The City of Irvine General Plan (General Plan) is a comprehensive, long-range statement of Irvine's development and preservation policies. It is intended to be used by

residents, business owners, City officials and all those interested in the direction of the City. The General Plan is composed of elements which address a broad and evolving range of issues. Each element of the plan identifies and describes goals, objectives, and implementing actions which provide specific direction for decision making and formulation of public policy. The General Plan contains mandated elements which are required by the State Planning, Zoning, and Developments Laws. There are also eight optional elements which relate to the development of the City. They are as follows:

Mandated Elements:

- Land Use;
- Circulation;
- Housing;
- Conservation and Open Space;
- Noise; and
- Safety.

Optional Elements:

- Public Facilities;
- Waste Management;
- Energy;
- Parks and Recreation;
- Cultural Resources;
- Growth Management;
- Seismic; and
- Irvine Business Complex.

- *City of Irvine Zoning Ordinance* (codified through Ordinance No. 23-15, enacted July 25, 2023). The City of Irvine Zoning Ordinance (Zoning Ordinance), establishes standards, consistent with the City's General Plan, that regulate land uses and development throughout the City to ensure compatibility of land uses and to avoid issues associated with incompatibility. The Zoning Ordinance is intended to protect, promote, and enhance public health, safety, and general welfare for people living and working within the City. The Zoning Ordinance promotes compatibility between the natural and built environment and ensures compatibility with corresponding General Plan land use designations and intensities. It also promotes the development of a safe, effective circulation, and transportation network that accommodates the needs of all modes of transportation.
- *IBC Vision Plan* (approved in July 2010). The IBC Vision Plan was developed to facilitate the continued evolution of the IBC from solely office, industrial, and commercial uses into a fully mixed-use business and residential community. The IBC Vision Plan, adopted as Element "N" in the City's General Plan, represents policy direction to create a neighborhood framework for the IBC, while the overlay zone and related code amendments create development standards for new residential and

mixed-use development to ensure propose integration of these uses into the planned neighborhood framework.

- *IBC Trail Feasibility Study and Implementation Plan* (adopted in June 2021). The IBC Trail Plan examines eight potential corridors for the feasibility of implementing multi-use trails and linear park elements within the IBC area. The IBC Trails Plan corridors consists of a mix of active and inactive freight rail corridors, flood control channels, and public/emergency vehicle access easements. The IBC Trails plan documents the existing conditions at the eight study corridors, including surrounding land uses, conditions for automobiles, bicycles, and pedestrians, and ownership of the rights-of-way under consideration for multi-use trail installation. The IBC Plan also includes an analysis of each of the eight trails, examining the opportunities and constraints potentially impacting the feasibility of implementing the multi-use trails and linear parks.

SECTION 2
Project Description

2.1 Project Location

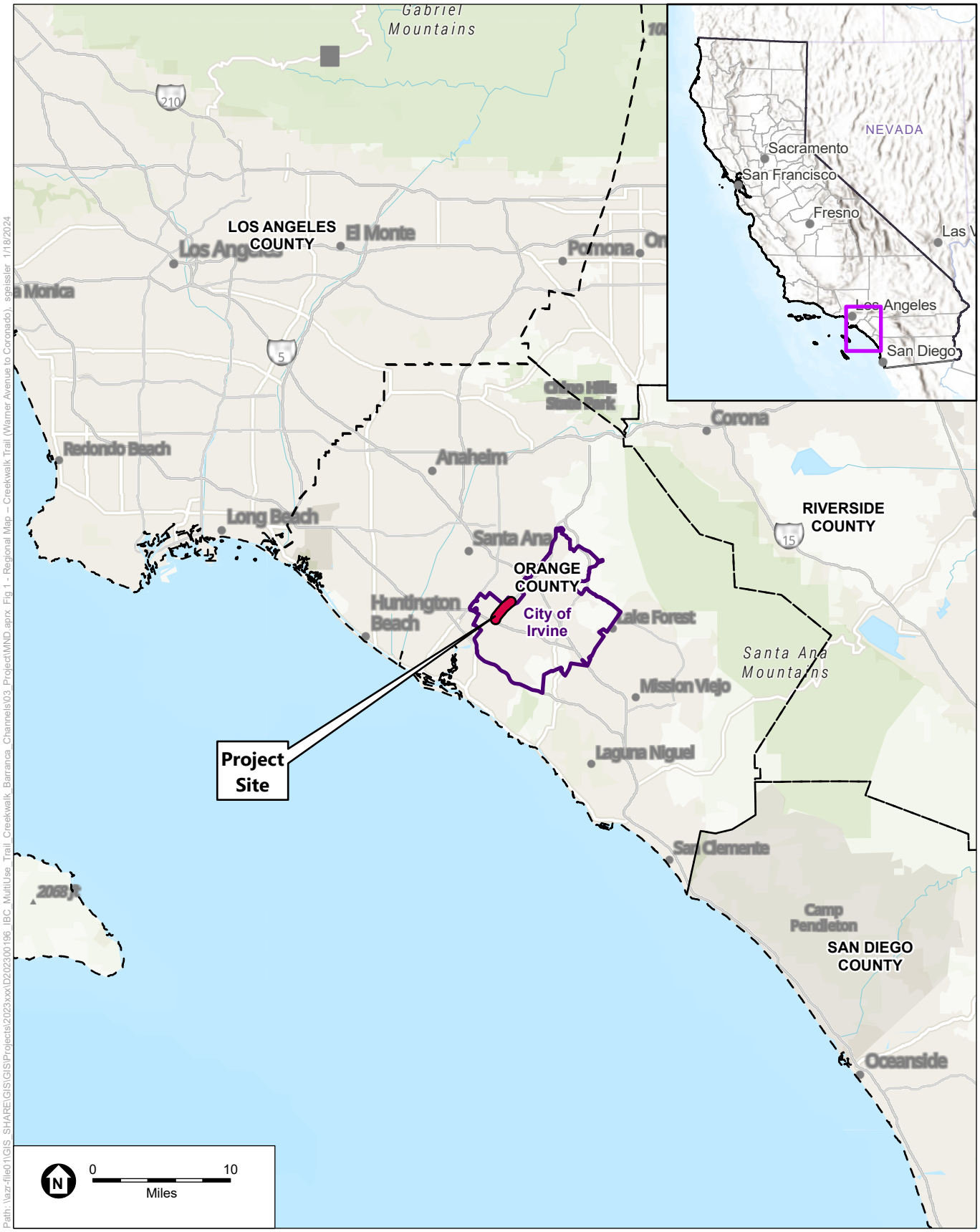
Regionally, the Project Site is located within the western portion of the City, within the County of Orange (County), as shown in **Figure 1**, *Regional Map.* The Project Site is located 0.22 miles north of the Interstate 405 (I-405) and 2 miles east of the State Route 55 (SR-55). Locally, the proposed trail is located along the western edge of the San Diego Creek and Peters Canyon Wash, extending from Coronado Drive in the south to Warner Avenue in the north, as shown in **Figure 2**, *Existing Site Vicinity Map.* The proposed intersection improvements would occur at Coronado and Main Street.

2.2 Surrounding Land Uses

The land uses surrounding the Project Site are comprised of urban and built-up land. Commercial uses are located to the west of San Diego Creek and multi-family residential uses are located to the east. The eastern side of San Diego Creek also includes commercial uses in the southern portion and recreation uses in the central and northern portions, including San Marco Park and the Bill Barber Memorial Park. Creekside High School is also located east of San Diego Creek, located north of Barranca Parkway. The existing San Diego Creek Trail (also known as the Mountains-to-the-Sea Trail and Bikeway) is located on the opposite bank from the proposed trail along the easterly side of the San Diego Creek. The San Diego Creek Trail continues north and connects with the existing Peters Canyon Trail, which is located on the opposite bank from the proposed trail along the easterly side of the Peters Canyon Wash.

2.3 Existing Site Conditions

The proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the Orange County Flood Control District (OCFCD). The OCFCD maintenance road is approximately 20-feet wide without noticeable slope, except at undercrossings. The maintenance road is bound by a chain-linked fence on the west and the channel bank on the east. The banks of the water channel are generally armored with large stone riprap, with banks at undercrossings armored with concrete. The OCFCD maintenance road is graded with crushed gravel throughout, except for underpasses which are paved with concrete under Alton Parkway, Barranca Parkway, and Warner Avenue. The maintenance road connects with each street crossing through on-street fenced driveways at Coronado , Main Street, Alton Parkway, Barranca Parkway, and Warner Avenue.

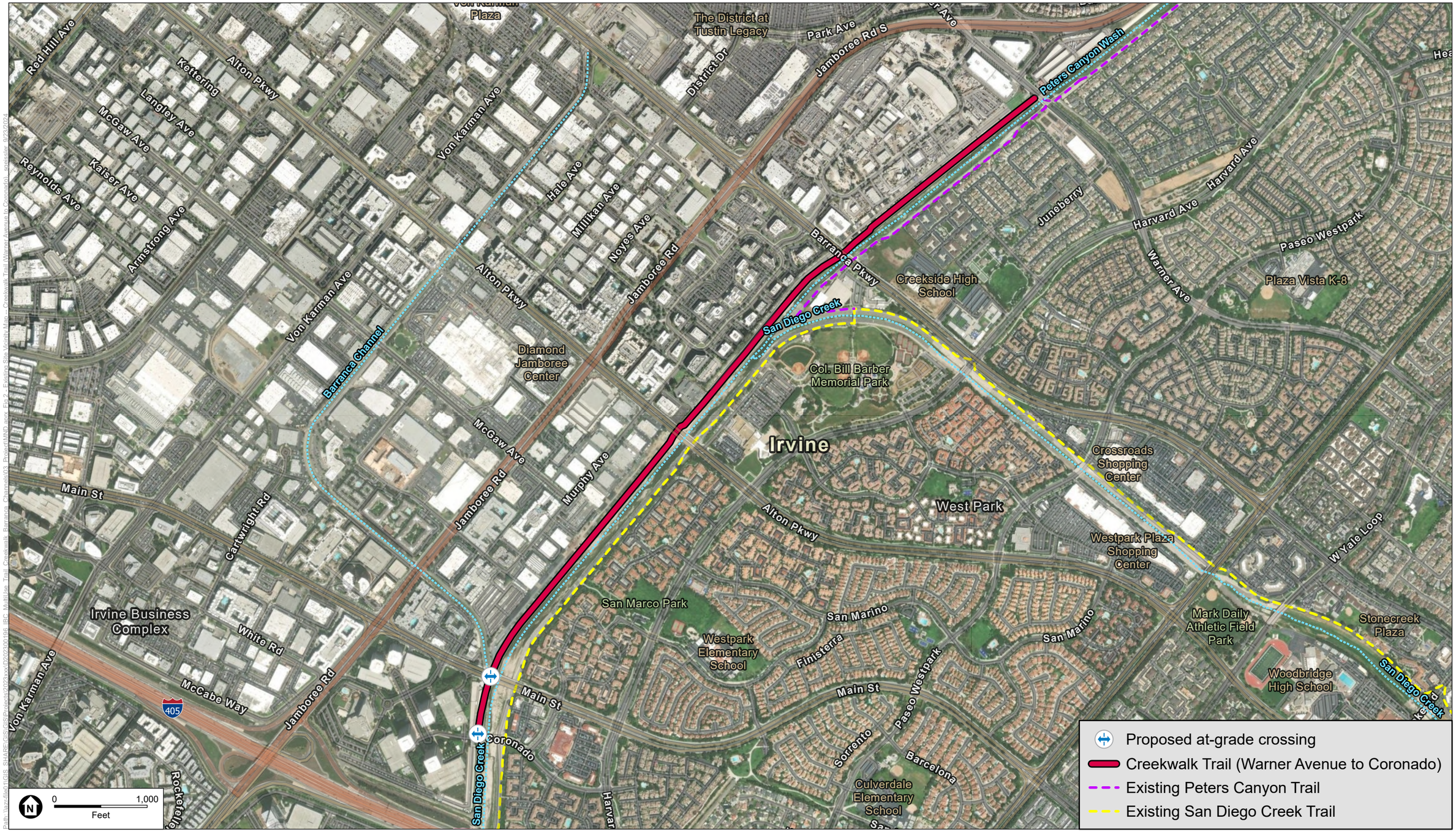


SOURCE: ESA, 2024

IBC Multi-Use Trail Creekwalk Trail

Figure 1
Regional Map

ESA



SOURCE: ESA, 2024

IBC Multi-Use Trail Creekwalk Trail
Figure 2
Existing Site Vicinity Map

ESA

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2.4 Existing General Plan/Zoning Designations

The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map. According to the City's General Plan, the designation of Recreation contains uses primarily for active public recreational activities, and allows uses such as City-owned parks, regional parks, golf courses, and other similar uses. Consistent with its General Plan designation, the Project Site is zoned as Recreation. This zoning district allows active recreational opportunities and activities for public use and enjoyment.

2.5 Project Background

On July 13, 2010, the City of Irvine City Council approved the 2010 IBC Vision Plan, which resulted in a shift of land uses primarily from commercial and industrial uses to more residential and mixed-uses. This shift of land uses created a need for more public amenities such as open space and recreational facilities, including but not limited to, multi-use trails.

On June 22, 2021, the City approved the IBC Trail Feasibility Study and Implementation Plan (IBC Trail Plan), which is a comprehensive plan that analyzed the potential development of eight multi-use trails and/or linear park corridors within the IBC. The City Council approved proceeding with the next development phase of Segment 4 in the IBC Trails Plan, which is the alignment analyzed in this document.

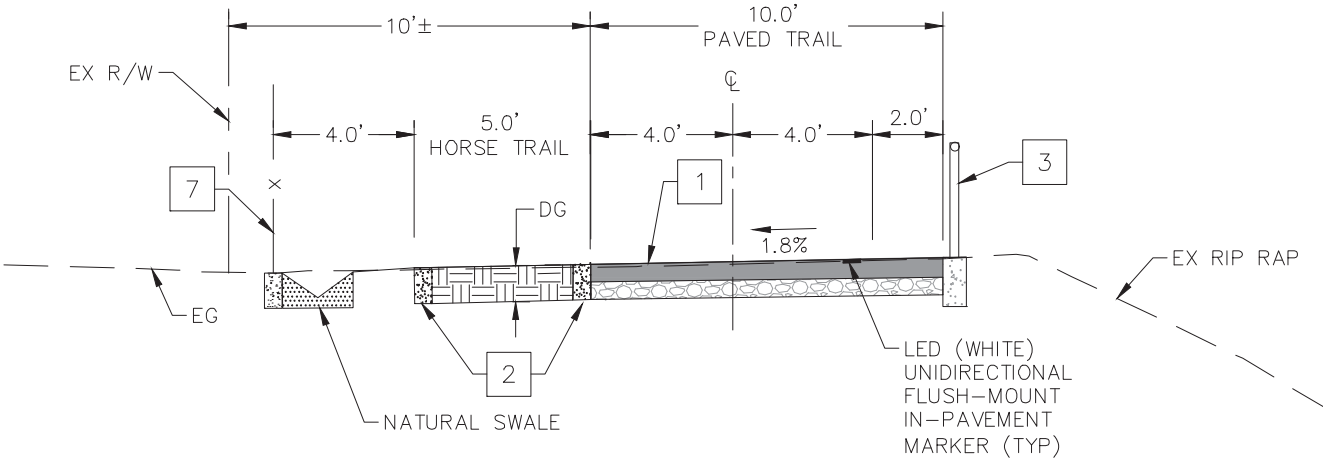
2.6 Project Components

2.6.1 Proposed Trail Characteristics

The Project would include the construction and operation of a multi-use paved trail (proposed trail) along the western edge of the San Diego Creek and Peters Canyon Wash, extending from Coronado in the south to Warner Avenue in the north. The proposed trail would total approximately 1.75 miles of an off-street paved Class I shared-use path. As shown in **Figure 3**, *Conceptual Trail Cross Section*, the proposed trail would include two components: 1) a two-foot wide paved shoulder nearest to the channel and an eight-foot wide paved path for pedestrians and cyclists and 2) a five-foot wide DG trail for equestrian use and a two-foot wide earthen swale located on the western side of the trail. The eastern side of the trail would include an approximately 42-inch high steel safety railing with concrete footing. The proposed trail would also include white light-emitting diodes (LED) unidirectional flush-mount in-pavement markers for safety and visibility every thirty feet along the trail.

2.6.2 Proposed Intersection Improvements

The proposed trail would follow the existing path of the OCFCD maintenance road. The proposed trail would begin at Coronado and continue north, through the intersections of Main Street, Alton Parkway, Barranca Parkway, and end at Warner Avenue. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings (proposed intersection improvements). The at-grade crossing at Coronado would include a proposed bulb out to allow for a traffic signal pole, which would include a post-mounted RRFB, as shown on **Figure 4a**, *At-Grade Crossing at Coronado*. The at-grade crossing at Main Street would include a full height curb, driveway modification, or curb island to allow for a new signal pole, which would include a full bike/trail signal, as shown on **Figure 4b**, *At-Grade Crossing at Main Street*.



CONSTRUCTION NOTES

- E EXISTING TO REMAIN
- 1 CONSTRUCT AC PAVEMENT TRAIL
- 2 CONSTRUCT CONCRETE HEADER
- 3 CONSTRUCT SAFETY RAILING PER CALTRANS STD. B11-47
- 4 INSTALL 6" WHITE EDGE STRIPE
- 5 INSTALL 6" YELLOW CENTERLINE STRIPE (NOT SHOWN ON PLANS, INSTALL ALONG TRAIL CL)
- 7 CONSTRUCT CHAIN LINK FENCE

LEGEND

- EX R/W
- PROPOSED FENCE
- PROPOSED RAILING
- PROPOSED AC PAVEMENT
- PROPOSED AB
- DG PATH
- PROPOSED BIOSWALE
- TRAIL CENTERLINE
- RW EXISTING RECYCLED WATER LINE
- W EXISTING DOMESTIC WATER LINE

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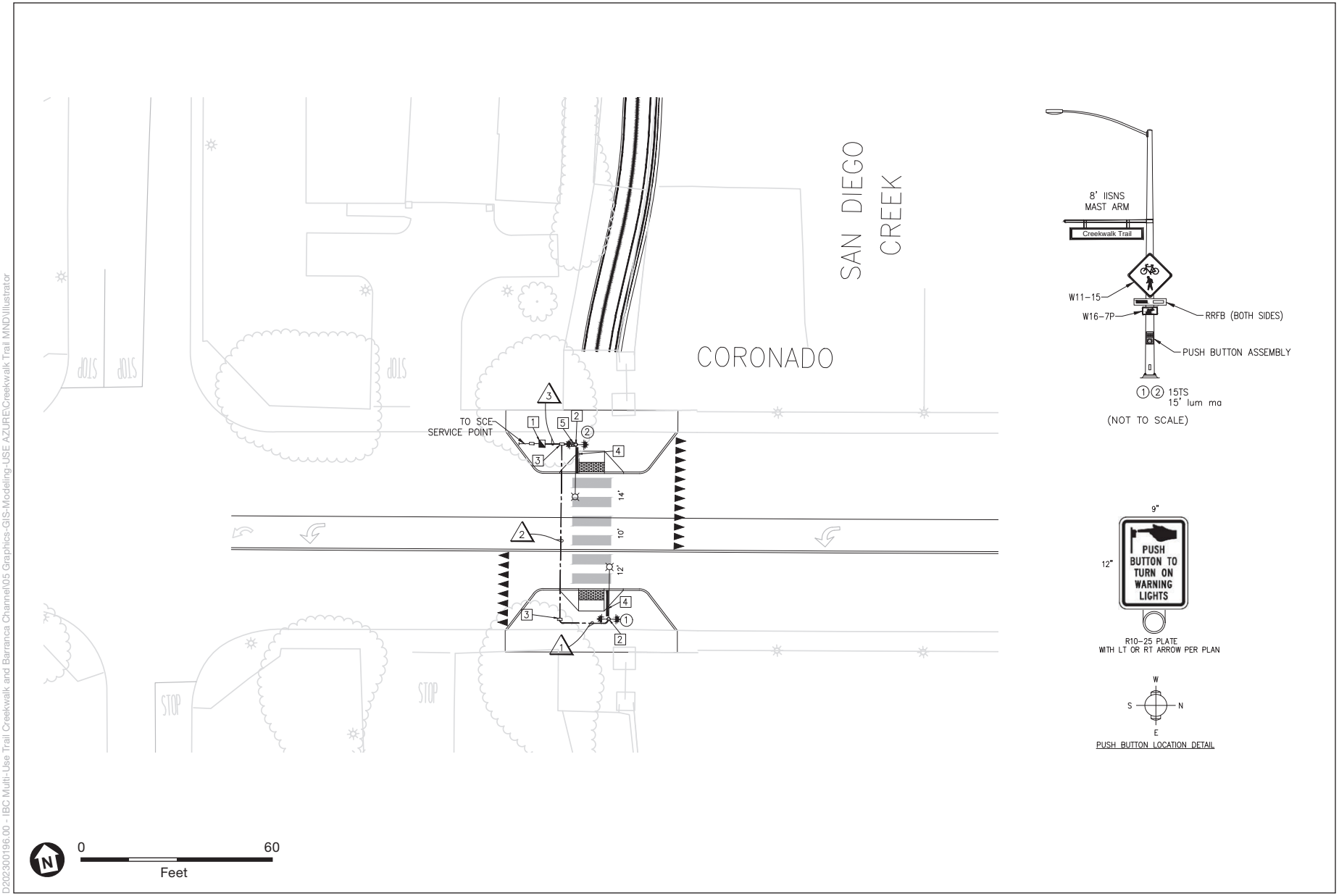
SOURCE: BKF, 2024

IBC Multi-Use Trail Creekwalk Trail

Figure 3
Conceptual Trail Cross Section

ESA



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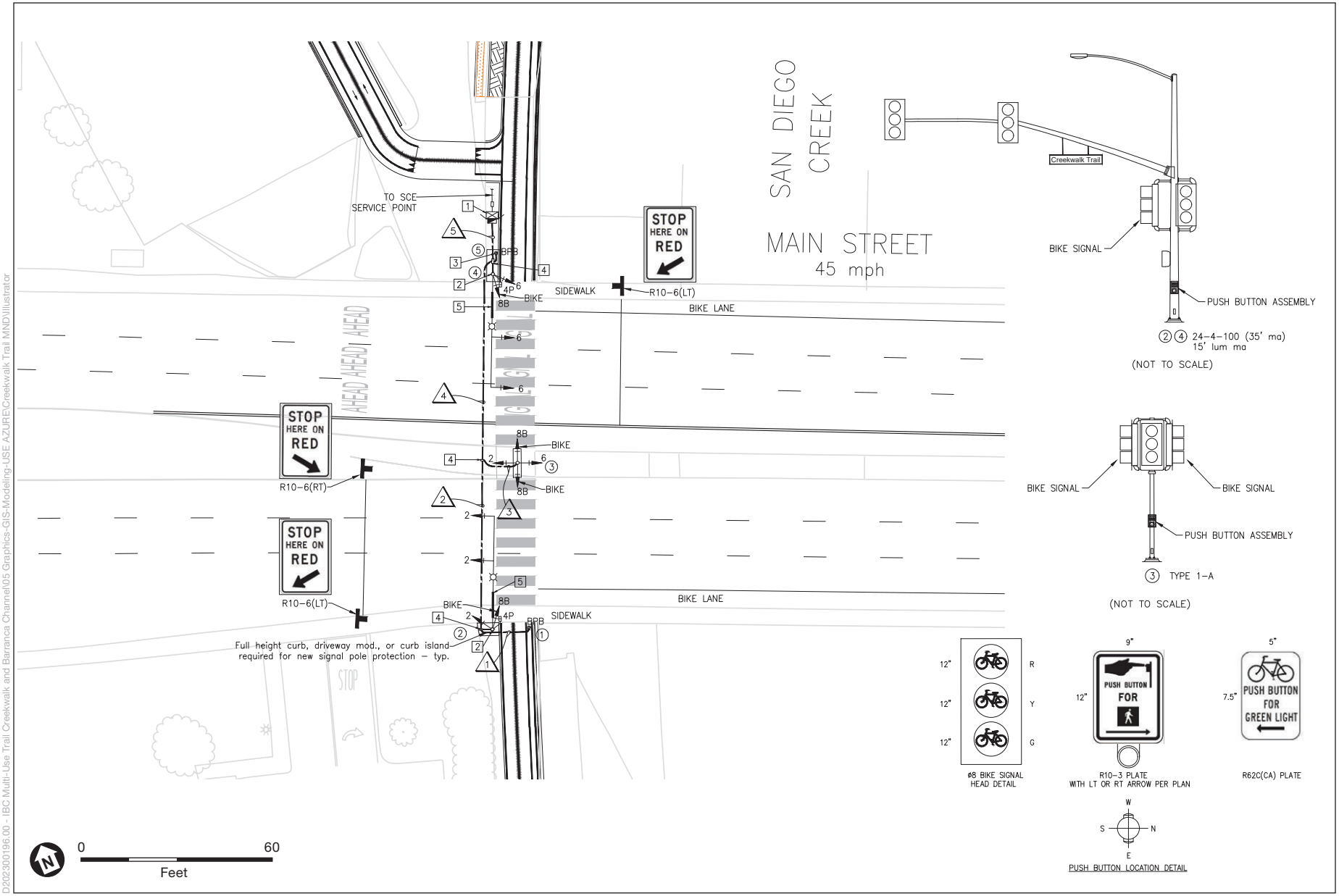
SOURCE: Stantec, 2024

IBC Multi-Use Trail Creekwalk Trail

Figure 4a
At-Grade Crossing at Coronado

ESA



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SOURCE: Stantec, 2024

IBC Multi-Use Trail Creekwalk Trail

Figure 4b
At-Grade Crossing at Main Street

ESA

The existing concrete undercrossings at Alton Parkway and Barranca Parkway would remain as-is in their current configuration with no proposed improvements. The proposed trail at both Alton Parkway and Barranca Parkway would follow the existing OCFCD maintenance road ramp to street level. No at-grade crossings are proposed at Alton Parkway or Barranca Parkway. The proposed trail would continue north to Warner Avenue, where the trail would follow the existing OCFCD maintenance road ramp to street level. No at-grade crossings are proposed at Warner Avenue.

2.6.3 Construction Activities and Schedule

Construction of the Project is estimated to occur over approximately 14 months, beginning in the year 2028. Construction of the Project would include demolition of the existing OCFCD maintenance road, grading, concrete pouring, and paving, as shown in **Table 2-1**, *Construction Phasing*. All equipment would be staged on site. Site access would be provided via the various existing entrances to the existing maintenance road. The Project would include excavation up to 12-inches in depth and export of approximately 5,670 cubic yards of soil. Construction of the Project would include standard erosion control measures such as fiber rolls and silt fencing to prevent construction materials or debris from falling into the adjacent channel.

TABLE 2-1
CONSTRUCTION PHASING

Construction Phase	Approximate Timeline
Demolition	January 2028-June 2028
Site Grading	July 2028-September 2028
Asphalt Paving	September 2028-February 2029
Concrete Paving	September 2028-October 2028

Source: BKF, 2024

2.6.4 Operations

OCFCD currently oversees the maintenance and operation of flood control channels and utilizes the existing maintenance roadway for access. OCFCD would still use the proposed trail as the County's maintenance road. The proposed trail would be open to the public, except during large rain events for safety reasons.

2.7 Project Approvals

The Project would require permits and approvals from the City and other agencies prior to construction. These permits and approvals are described below and may change as the Project proceeds.

- CEQA clearance
- Clean Water Act Section 401 Water Quality Certification
- Clean Water Act Section 404 Permit
- Section 1602 Streambed Alteration Agreement
- County Property Permit
- Encroachment Permit from Orange County Public Works.

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SECTION 3
Environmental Checklist

3.1 Project Details

1. Project Title:	IBC Multi-Use Trail Creekwalk Segment CIP 34301
2. Lead Agency Name and Address:	City of Irvine, 1 Civic Center Plaza, Irvine, CA 92606
3. Contact Person and Phone Number:	Amir Ainechi, Associate Engineer, 949.724.7370
4. Project Location:	The Project would construct a new multi-use paved trail along the western edge of the San Diego Creek and Peters Canyon Wash, extending from Coronado in the south to Warner Avenue in the north. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings.
5. Project Sponsor's Name and Address:	City of Irvine, 1 Civic Center Plaza, Irvine, CA 92606
6. General Plan Designation(s):	Recreation
7. Zoning:	Recreation

8. Description of Project:

The proposed trail would total approximately 1.75 miles of an off-street paved Class I shared-use path. The proposed trail would include two components: 1) a two-foot wide paved shoulder nearest to the channel and an eight-foot wide paved trail for pedestrians and cyclists and 2) a five-foot wide DG trail for equestrian use and a two-foot wide earthen swale located on the western side of the path. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings.

9. Surrounding Land Uses and Setting.

The land uses surrounding the Project Site are comprised of urban and built-up land. Commercial uses are located to the west of San Diego Creek and multi-family residential uses are located to the east. The eastern side of San Diego Creek also includes commercial uses in the southern portion and recreation uses in the central and northern portions, including San Marco Park and the Bill Barber Memorial Park. Creekside High School is also located east of San Diego Creek, located north of Barranca Parkway.

10. Other public agencies whose approval is required

Orange County Public Works.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

As discussed in Section XVIII, *Tribal Cultural Resources*, of this Draft IS/MND, the Gabrieleño Band of Mission Indians-Kizh Nation (Kizh Nation) have requested consultation. The City has conducted consultation with the Kizh Nation and the results of that consultation are provided in Section XVIII. The City has not included confidential information that was provided by the Kizh Nation to the City in this Draft IS/MND.

3.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☒ Biological Resources	☒ Cultural Resources	☐ Energy
☒ Geology/Soils	☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials
☐ Hydrology/Water Quality	☐ Land Use/Planning	☐ Mineral Resources
☐ Noise	☐ Population/Housing	☐ Public Services
☐ Recreation	☐ Transportation	☒ Tribal Cultural Resources
☐ Utilities/Service Systems	☐ Wildfire	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)
On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Amir Ainechi — 01/29/2026

Signature — Date

Signature — Date

3.3 Environmental Checklist

Aesthetics

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

Discussion

a) Have a substantial adverse effect on a scenic vista?

Less Than Significant Impact. Scenic vistas consist of expansive, panoramic views of important, unique, or highly valued visual features that are seen from public viewing areas. This definition combines visual quality with information about view exposure to describe the level of interest or concern that viewers may have for the quality of a particular view or visual setting. A scenic vista can be impacted in two ways: a development project can have visual impacts by either directly diminishing the scenic quality of the vista or by blocking the view corridors or "vista" of the scenic resource. Important factors in determining whether a proposed project would block scenic vistas include the project's proposed height, mass, and location relative to surrounding land uses and travel corridors.

According to the Conservation and Open Space Element of the City's General Plan, the prominent landforms in the City include the Santiago Hills, northern flatlands, central flatlands, and San Joaquin Hills. The San Diego Creek, which runs along the proposed trail, is located within the central flatlands.

The proposed trail is located along the existing OCFCD maintenance road, spanning from Coronado to just south of Barranca Parkway, and continues northward along the western edge of the Peters Canyon Wash, between Barranca Parkway to Warner Avenue. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings Construction of the Project would require temporary ground disturbance within the Project Site. Construction fencing will include screening materials to block the view within the construction site . Post construction, the proposed trail would include two components: 1) a two-foot wide paved shoulder nearest to the channel and an eight-foot wide paved trail for pedestrians and cyclists and 2) a five-foot wide DG trail for equestrian use and a two-foot wide earthen swale located on the western side of the path nearest to the San Diego Creek. The eastern side of

the trail would include an approximately 42-inch high steel safety railing with concrete footing. The proposed trail would also include white LED unidirectional flush-mount in-pavement markers for safety and visibility every thirty feet along the trail. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings. The at-grade crossing at Coronado would include a proposed bulb out to allow for a traffic signal pole, which would include a post-mounted RRFB. The at-grade crossing at Main Street would include a full height curb, driveway modification, or curb island to allow for a new signal pole, which would include a full bike/trail signal. The Project would not include above-ground structures that would block or impede views of the San Diego Creek. Therefore, views of the San Diego Creek would be maintained during construction and operation of the Project.

The City's General Plan pinpoints major views along Sand Canyon Avenue, Jeffrey Road/University Drive, Bonita Canyon Drive/Shady Canyon Drive and Culver Drive. The Project Site is not located in proximity to any of these "major views". The nearest scenic highway is Culver Drive, which is located approximately 1 mile southeast of the Project Site. As such, impacts to scenic vistas would be less than significant.

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The site for the proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. The land uses surrounding the Project Site are comprised of urban and built-up land. The Project Site does not contain trees, rock outcroppings, or historic buildings. There are no officially-designated, or eligible, state scenic highways in the City. According to the California Department of Transportation (Caltrans), the nearest eligible state scenic highway is the segment of State Route 1 (Pacific Coast Highway), located approximately 5 miles southwest of the Project Site in the City of Newport Beach (Caltrans 2018). Due to the intervening environment and natural topography located between the Project Site and this eligible state scenic highway, development of the Project would occur outside the viewshed of this, and any other, designated scenic highway. Further, Project would not include above-ground structures that would block or impede views or scenic resources within the vicinity of the Project Site. Therefore, no impacts associated with state scenic highways would occur.

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

Less Than Significant Impact. California Public Resources Code (PRC) Section 21071 defines an "urbanized area" as "(a) an incorporated city that meets either of the following criteria: (1) Has a population of at least 100,000 persons, or (2) Has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons." As of 2024, the City has an estimated population of approximately 314,550 (DOF 2024). Thus, the Project Site is located in an urbanized area and the following analysis considers whether the Project would conflict with applicable zoning or other regulations governing scenic quality.

Construction activities associated with the Project would require the use of construction equipment and storage of materials on-site, thus introducing contrasting features into the visual landscape that affect the visual quality of the Project Site and the immediate vicinity. Contrasting features would include demolition materials, excavated areas, stockpiled soils, and other materials generated and stored on-site during construction. However, adverse effects to visual character associated with Project construction would be temporary. Post construction, the Project would construct a new multi-use paved trail with proposed intersection improvements. The Project would not include above-ground structures that would block or impede views in the vicinity of the Project Site. The Project would be compatible and enhance the existing visual character of the Project vicinity.

The Project Site is zoned for Recreation uses, which identifies lands suitable for active recreational opportunities and activities for public use and enjoyment. As such, the Project would be considered an active recreational use; therefore, the Project would be consistent with the applicable zoning regulations of the area.

Overall, construction and operation of the Project would not conflict with the applicable zoning or other regulations governing scenic quality. Impacts would be less than significant.

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

Less Than Significant Impact. Currently, light and glare in the Project vicinity is produced by pole mounted lights along the San Diego Creek Trail (running parallel to the proposed trail on the opposite bank of the San Diego Creek), vehicle headlights, street lighting, and lighting from the adjacent uses.

Security lighting used during the construction of the Project, if necessary, could introduce new sources of light to the Project Site and the immediate vicinity. If security lighting is needed, it would be shield and directed away from surrounding light-sensitive land uses. Further, construction of the Project would not occur during evening hours. Temporary impacts associated with light during construction activities would be less than significant.

Post construction, new lighting would be installed for safety purposes at each street crossing (i.e., traffic signals) and entrance to the proposed trail. The proposed trail would include white LED unidirectional flush-mount in-pavement markers for safety and visibility every thirty feet along the trail. Although Project development would introduce new light sources to the Project Site and surrounding area, the proposed light sources would be similar to the existing light sources onsite. Furthermore, Project lighting would be required to conform with all applicable City lighting standards, as outlined in Chapter 3-16 of the City's Zoning Ordinance. Compliance with the lighting provisions of the City's Zoning Ordinance would ensure that the Project does not result in significant light impacts. Compliance with these provisions is ensured through the City's development review and building plan check process. Therefore, impacts to light and daytime and nighttime views would be less than significant.

Glare within the Project Site and the surrounding area occurs from sunlight reflected from the adjacent uses. Glare-sensitive receptors include motorists on the roadways surrounding the Project Site. As glare is a temporary phenomenon that changes with the movement of the sun, receptors other than motorists are generally less sensitive to glare impacts than to light impacts. Impacts related to glare would be minimal

because the Project would not include the construction of above-ground buildings or structures with highly reflective materials (e.g., windows or glass with mirror-like tints). As such, a less than significant impact would occur in this regard.

References

Caltrans (California Department of Transportation). 2018. California State Scenic Highway System Map. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa, accessed August 26, 2024.

DOF (State of California, Department of Finance). 2024. "E-1 Cities, Counties, and the State Population Estimates with Annual Percent Change—January 1, 2023 and 2024." Sacramento, California. May 2024. Available at: https://dof.ca.gov/forecasting/demographics/estimates-e1/, accessed August 27, 2024.

Agriculture and Forestry Resources

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

Discussion

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

No Impact. The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map and identified as Trail Not Implemented on the Orange County Master Plan of Regional Riding and Hiking Trails Map (2005). Additionally, the Project Site is currently identified as Urban and Built-Up Land and not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance based on a review of the California Department of Conversation's California Important Farmland Finder (DOC 2023). The site for the proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. No agricultural zoning is present in the City and no nearby lands are enrolled under the Williamson Act. As such, the Project would not convert farmland to non-agricultural uses and no impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map and identified as Trail Not Implemented on the Orange County Master Plan of

Regional Riding and Hiking Trails Map (2005). The site for the proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. No forest land or land zoned for timberland production is present within the City. As such, the Project would not conflict with existing zoning for agricultural uses, or a Williamson Act contract and no impact would occur.

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

No Impact. The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map and identified as Trail Not Implemented on the Orange County Master Plan of Regional Riding and Hiking Trails Map (2005). The site for the proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. No forest land or land zoned for timberland production is present within the City. As such, the Project would not conflict with existing zoning for forest land or timberland and no impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map and identified as Trail Not Implemented on the Orange County Master Plan of Regional Riding and Hiking Trails Map (2005). The site for the proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. No forest land currently exists in the City. As such, the Project would not result in the loss of forest land or conversion of forest land to non-forest use and no impact would occur.

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

No Impact. The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map and identified as Trail Not Implemented on the Orange County Master Plan of Regional Riding and Hiking Trails Map (2005). The site for the proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. There are no agricultural or forest uses or related operations in the City or in the Project vicinity. Therefore, the Project would not involve the conversion of farmland or forest land to other uses, either directly or indirectly and no impact would occur.

References

California Department of Conservation (DOC), 2023. California Important Farmland Finder. Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed October 16, 2023.

City of Irvine, General Plan Land Use Element, 2015. Available at: https://www.cityofirvine.org/community-development/current-general-plan. Accessed October 16, 2023.

City of Irvine, Zoning Map. 2012. Available at: https://gis.cityofirvine.org/pdf/Map%20Gallery/Zoning-Map_24x24.pdf. Accessed October 16, 2023.

County of Orange, Master Plan of Regional Riding and Hiking Trails Map. 2005. Available at: Plot of w:\mapsvcs05\requests\bob\rh04smlpdf.dgn (ocpublicworks.com). Accessed October 16, 2023.

Air Quality

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

Discussion

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

Less Than Significant Impact. The Project is located within the South Coast Air Basin (Basin). Air quality planning for the Basin is under the jurisdiction of the South Coast Air Quality Management District (SCAQMD). Therefore, the Project would be subject to the SCAQMD's Air Quality Management Plan (AQMP), which contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving ambient air quality standards. These strategies are developed, in part, based on regional population, housing, and employment projections prepared by the Southern California Association of Governments (SCAG).

The 2022 AQMP was prepared to accommodate growth, reduce the high levels of pollutants within the areas under the jurisdiction of SCAQMD, return clean air to the region, and minimize the impact on the economy. The 2022 AQMP contains a variety of strategies to improve air quality, such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low NOx technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other measures. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if it would individually exceed the SCAQMD's numeric indicators.

Construction

Construction activities associated with the Project have the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment and through vehicle trips generated from worker trips, vendor and haul trucks traveling to and from the Project Site. In addition, fugitive dust emissions would result from construction activity. Construction emissions can vary

substantially from day to day, depending on the level of activity, the specific type of construction activity and equipment, and prevailing weather conditions. The assessment of construction air quality impacts considers each of these potential sources.

As discussed under the analysis in Response III(b) below, regional emissions of nitrogen oxides (NO_2 as NO_X), volatile organic compounds (VOCs), sulfur dioxide (SO_2), carbon monoxide (CO), particles with diameters that are generally 10 micrometers and smaller (PM10), and fine inhalable particles with diameters that are generally 2.5 micrometers and smaller (PM2.5) have been analyzed for the Project. Table 3.3-2 below shows that regional maximum daily Project construction emissions would not exceed the SCAQMD regional construction emissions thresholds. Therefore, the Project would not increase in the frequency or severity of existing air quality violations, cause or contribute to new air quality violations or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

As discussed under the analysis in Response III(c) below, localized concentrations of NO_2 as NO_X, CO, PM10, and PM2.5 have been analyzed for the Project. SO_2 emissions would be negligible during construction and long-term operations and, therefore, would not have the potential to cause or effect a violation of the SO_2 ambient air quality standard. Since VOCs are not a criteria pollutant, there is no ambient standard or localized threshold for VOCs. However, due to the role VOCs play in O_3 formation, it is classified as a precursor pollutant, and only a regional emissions threshold has been established.

The Project's NO_X, CO, PM10, and PM2.5 emissions during construction were analyzed: (1) to ascertain potential effects on localized concentrations; and (2) to determine if there is a potential for such emissions to cause or effect a violation of the ambient air quality standards for NO_2, CO, PM10, and PM2.5. As discussed below in Response III(c), the increases in localized emissions of NO_2, CO, PM10, and PM2.5 during construction would not exceed the SCAQMD-recommended localized significance thresholds at sensitive receptors in proximity to the Project Site.

The Project would have less than significant construction emissions of criteria pollutants. Therefore, the Project would be consistent with the AQMP. Additionally, the Project would comply with California Air Resources Board (CARB) requirements to minimize short-term emissions from on-road and off-road diesel equipment. The Project would also comply with SCAQMD regulations for controlling fugitive dust pursuant to SCAQMD Rule 403, for example, apply water spray/mists at least three times per day on active areas of disturbance and unpaved roads, and limit truck speed to 15 miles per hour or less on unpaved roads to minimize dust on unpaved roads at the construction site.

The SCAQMD recommends that lead agencies demonstrate that a project would not directly obstruct implementation of an applicable air quality plan and that a project be consistent with the assumptions (typically land-use related) upon which the air quality plan is based. The Project would result in an increase in short-term employment compared to existing conditions. The construction of the Project would generate up to 10 construction workers per day. Being relatively small in number and temporary in nature, construction jobs under the Project would not conflict with the long-term employment projections upon which the AQMP is based.

Compliance with these requirements is consistent with and meets or exceeds the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Because the

Project would not conflict with the control strategies intended to reduce emissions from construction equipment, the Project would not conflict with or obstruct implementation of the AQMP, and impacts would be less than significant and no mitigation measures are required.

Operation

The proposed trail site is currently used a maintenance path along the San Diego Creek Channel utilized for various purposes by the City and County and is not open for public use. Proposed intersection improvements would occur at Coronado and Main Street. The Project is not anticipated to generate any additional net vehicle trips. The Project Site would continue to accommodate occasional maintenance trips that occur under existing conditions. As a multi-use trail and recreational use, the proposed trail is not anticipated to result in increases in employment as maintenance would be completed by existing staff. Overall, the Project would not conflict with the growth projections identified in the AQMP and would not conflict with or obstruct implementation of the AQMP's or the County's strategies and polices intended to reduce criteria pollutant emissions. Therefore, impacts would be less than significant and no mitigation measures are required.

The Project is located within the South Coast Air Basin which is characterized by relatively poor air quality (SCAQMD 2022). State and federal air quality standards are often exceeded in many parts of the Basin. The Project would contribute to local and regional air pollutant emissions during construction (short-term or temporary) and negligible operational emissions (long-term). However, based on the following analysis, construction and operation of the Project would result in less than significant impacts relative to the daily significance thresholds for criteria air pollutant emissions established by the SCAQMD for construction and operational phases and no mitigation measures are required.

b) Result in a cumulatively net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Less Than Significant Impact. The Project would result in the emission of criteria pollutants during construction for which the Project area is in non-attainment. A significant impact may occur if a project would add a cumulatively considerable contribution of a federal or state non-attainment pollutant. The Air Basin is currently in non-attainment for ozone, PM10, and PM2.5.

SCAQMD has established numerical significance thresholds for construction and operational activities. The numerical thresholds are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD 1993). Given that construction impacts are temporary and limited to the construction phase, SCAQMD has established numerical significance thresholds specific to construction activity. Based on the thresholds in the SCAQMD CEQA Air Quality Handbook, the Project would potentially result in a significant impact of a federal or State non-attainment pollutant if emissions of O_3 precursors (VOC and NOx), PM10, or PM2.5 would exceed the values shown in **Table 3.3-1**, *SCAQMD Regional Emissions Thresholds (pounds per day)*.

TABLE 3.3-1
SCAQMD REGIONAL EMISSIONS THRESHOLDS (POUNDS PER DAY)

Activity	VOC	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Construction	75	100	550	150	150	55
Operation	55	55	550	150	150	55

Source: SCAQMD, SCAQMD Air Quality Significance Thresholds, March 2023

Construction Impacts

Construction of the Project has the potential to generate temporary regional criteria pollutant emissions through the use of heavy-duty construction equipment, such as excavators and forklifts, through vehicle trips generated by workers and haul trucks traveling to and from the Project Site, and through building activities, such as the application of paint and other surface coatings. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Construction emissions, primarily NO_X, would result from the use of construction equipment, such as dozers and loaders. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of construction activity, and prevailing weather conditions.

Daily regional emissions during construction are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date) and applying the mobile source and fugitive dust emissions factors. The emissions have been estimated using the California Emissions Estimator Model (CalEEMod) software (version 2022.1), an emissions inventory software program recommended by the SCAQMD. Emissions from off-road equipment and off-road vehicles were estimated through CalEEMod since CalEEMod is based on outputs from the CARB off-road emissions factor (OFFROAD), which is the emissions estimation model developed by CARB and used to calculate emissions from construction activities, including off-road vehicles. On-road emissions from construction vehicles including worker vehicles, haul trucks, vendor trucks, and concrete trucks were also estimated by CalEEMod. The input values used in this analysis were adjusted to be Project-specific based on equipment types and the construction schedule based on information confirmed by the Project's construction representative (see **Appendix A**, *Air Quality and Greenhouse Gas Emissions Calculations and Modeling*, of this Draft IS/MND for additional details). When information was unknown, CalEEMod defaults were used. This emissions analysis for all construction activities includes compliance with mandatory SCAQMD Rule 403 measures regarding the control of fugitive dust.

Construction of the Project is estimated to last approximately 14 months, tentatively scheduled to begin January 2028 and conclude February 2029. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific Project needs at the time of construction. The duration of construction activity and associated construction equipment was estimated based on consultation with the County.

If the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because

State regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. As a result, should the Project commence construction on a later date than modeled in this impact analysis, air quality impacts would be less than the impacts disclosed herein.

The maximum daily regional emissions from these activities are estimated by construction phase and compared to the SCAQMD significance thresholds. Emissions have been combined for phases that are anticipated to overlap representing a worst-case scenario. As shown in **Table 3.3-2**, *Maximum Regional Construction Emissions – Without Mitigation (Pounds Per Day)*, emissions resulting from construction of the Project would not exceed any criteria pollutant thresholds established by the SCAQMD. Therefore, impacts would be less than significant and no mitigation measures are required.

TABLE 3.3-2
MAXIMUM REGIONAL CONSTRUCTION EMISSIONS – WITHOUT MITIGATION (POUNDS PER DAY)[A]

Source	VOC	NO_X	CO	SO_2	PM10[b]	PM2.5[b]
Demolition	1.02	7.91	11.58	0.02	1.45	0.49
Site Grading	0.65	6.56	8.52	0.02	1.14	0.44
Asphalt Paving (Year One)	1.07	9.70	12.75	0.02	0.84	0.45
Asphalt Paving (Year Two)	1.05	9.48	12.56	0.02	0.82	0.43
Concrete Paving	0.00	0.38	0.16	0.00	0.09	0.03
Overlapping Phases						
Asphalt Paving + Concrete Paving	1.07	10.08	12.91	0.03	0.93	0.48
Maximum Daily Emissions	1.07	10.08	12.91	0.03	1.45	0.49
SCAQMD Regional Significance Thresholds [c]	75	100	550	150	150	55
Exceeds Threshold?	No	No	No	No	No	No

Notes:
a. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A, of this Draft IS/MND.
b. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.
Source: ESA, 2024

Operational Impacts

The Project consists of a multi-use pedestrian and bicycle pathway along the San Diego Creek Channel and proposed intersection improvements at Coronado and Main Street. Operation of the Project would generate minimal emissions associated with periodic trail maintenance, which would not be a substantial source of air quality emissions. In addition, the Project would not result in additional vehicle trips to the Site. Therefore, as the Project would generate minimal operational emissions, Project operational impacts would be less than significant and no mitigation measures are required.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Certain population groups are especially sensitive to air pollution and should be given special consideration when evaluating potential air quality impacts. These population groups include children, the elderly, persons with pre-existing respiratory or cardiovascular illness, and athletes and others who engage in frequent exercise. As defined in the SCAQMD CEQA Air Quality Handbook, a sensitive receptor to air quality is defined as any of the following land use categories: (1)

long-term health care facilities; (2) rehabilitation centers; (3) convalescent centers; (4) retirement homes; (5) residences; (6) schools; (7) parks and playgrounds; (8) child care centers; and (9) athletic fields. Sensitive receptors within a quarter-mile radius of the Project include residential land uses across the San Diego Creek Channel.

The localized air quality analysis was conducted using the methodology described in the SCAQMD *Localized Significance Threshold Methodology* (June 2003, revised July 2008), which relies on on-site mass emission rate screening tables and project-specific dispersion modeling typically for sites greater than five acres, as appropriate (SCAQMD 2008). The localized significance thresholds are applicable to NO_X, CO, PM10, and PM2.5. For NO_X and CO, the thresholds are based on the ambient air quality standards. For PM10 and PM2.5, the thresholds are based on requirements in SCAQMD Rule 403 (Fugitive Dust) for construction and Rule 1303 (New Source Review Requirements) for operations. The SCAQMD has established screening criteria that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance thresholds and therefore not cause or contribute to an exceedance of the applicable ambient air quality standards without project-specific dispersion modeling. The screening criteria depend on: (1) the area in which the project is located, (2) the size of the project area, and (3) the distance between the project area and the nearest sensitive receptor.

SCAQMD's Methodology clearly states that "off-site mobile emissions from the project should not be included in the emissions compared to LSTs." Therefore, for purposes of the localized significance threshold (LST) analysis, only emissions included in the CalEEMod "on-site" emissions outputs were considered. The nearest sensitive receptor is located along the northern portion of the site for the proposed trail, approximately 180 feet from the Project boundary. The LST used for the localized significance impact analysis were calculated based on the Project Site's acreage of approximately 3.34 acres, located in the Central Orange County Coastal Source-Receptor Area, and calculated at a conservative distance of 25 meters.

Construction Emissions

Table 3.3-4, *Maximum Localized Construction Emissions – Without Mitigation (Pounds Per Day),* identifies the localized impacts at the nearest receptor location in the vicinity of the Project area without mitigation. The localized emissions during construction activity would not exceed SCAQMD's LSTs. Therefore, impacts would be less than significant and no mitigation measures are required.

Operational Emissions

As previously described, the operation of the Project would generate minimal emissions from periodic trail maintenance. The Project would not generate emission from onsite stationary sources. Typically, land uses associated with industrial operations, such as chemical processing and warehousing operations with onsite idling trucks would have the potential to generate substantial stationary sources. The Project would not include any uses that would have the potential for stationary sources. Therefore, localized air quality impacts related to operation-related emissions would be less than significant and no mitigation measures are necessary.

TABLE 3.3-4
MAXIMUM LOCALIZED CONSTRUCTION EMISSIONS – WITHOUT MITIGATION (POUNDS PER DAY)[A]

Source	NO_X	CO	PM10[b]	PM2.5[b]
Demolition	6.87	10.68	1.06	0.38
Site Grading	4.47	7.32	0.52	0.26
Asphalt Paving (Year One)	8.68	11.41	0.34	0.31
Asphalt Paving (Year Two)	8.51	11.42	0.32	0.29
Concrete Paving	0.00	0.00	0.00	0.00
Maximum Daily Emissions	**8.68**	**11.42**	**1.06**	**0.38**
SCAQMD Localized Significance Thresholds[c]	**183.3**	**1384.1**	**11.0**	**7.7**
Exceeds Threshold?	No	No	No	No

Notes:

a. Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix A, of this Draft IS/MND.
b. Emissions include fugitive dust control measures consistent with SCAQMD Rule 403.
c. Localized Significance Thresholds (LST) were calculated for the Project site's acreage of approximately 3.34 acres, located in the Central Orange County Coastal Source-Receptor Area. Although the nearest sensitive receptor is located approximately 180 feet from the Project boundary, the LSTs were calculated with a conservative 25-meter receptor distance.

Source: ESA, 2024

Carbon Monoxide Hotspot

The potential for the Project to cause or contribute to CO hotspots was evaluated by comparing Project intersections (both intersection geometry and traffic volumes) with prior studies conducted by the SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Project would not cause or contribute considerably to the formation of CO hotspots, that CO concentrations at Project-impacted intersections would remain well below the threshold one-hour and eight-hour California ambient air quality standards (CAAQS) of 20 or 9.0 parts per million (ppm), respectively within one-quarter mile of a sensitive receptor, and that no further CO analysis is warranted or required.

According to the SCAQMD's 2022 AQMP, no exceedances of the CO standards have been recorded at monitoring stations in the Air Basin since 2003, and the Air Basin is currently designated as a CO attainment area for both the CAAQS and the NAAQS.

The SCAQMD's 2003 AQMP estimated that the 1-hour concentration for the intersection of Wilshire Boulevard and Veteran Avenue was 4.6 ppm, which indicates that the most stringent 1-hour CO standard (20.0 ppm) would likely not be exceeded until the daily traffic at the intersection exceeded more than 400,000 vehicles per day. The AQMP CO hotspots modeling also took into account worst-case meteorological conditions and background CO concentrations. As an initial screening step, if a project intersection does not exceed 400,000 vehicles per day, then the project does not need to prepare a detailed CO hot spot analysis, and impacts would be less than significant. The Project would not generate any net new mobile vehicle trips compared to existing conditions. Therefore, the Project does not trigger the need for a detailed CO hotspots model and would not cause any new or exacerbate any existing CO hotspots. The Project's periodic operational maintenance activities would not expose sensitive receptors to substantial CO concentrations. As a result, impacts related to localized mobile-source CO emissions would be less than significant.

During construction, on-road traffic from the construction vehicles would include a daily maximum of 11 haul trucks during the grading phase and 10 worker vehicles during the asphalt paving phase. While construction-related traffic on the local roadways would occur during construction, the net increase of construction worker vehicle trips to the existing daily traffic volumes on local roadways would be relatively small and would not result in CO hotspots. Additionally, construction-related vehicle trips would only occur in the short-term and would cease once construction activities have been completed.

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants, are also used as indicators of ambient air quality conditions. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

Several sensitive receptors are located across the San Diego Creek Channel of the site for the proposed trail. The nearest sensitive receptor is located along the northern portion of the site for the proposed trail, across the San Diego Creek Channel, approximately 180 feet from the Project boundary. According to the Office of Environmental Health Hazard Assessment and the SCAQMD's Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (SCAQMD 2003), health effects from TACs are described in terms of individual cancer risk based on a lifetime (i.e., 70-year) exposure and a residential (i.e., 30-year) exposure duration. Given the temporary and short-term construction schedule (approximately 14 months), the Project would not result in a long-term (i.e., lifetime or 70-year) exposure as a result of construction activities. In addition, localized construction PM10 emissions would not exceed regional or LSTs and would be less than significant (strongly correlated with diesel particulate matter [DPM] emissions) (CARB n.d.). Although the localized analysis does not directly measure health risk impacts, it does provide data that can be used to evaluate the potential to cause health risk impacts. Furthermore, compliance with the CARB ATCM anti-idling measure, which limits idling to no more than five minutes at any location for diesel-fueled commercial vehicles, would control and limit DPM emissions in the Project area. Thus, sensitive receptors would not be exposed to substantial pollutant concentrations, and construction TAC impacts would be less than significant and no mitigation measures are required.

SCAQMD recommends that operational health risk assessments be conducted for substantial sources of DPM emissions (e.g., truck stops and warehouse distribution facilities) in proximity to sensitive receptors and has provided guidance for analyzing mobile source diesel emissions. The Project is not anticipated to generate net new vehicle trips. Therefore, since the Project would not have any substantial TAC emissions sources during operations, the Project would not warrant the need for a health risk assessment associated with on-site operational activities, and potential TAC impacts are expected to be less than significant.

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

Less Than Significant Impact. Potential activities that may emit odors during construction activities include the use of architectural coatings and solvents and the combustion of diesel fuel in on- and off-road

equipment. SCAQMD Rule 1113 would limit the amount of VOCs in architectural coatings and solvents. In addition, the Project would comply with the applicable provisions of the CARB Air Toxics Control Measure regarding idling limitations for diesel trucks. Further, construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of construction. Through adherence with mandatory compliance with SCAQMD Rules, no construction activities or materials are expected to create objectionable odors affecting a substantial number of people. Therefore, construction of the Project would result in less than significant impacts and no mitigation measures are required.

According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project does not include any uses identified by SCAQMD as being associated with substantial odors. As a result, the Project is not expected to discharge contaminants into the air in quantities that would cause a nuisance, injury, or annoyance to the public or property pursuant to SCAQMD Rule 402. Therefore, the Project would not create adverse odors affecting a substantial number of people and impacts would be less than significant and no mitigation measures are required.

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Biological Resources

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

Discussion

A records review and biological resources survey was conducted for the Project on January 30, 2024, to evaluate the potential for special-status species to occur within the Project's biological survey area. The biological survey area included the linear project footprint (Project Site) and extended laterally approximately 100 feet to the west (into developed areas), where visual access was possible, and at least 150 to 200 feet to the east (or more) to include the entire width of the adjacent San Diego Creek as well as both side of the section of Peter's Canyon Wash channel in the north end of the Project area. The segments of San Diego Creek adjacent to the proposed trail are earthen-bottom but the channel banks are rock-lined. The section of Peter's Canyon Wash is entirely rock-lined, including the channel bottom. Sections of the channel embankment are concrete-lined where each of the five bridges cross over the San Diego Creek within the Project area. The proposed trail would run along the top of the western bank parallel to the San Diego Creek and would replace an unimproved maintenance access path.

The survey noted that ornamental shrubs and a few trees are present occasionally, not within the Project footprint but adjacent to the west side of the proposed trail alignment. The ornamental shrubs are relatively densely planted along the fence on the west side of the proposed trail between Alton Parkway and Barranca Parkway and a variety of locally common birds could nest in this vegetation. Although there

are relatively few large trees, an old raptor or corvid nest was noted in one Eucalyptus tree and a red-shouldered hawk (*Buteo lineatus*) was observed in the area. Mud nests were also observed on all five bridges over the San Diego Creek (i.e., Coronado, Main Street, Warner Avenue, Alton Parkway, and Barranca Parkway bridges) indicating the swallows are expected to nest at each location. In addition, storm drain channels and bridge structures may provide opportunities for common bat species to roost and for other birds to nest. Gravel roads and disturbed, open space may be used occasionally by ground nesting birds such as killdeer (*Charadrius vociferus*).

San Diego Creek is periodically maintained as a flood control channel throughout this area and thus exhibits only sparse, and predominantly ruderal (weedy) vegetation and contains no significant riparian habitat. However, the San Diego Creek typically conveys storm flow and a perennial runoff from a significant area of Irvine north and east from the Project Site. This flow, in a soft-bottomed channel provides foraging habitat for a variety of shorebirds, wading birds and other opportunistic avian species. For example, in addition to those mentioned above, various other bird species observed during the survey included: spotted sandpiper (*Actitis macularius*), white-faced ibis (*Plegadis chihi*), snowy egret (*Egretta thula*), mourning dove (*Zenaida macroura*), pied-billed grebe (*Podilymbus podiceps*), great egret (*Ardea alba*), great blue heron (*Ardea herodias*), common yellowthroat (*Geothlypis trichas*), lesser goldfinch (*Spinus psaltria*), mallard (*Anas platyrhynchos*), song sparrow (*Melospiza melodia*), black phoebe (*Sayornis nigricans*),and Eurasian collared-dove (*Streptopelia decaocto*).

A bat study conducted prior to removal of sand from several sections of the San Diego Creek, including the area of the proposed trail noted the presence of several relatively common bat species including Yuma myotis (*Myotis yumanensis*), Mexican free-tailed bat (*Tadarida brasiliensis*), and California myotis (*Myotis californicus*), none of which are considered sensitive species by the California Department of Fish and Wildlife (CDFW) (ESA 2018). While each of these species are known to roost within bridges and culverts, no bats were observed emerging from the bridges or adjacent culverts during the study conducted in 2018.

It should be noted that an existing bike path and walking trail is situated along the top of the east bank of this section of San Diego Creek. Moreover, the Project is within a completely developed part of the City. Thus, this section of San Diego Creek and the associated wildlife are already exposed to a significant amount of noise and human activity, including traffic over the bridges, use of the existing trail and occasional maintenance of the trails and bridges, and of the Creek for flood control purposes.

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

No Impact. The Project Site is located in a highly urbanized area of the City with residential, commercial, and recreational uses. The site of the proposed trail is currently developed with a generally 20 feet wide, graded gravel roadway except for the existing underpasses which are paved with concrete under Warner Avenue, Barranca Parkway, and Alton Parkway. No vegetation occurs within the Project Site (i.e., the Project footprint or limits of disturbance) and adjacent vegetation is limited to ornamental vegetation along parts of the proposed trail. As noted above under the Discussion, the site of the proposed trail and

adjacent section of Peter's Canyon Wash and San Diego Creek lack any woody riparian habitat. Moreover, while the large drainage feature provides foraging opportunities to various birds and other locally common wildlife, no special-status species of wildlife or plants are known or expected to occur in the Project Site area or within the adjacent drainage area where they may be directly or indirectly affected by the Project.

Therefore, no impact would occur related to a substantial adverse effect on any plant or animal species identified as candidate, sensitive, or special-status in local or regional plans, policies, or regulations by the CDFW or the U.S. Fish and Wildlife Service.

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

No Impact. No riparian habitat or sensitive natural communities occur on or adjacent to the Project Site. San Diego Creek and Peter's Canyon Wash are immediately adjacent to the site of the proposed trail. The banks along these channels are generally armored with large stone riprap, with banks at undercrossings armored with concrete. Existing underpasses which are paved with concrete occur under Warner Avenue, Barranca Parkway, and Alton Parkway. The channel exhibits only sparse vegetation, as the result of scouring during winter storm flows, and no significant woody riparian vegetation is present. Moreover, the proposed trail will be limited to the top of the western channel bank and will not directly affect the channel bottom or alter the embankments. Therefore, no impact would occur to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or U.S. Fish and Wildlife Service.

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

No Impact. No wetlands or "waters" subject to state or federal regulatory jurisdiction, such as waters of the United States, pursuant to Clean Water Act (CWA) Section 404, or streams or lakes, pursuant to California Fish and Game Code Section 1600 et al., occur on or within the Project Site and the Project activities will not extend or intrude into the adjacent flood control channel. The Project Site does not contain any resources that would be regulated under the CWA or California Fish and Game Code Section 1600 et al. Further, there are no potential offsite impacts that could be regulated under the CWA or California Fish and Game Code Section 1600. Therefore, no impact would occur with respect to a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool coastal) through direct removal, filling, hydrological interruption, or other means for on-site resources.

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

Less than Significant with Mitigation Incorporated. The site of the proposed trail occurs along the top of the western bank of the last section of Peter's Canyon Wash and then along the west side of San Diego

Creek. Both large flood control channels are presumed to function as a route for local, urban-adapted wildlife species to move through this part of the City, but these channelized drainages are not a regionally important or vital wildlife movement corridor. Furthermore, the Project would not directly affect either drainage or would the proposed trail substantially change any conditions that are already present since an active bikeway is already in use along the top of the opposite bank of the San Diego Creek. The proposed trail would occur within the confined limits of a 20-foot-wide strip at the top of the west bank and would involve construction of a new paved trail. During construction activities, work would be substantially limited to daytime working hours. As most local terrestrial wildlife movement occur between dusk and dawn, construction would not be expected to affect local wildlife movement. Therefore, construction of the Project is not expected to result in any potentially significant impacts as the movement pathway itself is not considered an important or significant resource.

No known or expected native wildlife nursery sites occur in the Project vicinity and no such resources would be affected by the Project. Therefore, the Project would have no impact that would impede the use of native wildlife nursery sites. However, there is some ornamental landscaping and a few large non-native trees, which may be used by various species of nesting birds. Some bird species also nest on existing structures, including the bridge structures (known to be used by swallows), or on the ground, and some species may even nest in construction material and equipment.

It is important to note that the California Fish and Game Code (Section 3503) protects the active nests and eggs of all native bird species, except certain game birds, and the federal Migratory Bird Treaty Act (16 USC 703–711) makes it unlawful to take or kill individuals of most native and migratory bird species found in the United States. Therefore, **Mitigation Measure BIO-1** is provided to promote compliance with these state and federal laws that protect nesting birds. If construction activities must occur during the avian breeding season, requiring preconstruction nesting surveys and implementation of avoidance measures will mitigate potential impacts to nesting birds to below the level of significance.

Mitigation Measures:

BIO-1: Impacts to nesting birds would be avoided by conducting all construction activities outside of the bird nesting season (i.e., from September 1 to February 14 for most birds, from July 1 to January 14 for raptors). However, if construction activities must occur during the nesting season, the following measures shall apply during the time frames indicated:

a) Prior to work during the bird nesting season (February 15 to August 31 for most birds, January 15 to June 31 for raptors), a qualified biologist shall conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 7 days prior to construction activities. The results of the pre-construction survey shall be valid for 7 days; if vegetation removal activities do not commence within 7 days following the survey or if activities cease for more than 7 consecutive days, a new pre-construction nesting bird survey shall be conducted before construction resumes.

b) If any active nests are found during a pre-construction nesting bird survey, a buffer of up to 300 feet for most bird species and up to 500 feet for raptors, or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), shall be delineated, flagged, and avoided until the nesting cycle is complete (i.e., until the qualified biologist determines that the young have fledged or the nest has failed). The qualified biologist may also recommend other measures to minimize disturbances to active nests that may include but are not limited to curtailing the duration of certain activities,

placing sound barriers or visual barriers (e.g., noise blankets on temporary chain-link fencing), and/or providing full-time monitoring by a qualified biologist.

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

No Impact. The City's General Plan includes a Conservation and Open Space Element that serves to identify, protect, and conserve local natural resources and to establish a framework for preserving, managing, and enhancing the community's open space areas (Irvine, 2015). Natural resources include water, soils, water bodies, vegetation, wildlife, and air; open space lands pertain to parks and related recreational facilities and trails. However, as noted above, the Project Site does not coincide with any existing natural areas or biological resources and does not overlap or occur adjacent to areas zoned as open space. There are existing ornamental trees and vegetation located adjacent to the Project Site; however, tree removal permits are not required for trees located on private property. Therefore, implementation of the Project will have no impact with respect to potential conflicts with the City's Conservation and Open Space Plan.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project Site is located within the County of Orange Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan. However, no riparian habitat or sensitive natural communities occur on or adjacent to the Project Site. The Project Site is predominantly developed with residential, commercial, and recreation uses. The Project will not directly or indirectly affect any natural area or habitat subject to any conservation planning instruments such as a Habitat Conservation Plan or other local, regional, or state habitat conservation plan. As such, no impact would occur in this regard.

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Cultural Resources

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES — Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

Discussion

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

Less Than Significant Impact with Mitigation Incorporated. A Cultural Resources Assessment was conducted to identify potential impacts from the Project to cultural resources (historic architectural resources and archaeological resources) and is provided in **Appendix B,** *Cultural Resources Assessment*, of this Draft IS/MND (ESA 2024). The assessment included a review of the National Register of Historic Places and its annual updates, the California Register of Historical Resources, the California Built Environment Resources Directory (BERD) database maintained by the Office of Historic Preservation, and the Irvine Cultural Resources Element to identify any previously recorded properties within or near the Project Site. The assessment also included a records search through the California Historical Resources Information System – South Central Coastal Information Center (SCCIC) on August 28, 2023, a Sacred Lands File (SLF) search through the Native American Heritage Commission SLF on August 23, 2023, a cultural resources pedestrian survey, and a subsurface archaeological sensitivity assessment based on a geologic map review, review of soils, and the SCCIC's records search results.

The SCCIC records search results indicate that 77 cultural resources studies have been conducted within a 0.5-mile radius of the Project Site. Approximately 60 percent of the 0.5-mile radius searched has been covered in these previous studies. Out of these 18 studies, three of them overlap with nearly 90 percent of the Project Site, including adjacent roads. The records search results indicate that a total of four cultural resources have been recorded within the 0.50-mile radius. Of the four resources, two are precontact archaeological sites (P-30-000195 and -00508); one is a precontact isolate (P-30-100201); and one is a multicomponent archaeological site (P-30-000196). No previously recorded archaeological resources are located within the Project Site or immediately adjacent. No architectural resources were identified at SCCIC, in the BERD, or in the Irvine Cultural Resources Element within a 0.25-mile radius.

Environmental Science Associates (ESA) did not identify any historic architectural resources that qualify as historical resources pursuant to CEQA within the Project Site or adjacent to the Project Site. The Peters Canyon Channel underwent extensive modifications in 2019 which included the demolition, widening, and relining of the channel, which was confirmed on site. Therefore, the channel segment at the Project Site is not considered a historical resource due to its age and loss of integrity. Five reinforced concrete

bridges observed during the survey along the Project Site include: the Barranca Parkway Bridge (Eastbound and Westbound), the Main Street Bridge (Eastbound and Westbound), the Alton Parkway Bridge, the Coronado Bridge, and the Warner Avenue Bridge. The bridges along the Project Site are not considered historic resources as determined by Caltrans in 2019. Research and visual inspection of adjacent development including commercial and light industrial structures and planned residential communities during survey did not yield the presence of any potential historic architectural resources in these areas due to age of construction and lack of architectural import. As such, no historic architectural resource that qualifies as a historical resource within the Project Site or adjacent to the Project Site would be directly or indirectly impacted by the Project.

The SLF through the Native American Heritage Commission (NAHC) yielded positive results. The letter did not provide details on the resources identified but recommended that the Juaneño Band of Mission Indians and the Juaneño Band of Mission Indians Acjachemen Nation – Belardes be contacted for additional information.

No archaeological resources have been previously recorded within the Project Site or immediately vicinity and none were identified as a result of the survey**.** However, this does not preclude the possibility that subsurface archaeological deposits underlie the Project Site. Such resources could qualify as historical resources or unique archaeological resources under CEQA and impacts to any such resources would constitute a significant impact or effect on the environment.

The archaeological sensitivity assessment indicates that the Project Site has a moderate to high potential for containing buried precontact archaeological resources based on the following reasons: 1) the Project Site contains sedimentary deposits dating back to the late Pleistocene and Holocene (11,700 years ago to present) and latest Holocene (between 2000 and 150 cal BP) consistent with human occupation in Southern California; 2) the Project Site is located on a flat surface; 3) Project Site is adjacent to Peters Canyon Wash, which could have provided a freshwater source and dietary sources to precontact inhabitants; 4) three archaeological sites with precontact components (ORA-195, ORA-196/H, and ORA-508) and one precontact isolate (P-3-100201) were recorded within the 0.50-mile radius of the Project Site (one of which yielded Native American human remains); and 5) the SLF search yielded positive results.

The archaeological sensitivity assessment also indicates that the Project Site has a low to moderate potential for finding buried historic-period archaeological resources based on the following factors: 1) one historic-period resource (consisting of pipes, cans, and domestic debris) is recorded within the 0.50-mile radius of the Project Site; and 2) land grant plat maps and diseños show various roads and trails passing through or close to the Project Site. Camps and discarded refuse often occur along such roads and the roads themselves may be able to de detected archaeologically. Should precontact or historic-period archaeological resources be encountered, they could qualify as historical resources as defined in §15064.5. Impacts to such resources could constitute a substantial adverse change in the significance of a historical resource. With implementation of **Mitigation Measures CUL-1 through CUL-3**, which require retention of a qualified archaeologist, construction worker cultural resources sensitivity training, archaeological monitoring, procedures to follow in the event of the unanticipated discovery of archaeological resources, treatment of discoveries, and final reporting, impacts to archaeological resources potentially qualifying as historical resources would be less than significant.

Mitigation Measures

CUL-1: Prior to the issuance of a demolition permit or ground-disturbing activities, the City of Irvine shall retain an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology (Qualified Archaeologist) to oversee an archaeological monitor who shall be present during initial Project construction work such as demolition, clearing/grubbing, grading, trenching, or related moving of soils within the Project Site (collectively, ground disturbing activities); provided, however, that ground disturbing activities shall not include any moving of soils after they have been initially disturbed or displaced by Project-related construction. The Qualified Archaeologist shall determine the frequency of monitoring based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (younger alluvium vs. older alluvium), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. The frequency of monitoring can be reduced to part-time inspections or ceased entirely if determined appropriate by the Qualified Archaeologist.

Prior to commencement of excavation activities, an Archaeological and Cultural Resources Sensitivity Training shall be given for construction personnel. The training session shall be carried out by the Qualified Archaeologist and shall focus on how to identify archaeological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event.

CUL-2: In the event that historic or precontact archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. After consulting with the City, the Qualified Archeologist shall establish an appropriate buffer in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery. This buffer area shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area.

All archaeological resources unearthed by Project construction activities shall be evaluated by the Qualified Archaeologist. If the Qualified Archaeologist determines the find to constitute a "historical resource" pursuant to CEQA Guidelines Section 15064.5(a) or a "unique archaeological resource" pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with City to develop a reasonable and feasible treatment plan that would serve to reduce impacts to the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. The treatment plan shall include measures regarding the curation of the recovered resources that may include curation at a public, non-profit institution with a research interest in the materials, such as the John D. Cooper Archaeological and Paleontological Center, if such an institution agrees to accept the material. If no institution accepts the resources, they may be donated to a local school or historical society in the area for educational purposes.

CUL-3: The Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. The report and the Site Forms shall be submitted by the Applicant to the City, the South Central Coastal Information

Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.

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

Less Than Significant Impact with Mitigation Incorporated. As noted under impact a), the archaeological sensitivity assessment indicates that the Project Site has a moderate to high potential for containing buried precontact archaeological resources and a low to moderate potential for finding buried historic-period archaeological resources. Should archaeological resources be encountered during ground disturbance, impacts to such resources could constitute a substantial adverse change in the significance of an archaeological resource. With implementation of **Mitigation Measures CUL-1 through CUL-3**, which require retention of a qualified archaeologist, construction worker cultural resources sensitivity training, archaeological monitoring, procedures to follow in the event of the unanticipated discovery of archaeological resources, treatment of discoveries, and final reporting, impacts to archaeological resources would be less than significant.

Mitigation Measures

Implementation of Mitigation Measures CUL-1 through CUL-3 is required.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact with Mitigation Incorporated. As part of the Cultural Resources Assessment, a SLF search was commissioned through the NAHC that yielded positive results and the records search results indicate that Native American human remains have been recorded within the 0.50-mile radius of the Project Site. As a result of these findings and since the Project would include excavations and ground-disturbing activities, there is potential for the Project to encounter human remains during construction. Should excavation activities encounter human remains, disturbance of those remains could result in a potentially significant impact. With implementation of **Mitigation Measure CUL-4**, which requires compliance with existing state laws in the event of an unanticipated discovery, impacts to human remains would be less than significant.

Mitigation Measure

CUL-4: If human remains are encountered unexpectedly during implementation of the Project, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where

the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment.

If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance.

With implementation of Mitigation Measure CUL-4, which requires compliance with existing state laws in the event of an unanticipated discovery, impacts to human remains would be less than significant.

References

ESA. 2024. *Cultural Resources Assessment for the Irvine Business Complex (IBC) Multi-Use Trail Creekwalk Segment Project*. Report on file at Environmental Science Associates.

Energy

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. ENERGY — Would the project:				
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) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. The Project would consume energy during construction activities primarily from on- and off-road vehicle fuel consumption in the form of diesel, gasoline, and electricity from water conveyance for dust control. Project operation would consume minimal energy from safety lighting and street crossing improvements (i.e., traffic signals) and periodic trail maintenance, and therefore was not quantified in the sections below. The analysis below includes the Project's energy requirements and energy use efficiencies by energy type for the Project's construction.

Construction

The estimated fuel usage for off-road equipment is based on the number and type of equipment that would be used during construction activities, hour usage estimates, the total duration of construction activities, and hourly equipment fuel consumption factors from the CARB OFFROAD model, which was used in the Project's air quality analysis, as discussed in Section 4.7, *Air Quality*. On-road vehicles would include trucks to haul material to and from the Project Site, vendor trucks to deliver supplies necessary for Project construction, and fuel used for employee commute trips. Construction activities typically do not involve the consumption of natural gas. **Table 3.6-1**, *Summary of Energy Consumption During Project Construction,* summarizes the Project's total fuel and electricity consumption from construction activities.

TABLE 3.6-1
SUMMARY OF ENERGY CONSUMPTION DURING PROJECT CONSTRUCTION

Fuel Type	Total Quantity	Annual Average[a]
Electricity	**kWh**	
Construction Office	46,880	40,936
Electricity from Water (Dust Control)	10,840	10,840
Total Electricity	**57,720**	**51,776**
Gasoline	**Gallons**	
On-Road Construction Trips	2,478	2,164
Total Gasoline	**2,478**	**2,164**
Diesel	**Gallons**	
On-Road Construction Trips	14,613	12,760
Off-Road Construction Equipment	22,198	19,383
Total Diesel	**37,309**	**32,579**

Note:
a. The annual average values represent the Project's construction energy demand during the approximately 14-month duration.
Source: ESA, 2024

The energy use summary provided above in Table 3.6-1 represents the amount of energy that could potentially be consumed during Project construction based on a conservative set of assumptions, provided in **Appendix C**, *Energy Calculations,* of this Draft IS/MND.

Electricity

During construction of the Project, electricity would be used for the construction office (lights, electronic equipment, and heating and cooling), water conveyance for dust control, and other construction activities. Electricity would be supplied to the Project Site by Southern California Edison (SCE) and would be obtained from the existing electrical lines that connect to the Project Site.

As shown in Table 3.6-1, annual average construction electricity usage would be approximately 51.8 megawatt-hours. The electricity demand would be within the supply and infrastructure capabilities of SCE (which reported 79,256 gigawatt-hours of total electricity sales in 2023) (SCE 2024). The electricity demand at any given time would vary throughout the construction period based on the construction activities being performed and would cease upon completion of construction. Electricity use from construction would be short-term, limited to working hours, and used for necessary construction-related activities. Therefore, the Project would not result in a wasteful, inefficient, and unnecessary consumption of energy associated with electricity used for construction, and impacts would be less than significant.

Natural Gas

As previously stated above, construction activities, including the construction of multi-use bicycle and pedestrian path and intersection improvements, typically do not involve the consumption of natural gas. Accordingly, natural gas would not be supplied to support Project construction activities; thus, there would be no expected demand generated by construction of the Project. Therefore, the Project would not

result in the wasteful, inefficient, and unnecessary consumption of energy associated with natural gas used for construction and impacts would be less than significant.

Transportation Energy

Table 3.6-1 reports the estimated amount of petroleum-based transportation energy that could potentially be consumed during Project construction based on the set of assumptions provided in **Appendix C**, of this Draft IS/MND. During Project construction, on- and off-road vehicles would consume an estimated annual average of approximately 2,164 gallons of gasoline and 32,579 gallons of diesel during the approximately 14-month construction duration. For comparison purposes only, and not for the purpose of determining significance, the annual fuel usage during Project construction would represent approximately 0.0002 percent of the 2022 annual on-road gasoline-related energy consumption and 0.0314 percent of the 2022 annual diesel-related energy consumption in Orange County, as shown in **Appendix C**, of this Draft IS/MND.

Construction of the Project would utilize fuel-efficient equipment consistent with State and federal regulations, such as fuel efficiency regulations in accordance with the CARB Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in 13 CCR, and fuel requirements in accordance with 17 CCR Section 93115. The Project would benefit from fuel and automotive manufacturers' compliance with Corporate Average Fuel Economy standards, which would result in more efficient use of transportation fuels (lower consumption) for worker vehicles and for haul and vendor trucks. As such, the Project would indirectly comply with regulatory measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from minimized idling times and the use of more fuel-efficient engines.

Based on the analysis above, construction would utilize energy only for necessary on-site activities and to transport construction materials and excavated fill to and from the Project Site. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and, thus, reduce the Project's construction-related energy use. Therefore, the Project would not result in the wasteful, inefficient, and unnecessary consumption of energy and impacts associated with transportation fuels for construction would be less than significant.

Operation

During operation of the Project, minimal energy would be consumed for safety lighting, street crossing improvements (i.e., traffic signals),and periodic trail maintenance. In addition, the Project would not generate any net new mobile vehicle trips compared to existing conditions. The Project would not increase the demand for natural gas resources. As such, the Project would not result in the wasteful, inefficient, and unnecessary consumption of electricity. A less than significant impact would occur and no mitigation measures are required.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. Construction of the Project would result in a temporary increase in demand for electricity, gasoline, and diesel. The Project's energy consumption primarily would result

from on- and off-road fuel use from construction related vehicles and electricity from water conveyance for dust control. Natural gas would not be used during Project construction. These activities make up small percentages of total energy supplies and would cease after the approximately 14-month construction period. Thus, construction would not cause a permanent increase in demand and impacts would be less than significant and no mitigation measures are required.

The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. With respect to truck fleet operators, U.S. Environmental Protection Agency (USEPA) and National Highway Traffic Safety Administration (NHTSA) have adopted fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles and were phased in for model years 2014 through 2018, resulting in an estimated reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type. USEPA and NHTSA also adopted the Phase 2 heavy-duty truck standards, which are phased in from model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type.

In addition, construction equipment and trucks are required to comply with CARB regulations regarding heavy-duty truck idling limits of five minutes at a location and the phase-in of off-road emission standards that result in an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines. Although these regulations are intended to reduce criteria pollutant emissions, compliance with the anti-idling and emissions regulations would also result in the efficient use of construction-related energy.

The Project would comply with all relevant Federal and State regulations and energy conservation plans including USEPA and NHTSA fleet fuel efficiency standards and CARB's anti-idling regulations. Therefore, Project construction activities would not conflict with energy conservation plans and impacts would be less than significant.

Project operation will minimally increase the demand for electricity resources for safety lighting, street crossing improvements (i.e., traffic signals), and fuel usage for periodic trail maintenance. The Project's operational energy usage would be negligible and would be extremely minimal with respect to SCE supplies. It is not anticipated that additional power generation facilities would be required to serve the Project, or that the demand would exceed capacity of energy providers. Furthermore, the Project would not generate any net new mobile vehicle trips compared to existing conditions. Impacts would be less than significant and no mitigation measures are required.

References

Southern California Edison (SCE), 2024. 2023 Annual Report. https://www.edison.com/investors/financial-reports-information/annual-reports. Accessed September 2024.

Geology and Soils

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

Discussion

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

Less Than Significant Impact. Fault rupture is the displacement that occurs along the surface of a fault during an earthquake. Based on criteria established by the California Geological Survey (CGS), faults may be categorized as active, potentially active, or inactive. Active faults are those which show evidence of surface displacement within the last 11,700 years (Holocene-active). Potentially active faults are those that show evidence of most recent surface displacement during Quaternary time within the last 1.6 million years (pre-Holocene). Faults showing no evidence of surface displacement within the last 1.6 million

years are considered inactive. In addition, there are buried thrust faults, which are low angle reverse faults with no surface exposure. Due to their buried nature, the existence of buried thrust faults is usually not known until they produce an earthquake.

The CGS has established earthquake fault zones known as Alquist-Priolo Earthquake Fault Zones around the surface traces of active faults to assist cities and counties in planning, zoning, and building regulation functions. These zones, which extend from 200 to 500 feet on each side of a known active fault, identify areas where potential surface rupture along an active fault could prove hazardous and identify where special studies are required to characterize hazards to habitable structures.

The Project Site is located in the highly seismic Southern California region within the influence of several fault systems and could be subject to moderate to strong ground shaking in the event of an earthquake on one of the many active Southern California faults. The nearest surface trace of a Holocene-active fault to the Project Site is the Newport-Inglewood Fault zone (offshore segment) located approximately 8.3 miles to the southwest. Other nearby Holocene-active faults include the Whittier Fault and the Glen Ivy Fault of the Elsinore Fault zone located approximately 14.5 miles northeast and 16 miles northeast respectively, of the Project Site. The active San Andreas Fault is located approximately 44 miles northeast of the Project Site. Several buried thrust faults, commonly referred to as blind thrusts, underlie the Southern California region at depth. These faults are not exposed at the ground surface and are typically identified at depths greater than 3.0 kilometers. The Puente Hills Blind Thrust underlies the Project Site at depth. Thrust faults do not present a potential surface fault rupture hazard at the Project Site. However, deep thrust faults are considered active features capable of generating future earthquakes that could result in moderate to significant ground shaking at the Project Site (Geocon 2024). The faults located within the vicinity of the Project Site are shown in Figure 3, Regional Fault Map, of the Geotechnical Investigation.

The Project Site is not located within a state-designated Alquist-Priolo Earthquake Fault Zone for surface fault rupture hazards. No known Holocene-active or pre-Holocene faults with the potential for surface fault rupture are known to pass directly beneath the Project Site. Therefore, the potential for surface rupture due to faulting occurring beneath the Project Site during the design life of the Project is considered low (Geocon 2024). As such, the Project would result in a less than significant impact related to the rupture of a known earthquake fault.

ii) Strong seismic ground shaking?

Less Than Significant Impact. Seismicity is the geographic and historical distribution of earthquakes, including their frequency, intensity, and distribution. The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking.

The Project Site could be subject to strong seismic ground shaking. However, this hazard is common throughout the Southern California. The City requires that all new construction meet or exceed Title 5, Planning, Division 9, Building and Regulations, and Division 10, Grading Code and Encroachment Regulations. Given the low-intensity nature of the Project, absence of habitable structures and buildings, and compliance with applicable building and safety codes, impacts related to strong seismic ground shaking would be less than significant.

iii) Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is a phenomenon in which loosely deposited granular soils and fine-grained soils located below the water table undergo rapid loss of shear strength when subjected to strong earthquake-induced ground shaking. Ground shaking of sufficient duration can result in a loss of grain-to-grain contact due to a rapid rise in pore water pressure causing the soul to behave as a fluid for a short period. Liquefaction is known generally to occur in saturated or near-saturated cohesionless soils at depths shallower than 50 feet below the ground surface. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, degree of saturation, groundwater level, and both duration and intensity of ground shaking.

According to the City's General Plan Seismic Element, the Project Site is located in an area labeled as SRA-1, which is defined as an area with potential soft or loose soils/high ground water and is considered to have a greater potential for ground failure in the form of liquefaction, in comparison to other areas in the City. While the Project Site is located in an area identified as having a potential for liquefaction, given the nature of the Project, the geotechnical report concludes that the Project is anticipated to be exempt from an evaluation of liquefaction (Geocon 2024). Further, compliance with the 2022 CBC and the CGS Special Publications 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California, would reduce impacts from liquefaction within the Project Site to maximum extent possible under currently accepted engineering practices. Therefore, the Project would result in a less than significant impact related to liquefaction.

iv) Landslides?

No Impact. Earthquake-induced landslides often occur in areas where previous landslides have moved and in areas where the topographic, geologic, geotechnical and subsurface groundwater conditions are conducive to permanent ground displacements. According to the City's General Plan Seismic Element, the Project Site is not located in a landslide area. As such, no impact would occur in this regard.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Soil erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in a project area where bare soil is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally a function of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, and general land uses. Topsoil is used to cover surface areas for the establishment and maintenance of vegetation due to its high concentrations of organic matter and microorganisms.

Construction activities associated with the Project would result in ground surface disruption during excavation, grading, and trenching that would create the potential for erosion to occur. The Project would include excavation up to 12-inches in depth and export of approximately 5,670 cubic yards of soil. Wind erosion would be minimized through soil stabilization measures required by the SCAQMD Rule 403 (Fugitive Dust), such as daily watering. Potential for water erosion would be reduced by implementation of standard erosion control measures imposed during site preparation and grading activities. As discussed in more detail in Section X, *Hydrology and Water Quality*, the Project would be subject to all existing

regulations associated with the protection of water quality. Construction activities would be carried out in accordance with applicable City standard erosion control practices required pursuant to the 2022 CBC and the requirements of the National Pollutant Discharge Elimination Systems (NPDES) General Construction Permit issued by the Santa Ana Regional Water Quality Control Board, as applicable. Consistent with these requirements, a stormwater pollution prevention plan (SWPPP) would be prepared that incorporates best management practices (BMPs) to control water erosion during the construction phase of the Project. Therefore, with compliance with applicable regulatory requirements, impacts regarding soil erosion or the loss of topsoil would be less than significant.

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

Less than Significant Impact. As previously discussed under Responses VII.a.iii and VII.a.iv above, liquefaction and landslide hazards were concluded to have no impact and a less than significant impact, respectively. Lateral spreading is the downslope movement of surface sediment due to liquefaction in a subsurface layer. The downslope movement is due to the combination of gravity and earthquake shaking. Such movement can occur on slope gradients of as little as one degree. Lateral spreading typically damages pipelines, utilities, bridges, and structures. Lateral spreading of the ground surface during a seismic activity usually occurs along the weak shear zones within a liquefiable soil layer and has been observed to generally take place toward a free face (i.e., retaining wall, slope, or channel) and to a lesser extent on ground surfaces with a very gentle slope. The topography at the Project Site is relatively level to gently sloping to the southwest (Geocon 2024). According to the City's General Plan Seismic and Safety Elements, the Project Site is not located within an area identified as having a potential for slope instability. Additionally, the State of California Seismic Hazard Zones Map for the Tustin Quadrangle indicates that the Project Site is not located within an area identified as having a potential for seismic slope instability (California Division of Mines and Geology 2001). Since the Project would not alter the geometry or leading of the existing slopes, analysis of the slope stabilities was not included in the Geotechnical Investigation (Geocon 2024).

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Soils that are particularly subject to subsidence include those with high silt or clay content. Although the Project Site is located in an area of known ground subsidence, the rate of elevation change is uniform over a large enough area that it does not result in differential settlements that would cause damage to individual buildings. Therefore, the potential for subsidence to adversely impact the Project is considered low (Geocon 2024).

Conformance to the 2022 CBC and the CGS Special Publications 117, Guidelines for Evaluating and Mitigating Seismic Hazards in California would reduce impacts from stability hazards within the Project Site to the maximum extent possible under currently accepted engineering practices. These engineering practices could include densification of soils, soil reinforcement, and drainage/dewatering to reduce pore water pressure within the soil. As such, implementation of the Project would result in less than significant impacts related to geological stability hazards.

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

Less Than Significant Impact. Soils with shrink-swell or expansive properties typically occur in fine-grained sediments and cause damage through volume changes as a result of a wetting and drying process. Structural damage may occur over a long period of time, usually the result of inadequate soil. The soils underlying the Project Site are considered to have a "medium" to "very high" expansion potential and are classified as expansive in accordance with the 2022 CBC (Geocon 2024). Due to the expansive potential of the subgrade soils, the moisture content of the slab subgrade should be maintained to keep a moist condition. Alternatively, the upper 18 inches of soil could be replaced with non-expansive soils, which would reduce the potential for movements and offsets (Geocon 2024). The Project would be constructed in accordance with the recommendations contained within the Geotechnical Investigation, the City's Municipal Code, and the 2022 CBC. Therefore, implementation of the Project would result in less than significant impacts associated with expansive soils and substantial risks to life or property would not occur.

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

No Impact. The Project does not propose habitable structures or restroom facilities. Therefore, the Project would not require the use of septic tanks or alternative waste water disposal systems. No impact would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation Incorporate. A Paleontological Resources Assessment was conducted for the Project in August 2024 (ESA 2024), and it is provided in **Appendix E,** *Paleontological Resources Assessment,* of this Draft IS/MND. The assessment included geologic map review, a paleontological resources database search conducted by the Natural History Museum of Los Angeles County (LACM), as well as a paleontological resources sensitivity analysis.

Based on the detailed surficial geological map of Bedrossian et al. (2012; scale 1:100,000), the Project Site lies entirely upon young, alluvial valley deposits (Qya). This facies of young alluvium lies upon either young alluvial fans (Holocene, Qyf) or older fan deposits (Qof). The alluvium is to be expected as the Project occupies the ancestral confluence of several drainages before exiting the sea at present Newport Bay. While older, fossiliferous units are exposed in the hills to the south of the Project Site, those units are anticipated to be quite deep in the Project Site. Furthermore, it has been shown that the Project Site itself has been modified and is largely underlain by imported gravel fill (CGS 2024). Results of the paleontological resources records search conducted by the LACM indicated that no fossil localities lie directly within the Project Site; however, several fossil localities were identified nearby from the same sedimentary deposits that occur near the Project Site. Fossil localities have yielded fossil specimens of horse, camel family, sea turtle, turkey family, toad, pond frogs, tree frog, whip snake, garter snake, rattlesnake, kingsnake, salamander, quail, red-winged blackbird, crow, hawk, duck, bat, shrew, rabbit, pocket gopher, mice, kangaroo rat, woodrat, vole, skunk, mastodon, artiodactyla, fish, uncatalogued fish and birds, unspecified mammals, invertebrates scaphopod, dugong clade, sloth, and marine gastropods.

These fossil localities were found within Pleistocene beach terrace deposits, Palos Verdes Sand soils, the Vaqueros Fernando Formations at unknown depths and depths between 11-30 feet below ground surface. While these results shed light on the interesting interplay between marine and terrestrial deposits in the Miocene through Pleistocene, none of these formations are relevant to the Project as these units do not crop out in the area or would be found at substantial depth.

The paleontological sensitivity analysis indicates that Young alluvial valley deposits (Qya) mantle the entire Project Site to an unknown depth. As alluvium in the valleys is likely less than 5,000 years old, the Qya is considered too young to contain fossils. Therefore, this unit is assigned a Low Potential to contain paleontological resources. Additionally, alluvial fan deposits of Pleistocene to Holocene age (Qyf/Qof) are not found directly in the Project Site but are found to the south and might be found at depth below the Qya. While alluvial fans typically do not contain significant fossil resources, the older fan deposits are of the age to contain significant Ice Age fossils. Therefore, the Qyf / Qof is assigned a Low Potential, and the potential increases to High Potential at depth.

Based on the local geology, particularly the young age of the impacted sediments, excavation for the Project will not likely impact buried paleontological resources. If excavations exceed the thickness of the young alluvium, Pleistocene-aged fan deposits may be encountered and they may contain fossils. However, the depth to the Pleistocene-aged sediments is currently unknown. Therefore, **Mitigation Measures GEO-1** is recommended to reduce potentially significant impacts to paleontological resources to a less than significant level.

Mitigation Measures:

> **GEO-1:** In the event an unanticipated fossil discovery is made during ground disturbing activities, construction activities shall halt in the immediate vicinity of the fossil, and the qualified professional paleontologist retained by the Applicant shall be notified to evaluate the discovery, determine its significance, and evaluate whether additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given by the qualified paleontologist to resume construction work. Any significant paleontological resources found shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository. A final report shall be prepared by the qualified professional paleontologist the discusses fossil discoveries and will be submitted to the City and the repository.

References

California Division of Mines and Geology. 2001. *State of California, Seismic Hazard Zones, Tustin Quadrangle*, dated January 17, 2001.

ESA. 2024. *IBC Multi-Use Trail Creekwalk Segment Project, Paleontological Resources Assessment Report*. On file at ESA. Herein, referred to as **Appendix E**.

Geocon, 2024. *Preliminary Geotechnical Investigation, Proposed IBC Multi-Use Trail Along Creekwalk (CIP 342301) and Barranca Channel (CIP 342303) Irvine, California*, prepared by Geocon, dated June 2024. Herein, referred to as **Appendix D**.

The Society of Vertebrate Paleontology (SVP). 2010. *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources.* Available at: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines-1.pdf, accessed September 5, 2024.

Greenhouse Gas Emissions

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

Discussion

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

Less Than Significant Impact. Gases that trap heat in the atmosphere are called greenhouse gases (GHGs). The major concern with GHGs is that increases in their concentrations are causing global climate change. Global climate change is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to human activities, most in the scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases.

The State of California defines GHGs as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs). Because different GHGs have different global warming potentials (GWPs) and CO_2 is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, CH_4 has a GWP of 25 (over a 100-year period); therefore, 1 metric ton (MT) of CH_4 is equivalent to 25 MT of CO_2 equivalents ($MTCO_2e$). The State uses the GWP ratios available from the United Nations Intergovernmental Panel on Climate Change and published in the *Fourth Assessment Report*. By applying the GWP ratios, project-related CO_2e emissions can be tabulated in MT per year. Large emission sources are reported in million metric tons (MMT) of CO_2e.

Potential effects of global warming in California may include loss in snow pack, sea level rise, more extreme heat days per year, more high ozone days, more forest fires, and more drought years (CARB 2008). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC 2001):

- Higher maximum temperatures and more hot days over nearly all land areas;
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas;
- Reduced diurnal temperature range over most land areas;

- Increase of heat index over land areas; and
- More intense precipitation events.

Secondary effects may result from global warming including global rise in sea level, impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood and additional research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great.

California emitted 371.1 MMTCO2e in 2022, the most recent year for which inventory data are published from CARB. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2021, accounting for approximately 39 percent of total GHG emissions in the state. This sector was followed by the industrial sector (23 percent) and the electric power sector (including both in-state and out-of-state sources) (16 percent) (CARB 2024).

Impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and TACs. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; however, it is clear that the quantity is enormous, and no single project would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

The City has not adopted a threshold of significance for GHG emissions that would be applicable to the Project's construction. As the Project would have minimal operational GHGs associated with path lighting and traffic signal lighting, and periodic trail maintenance, they are not quantified in the operational GHG section below.

CEQA Guidelines 15064.4 (b)(1) states that a lead agency may use a model or methodology to quantify GHGs associated with a project. The SCAQMD in conjunction with California Air Pollution Control Officers Association released the latest version of the California Emissions Estimator Model (CalEEMod) (Version 2022.1). The purpose of this model is to estimate construction-source and operational-source emissions from direct and indirect sources. Accordingly, the latest version of CalEEMod has been used for this Project to estimate the Project's emission impacts.

Construction Emissions

The emissions of GHGs associated with construction of the Project were calculated for each year of construction activity using CalEEMod. Construction emissions are forecasted by assuming a conservative estimate of construction activities (i.e., assuming all construction occurs at the earliest feasible date). Project construction is estimated to start in 2028 but may commence at a later date. If the onset of construction is delayed to a later date than assumed in the modeling analysis, construction impacts would be similar to or less than those analyzed, because a more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is because State regulations require construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time. As a result, should the Project commence construction on a later date than modeled in this GHG impact analysis, GHG impacts would be less than the impacts disclosed herein.

Although construction related GHGs are one-time emissions, any assessment of Project emissions should include construction emissions. It should be noted that the GHG emissions shown in Table 3.8-1 below are based on construction equipment operating continuously throughout the workday. In reality, construction equipment tends to operate periodically or cyclically throughout the workday. Therefore, the GHG emissions shown reflect a conservative estimate. Table 3.8-1 presents the GHG emissions associated with the Project's construction, including GHG emissions from on-road mobile sources, off-road equipment, watering associated with limit construction dust, and a temporary construction office. The SCAQMD recommends that a project's construction-related GHG emissions be amortized over the project's 30-year lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. The Project's estimated construction GHG emissions have been amortized over a 30-year period in accordance with SCAQMD guidance.

TABLE 3.8-1
PROJECT CONSTRUCTION GHG EMISSIONS

Construction Year[a]	CO_2e (Metric Tons)[b]
Year 1	350
Year 2	51
Total Construction Emissions	**401**
Amortized Construction Emissions (30-years)	13

Notes:

a. Project construction would last for approximately 14 months. For emissions modeling purposes, construction was assumed to begin in 2028, corresponding to Year 1 and end in 2029, corresponding to Year 2.

b. Totals may not add up exactly due to rounding in the modeling calculations Detailed emissions calculations are provided in Appendix A, of this Draft IS/MND.

Source: ESA, 2024

Operational Emissions

Operational activities associated with the Project would result in emissions of CO_2 and to a lesser extent CH_4 and N_2O. Operational sources of GHG emissions would include indirect GHG emissions from electricity for the safety lighting and street crossing improvements (i.e., traffic signals). The Project would not generate any net new mobile vehicle trips compared to existing conditions; therefore, the Project would not generate an increase in operational mobile emissions. In addition, minimal operational emissions would be generated due to fuel usage of equipment used during periodic trail maintenance of the Project. Electricity-related GHG emissions would be minimal for safety lighting and traffic signals and thus this is a less than significant impact and no mitigation measures are required.

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

Less Than Significant Impact. The Project would not conflict with any plans adopted for the purpose of reducing GHG emissions. A consistency analysis is provided and describes the Project's compliance with the applicable portions of the CARB *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) and SCAG's most recent Regional Transportation Plan/Sustainable Community Strategy (RTP/SCS), also known as Connect SoCal 2024.

2022 Climate Change Scoping Plan

The CARB 2022 Scoping Plan was approved in December 2022 and expands on prior scoping plans and recent legislation, such as Assembly Bill (AB) 1279, by outlining a technologically feasible, cost-effective, and equity-focused path to achieve the state's climate target of reducing anthropogenic GHG emissions to 85 percent below 1990 levels and achieving carbon neutrality by 2045 or sooner (CARB 2022). AB 1279, The California Climate Crisis Act, establishes that the State would be required to achieve net zero GHG emissions as soon as possible but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. To achieve carbon neutrality by 2045, the 2022 Scoping Plan contains GHG emissions reductions, technology, and clean energy mandated by statutes; reduction of short-lived climate pollutants; and mechanical CO_2 capture and sequestration actions.

The 2022 Scoping Plan outlines a framework that relies on a broad array of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms, such as the Cap-and-Trade program. The 2022 Scoping Plan builds off of a wide array of regulatory requirements that have been promulgated to reduce Statewide GHG emissions, particularly from energy demand and mobile sources. While these regulatory requirements are not targeted at specific land use development projects, they would indirectly reduce a development project's GHG emissions.

Table 3.8-2, *Project Compliance with Applicable 2022 Scoping Plan Actions and Strategies*, contain a list of GHG-reducing strategies as they relate to the Project. The analysis describes the consistency of the Project with these strategies that support the State's strategies in the 2022 Scoping Plan to reduce GHG emissions. The 2022 Scoping Plan relies on a broad array of GHG reduction actions, which include direct regulations, alternative compliance mechanisms, incentives, voluntary actions, and market-based mechanisms such as the Cap-and-Trade program. The Project would not conflict with applicable 2022 Scoping Plan actions and strategies to reduce GHG emissions.

TABLE 3.8-2
PROJECT COMPLIANCE WITH APPLICABLE
2022 SCOPING PLAN ACTIONS AND STRATEGIES

Actions and Strategies	Conflict Analysis
Increase in Renewable Energy and Decrease in Oil and Gas Use Actions	**Not Applicable.** This goal applies to increasing renewable energy and a decrease in oil and gas actions by transitioning to zero emissions technologies, primarily through state and local agencies and does not directly apply to land use development projects. Although this goal isn't applicable to the Project, the standards would apply to all vehicles purchased or used by maintenance workers, vendors, and visitors of the Project. GHG emissions generated by passenger, truck, and bus vehicular travel as a result of the Project would benefit from the above regulations and programs, and mobile source emissions would be reduced with implementation. The Project would also benefit from SCE's compliance with RPS and GHG emissions would decrease as grid-generated electricity reaches a higher percentage of renewable energy.
Low Carbon Fuels Actions	**No Conflict.** The Project would not generate vehicle trips beyond existing conditions. Vehicles accessing the Project Site, including construction vehicles and trucks and maintenance employees would utilize fuels that comply with the State of California low carbon fuel standard. Thus, the Project would not conflict with the State's ability to implement the low carbon fuel standard.

Actions and Strategies	Conflict Analysis
Expansion of Electrical Infrastructure Actions	**Not Applicable.** Decarbonizing the electricity sector depends on both using energy more efficiently and replacing fossil-fueled generation with renewable and zero carbon resources, including solar, wind, energy storage, geothermal, biomass, and hydroelectric power. The RPS Program and the Cap-and-Trade Program continue to incentivize dispatch of renewables over fossil generation to serve state demand. This action is not applicable to the Project. Nonetheless, the Project lies within the supply and infrastructure service capabilities of SCE. The Project would not require the expansion of electrical infrastructure that would result in significant environmental impacts.
Climate Ready and Climate-Friendly Buildings	**Not Applicable.** The goal of this action is to expand the number of all-electric and electric-ready homes by 2030 by strengthening building standards to support zero-emission new construction and developing building performance standards for existing buildings and by adopting a zero-emission standard for new space and water heaters beginning in 2030. The Project does not propose any buildings, and thus this action does not apply to the Project.
Expanded Use of Zero-Emission Mobile Source Technology Actions	**No Conflict.** The Project would not conflict with this action. As the Project would involve periodic maintenance vehicle trips, that already occur under existing conditions, the Project would benefit from implementation of the Advanced Clean Cars Program that would reduce passenger vehicle GHG emissions, as well as the Advanced Clean Truck Regulation that aims to increase zero-emissions truck sales annually. As such, the Project would not conflict with the State's ability to reduce Statewide GHG emissions through ZE vehicles.
Mechanical Carbon Dioxide Removal and Carbon Capture and Sequestration Actions	**No Conflict.** The Project would include a two-foot wide earthen swale and the multi-use trail and would not conflict with the State's ability to implement mechanical carbon dioxide removal and carbon capture and sequestration actions
Improvements to Oil and Gas Facilities Actions	**Not Applicable.** The Project includes a recreational trail for bicycle and pedestrian use, and does not include improvements to oil and gas facilities. As such, this action does not apply to the Project.
Reduced High-GWP Fluorinated Gases Actions	**Not Applicable.** This action includes expanding use of low-GWP refrigerants within buildings; increasing funding to decarbonize existing buildings and appliance replacements; and implementing biomethane procurement targets for investor-owned utilities. The Project would include any land uses that utilize refrigerants. As such, this action does not apply to the Project.
Forest, Shrubland, and Grassland Management Actions	**Not Applicable.** This action involves increasing the urban forestry investment annually by 200 percent relative to business as usual. No forests, shrublands, or grasslands are currently located on the Project site and the Project will not include any forests, shrublands, or grasslands. As such, this action does not apply to the Project.
Agricultural Actions	**Not Applicable.** This action involves increasing climate smart forest, shrubland, and grassland management to at least 2.3 million acres a year−an approximately 10x increase from current levels. The Project is in an urban center and would have no agricultural uses. As such, this action does not apply to the Project.
Organic Waste Diversion and Composing Actions	**Not Applicable.** The Project would not have any organic waste diversion and composting features. As such, this action does not apply to the Project.
Afforestation, Urban Forestry Expansion, Urban Greening, Avoided Natural and Working Land Use Conversion, and Wetland Restoration Actions	**Not Applicable.** The Project Sites does not include any natural or working lands.
Reduced VMT Actions	**No Conflict.** The Project would support reducing vehicle miles traveled (VMT) by constructing a bicycle and pedestrian recreation trail next to existing housing and community infrastructure. The Project may offer alternative methods of transportation and thus reduce the need for vehicular travel and VMT within the area. As such, the Project would support reduced VMT actions in support of the 2022 Scoping Plan.

Sources: ESA, 2024; CARB, 2022 Scoping Plan for Achieving Carbon Neutrality

As discussed in Table 3.8-2, the Project would not conflict with the 2022 Scoping Plan and would be supportive of the actions and strategies contained therein. Therefore, GHG impacts would be less than significant with respect to the 2022 Scoping Plan.

Connect SoCal 2024

In order to assess the Project's potential to conflict with the Connect SoCal 2024, this section analyzes the Project' s consistency with the strategies and policies set forth in the Connect SoCal 2024 to meet GHG emission-reduction targets set by CARB. Generally, projects would not conflict with applicable City and regional land use plans and regulations, such as Connect SoCal 2024, if they are compatible with the general intent of the plans and would not preclude the attainment of their primary goals. The Project would not conflict with Connect SoCal 2024 goals as detailed in **Table 3.8-3**, *Consistency with Applicable Connect SoCal 2024 Actions and Strategies*.

TABLE 3.8-3
CONSISTENCY WITH APPLICABLE CONNECT SOCAL 2024 STRATEGIES

Actions and Strategies	Responsible Party(ies)	Compliance/Consistency Analysis
Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions.	Local Jurisdictions, SCAG	**No Conflict.** The Project would not conflict with this strategy. The Project would expand the pedestrian and bicycle infrastructure within the City, which may reduce reliance on vehicles. The investments made to expand and create a network of multi-use recreational trails would promote sustainable transportation methods that may improve quality and minimize greenhouse gas emissions.
Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities.	Local Jurisdictions, SCAG	**No Conflict.** The Project would not conflict with this action and strategy. The proposed multi-use trail ensures that there would be a greater availability to recreational pathways for the surrounding community. The Project offers accessible and sustainable travel options and safe pathways that people may commute on or use for recreational purposes.
Support planning for people of all ages, abilities, and backgrounds.	Local Jurisdictions, SCAG	**No Conflict.** The Project would not conflict with this strategy. The Project would create a multi-use trail. The Project would support a sustainable, energy efficient, and a healthy community. Furthermore, the Project would support planning for people of all ages, abilities, and backgrounds.
Create human-centered communities in urban, suburban and rural settings to increase mobility options and reduce travel distances.	Local Jurisdictions, SCAG	**No Conflict.** The Project would not conflict with this strategy. The Project proposes a multi-use, recreational trail. The location, design, and land uses anticipated by the Project would offer greater options for recreational and sustainable transportation routes. The Project is located in a suburban portion of the City and helps to increase mobility options.
Produce and preserve diverse housing types in an effort to improve affordability, accessibility and opportunities for all households.	Local Jurisdictions, SCAG	**Not Applicable.** The Project is not applicable to this strategy. The Project would construct a bicycle, pedestrian, and equestrian pathway. As such, the Project would not include any housing, and therefore is not applicable to this strategy.
Develop communities that are resilient and can mitigate, adapt to, and respond to chronic and acute stresses and disruptions, such as climate change.	Local Jurisdictions, SCAG	**Not Applicable**. The Project would not involve the development of communities, and therefore this strategy is not applicable.

Actions and Strategies	Responsible Party(ies)	Compliance/Consistency Analysis
Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water.	Local Jurisdictions, SCAG	**No Conflict.** The Project would not conflict with this strategy. The Project proposes a multi-use trail for pedestrians and bicyclists that would expand the region's sustainable transportation network. The Project may help reduce VMT in the area and therefore improve air quality and reduce greenhouse gas emissions. Furthermore, the Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy resources.
Conserve the region's resources.	Local Jurisdictions, SCAG	**No Conflict.** The Project would not conflict with this strategy. The Project would develop a multi-use trail along an existing maintenance road within the City; it would conserve the region's natural resources.
Improve access to jobs and educational resources.	Local Jurisdictions	**No Conflict.** The Project would not conflict with this strategy. The Project would not offer any jobs or educational resources. The Project proposes a bicycle and pedestrian multi-use path, which may be used recreationally or for commuting purposes. The Project may aid in the accessibility to nearby jobs our resources associated with the potential employment locations surrounding the Project Area.
Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities.	Local Jurisdictions	**No Applicable.** The Project would not be applicable with this strategy. The Project does not have any specific strategies aimed at goods movement and would not conflict with the goods movements strategies in Connect SoCal 2024.

Sources: ESA, 2024; SCAG's 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy, 2024

As discussed in Table 3.8-3, the Project would not conflict with SCAG's Connect SoCal 2024 and would be supportive of the actions and strategies contained therein. Therefore, GHG impacts would be less than significant with respect to the Connect SoCal 2024.

Overall, the Project would not conflict with an applicable plan, policy, or regulation to reduce GHG emissions because it would comply with all construction-related transportation fuel regulations and it would not generate any new operational mobile emissions. As such, impacts would be less than significant and no mitigation measures are required.

References

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Hazards and Hazardous Materials

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

Discussion

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

Less Than Significant Impact. Project construction activities during the short-term construction process for the Project may involve the transport, use, and disposal of hazardous materials. With the exception of fuels, oils, mechanical fluids, and other chemicals used in equipment during construction, no other hazardous materials would be transported to or from the Project Site or used in the construction process. All hazardous materials would be used in compliance with federal, state, and local regulations, such as the Resource Conservation and Recovery Act and the Hazardous Materials Transportation Act, which requires all hazardous materials to be disclosed, stored, transported, used, and disposed of in appropriate locations. Oversight by the appropriate federal, state, and local agencies and compliance with applicable regulations related to the handling, storage, use, and disposal of hazardous materials would avoid and minimize potential release of hazardous materials. Therefore, the routine use, transport, or disposal of hazardous materials during the short-term construction process would not create a significant hazard to the public and impacts would be less than significant.

The Project would construct a new multi-use paved trail that would follow the path of the existing paved access road along the western edge of the San Diego Creek and Peters Canyon Wash. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings. As a trail facility with intersection improvements, operation of the Project would not involve the routine use, transport, or disposal of hazardous materials and periodic trail maintenance would only require the use of limited quantities of potentially hazardous materials on a short-term, temporary basis when needed. Therefore, operation of the Project would not create a significant hazard to the public and there would be no impact.

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

Less Than Significant Impact. Construction activities would involve clearing existing vegetation, demolition of the existing maintenance road and underpasses, site excavation, grading, concrete bikeway construction, and signage and striping installation. These activities would likely require the use, transport, and disposal of small amounts of hazardous materials including fuels, oils and lubricants, paints and thinners, and other similar related materials in varying quantities, all commonly used in construction. During the short-term excavation and construction period, there is a possibility of accidental release of these materials that could potentially injure construction workers, contaminate soil, and/or affect habitats, surface water bodies, or groundwater. Impacts associated with potential hazardous material release, although likely localized and short-term, could potentially create a significant hazard to the public or the environment. However, the Applicant would be required to comply with all relevant and applicable federal, state, and local laws and regulations that pertain to the transport, storage, use, and disposal of hazardous materials and waste during construction and operation of the Project. Furthermore, the Applicant would be required to comply with a SWPPP that would implement BMPs to prevent sediment and other pollutants, including any hazardous materials, from being inappropriately exposed on-site through contact with stormwater. Therefore, the Project would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment would. Impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. The Project Site is located approximately 0.30 miles west of Westpark Elementary School at 25 San Carlo, Irvine, California, approximately 0.14 miles west of Irvine Child Development Preschool at 2 Civic Center Plaza, Irvine, CA, approximately 0.26 miles northwest of Creekside Education Center at 3387 Barranca Parkway, Irvine, CA, and approximately 0.05 miles northwest of Montessori Funtime Preschool at 38 Water Lily, Irvine, California. As discussed in Responses IX(a) and (b), the Project would be subject to existing standard BMPs and required to comply with all federal, state, and local regulations regarding the use, storage, transport, and disposal of hazardous materials and hazardous waste. Operation of the Project would not involve the routine use of hazardous materials and periodic trail maintenance would only require the use of limited quantities of potentially hazardous materials on a short-term, temporary basis when needed (e.g., re-painting of pavement striping). The Project would not be classified as a large quantity user of hazardous materials or

engage in potentially hazardous activities (e.g., bulk material storage or chemical processing, refining, etc.). Therefore, impacts would be less than significant.

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

No Impact. According to both the State Water Resources Control Board (SWRCB 2024) GeoTracker and Department of Toxic Substances Control (DTSC 2024) databases, the Project Site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. These lists contain reported hazardous materials sites, including leaking underground storage tanks, solid waste disposal sites, or hazardous waste and substances sites. The Phase I environmental site assessment conducted for the Project also did not identify any hazardous materials sites within the Project footprint (ESA 2024). Therefore, there would be no impact.

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

Less Than Significant Impact. The nearest airport to the Project Site is John Wayne Airport, located approximately 1.35 miles southwest of the Project Site. Based on the Figure 1, *Airport Land Use Commission for Orange County Airport Planning Area*, of the *Land Use Plan for John Wayne Airport*, from the Land Use Plan for John Wayne Airport (ALUC 2008), the Project Site is located inside of the area designated as Airport Environs Land Use Plan and Airport Planning areas. The Project involves the construction of a Class I multi-use trail and does not include or propose the installation of occupied or aboveground structures, with the exception of 42-inch-high steel safety railing, which would not be elevated enough to represent a safety hazard to air traffic. Therefore, impacts in this regard would be less than significant.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. While the Project would minimally impact traffic flow during the short-term construction period, it would not conflict with or interfere with emergency evacuation of the Project area. Project construction would not substantially interfere with traffic circulation, as emergency access to Coronado, Main Street, Alton Parkway, Barranca Parkway, and Warner Avenue would be maintained during Project construction. The Project does not propose to remove any lanes of vehicular travel, nor would the Project result in temporary or permanent roadway impairment. After full implementation of the Project following the short-term construction period, the ability of the roadways to function as an emergency route would remain the same. No revisions to an adopted emergency plan or evacuation plan would be required as a result of the Project. Therefore, impacts in this regard would be less than significant.

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

No Impact. According to the California Department of Forestry and Fire Protection (CAL FIRE), the Project Site is not located within a Fire Hazard Severity Zone (FHSZ) (CAL FIRE 2024). The Project Site is located within an urbanized area that is void of wildlands with minimal potential for wildland fires. Furthermore, the Project would not construct any habitable structures or propose any uses in which would exacerbate wildfire risk. Therefore, as the Project would not expose structures or people to the risk of wildland fires, there would be no impact regarding the potential for wildland fires.

References

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Hydrology and Water Quality

Issues (and Supporting Information Sources):	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY — Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Discussion

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant. The Project would include the construction and operation of a multi-use paved trail along the western edge of the San Diego Creek and Peters Canyon Wash for pedestrians and cyclists, equestrian use, in addition to an earthen swale that would be located on the western side of the path. Proposed intersection improvements at Coronado and Main Street would include at-grade crossings. Each street crossing and entrance to the trail would include in-pavement lighting and signage. The proposed trail would total approximately 1.75 miles of an off-street paved Class I shared-use path. The Project would require compliance with the NPDES Construction General Permit criteria, including the preparation of a SWPPP and associated BMPs. Construction BMPs, such as silt fences and straw wattles, would effectively control erosion, sedimentation, and other construction-related pollutants during construction. Operational BMPs would also be required that would prevent impacts to water quality in post-Project condition, including but not limited to swales to capture and treat stormwater, catch basins, street sweeping, and storm drainage system stenciling and signage (BKF Engineers 2024). Compliance with federal, state, and local water quality standards, as well as the implementation of BMPs, would prevent impacts to water quality. Therefore, impacts would be less than significant.

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

Less than Significant. Irvine Ranch Water District (IRWD) provides domestic water service to the City. IRWD's water supplies include groundwater from the Orange County Groundwater Basin, imported water provided by Metropolitan Water District, recycled water, and local surface water (IRWD 2021).

The Project would require minimal amounts of water for dust control during construction. Assuming that water would be required for dust control during site preparation and grading activities, approximately 0.5 million gallons of water would be required. All water required during construction of the Project would be supplied via water trucks from IRWD water supplies. As the site for the proposed trail would be constructed with a multi-use paved trail, the trail may contain optional development items that may be determined in future design development phases(IBI Group 2021). As mentioned previously above, each street entrance to the proposed trail would include in-pavement lighting and signage. The total water supplies available to IRWD is expected to meet the projected water demands of existing and planned uses through 2040 under varying conditions (IRWD 2021). In addition, the Project would not substantially interfere with groundwater recharge, as any infiltration changes would be considered negligible. Therefore, the Project would not substantially decrease groundwater supplies or groundwater recharged, and impacts would be less than significant.

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

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

Less than Significant. The Project could result in potential soil erosion from Project-related grading and construction activities. As discussed in the Preliminary Geotechnical Investigation (GEOCON 2024), all site drainage would be collected and controlled in non-erosive drainage devices and the site would be graded and maintained such that surface drainage is directed away from structures in accordance with applicable standards. As discussed above under Response X(a), the Project would require compliance with the NPDES Construction General Permit, including the preparation of a SWPPP and associated BMPs. Construction BMPs, such as silt fences and straw wattles would effectively control erosion, sedimentation, and other construction-related pollutants during construction. Operational BMPs would be required that would prevent impacts to water quality in post-Project condition, including but not limited to catch basins, street sweeping, and storm drainage system stenciling and signage (BKF Engineers 2024). Compliance with federal, state, and local water quality standards and implementation of erosion and sediment control BMPs would prevent impacts to erosion or siltation. Therefore, impacts would be less than significant.

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

Less than Significant. As previously discussed above, construction of the Project could temporarily alter the ground surface, consequently altering the drainage pattern. However, as discussed above under Responses X(a) and (c.i), the Project would require compliance with the NPDES Construction General Permit, including the preparation of a SWPPP and associated BMPs. BMPs would be implemented to minimize runoff at the Project Site, which in turn would minimize flooding. After the completion of construction, the ground surface across the Project Site would be similar to existing conditions. Drainage within the Project Site would continue to be serviced by the existing storm drain system and channel. Compliance with federal, state, and local water quality standards and implementation of BMPs would prevent impacts to surface runoff resulting in flooding. Therefore, impacts would be less than significant.

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

Less than Significant. As discussed above under Responses X(a), (c.i), and (c.ii), the Project would require compliance with the NPDES Construction General Permit, including the preparation of a SWPPP and associated BMPs. BMPs would be implemented to minimize runoff at the Project Site. After the completion of construction, the ground surface across the Project Site would be similar to existing conditions. Drainage within the Project Site would continue to be serviced by the existing storm drain system and channel and would not exceed the capacity of existing or planned stormwater drainage systems. Compliance with federal, state, and local water quality standards and implementation of BMPs would prevent impacts to surface runoff. Therefore, impacts would be less than significant.

iv) impede or redirect flood flows?

Less than Significant. As discussed above under Responses X(a), (c.i), (c.ii), and (c.iii), the Project would require compliance with the NPDES Construction General Permit, including the preparation of a SWPPP and associated BMPs. BMPs would be implemented to minimize runoff at the Project Site, which in turn would minimize flooding. Drainage within the Project Site would continue to be serviced by the existing storm drain system and channel. After the completion of construction and during operation, the ground surface across the Project Site would be similar to existing conditions and would not impede or redirect flood flows. Therefore, impacts would be less than significant.

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

Less than Significant. The Project Site is located within Zone A, a Special Flood Hazard Area, with a 1 percent annual chance of flood discharge contained in structure (FEMA 2009). However, the site for the proposed trail is located along the western edge of the San Diego Creek and Peters Canyon Wash Channels and would not affect the existing conditions of the channels. Therefore, impacts would be less than significant.

The Project Site is located approximately 7 miles from the Pacific Ocean. According to the California Department of Conservation CGS Tsunami Hazard Area Map (2024), the Project site is not located within a tsunami hazard area. Therefore, the site is outside the tsunami hazard zone and would not be affected by a tsunami. The Project site is not located near the ocean or adjacent to large bodies of water and therefore would not be at risk of inundation by seiche. The Project would not result in the release of sediment and other pollutants due to inundation. Therefore, impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. As discussed above under Response X(a), IRWD's water supplies include local groundwater from Basin 8-001, Coastal Plain of Orange County, which consists of approximately one-half of the water supplies (IRWD 2021). Groundwater within the Coastal Plain of Orange County Basin is managed by the Orange County Water District, which has an alternative Groundwater Management Plan that has been approved by the California Department of Water Resources (Orange County Water District 2017). As discussed in the Groundwater Management Plan, over a period of several years, the basin has been maintained in an approximate balance. The short-term use and relatively small volume of water for construction purposes would not materially affect that balance.

The Santa Ana Regional Water Quality Control Board (RWQCB) establishes water quality standards and identifies beneficial uses to protect waters in the region through its Water Quality Control Plan (Basin Plan; RWQCB 2019). The RWQCB also regulates the implementation of the NPDES Construction General Permit and the Municipal Separate Storm Sewer System (MS4) Permit, which include the control of point and non-point source pollutants. Under the Project, construction and operation would be required to conform with NPDES permits, which would include implementation of a SWPPP during construction and BMPs, as previously discussed in Impact X)a). As such, the Project would be consistent with the water quality control plan and groundwater management plan. Therefore, impacts would be less than significant.

References

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IBI Group. 2021. Irvine Business Complex (IBC) Trail Feasibility Study & Implementation Plan. Available https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=33349, accessed July 23, 2024.

Irvine Water Ranch District (IRWD). 2021. Urban Water Management Plan. Available https://www.irwd.com/doing-business/urban-water-management-plan, accessed July 23, 2024.

Orange County Water District, 2017. *Basin 8-1 Alternative*. January 1.

Santa Ana Regional Water Quality Control Board (RWQCB), 2019. *Water Quality Control Plan Santa Ana River Basin (8)*. June.

Land Use and Planning

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

Discussion

a) Physically divide an established community?

Less Than Significant Impact. The physical division of an established community is typically associated with the construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility within an existing community or between a community and an outlying area. The proposed trail would include a two-foot wide paved shoulder nearest to the channel, an eight-foot wide paved path for pedestrians and cyclists, and a five-foot wide DG path for equestrian use located along the western edge of the San Diego Creek. The proposed trail would not physically divide an established community because it would be located along a natural linear feature, the San Diego Creek, and is currently a manmade linear feature, the OCFCD maintenance road. Rather, the Project would result in a beneficial impact in this regard, since the Project would improve circulation and connectivity by providing approximately 1.75 miles of an off-street paved Class I shared-use path. Additionally, the Project would provide intersection improvements at Coronado and Main Street. Therefore, impacts associated with the physical division of an established community would be less than significant.

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

Less Than Significant Impact. The Project Site is designated and zoned as Recreation within the City's General Plan Land Use Map and Zoning Map. According to the City's General Plan, the designation of Recreation contains uses primarily for active public recreational activities, and allows uses such as City-owned parks, regional parks, golf courses, and other similar uses. The uses proposed by the Project are permitted uses under the existing land use designation. Project development does not include or require any amendments to the City's General Plan. Additionally, the Project would be consistent with various objectives and policies of the City's General Plan, including but not limited to, Objective A-6 of the Land Use Element, Objectives B-3 through B-5 of the Circulation Element, and Objectives L-9 and L-12 of the Conservation and Open Space Element. Therefore, Project implementation would not conflict with the City's General Plan.

Consistent with its General Plan designation, the Project Site is zoned as Recreation. This zoning district allows active recreational opportunities and activities for public use and enjoyment. The uses proposed by the Project are permitted uses under the existing zoning, and Project development does not include or

require any adjustments to the City's Zoning Code. Therefore, Project implementation would not conflict with the City's Zoning Code.

The Project would also be consistent with the IBC Trail Plan, which is a comprehensive plan that analyzed the potential development of eight multi-use trails and/or linear park corridors within the IBC. The Project is a portion of Segment 4 which runs to Michelson.

Therefore, implementation of the Project would not conflict with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be less than significant.

References

City of Irvine, General Plan Land Use Element, 2015. Available at: https://www.cityofirvine.org/community-development/current-general-plan. Accessed October 16, 2023.

City of Irvine, Zoning Map. 2012. Available at: https://gis.cityofirvine.org/pdf/Map%20Gallery/Zoning-Map_24x24.pdf. Accessed October 16, 2023.

Mineral Resources

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

Discussion

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

No Impact. Minerals are defined as any naturally occurring chemical elements or compounds formed from inorganic processes and organic substances. The California Surface Mining and Reclamation Act of 1975 (SMARA) required that all cities address significant mineral resources, classified by the State Geologists and designated by the State Mining and Geology Board, in their General Plans.

The City is urbanized and covered with impervious surfaces. Valuable mineral resources are not known to exist within the City, the Project vicinity, or surrounding land uses. The Project Site is currently a paved asphalt and dirt road accessible for road biking, running, and walking. According to Figure VI-3, Orange County Mineral Resources, of the County's General Plan, the Project is not a mineral resources area (County of Orange 2013). Therefore, the Project would not result in the loss of availability of a known mineral resource identified on a local general plan, specific plan, ore other land use plan as there are no known mineral resources and no impact would occur.

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

No Impact. The City is urbanized and covered with impervious surfaces. Valuable mineral resources are not known to exist within the City, the Project vicinity, or surrounding land uses. There are no mineral resource recovery sites located within the City, thus, there is no opportunity to impact any mineral recovery sites. According to Figure VI-3, Orange County Mineral Resources, of the County's General Plan, the Project is not a mineral resource area. The Project is zoned Recreation on the City's Zoning Map (2012). Recreation areas are intended primarily for active public recreational activities that are enjoyed by the immediate and the surrounding communities and includes City-owned parks, regional parks, golf courses, and other similar permitted uses (City of Irvine 2009). The Project Site is currently a paved asphalt and dirt road accessible for road biking, running, and walking. The Project would not result in the loss of availability of a known mineral resource delineated on a local general plan, specific plan, or other land use plan as there are no known mineral resources recovery sites on or near the Project and no impact would occur.

References

City of Irvine General Plan, Land Use Element, 2009. Available at: https://www.cityofirvine.org/community-development/current-general-plan. Accessed October 17, 2023.

City of Irvine Zoning Map, 2012. Available at: https://gis.cityofirvine.org/pdf/Map%20Gallery/Zoning-Map_24x24.pdf. Accessed October 17, 2023.

Orange County General Plan, Resources Element, Figure VI-3. Available at : https://ocds.ocpublicworks.com/service-areas/oc-development-services/planning-development/codes-and-regulations/general-plan. Accessed October 17, 2023.

Noise

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

Discussion

Noise Principles and Descriptors

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound (Caltrans 2013).

Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale (i.e., not linear) that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of feeling and pain, respectively. In a non-controlled environment, a change in sound level of 3 dB is considered “just perceptible,” a change in sound level of 5 dB is considered “clearly noticeable,” and a change in 10 dB is perceived as a doubling of sound volume (Caltrans 2013). Pressure waves traveling through air exert a force registered by the human ear as sound (Caltrans 2013).

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. When assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 hertz and above 5,000 hertz in a manner corresponding to the human ear’s decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements (Caltrans 2013).

An individual's noise exposure is a measure of noise over a period of time, whereas a noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual. These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts (Caltrans 2013).

The time-varying characteristic of environmental noise over specified periods of time is described using statistical noise descriptors in terms of a single numerical value, expressed as dBA. The most frequently used noise descriptors are summarized below (Caltrans 2013):

L_{eq}: The L_{eq}, or equivalent continuous sound level, is used to describe the noise level over a specified period of time, typically 1-hour, i.e., $L_{eq(1)}$, expressed as L_{eq}. The L_{eq} may also be referred to as the "average" sound level.

L_{max}: The maximum, instantaneous noise level.

L_{min}: The minimum, instantaneous noise level.

L_x: The noise level exceeded for specified percentage (x) over a specified time period; i.e., L_{50} and L_{90} represent the noise levels that are exceeded 50 and 90 percent of the time specified, respectively.

L_{dn}: The L_{dn} is the average noise level over a 24-hour day, including an addition of 10 dBA to the measured hourly noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account nighttime noise sensitivity. L_{dn} is also termed the day-night average noise level or DNL.

CNEL: Community Noise Equivalent Level (CNEL), is the average noise level over a 24-hour day that includes an addition of 5 dBA to the measured hourly noise levels between the evening hours of 7:00 p.m. to 10:00 p.m. and an addition of 10 dBA to the measured hourly noise levels between the nighttime hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity during the evening and nighttime hours, respectively. CNEL and L_{dn} noise levels typically differ by less than 1 dBA and are generally interchangeable.

Noise Element of the City of Irvine General Plan

The City's existing General Plan Noise Element establishes acceptable interior and exterior noise standards (Table F-1 of the Noise Element)(Irvine, 2015) by land use type and establishes acceptable noise levels by each land use category to ensure land use compatibility (Table F-2 of the Noise Element). The CNEL noise levels for specific land uses are classified into four categories: (Zone A) "clearly compatible" (Zone B) "normally compatible" (Zone C) "normally incompatible" and (Zone D) "clearly

incompatible." A CNEL value of 70 dBA is considered the dividing line between a "normally compatible" and "normally incompatible" noise environment for noise sensitive land uses, including residences, transient lodgings, schools, and libraries. In addition, the existing General Plan includes the following objectives related to noise:

> **Objective F-1:** Mobile Noise. Ensure that City residents are not exposed to mobile noise levels in excess of the CNEL Interior and Exterior Noise Standards (Table F-1), and Single Event Noise Standard.
>
> **Objective F-2:** Stationary Noise. Ensure that City residents are not exposed to stationary noise levels in excess of the City Noise Ordinance standards.
>
> **Objective F-3:** Noise Abatement. Achieve maximum efficiency in noise abatement efforts through intergovernmental coordination and public information programs.

City of Irvine Noise Ordinances

The City regulates noise through the Municipal Code under Title 6 Public Morals, Division 8 Pollution, Chapter 2 Noise. All properties are assigned to the following Noise Zones by the City, with the noise standards shown in **Table 3.8-1**:

- Noise Zone 1: All hospitals, libraries, churches, schools and residential properties.
- Noise Zone 2: All professional office and public institutional properties.
- Noise Zone 3: All commercial properties excluding professional office properties.
- Noise Zone 4: All industrial properties.

The City Municipal Code exempts certain activities from the provisions of the Noise Ordinance. The City Municipal Code Section 6.8.205.A limits construction activities between the hours of 7:00 a.m. to 7:00 p.m. Mondays through Fridays, and 9:00 a.m. to 6:00 p.m. on Saturdays. No construction activities shall be permitted outside of these hours or on Sundays and federal holidays, unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Trucks, vehicles, and equipment that are making or are involved with material deliveries, loading, or transfer of materials, equipment service, maintenance of any devices or appurtenances for or within any construction Project in the City shall not be operated or driven on City streets outside of these hours or on Sundays and federal holidays unless a temporary waiver is granted by the City. Any waiver granted shall take impact upon the community into consideration. No construction activity will be permitted outside of these hours except in emergencies including maintenance work on the City rights-of-way that might be required. Deliveries to or pickups from any commercial property sharing a property line with any residential property may occur between 7:00 a.m. and 10:00 p.m. daily. No deliveries to or pickups from any such property shall occur outside of these hours.

The City Municipal Code Section 6.8.205.B states that the maintenance of real property operations may exceed the noise standards between 7:00 a.m. and 7:00 p.m. on any day except Sundays, or between 9:00 a.m. and 6:00 p.m. on Sundays or a federal holiday.

TABLE 3.8-1
CITY OF IRVINE NOISE STANDARDS

Zone	Location	Time Period	Noise Levels for a Period Not Exceeding (minutes/hour)				
			30	15	5	1	0 (anytime)
Noise Zone 1: All hospitals, libraries, churches, schools, and residential properties.	Exterior	7 a.m.–10 p.m.	55	60	65[a]	70	75
		10 p.m.–7 a.m.	50	55	60	65[a]	70
	Interior	7 a.m.–10 p.m.	—	—	55	60	65
		10 p.m.–7 a.m.	—	—	45	50	55
Noise Zone 2: All professional office and public institutional properties.	Exterior	Anytime	55	60	65	70	75
	Interior	Anytime	—	—	55	60	65
Noise Zone 3: All commercial properties excluding professional office properties.	Exterior	Anytime	60	65	70	75	80
	Interior	Anytime	—	—	55	60	65
Noise Zone 4: All industrial properties.	Exterior	Anytime	70	75	80	85	90
	Interior	Anytime	—	—	55	60	65

Notes:

a. This standard does not apply to multifamily residence private balconies. Multifamily developments with balconies that do not meet the 65 CNEL are required to provide occupancy disclosure notices to all future tenants regarding potential noise impacts.
b. It shall be unlawful for any person at any location within the City to create any noise or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level when measured on any property within designated noise zones either within or without the City to exceed the applicable noise standard.
c. Each of the noise standards specified above shall be reduced by five dB(A) for impact, or predominant tone noise or for noises consisting of speech or music.
d. In the event that the noise source and the affected property are within different noise zones, the noise standards of the affected property shall apply.

Source: City of Irvine, 2020

In addition to the construction noise exemptions in Section 6.8.205.A and the maintenance noise exemptions in Section 6.8.205.B, the City Municipal Code Section 6.8.205.D exempts certain activities from the provisions of the Noise Ordinance. Notable exemptions include the following (refer to Section 6.8.205.D of the Ordinance for complete list of exemptions):

- Activities otherwise lawfully conducted on public parks, public playgrounds and public or private school grounds.
- Any mechanical device, apparatus or equipment which is utilized for emergency work, pest control, and protection or harvest of agricultural crops during periods of potential or actual frost damage or other adverse weather conditions.
- Any activity or equipment to the extent that design regulation thereby has been preempted by State or federal law.

Irvine CEQA Manual

The City of Irvine CEQA Manual (Volume II) Technical Guidelines provides a general approach assessing a project's noise impacts. Based on the City's screening threshold, a significant impact would occur if the Project's traffic would increase noise levels on roadways by 3 dBA, if the project's construction would exceed the exterior noise levels and allowable hours established by the City's

Municipal Code Noise Ordinance, and if vibration levels would exceed 78 vibration decibels (VdB) during daytime hours at residential receptors or vibration levels would exceed 0.20 inch/second (in/sec) peak particle velocity (PPV) at the façade of a nonengineered structure (e.g., wood-frame residential).

A project will normally have a significant effect on the environment related to noise if it substantially increase the ambient noise levels for adjoining areas or conflict with adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the Project are the criteria in the City's Noise Element of the General Plan (City of Irvine 2015) and its Noise Ordinance. Because the County and City have not adopted construction noise level limits, the potential for construction noise impacts is informed by using criteria from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual of the daytime noise level standard of 80 dBA Leq (8-hour) for residential uses (FTA 2018). Although projects within the City are not required to adhere to the FTA's 80 dBA standards for residential uses, the noise analysis may be informed by a comparison to the standard for potential exposure to increased construction noise levels.

Surrounding Land Uses

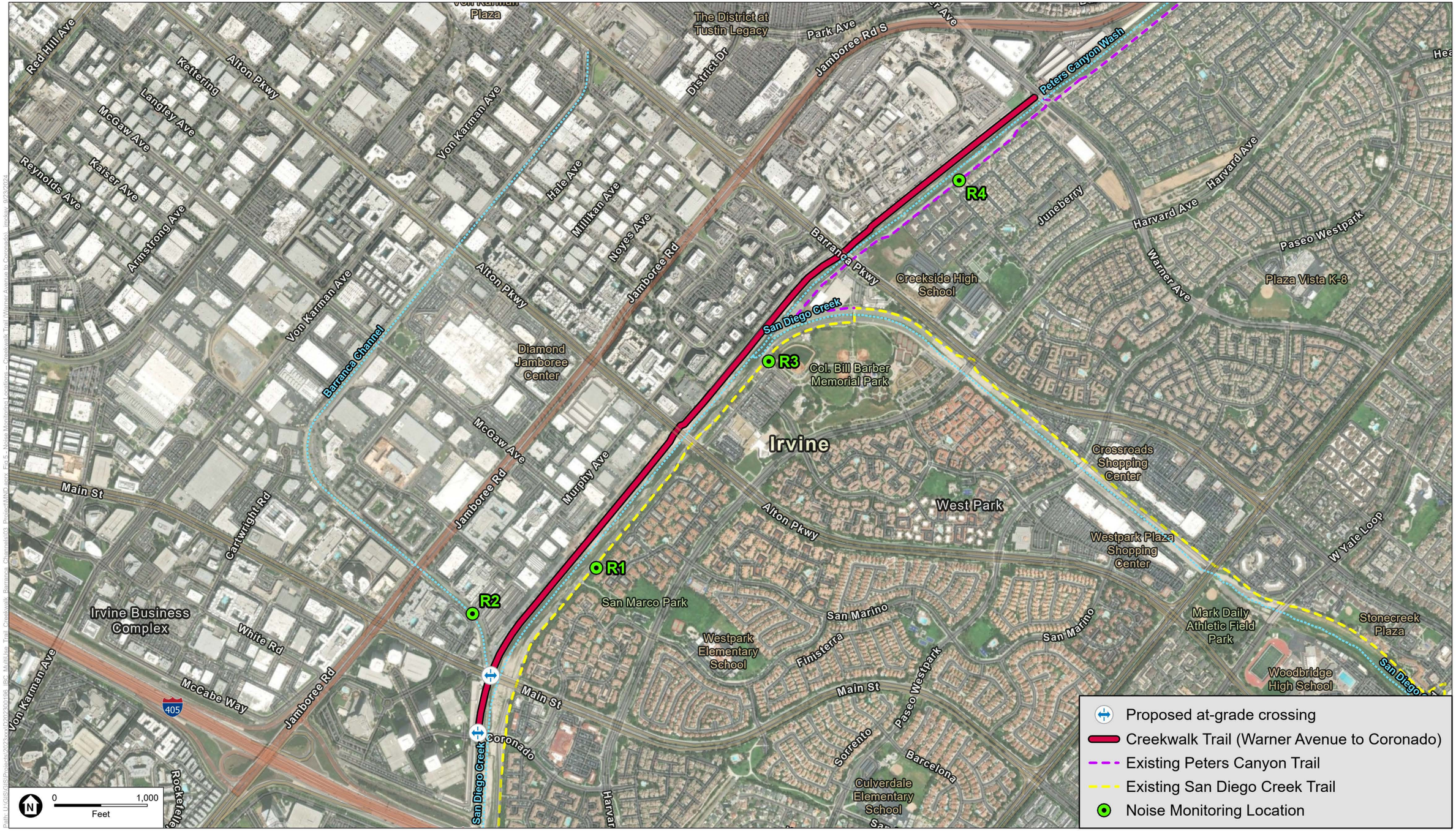
The Project Site is located in a highly urbanized area of central Irvine. The areas immediately to the east along the proposed San Diego Creek Channel trail is comprised of existing single-family residences and recreational park areas. To the west, the area is developed by commercial hotels and industrial businesses. The nearest noise sensitive receptor is located along the northern portion of the Project Site, approximately 180 feet from the Project boundary. The nearest airport is the John Wayne Airport, located approximately 1.6 miles west from the Project Site.

Ambient Noise and Vibration Levels

Primary noise sources observed in the vicinity of San Diego Creek and Peter Canyon Wash to represent typical noise levels expected in a suburban, mostly residential, environment. The predominant existing noise source is vehicle traffic noise from the roadways surrounding such as Main Street, Jamboree Road, Alton Parkway, and Barranca Parkway. Secondary noise sources include general residential-related activities, such as landscaping and refuse service activities, noise related top commercial activity in the Corporate Business Park, playground activities at Westpark Elementary School, recreational noise from Bill Barber Memorial Park and existing San Deigo Creek and Peter Canyon trails, and intermittent aircraft flyovers.

To establish baseline noise conditions representing the nearby noise sensitive land uses in the vicinity of the proposed Creekwalk Trail Segment, existing ambient noise levels measurements were conducted at four locations (refer to **Figure 5**, *Noise Monitoring Locations*), labeled as R1 through R4 as described as follows:

- R1 - on the eastern side of the San Diego Creek, approximately 20 feet from residential uses east of the proposed trail;
- R2 – on the southern side of the Barranca Channel, adjacent to residences and hospitality businesses;
- R3 – on the eastern side of the San Diego Creek, along proposed trail, approximately 30 feet from the softball field at Bill Barber Memorial Park;
- R4 – on the eastern side of Peters Canyon Wash, along the Peters Canyon Trail east of the proposed trail, approximately 20 feet east from residential land uses along Water Lily Street.



SOURCE: ESA, 2024

IBC Multi-Use Trail Creekwalk Trail

Figure 5

Noise Monitoring Locations

ESA

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Short-term (15-minute) noise measurements were conducted at locations R1, R2, R3 and R4[1]. Measured noise levels at the Project Site represent typical noise levels expected in a suburban, mostly residential and commercial, environment. **Table 3.8-2**, *Summary of Short-Term Ambient Noise Measurements*, lists the measured ambient noise levels.

TABLE 3.8-2
SUMMARY OF SHORT-TERM AMBIENT NOISE MEASUREMENTS

Measurement Locations Date (Time of Day)	Noise Level (dBA L_{eq})[a]
R1	49.0
R2	No applicable to the Creekwalk Trail Segment
R3	50.9
R4	53.1

Notes:

a. Detailed measured noise data is included in Appendix G, of this Draft IS/MND.
b. R2 measurement location is not applicable to the ambient noise characterization of the Creekwalk Trail Segment. R2 measurements will be used to analyze ambient noise along the Barranca Segment in a separate analysis.

Source: ESA, 2024

The ambient noise measurements were conducted using Larson Davis's model 820 Precision Integrated Sound Level Meter (SLM), which is a Type 1 standard instrument, as defined in the American National Standard Institute S1.4. The SLM was within its annual factory calibration, field calibrated prior to conducting measurements and operated according to the applicable manufacturer specification. The microphone of the SLM was placed at a height of five feet above the local grade, representing an average height of the human ear.

Ambient vibration levels are typically not measured in areas where background vibration velocity levels would be limited to heavy truck traffic on surrounding roadways typical of urban and suburban environments. Vibratory motion is commonly described by identifying the peak particle velocity (PPV). Typically, rubber-tired vehicles traveling at a distance of 50 feet typically generate groundborne vibration velocity levels of approximately 63 VdB which equates to approximately 0.006 inches per second PPV). This level of vibration is well below the threshold level of human annoyance of 72 VdB (0.015 PPV) (FTA 2006). Observed noise and activity levels at and surrounding the Project Site did not identify uncharacteristically high sources of vibration (e.g., impact construction activity, adjacent freeways).

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

Less Than Significant Impact.

[1] R2 measurement location is not applicable to the ambient noise characterization of the Creekwalk Trail Segment. R2 measurements will be used to analyze ambient noise along the Barranca Segment in a separate analysis.

Construction Noise

The Project would include the construction of approximately 3.34 acres of new paved trail along the San Diego Creek and Peter Canyon Wash and proposed intersection improvements at Corondo and Main Street which would include at-grade crossings. A list of the construction equipment that would be used during each phase of construction is provided in **Table 3.8-3**, *Construction Equipment*. Table 3.8-3 also provides the construction phases assuming an approximately 14-month construction schedule with 5 workdays a week. The noise from construction equipment would generate both steady-state and episodic noise that could be heard within and adjacent to the Project Site. Construction noise levels fluctuate throughout a given workday as construction equipment moves from one location to another within a site. When construction equipment would be in use further away from a sensitive receptor location, construction noise levels would be lower than the calculated values provided herein, which assumes construction equipment would be in use nearest to a sensitive receptor location. Exposure to fluctuating construction noise levels that would at times be lower than the noise levels shown in the analysis below would not rise to the level (greater than 120 dBA) that would result in hearing loss or adverse health impacts.

TABLE 3.8-3
CONSTRUCTION EQUIPMENT

Construction Phase	Equipment	Duration
Demolition	Excavator Crushing/Processing Equipment	130 days
Site Grading	Grader	52 days
Asphalt and Concrete Paving	Cement/Mortar Mixer Pavers Paving Equipment Rollers Pumps	137 days

Source: BKF Engineers, 2024

Individual pieces of construction equipment that would be used for construction of the trail would produce maximum noise level (Lmax) of 85 dBA at a reference distance of 50 feet from the noise source, as shown in **Table 3.8-4**, *Construction Equipment Noise Reference Levels and Usage Factors*. The construction equipment noise levels at 50 feet distance (Referenced Maximum Noise Levels) are based on the Federal Highway Administration Roadway Construction Noise Model (FHWA RCNM) User's Guide, which is a technical report containing measured noise data for construction equipment (FHWA 2006).

TABLE 3.8-4
CONSTRUCTION EQUIPMENT NOISE REFERENCE LEVELS AND USAGE FACTORS

Type of Equipment	Acoustical Usage Factor[a] (%)	Reference Maximum Noise Levels at 50 Feet,[a,b] L_{max} (dBA)	Reference Equivalent Noise Levels at 50 Feet,[a,b] L_{eq} (dBA)
Concrete Mixer Truck	40	85	84
Excavator	40	85	84
Grader	40	85	84
Pump	50	77	77
Roller	20	85	81
Asphalt Paver	50	85	85
Pavement Scarifier	20	85	81
Other Equipment	50	85	85

Notes:
a. The usage factor is the percentage of time during a construction noise operation that a piece of construction is operating at full power.
b. Construction equipment noise levels are based on the FHWA RCNM.
Source: FHWA, Roadway Construction Noise Model User's Guide, 2006, Table 1

These maximum noise levels would occur when equipment is operating under full power conditions (i.e., the equipment engine at maximum speed). However, equipment used on construction sites often operates under less than full power conditions or part power. To more accurately characterize construction-period noise levels, the average (hourly Leq) noise level associated with each construction phase is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction phase.[2] These noise levels are typically associated with multiple pieces of equipment operating simultaneously. **Table 3.8-5**, *Construction Noise Levels at Nearest Sensitive Receptor*, lists the potential construction noise levels at the sensitive receptors from the active construction source(s), factoring in the number and type of construction equipment that would be in operation during the same period of time, and their individual utilization factors. FHWA noise calculation is determined on how the sound energy is combined into a logarithmic scale and summed up in the time period (Leq) during which the equipment operates.

TABLE 3.8-5
CONSTRUCTION NOISE LEVELS AT NEAREST SENSITIVE RECEPTOR

Construction Phase	Maximum Equivalent Noise Level at 180 feet, dBA Leq[a]
Demolition	75
Site Grading	73
Asphalt and Concrete Paving	77

Notes:
a. Calculations performed with the FHWA RCNM Leq methodology.
Sources: FHWA, 2006; ESA, 2024

[2] Pursuant to the FHWA *Roadway Construction Noise Model User's Guide*, 2005, the usage factor is the percentage of time during a construction noise operation that a piece of construction is operating at full power.

As previously described, the nearest sensitive receptors to the Project's construction site are residential receptors located on the eastern side of the San Diego Creek, approximately 180 feet from the Project Site. It is conservatively assumed that multiple pieces of construction equipment would operate simultaneously at the nearest distance to each of the sensitive receptor locations. In reality, equipment would likely be dispersed throughout the Project area along the proposed trail; therefore, the calculated noise levels represent a conservative maximum and actual noise levels would be lower. The nearest sensitive receptors were analyzed; sensitive receptors located at further distances than analyzed would experience lower noise levels than those disclosed below. Generally, noise attenuates at a rate of 6 dBA for every doubling of distance from the noise source for acoustically hard or reflective surfaces. Table 3.8-5 presents the results of construction noise modeling for each of the Project's phases. **Appendix G**, *Noise Calculations and Output File,* of this Draft IS/MND, provides a detailed list of construction equipment, quantities of equipment, reference noise levels, and assumed distances.

Construction Noise Impact

There are residential and recreational uses surrounding the Project Site to the east of the San Diego Creek and Peter Canyon Wash. These receptors would potentially be exposed to relatively high noise levels during Project construction. The nearest sensitive receptors that would be affected by the Project's construction noise are the residences located to the east of the Project Site, along the eastern side of the San Diego Creek. The nearest residential receptors are located approximately 180 feet from the Project Site at the nearest Project boundary and may be exposed to construction noise levels reaching 76 dBA Leq for a period of time during construction. As stated above, sensitive receptors located at further distances would experience lower noise levels than described in Table 3.8-5.

Construction would generate vehicle trips from construction workers commuting to the work sites and truck trips for hauling debris, soil, and construction materials and supplies. During the grading phase, the Project would require 6 workers and 22 haul trips per day. During the paving phase, the Project would require 20 workers and 14 haul trips per day. The number of construction workers would be relatively small and extensive excavation is not anticipated. Furthermore, construction workers would typically not travel at the same times as haul trucks, as workers would arrive at the start of the workday and leave at the end of the workday, with trucks traveling to and from the work sites between the workday start and end times. A doubling of traffic volumes on a roadway is required to generate a 3 dBA increase in noise. Construction trips associated with the Project are not anticipated to generate a doubling of traffic volumes. Additionally, the off-site truck activities are temporary in nature and would only take place for Project construction, after which the Project would cease to have any significant lasting noise impact on the surrounding areas. Thus, construction traffic noise would result in a less than significant impact.

As specified in the City's Municipal Code, Chapter 2 Noise, Section 6-8-205 Special Provisions, construction activities are allowed to occur from Monday through Friday from 7:00 a.m. to 7:00 p.m. and Saturday from 9:00 a.m. to 6:00 p.m. The ordinance further specifies that no construction activities are permitted outside of these hours or on Sundays and federal holidays, except Columbus Day, unless a temporary waiver is granted by the Chief Building Official or his or her authorized representative. Construction noise during the allowed construction time periods is exempted from the exterior noise level standards in the Noise Ordinance. This exemption is included in the code in recognition that construction activities undertaken during daytime hours are a typical part of living in an urban environment and does not cause a significant disruption. The Project would comply with the permitted construction hours as

identified in the City's Municipal Code Noise Ordinance. In addition, construction activity is below the FTA standard of 80 dBA Leq for residential (i.e., sensitive) receptors. Because construction of the Project would be temporary and short term, no significant noise impacts would occur.

Operational Noise

The Project consists of a multi-use paved trail and proposed intersection improvements. The Project Site would continue to accommodate occasional maintenance trips that occur existing conditions. As a multi-use trail and recreational use, the Project is not anticipated to result in increases in employment as maintenance would be completed by existing staff. Therefore, the Project would not result in additional vehicle trips to the Project Site. Once the construction is complete, the Project Site would not result in any noticeable changes to ambient noise levels. Operational noise impacts would be less than significant and no mitigation measures are required. The Project would not generate any substantial noise compared to existing conditions because the Project would not result in any net new motor vehicle trips to the Site or have any stationary sources of noise, therefore, no further noise analysis is needed.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Vibration impacts due to construction activities would occur when a large machine would be operated near fragile structures or vibration sensitive uses within a building. The amounts of construction required for the Project is not anticipated to generate excessive groundborne vibrations or noise levels. Construction of the Project is not anticipated to include pile driving activities. **Table 3.8-6**, *Vibration Source Levels for Construction Equipment*, presents vibration source levels for equipment required for the Project's construction. The nearest residential structures are located approximately 180 feet from construction activity. Construction activities would produce vibration velocities of up to approximately 60 VdB or 0.004 inch/second peak particle velocity (PPV) at those off-site residential structures when construction equipment operates within approximately 180 feet. This value would not exceed the 78 VdB significance threshold for potential building damage, therefore, ground borne vibration would result in less than significant impacts and no mitigation measures are required. Also, refer to Response XIII(a), above.

TABLE 3.8-6
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	Approximate VdB at 180 feet	Approximate PPV (inches/second) at 180 feet
Loaded Trucks	60	0.004

Source: FTA, 2018

As mentioned above, the Project consists of a multi-use paved trail and proposed intersection improvements. The Project Site would continue to accommodate occasional maintenance trips that occur existing conditions. As a multi-use trail and recreational use, the Project is not anticipated to result in increases in employment as maintenance would be completed by existing staff. Therefore, the Project would not result in additional vehicle trips to the Site. Once the construction is complete, the Project Site would not result in any noticeable changes to ambient vibration. The primary source of transient vibration would include existing passenger vehicle circulation along the local roadway network, which is consistent

with existing conditions and uses in the vicinity of the Project Site. Ground-borne vibration generated by such activity would not generate vibration velocities that would exceed the FTA's structural damage threshold (o.2 PPV) for non-engineered timber and masonry buildings (FTA 2018). As such, vibration impacts associated with Project operation would be below the significance threshold and impacts would be less than significant and no mitigation measures are required.

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

Less Than Significant Impact. The Project Site is within two miles of John Wayne Airport, located approximately 1.6 miles west of the Project's proposed trail locations. According to the City of Irvine CEQA Manual (2020), the Project Site is not located within the 60 dBA CNEL noise contour of the John Wayne Airport. However, the Project Site is near the approach flight path of the John Wayne Airport and is exposed to intermittent aircraft overflight noise. The range of aircraft overflight noise levels would not exceed any noise standards and would be much lower than the levels considered hazardous for human health. Therefore, this impact is less than significant and no mitigation measures are required.

References

California Department of Transportation (Caltrans), 2013, Technical Noise Supplement to the Traffic Noise Analysis Protocol. September. Accessible at: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed September 2024.

City of Irvine, 1984, Noise ordinance (Irvine Municipal Code § 2-8). Accessible at: https://library.municode.com/ca/irvine/codes/code_of_ordinances. Accessed September 2024.

City of Irvine, 2015, City of Irvine General Plan, Noise Element. Accessible at: https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=20695. Accessed September 2024.

City of Irvine, 2020, City of Irvine CEQA Manual, Volume 2: Technical Guidelines. June. Accessible at: http://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=32552. Accessed September 2024.

ESA, 2024d. Noise Modeling Calculations, September 2024.

Federal Highway Administration (FHWA), 2006, FHWA Roadway Construction Noise Model (RCNM) User's Guide. Accessible at: https://planning.lacity.gov/eir/8150Sunset/References/4.G.%20Noise/N.07_FHWA%20User%20Guide_2006.pdf. Accessed September 2024.

Federal Transit Administration (FTA), 2018, Transit Noise and Vibration Impact Assessment Manual. Accessible at: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf. Accessed September 2024.

Population and Housing

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

Discussion

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

No Impact. The Project does not propose new housing or businesses. The Project would include the construction and operation of a new multi-use paved trail and proposed intersection improvements. The proposed trail currently consists of an existing maintenance road on top of the western bank of the channel owned by the OCFCD. The surface of the proposed trail is a paved asphalt and dirt road accessible for road biking, running, and walking. The construction of the Project would temporarily increase construction employees at the Project Site and vicinity. However, due to the short duration of construction (i.e., 14 months), the Project construction activities would not induce employees to move to the Project vicinity and would not induce population growth or the need for housing. In addition, Project operation would not increase employment and therefore, no increase in population or housing would occur. Given the nature of the Project, growth would not result from Project implementation and therefore no impact would occur.

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

No Impact. Thus, the Project would not result in the displacement of existing people or demolition of existing housing. Therefore, since no existing housing will be displaced, the Project would not require the need for the construction of replacement housing and no impact would occur.

References

None.

Public Services

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

Discussion

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

i) Fire protection?

Less Than Significant Impact. Fire protection services in the City are provided by the Orange County Fire Authority (OCFA). Services include fire suppression, emergency medical services, hazardous materials incidents, wildland fire, aircraft fire and rescue services, emergency planning and coordination, and fire investigations in a service area covering 23 cities in Orange County and all unincorporated areas (OCFA 2024). OCFA operates out of 77 fire stations throughout these 23 cities. The nearest fire station to the Project Site is Orange County Fire Station 6, located at 3180 Barranca Parkway, which is approximately 0.1 miles to the southeast of the Project Site.

Construction activities associated with the Project may temporarily increase the demand for fire protection and emergency medical services, and may cause the occasional exposure of combustible materials, such as wood, plastics, sawdust, coverings and coatings, to heat sources including machinery and equipment sparking, exposed electrical lines, welding activities, and chemical reactions in combustible materials and coatings. However, in compliance with the requirements of Cal-OSHA, all construction managers and personnel would be trained in fire prevention and emergency response. Further, fire suppression equipment specific to construction would be maintained on the Project Site. The Project would not result in a substantial increase in the amount of calls to the Project Site since implementation of the Project would not result in an increase of above-ground habitable structures, buildings, employees, or population. The Project Site is already well-served by a fire station located only 0.1 miles away and Project uses would not impact fire response times. Overall, a less than significant impact on fire protection services would occur.

ii) Police protection?

Less Than Significant Impact. Police protection services within the City are provided by the Irvine Police Department. The Irvine Police Department operates out of the City Hall complex at 1 Civic Center Plaza (City of Irvine 2024). This complex is located approximately 0.1 miles southeast of the Project Site.

During construction, equipment and building materials could be temporarily stored on-site and on the temporary, offsite lay-down area, which could result in theft, graffiti, and vandalism. The construction sites would be fenced along the perimeter, with the height and fence materials subject to review and approval by the City. Given the visibility of the Project Site from adjacent roadways and surrounding properties, existing police presence in the City, and construction fencing, the Project is not expected to increase demand on existing police services. The Project would not result in a substantial increase in the amount of calls to the Project Site since implementation of the Project would not result in an increase of above-ground habitable structures, buildings, employees, or population. However, the Project would add a new recreational area that could require additional police protection. Therefore, impacts on police protection services would be less than significant.

iii) Schools?

No Impact. Implementation of the Project would not result in the need for the construction of additional school facilities, as the Project would not include housing or generate new residents, employees, or school-aged children. Therefore, no impact to schools would occur.

iv) Parks?

Less Than Significant Impact. The Project involves the construction a new multi-use paved trail and proposed intersection improvements. Therefore, the Project would not generate the need for new or physically altered park facilities. Rather, the Project itself would consist of recreational facility improvements that would result in beneficial impacts in the Project area. Impacts would be less than significant.

v) Other public facilities?

No Impact. The Project would not involve a housing component or increase employment opportunities that would result in population growth within the City. Therefore, additional demands on other public facilities, such as library or health care services, would not occur as a result of Project implementation and no impact would occur.

References

City of Irvine. 2024. Irvine Police Department. Available at: https://www.cityofirvine.org/department-administration, accessed August 28, 2024.

OCFA (Orange County Fire Authority). 2024. Operations. Available at: https://ocfa.org/AboutUs/Departments/Operations.aspx, accessed August 28, 2024.

Recreation

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

Discussion

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

Less Than Significant Impact. The nearest existing parks to the Project Site are Bill Barber Memorial Park and San Marco park, which are both located approximately 0.1 miles southeast of the Project Site. The Project would increase connectivity to areas along the San Diego Creek by providing new pathways and public access. The Project would draw more people to the area but would not cause or accelerate physical deterioration of the parks, as the Project itself would increase the City's recreational areas. The Project would not induce population growth within the City that would create an increase in use of recreation facilities, such that physical deterioration of the facilities would occur or be accelerated. Therefore, impacts to recreational facilities would be less than significant.

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

Less Than Significant Impact. The Project proposes a new multi-use paved trail and proposed intersection improvements. Thus, the Project would increase and improve recreational services available in the community. Environmental impacts that would occur as a result of the Project are analyzed throughout this IS/MND. Therefore, impacts would be less than significant.

References

None.

Transportation

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

Discussion

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. Objective B-4, *Bicycle Circulation*, of the City's General Plan Circulation Element, encourages the planning, provision, and maintenance of a comprehensive bicycle trail network within the regional trail system, encourages increased use of bicycle trails for commuters and recreational purposes. The Project would include the construction and operation of a multi-use paved trail along the western edge of the San Diego Creek and Peters Canyon Wash, extending from Coronado in the south to Warner Avenue in the north. The proposed trail would total approximately 1.75 miles of an off-street paved Class I shared-use path. The proposed trail is surrounded by residential and commercial uses of which complies with Policy (d) of the City's General Plan, which requires bicycle trail linkages between residential areas and commercial centers. The Project is not anticipated to generate any additional net vehicle trips. The Project Site would continue to accommodate occasional maintenance trips that occur under existing conditions with no adverse impacts to the circulation system would occur. Further, the proposed trail would not result in any change to roadway geometry or capacity. Construction activities associated with the Project have the potential to generate temporary criteria pollutant emissions through the use of heavy-duty construction equipment and through vehicle trips generated from worker trips, vendor and haul trucks traveling to and from the Project Site. Although construction traffic may have the potential to impact the local circulation system, construction activity at the Project Site is temporary. Overall, a less than significant impact would occur.

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

Less Than Significant Impact. According to Appendix I of the City of Irvine CEQA Manual, Vehicle Miles Traveled Impact Analysis Guidelines, "the addition of Class bike paths, trails, multi-use paths, or other off-road facilities that serve non-motorized travel would likely not lead to a substantial increase in vehicle travel and therefore, do not require VMT analysis" (City of Irvine 2020). As such, no impact would occur in this regard.

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

Less Than Significant Impact. The Project does not include any design features that could be considered hazardous or incompatible with existing uses. The Project is expected to result in a beneficial impact in regard to transportation hazards. The Project would improve circulation and connectivity by providing approximately 1.75 miles of an off-street paved Class I shared-use path. The Project would not create any hazardous geometric design features or other components that could increase hazards. Due to the reduction in hazards by creating an off-shared-use path, impacts would be less than significant.

d) Result in inadequate emergency access?

No Impact. Project construction would not substantially interfere with traffic circulation, as emergency access to Coronado, Main Street, Alton Parkway, Barranca Parkway, and Warner Avenue would be maintained during Project construction. The Project does not propose to remove any lanes of vehicular travel, nor would the Project result in temporary or permanent roadway impairment. Buildout of the Project would not result in inadequate emergency access or affect the accessibility of any roads or emergency access points. Therefore, the Project would have no impact on inadequate emergency access.

References

City of Irvine. 2020. CEQA VMT Impact Analysis Guidelines. April 2020. Prepared by the City of Irvine Department of Public Works and Transportation. Appendix I. Available at: https://legacy.cityofirvine.org/civica/filebank/blobdload.asp?BlobID=32553, accessed August 29, 2024.

Tribal Cultural Resources

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

i) 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

ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Less Than Significant Impact with Mitigation Incorporated. The tribal cultural resource analysis is based on a SLF search conducted by the NAHC, a cultural resources records search through the SCCIC, a pedestrian survey of the Project Site, consultations between the City and Native American tribes pursuant to Assembly Bill (AB) 52, as well as the Cultural Resources Assessment Report prepared by ESA that is provided in **Appendix B**, of this Draft IS/MND (ESA 2024). Native American consultation documentation related to AB 52 consultations is provided in **Appendix H** of this IS/MND.

In accordance with AB 52, the City submitted notification and request to consult letters to sixteen (16) individuals and organizations on March 22, 2024. In particular, letters were sent via certified mail to the following California Native American tribes and individuals:

- Charles Alvarez, Gabrielino-Tongva Tribe
- Samuel Dunlap and Sandonne Goad, Gabrielino/Tongva Nation
- Andrew Salas and Christina Swindall-Martinez, Gabrieleño Band of Mission Indians—Kizh Nation
- Shasta Gaughen and Alexis Wallick, Pala Band of Mission Indians
- Christina Conley and Robert Dorame, Gabrielino Tongva Indians of California Tribal Council
- Sonia Johnston, Juaneño Band of Mission Indians
- Heidi Lucero, Juaneño Band of Mission Indians Acjachemen Nation
- Joyce Perry, Juaneño Band of Mission Indians Acjachemen Nation - Belardes
- Anthony Morales, Gabrielino/Tongva San Gabriel Band of Mission Indians
- Joe Ontiveros and Jessica Valdez, Soboba Band of Luiseño Indians
- Lovina Redner, Santa Rosa Band of Cahuilla Indians

One request for consultation was received to date. In a letter dated April 16, 2024, Chairman Andrew Salas of the Gabrieleño Band of Mission Indians-Kizh Nation (Kizh Nation or Tribe) requested consultation. On July 8, 2024, a representative of the Kizh Nation provided the City with digital materials including screenshots of maps and documents (some of which also include screenshots). The maps depict the general location of the Project Site on the Kirkman-Harriman Pictorial and Historical Map of Los Angeles County from 1938 and an unknown map of Southern California from 1881 (unknown source). The electronic documents include screenshots of *California's Gabrielino Indians* (1962) book identifying general information on Rancho Los Cerritos in Long Beach, Rancho San Joaquin, the community of *Kengaa* (also referred to as *Gengara*) in Newport Bay, and the community of *Pasbenga* along the Santa Ana River. The Tribe provided additional electronic documents that include recommended mitigation measures to address the inadvertent discovery of tribal cultural resources during construction.

Christina Conley of the Gabrielino Tongva Indians of California Tribal Council (Gabrielino Tongva) contacted the City on April 4, 2024, and requested a copy of the Cultural Resources Assessment report for their review. Mrs. Conley did not request consultation on the Project.

While the Kizh Nation and Gabrielino Tongva did not identify or provide information regarding any known tribal cultural resources (as defined in PRC Section 21074) within the Project Site during consultation with the City, the Kizh Nation have indicated in their correspondence on July 8, 2024 that the Project Site has a high potential to encounter tribal cultural resources during construction given the identification of a Native American community nearby (*Pasbenga*) and its proximity to natural water courses and major traditional trade routes. As a result, the Kizh Nation recommended Native American monitoring during construction of the Project. In addition, as discussed in Section V, Cultural Resources of this IS/MND, results of the SCCIC search indicate that three archaeological sites with precontact or Native American components (ORA-195, ORA-196/H, and ORA-508) and one precontact isolate (P-3-

100201) have been recorded within a 0.50-mile radius of the Project Site (one of which yielded Native American human remains) and the results of the SLF search through the NAHC were positive. Given these findings and others as stated in Section V, *Cultural Resources*, of this IS/MND, the Project Site has a high potential for retaining buried resources. As a result, there is potential that the Project could cause a substantial adverse change in the significance of a tribal cultural resource as described in PRC Section 21084.2. Accordingly, impacts on tribal cultural resources are considered potentially significant, and mitigation measures for Native American monitoring during implementation of the Project are provided below. With implementation of **Mitigation Measures TCR-1 through TCR-3**, which require retention of a Native American monitor, construction worker cultural resources sensitivity training, Native American monitoring, procedures to follow in the event of the unanticipated discovery of tribal cultural resources, and treatment of discoveries, impacts to tribal cultural resources would be less than significant.

Mitigation Measures

TCR-1: Prior to the issuance of a demolition permit for the Project, the City shall retain a Native American Monitor from the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation or Tribe). The Native American Monitor shall be present during the following construction activities that have the potential for encountering tribal cultural resources: demolition, pavement removal, clearing/grubbing, drilling/augering, potholing, grading, trenching, excavation, tree removal or other ground disturbing activity associated with the Project (collectively "ground disturbing activities"). Notwithstanding the foregoing, Native American monitoring shall not be required for any moving of soils after they have been initially disturbed or displaced by Project-related construction. The Tribe shall prepare a monitoring agreement for review and approval by the City that outlines the roles and responsibilities of the Native American Monitor. Prior to the commencement of ground disturbing activities, a Tribal Cultural Resources Sensitivity Training session shall be held for those construction personnel who will be directly involved in the ground disturbing activities. The training session shall be carried out by the Native American Monitor and shall focus on how to identify tribal cultural resources that may be encountered during ground disturbing activities and the procedures to be followed in such an event. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the Native American Monitor in the event there appears to be little to no potential for impacting tribal cultural resources. Native American monitoring shall conclude no later than the conclusion of ground disturbing activities.

TCR-2: The Native American Monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs shall identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the City upon written request to the Tribe. The City shall not be deemed to be out of compliance with this measure if the Native American Monitor fails to complete or submit any such monitoring logs.

TCR-3: In the event of a discovery of potential tribal cultural resources at the Project Site, the Qualified Archaeologist identified in Mitigation Measure CUL-1 [after consultation with the Native American Monitor] shall have the authority to temporarily divert, redirect, or halt ground-disturbance activities to allow identification, evaluation, and potential recovery of such potential

resources. After consulting with the Native American Monitor and the City, the Qualified Archaeologist shall establish an appropriate buffer area in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery. This buffer area shall be established around the find where ground-disturbing activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area.

Within three (3) business days of such discovery, a meeting shall take place between the Qualified Archaeologist, the Tribe, and the City to discuss the significance of the find and whether it qualifies as a tribal cultural resource pursuant to Public Resources Code Section 21074(a). If, as a result of the meeting and after consultation with the Tribe and the Qualified Archaeologist, the City determines, based on substantial evidence, that the resource is in fact a tribal cultural resource, the Qualified Archaeologist shall develop a reasonable and feasible treatment plan, with input from the Tribe as necessary, and with the concurrence of the City's Planning Director. The treatment measures in the treatment plan shall be in compliance with any applicable federal, State, or local laws, rules or regulations. The treatment plan shall also include measures regarding the curation of the recovered resources.

The City may recommence ground disturbance activities inside of the specified radius of the discovery site only after it has complied with all of the recommendations developed and approved pursuant to the process set forth in the above paragraphs.

The recovered Native American resources may be placed in the custody of the Tribe, who may choose to use them for their educational purposes or they may be curated at a public, non-profit institution with a research interest in the materials. If neither the Tribe nor an institution accepts the resources, they may be donated to a local school or historical society in the area for educational purposes.

Notwithstanding the above paragraph, any information determined to be confidential in nature by the City Attorney's office, shall be excluded from submission to the SCCIC or the general public under the applicable provisions of the California Public Records Act, Sections 7927.000 and 7929.005.

References

ESA. 2024. Cultural Resources Assessment for the Irvine Business Complex (IBC) Multi-Use Trail Creekwalk Segment Project. Report on file at Environmental Science Associates.

Utilities and Service Systems

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

Discussion

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

Less than Significant Impact. Following is a discussion of the Project's potential impacts on water, stormwater drainage, and electric power. The Project does not involve the use of natural gas or telecommunications facilities.

IRWD would provide water to the Project Site for construction and irrigation purposes. Existing water facilities in the Project vicinity comprise of 12-inch diameter IRWD domestic water lines are located within Alton Parkway and Main Street; Coronado contains an 8-inch diameter recycled water line and a 10-inch diameter domestic water line, and Barranca Parkway contains a 54-inch diameter domestic water lines and a 15-inch diameter recycled water line. Construction activities would use water for soil watering for site preparation, fugitive dust control, concrete preparation, painting, cleanup, and other short-term activities. The Project would be able to tie into these existing facilities. Due to the negligible amount of water anticipated to be used by the Project, IRWD's existing water facilities would be sufficient to serve the Project, and no new or expanded facilities would be required.

Although the Project Site is currently developed with an OCFCD maintenance road, development of the Project would result in an increase of impervious surfaces. As part of the Project, two-foot wide earthen swale would be installed on the western side of the path. As described in Section X, *Hydrology and Water Quality*, drainage within the Project Site would continue to be serviced by the existing storm drain system and channel. There would be no need for new or expanded stormwater drainage infrastructure and impacts would be less than significant.

SCE provides electricity services in the City. As discussed in Section VI, *Energy*, the Project would comply with the most current Title 24 California Building Code/Code of Regulations, CALGreen Code, and energy standards at the time of construction, as amended by the state and City. The Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. Therefore, no new or expanded facilities would need to be built and impacts would be less than significant.

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

Less Than Significant Impact. Water would be provided to the Project Site by IRWD, which serves the City and surrounding cities within Orange County. The Project would not introduce a new land use that would result in water consumption. Construction activities would use water for soil watering for site preparation, fugitive dust control, concrete preparation, painting, cleanup, and other short-term activities. Due to the negligible amount of water anticipated to be used by the Project, IRWD's existing water resources would be sufficient to serve the Project. Therefore, impacts would be less than significant.

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

Less Than Significant Impact. During construction, a negligible amount of wastewater would be generated by construction workers. Portable toilets would be provided a private company and the waste disposed off-site. The Project does not propose habitable structures or restroom facilities. As such, Project operations would not generate wastewater. Therefore, a less than significant impact related to wastewater would occur.

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

Less Than Significant Impact. Solid waste generation and disposal requirements associated with the Project would be limited to minor quantities derived from construction activities (e.g., material packaging), employees (e.g., food-related trash), and trail users (e.g., food-related trash). Solid waste from the Project would be disposed of at the County's Prima Deshecha Landfill south of the Project Site near San Juan Capistrano. The Prima Deshecha Landfill has a remaining capacity of 128,800,000 cubic yards and a maximum permitted throughput of 4,000 tons per day (CalRecycle 2024). Therefore, given the minimal waste that would be produced by the Project and the remaining capacity and permitted throughput of Prima Deshecha Landfill, it is anticipated that the landfill would have sufficient capacity to accommodate the minimal amount of Project-related waste. Impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. Solid waste generation and disposal requirements associated with the Project would be limited to minor quantities derived from construction activities (e.g., material packaging), employees (e.g., food-related trash), and trail users (e.g., food-related trash). Solid waste debris would be disposed of at a permitted landfill. Moreover, AB 939, also known as the Integrated Waste Management Act, mandates the reduction of solid waste disposal in landfills by requiring a minimum of 50% diversion rate. Accordingly, at least half of the potential construction waste would be diverted from a landfill serving the Project area. Therefore, impacts related to solid waste would be less than significant.

References

CalRecycle (California Department of Resources Recycling and Recovery). 2024. SWIS Facility Detail. Prima Deshecha Landfill (30-AB-0019). Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2750?siteID=2085, accessed August 28, 2024.

Wildfire

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

Discussion

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. As discussed in *Section IX*, Hazards and Hazardous Materials, the Project would not conflict with or interfere with emergency evacuation of the Project area. Project construction would not substantially interfere with traffic circulation, as emergency access to Coronado, Main Street, Alton Parkway, Barranca Parkway, and Warner Avenue would be maintained during Project construction. No revisions to an adopted emergency plan or evacuation plan would be required as a result of the Project. Therefore, impacts in this regard would be less than significant.

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

No Impact. According to the California Department of Forestry and Fire Protection (CAL FIRE), the Project Site is not located within a Fire Hazard Severity Zone (FHSZ) (CAL FIRE 2024). The proposed trail is located along the San Diego Creek and does not adjoin any open grasslands or large swaths of vegetation that pose a wildfire hazard. The Project Site is also flat and does not include any other features that would exacerbate wildfire risks. Therefore, no impacts associated with wildfire would occur.

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

No Impact. According to the California Department of Forestry and Fire Protection (CAL FIRE), the Project Site is not located within a Fire Hazard Severity Zone (FHSZ) (CAL FIRE 2024). The proposed trail is located along the San Diego Creek and does not adjoin any open grasslands or large swaths of

vegetation that pose a wildfire hazard. The Project would require electrical wiring and utility extensions; however, this would not exacerbate fire risk as the Project Site is located in an area that is already served by existing utilities. As such, the Project would not expose people or structures to significant risk involving wildland fires, exacerbate wildfire risks, or otherwise result in wildfire-related impacts. Therefore, no impacts associated with wildfire would occur.

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?

No Impact. The Project Site is relatively flat and located within an area that does not contain a significant risk of landslides or slope instability. The Project Site is located within Zone A, a Special Flood Hazard Area, with a 1 percent annual chance of flood discharge contained in structure (FEMA 2009). As noted within *Section VII*, Geology and Soils, and *Section X*, Hydrology, the Project would have a less than significant impact regarding landslides and flooding. Due to the location of the proposed trail being adjacent to the San Diego Creek, the Project would not expose people or structures to significant risks in the event of a post-fire situation. Therefore, no impact would occur.

References

California Department of Forestry and Fire Protection (CAL FIRE). 2024. Fire Hazard Severity Zone Viewer in the State Responsibility Area. Available https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones/fire-hazard-severity-zones-maps, accessed July 25, 2024.

Federal Emergency Management Agency (FEMA). National Flood Hazard Layer FIRMette. 2009. Available https://msc.fema.gov/portal/home, accessed July 23, 2024.

Mandatory Findings of Significance

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

Discussion

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

Less Than Significant With Mitigation Incorporated. Based on the discussion under Section IV, *Biological Resources*, the California Fish and Game Code (Section 3503) protects the active nests and eggs of all native bird species, except certain game birds, and the federal Migratory Bird Treaty Act (16 USC 703–711) makes it unlawful to take or kill individuals of most native and migratory bird species found in the United States. Therefore, **Mitigation Measure BIO-1** is provided to promote compliance with these state and federal laws that protect nesting birds. If construction activities must occur during the avian breeding season, requiring preconstruction nesting surveys and implementation of avoidance measures will mitigate potential impacts to nesting birds to below the level of significance.

Based on the discussion under Section V, *Cultural Resources*, the archaeological sensitivity assessment indicates that the Project Site has a low to moderate potential for finding buried historic-period archaeological resources based on the following factors: 1) one historic-period resource (consisting of pipes, cans, and domestic debris) is recorded within the 0.50-mile radius of the Project Site; and 2) land grant plat maps and diseños show various roads and trails passing through or close to the Project Site. Camps and discarded refuse often occur along such roads and the roads themselves may be able to de detected archaeologically. Should precontact or historic-period archaeological resources be encountered, they could qualify as historical resources as defined in §15064.5. Impacts to such resources could

constitute a substantial adverse change in the significance of a historical resource. With implementation of **Mitigation Measures CUL-1 through CUL-3**, which require retention of a qualified archaeologist, construction worker cultural resources sensitivity training, archaeological monitoring, procedures to follow in the event of the unanticipated discovery of archaeological resources, treatment of discoveries, and final reporting, impacts to archaeological resources potentially qualifying as historical resources would be less than significant. Further, as part of the Cultural Resources Assessment, a SLF search was commissioned through the NAHC that yielded positive results and the records search results indicate that Native American human remains have been recorded within the 0.50-mile radius of the Project Site. As a result of these findings and since the project would include excavations and ground-disturbing activities, there is potential for the Project to encounter human remains during construction. Should excavation activities encounter human remains, disturbance of those remains could result in a potentially significant impact. With implementation of **Mitigation Measure CUL-4**, which requires compliance with existing state laws in the event of an unanticipated discovery, impacts to human remains would be less than significant.

As described under Section VII, *Geology and Soils* and based on the local geology, particularly the young age of the impacted sediments, excavation for the Project will not likely impact buried paleontological resources. If excavations exceed the thickness of the young alluvium, Pleistocene-aged fan deposits may be encountered and they may contain fossils. However, the depth to the Pleistocene-aged sediments is currently unknown. Therefore, **Mitigation Measure GEO-1** is recommended to reduce potentially significant impacts to paleontological resources to a less than significant level.

Based on the discussion under Section, XVIII, *Tribal Cultural Resources*, the Project Site has a high potential for retaining buried resources. As a result, there is potential that the Project could cause a substantial adverse change in the significance of a tribal cultural resource as described in PRC Section 21084.2. Accordingly, impacts on tribal cultural resources are considered potentially significant, and mitigation measures for Native American monitoring during implementation of the Project are provided below. With implementation of **Mitigation Measures TCR-1 through TCR-3**, which require retention of a Native American monitor, construction worker cultural resources sensitivity training, Native American monitoring, procedures to follow in the event of the unanticipated discovery of tribal cultural resources, and treatment of discoveries, impacts to tribal cultural resources would be less than significant.

Mitigation Measures

Implementation of Mitigation Measures BIO-1, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, TCR-1, TCR-2, and TCR-3.

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

Less Than Significant With Mitigation Incorporated. The Project would construct a new multi-use paved trail along the western edge of the San Diego Creek and Peters Canyon Wash, extending from Coronado in the south to Warner Avenue in the north. The proposed trail would total approximately 1.75 miles of an off-street paved Class I shared-use path. Proposed intersection improvements at Coronado and

Main Street would include at-grade crossings. The Project would not result in substantial population growth within the area, either directly or indirectly. Although the Project may incrementally affect other resources that were determined to be less than significant, the Project's contribution to these effects is not considered "cumulatively considerable", in consideration of the relatively nominal impacts of the Project and mitigation measures provided throughout this Draft IS/MND.

Mitigation Measures

Implementation of Mitigation Measures BIO-1, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, TCR-1, TCR-2, and TCR-3.

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

Less Than Significant With Mitigation Incorporated. Previous sections of this Draft IS/MND reviewed the Project's potential impacts to biological resources, cultural resources, geology and soils/paleontological resources, and tribal cultural resources and other issues. As concluded in these previous discussions, the Project would result in less than significant environmental impacts with implementation of the recommended mitigation measures. Therefore, the Project would not result in environmental impacts that would cause substantial adverse effects on human beings.

Mitigation Measures

Implementation of Mitigation Measures BIO-1, CUL-1, CUL-2, CUL-3, CUL-4, GEO-1, TCR-1, TCR-2, and TCR-3.

References

None.

SECTION 4
Mitigation Monitoring and Reporting Program

4.1 CEQA Requirements

Table 4-1 is a Mitigation Monitoring and Reporting Program (MMRP) for the IBC Multi-Use Trail Creekwalk Segment CIP 34301, which has been prepared pursuant to State CEQA Guidelines Section 15097 and PRC Section 21081.6. This MMRP lists all applicable mitigation measures from the IS/MND. The appropriate timing of implementation and responsible party are identified to ensure proper enforcement of the mitigation measures from the IS/MND to reduce Project impacts to less than significant levels. Mitigation measures are presented in the same order as they occur in the IS/MND.

The columns in the MMRP table provide the following information:

- **Mitigation Measure(s):** The action(s) that will be taken to reduce the impact to a less than significant level.
- **Implementation Action:** The action(s) listed out, according to the identified mitigation measure that would be implemented by the responsible agency.
- **Responsible Implementation Agency:** The agency or private entity responsible for ensuring implementation of the mitigation measure. For the Project, the City of Irvine, as the CEQA Lead Agency, remains responsible for ensuring that implementation of the mitigation measures occur in accordance with the MMRP (State CEQA Guidelines Section 15097(a)).
- **Timing of Verification:** The general timing for implementing each mitigation measure.
- **Verification Date:** The date in which the mitigation measure has been completed.

The MMRP will be kept on file at the following address:

City of Irvine Department of Public Works and Sustainability
1 Civic Center Plaza, Irvine, California, 92606

TABLE 4-1
MITIGATION MONITORING AND REPORTING PROGRAM FOR THE IBC MULTI-USE TRAIL CREEKWALK SEGMENT CIP 34301

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
Biological Resources				
BIO-1: Impacts to nesting birds would be avoided by conducting all construction activities outside of the bird nesting season (i.e., from September 1 to February 14 for most birds, from July 1 to January 14 for raptors). However, if construction activities must occur during the nesting season, the following measures shall apply during the time frames indicated: a) Prior to work during the bird nesting season (February 15 to August 31 for most birds, January 15 to June 31 for raptors), a qualified biologist shall conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 7 days prior to construction activities. The results of the pre-construction survey shall be valid for 7 days; if vegetation removal activities do not commence within 7 days following the survey or if activities cease for more than 7 consecutive days, a new pre-construction nesting bird survey shall be conducted before construction resumes. b) If any active nests are found during a pre-construction nesting bird survey, a buffer of up to 300 feet for most bird species and up to 500 feet for raptors, or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), shall be delineated, flagged, and avoided until the nesting cycle is complete (i.e., until the qualified biologist determines that the young have fledged or the nest has failed). The qualified biologist may also recommend other measures to minimize disturbances to active nests that may include but are not limited to curtailing the duration of certain activities, placing sound barriers or visual barriers (e.g., noise blankets on temporary chain-link fencing), and/or providing full-time monitoring by a qualified biologist.	Conduct all construction activities outside of the bird nesting season from September 1 to February 14 for most birds and from July 1 to January 14 raptors. If construction activities must occur during the nesting season, a qualified biologist shall conduct a pre-construction survey of all suitable habitat for the presence of nesting birds no more than 7 days prior to construction activities. If vegetation removal activities do not commence within 7 days following the survey or if activities cease for more than 7 consecutive days, a new pre-construction nesting bird survey shall be conducted before construction resumes. If any active nests are found during a pre-construction nesting bird survey, a buffer of up to 300 feet for most bird species and up to 500 feet for raptors, or as determined appropriate by the qualified biologist (based on species-specific tolerances and site-specific conditions), shall be delineated, flagged, and avoided until the nesting cycle is complete (i.e., until the qualified biologist determines that the young have fledged or the nest has failed).	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Project Biologist. Project Contractor.	Prior to and during grading and/or construction.	

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
Cultural Resources				
CUL-1: Prior to the issuance of a demolition permit or ground-disturbing activities, the City of Irvine shall retain an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology (Qualified Archaeologist) to oversee an archaeological monitor who shall be present during initial Project construction work such as demolition, clearing/grubbing, grading, trenching, or related moving of soils within the Project Site (collectively, ground disturbing activities); provided, however, that ground disturbing activities shall not include any moving of soils after they have been initially disturbed or displaced by Project-related construction. The Qualified Archaeologist shall determine the frequency of monitoring based on the rate of excavation and grading activities, proximity to known archaeological resources, the materials being excavated (younger alluvium vs. older alluvium), and the depth of excavation, and if found, the abundance and type of archaeological resources encountered. The frequency of monitoring can be reduced to part-time inspections or ceased entirely if determined appropriate by the Qualified Archaeologist. Prior to commencement of excavation activities, an Archaeological and Cultural Resources Sensitivity Training shall be given for construction personnel. The training session shall be carried out by the Qualified Archaeologist and shall focus on how to identify archaeological resources that may be encountered during earthmoving activities and the procedures to be followed in such an event.	Prior to the issuance of a demolition permit or ground-disturbing activities, the City of Irvine shall retain an archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards for Archaeology to oversee an archaeological monitor who shall be present during initial Project construction work such as demolition, clearing/grubbing, grading, trenching, or related moving of soils within the Project Site (collectively, ground disturbing activities). Prior to commencement of excavation activities, an Archaeological and Cultural Resources Sensitivity Training shall be given for construction personnel.	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Archaeologist. Project Contractor.	Prior to the issuance of a demolition permit or ground-disturbing activities. Prior to commencement of excavation activities.	
CUL-2: In the event that historic or precontact archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. After consulting with the City, the Qualified Archeologist shall establish an appropriate buffer in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery. This buffer area shall be established around the find where construction activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area.	In the event that historic or precontact archaeological resources are unearthed, ground-disturbing activities shall be halted or diverted away from the vicinity of the find so that the find can be evaluated. After consulting with the City, the Qualified Archeologist shall establish an appropriate buffer in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery.	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Archaeologist. Project Contractor.	Prior to and during grading and/or construction.	

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
All archaeological resources unearthed by Project construction activities shall be evaluated by the Qualified Archaeologist. If the Qualified Archaeologist determines the find to constitute a “historical resource” pursuant to CEQA Guidelines Section 15064.5(a) or a “unique archaeological resource” pursuant to Public Resources Code Section 21083.2(g), the Qualified Archaeologist shall coordinate with City to develop a reasonable and feasible treatment plan that would serve to reduce impacts to the resources. The treatment plan established for the resources shall be in accordance with CEQA Guidelines Section 15064.5(f) for historical resources and Public Resources Code Sections 21083.2(b) for unique archaeological resources. The treatment plan shall include measures regarding the curation of the recovered resources that may include curation at a public, non-profit institution with a research interest in the materials, such as the John D. Cooper Archaeological and Paleontological Center, if such an institution agrees to accept the material. If no institution accepts the resources, they may be donated to a local school or historical society in the area for educational purposes				
CUL-3: The Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring. The report shall include a description of resources unearthed, if any, treatment of the resources, results of the artifact processing, analysis, and research, and evaluation of the resources with respect to the California Register of Historical Resources and CEQA. The report and the Site Forms shall be submitted by the Applicant to the City, the South Central Coastal Information Center, and representatives of other appropriate or concerned agencies to signify the satisfactory completion of the Project and required mitigation measures.	The Qualified Archaeologist shall prepare a final report and appropriate California Department of Parks and Recreation Site Forms at the conclusion of archaeological monitoring.	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Archaeologist.	Conclusion of archaeological monitoring.	

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
CUL-4: If human remains are encountered unexpectedly during implementation of the Project, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC). The NAHC shall then identify the person(s) thought to be the Most Likely Descendent (MLD). The MLD may, with the permission of the landowner, or his or her authorized representative, inspect the site of the discovery of the Native American remains and may recommend to the owner or the person responsible for the excavation work means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The MLD shall complete their inspection and make their recommendation within 48 hours of being granted access by the landowner to inspect the discovery. The recommendation may include the scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Upon the discovery of the Native American remains, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred, as prescribed in this mitigation measure, with the MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. The landowner shall discuss and confer with the descendants all reasonable options regarding the descendants' preferences for treatment. If the NAHC is unable to identify a MLD, or the MLD identified fails to make a recommendation, or the landowner rejects the recommendation of the MLD and the mediation provided for in subdivision (k) of Section 5097.94, if invoked, fails to provide measures acceptable to the landowner, the landowner or his or her authorized representative shall inter the human remains and items associated with Native American human remains with appropriate dignity on the facility property in a location not subject to further and future subsurface disturbance.	If human remains are encountered unexpectedly during implementation of the Project, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission (NAHC).	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Archaeologist. Project Contractor.	Prior to and during grading and/or construction.	

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
Geology and Soils				
GEO-1: In the event an unanticipated fossil discovery is made during ground disturbing activities, construction activities shall halt in the immediate vicinity of the fossil, and the qualified professional paleontologist retained by the Applicant shall be notified to evaluate the discovery, determine its significance, and evaluate whether additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given by the qualified paleontologist to resume construction work. Any significant paleontological resources found shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository. A final report shall be prepared by the qualified professional paleontologist the discusses fossil discoveries and will be submitted to the City and the repository.	In the event an unanticipated fossil discovery is made during ground disturbing activities, construction activities shall halt in the immediate vicinity of the fossil, and the qualified professional paleontologist retained by the Applicant shall be notified to evaluate the discovery, determine its significance, and evaluate whether additional mitigation or treatment is warranted.	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Paleontologist. Project Contractor.	Prior to and during grading and/or construction.	
Tribal Cultural Resources				
TCR-1: Prior to the issuance of a demolition permit for the Project, the City shall retain a Native American Monitor from the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation or Tribe). The Native American Monitor shall be present during the following construction activities that have the potential for encountering tribal cultural resources: demolition, pavement removal, clearing/grubbing, drilling/augering, potholing, grading, trenching, excavation, tree removal or other ground disturbing activity associated with the Project (collectively "ground disturbing activities"). Notwithstanding the foregoing, Native American monitoring shall not be required for any moving of soils after they have been initially disturbed or displaced by Project-related construction. The Tribe shall prepare a monitoring agreement for review and approval by the City that outlines the roles and responsibilities of the Native American Monitor. Prior to the commencement of ground disturbing activities, a Tribal Cultural Resources Sensitivity Training session shall be held for those construction personnel who will be directly involved in the ground disturbing activities. The training session shall be carried out by the Native American Monitor and shall focus on how to identify tribal cultural resources that may be encountered during ground disturbing activities and the procedures to be followed in such an event. Full-time monitoring may be reduced to part-time inspections, or ceased entirely, if determined appropriate by the Native American Monitor in the event there appears to be little to no potential for impacting tribal cultural resources. Native American monitoring shall conclude no later than the conclusion of ground disturbing activities.	Prior to the issuance of a demolition permit for the Project, the City shall retain a Native American Monitor from the Gabrieleño Band of Mission Indians – Kizh Nation (Kizh Nation or Tribe). The Native American Monitor shall be present during the following construction activities that have the potential for encountering tribal cultural resources: demolition, pavement removal, clearing/grubbing, drilling/augering, potholing, grading, trenching, excavation, tree removal or other ground disturbing activity associated with the Project. Prior to the commencement of ground disturbing activities, a Tribal Cultural Resources Sensitivity Training session shall be held for those construction personnel who will be directly involved in the ground disturbing activities.	City of Irvine Department of Public Works and Sustainability. Native American Monitor from the Gabrieleño Band of Mission Indians – Kizh Nation.	Prior to the issuance of a demolition permit.	

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
TCR-2: The Native American Monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs shall identify and describe any discovered tribal cultural resources, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs shall be provided to the City upon written request to the Tribe. The City shall not be deemed to be out of compliance with this measure if the Native American Monitor fails to complete or submit any such monitoring logs.	The Native American Monitor shall complete daily monitoring logs that provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe.	City of Irvine Department of Public Works and Sustainability. Native American Monitor from the Gabrieleño Band of Mission Indians – Kizh Nation.	During grading and/or construction.	
TCR-3: In the event of a discovery of potential tribal cultural resources at the Project Site, the Qualified Archaeologist identified in Mitigation Measure CUL-1 [after consultation with the Native American Monitor] shall have the authority to temporarily divert, redirect, or halt ground-disturbance activities to allow identification, evaluation, and potential recovery of such potential resources. After consulting with the Native American Monitor and the City, the Qualified Archaeologist shall establish an appropriate buffer area in accordance with industry standards, reasonable assumptions regarding the potential for additional discoveries in the vicinity, and safety considerations for those making an evaluation and potential recovery of the discovery. This buffer area shall be established around the find where ground-disturbing activities shall not be allowed to continue. Work shall be allowed to continue outside of the buffer area. Within three (3) business days of such discovery, a meeting shall take place between the Qualified Archaeologist, the Tribe, and the City to discuss the significance of the find and whether it qualifies as a tribal cultural resource pursuant to Public Resources Code Section 21074(a). If, as a result of the meeting and after consultation with the Tribe and the Qualified Archaeologist, the City determines, based on substantial evidence, that the resource is in fact a tribal cultural resource, the Qualified Archaeologist shall develop a reasonable and feasible treatment plan, with input from the Tribe as necessary, and with the concurrence of the City's Planning Director. The treatment measures in the treatment plan shall be in compliance with any applicable federal, State, or local laws, rules or regulations. The treatment plan shall also include measures regarding the curation of the recovered resources.	In the event of a discovery of potential tribal cultural resources at the Project Site, the Qualified Archaeologist identified in Mitigation Measure CUL-1 [after consultation with the Native American Monitor] shall have the authority to temporarily divert, redirect, or halt ground-disturbance activities to allow identification, evaluation, and potential recovery of such potential resources.	City of Irvine Department of Public Works and Sustainability. City of Irvine Qualified Archaeologist. Project Contractor.	During grading and/or construction.	

Mitigation Measure	Implementation Action	Responsible Implementation Agency/Party	Timing of Verification	Verification Date
The City may recommence ground disturbance activities inside of the specified radius of the discovery site only after it has complied with all of the recommendations developed and approved pursuant to the process set forth in the above paragraphs. The recovered Native American resources may be placed in the custody of the Tribe, who may choose to use them for their educational purposes or they may be curated at a public, non-profit institution with a research interest in the materials. If neither the Tribe nor an institution accepts the resources, they may be donated to a local school or historical society in the area for educational purposes. Notwithstanding the above paragraph, any information determined to be confidential in nature by the City Attorney's office, shall be excluded from submission to the SCCIC or the general public under the applicable provisions of the California Public Records Act, Sections 7927.000 and 7929.005.				

SECTION 5
List of Preparers

5.1 Preparers

5.1.1 Lead Agency

City of Irvine, 1 Civic Center Plaza, Irvine, CA 92606

- Amir Ainechi, Associate Engineer

5.1.2 Initial Study/Mitigated Negative Declaration Preparers

The following staff were involved in the preparation of this IS/MND and the associated technical appendices.

Environmental Science Associates

- Brian Allee, Senior Managing Associate (Project Manager)
- Michael G. Burns (Phase 1 Environmental Site Assessment)
- Kyle Garcia, M.A., RPA. (Cultural Resources Assessment and Paleontological Resources Assessment Report)
- Claudia Camacho-Trejo, B.A. (Cultural Resources Assessment)
- Alison Garcia Kellar, M.S. (Cultural Resources Assessment)
- Valerie Smith, M.S. (Cultural Resources Assessment)
- Evan Tudor Elliot, M.A., RPA (Cultural Resources Assessment)
- Russell Shapiro, Ph. D. (Paleontological Resources Assessment Report)
- Fatima Clark, B.A. (Paleontological Resources Assessment Report)
- Alan Sako, Director (Air Quality, Greenhouse Gas Emissions, Energy, Noise)
- Elbert Hsiung (Air Quality, Greenhouse Gas, Energy, Noise)
- Tim Witwer (Noise)

Technical Consultants

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